| | | | |
|---|---|---|---|
| Date scheduled for work: | | Time: | From To |
| Brief description of task or work to be done: | | | |
| Where will work be done? | | | |
| Name of authorized person(s) who will do work: | Person in charge: _____<br>Others on crew: | | |
| Company name (if a contractor/subcontractor) | | | |
| Contact number: | ❒ Mobile phone ❒ Radio | | |
| **Answer each question before energized work or switching is done:** | | | |
| Can the circuit be de-energized during normal work hours by coordinating with supervisor or manager of affected persons?<br>If not, why not? | | | |
| Can the work be pre-arranged to cause minimum disruption? (Consider lunch, breaks, meetings or normal equipment maintenance down times.) If not, explain. | | | |
| Can the work be done off-shift, Saturdays, Sundays, etc. when the user is not inconvenienced?<br>If not, explain. | | | |

**Use NFPA 70E Tables or Calculate available fault current to determine level of PPE:**

Example – 30 kVA transformer – 3 phase, 480 – 120/208 with 5.75% impedance:
30,000 / 208 x 1.732 = 83 FLA
Transformer VA / Section line to line voltage x 1.732 = Full Load Amps
83 / 0.575 = 1443 Amps
Full Load Amps / Transformer Impedance = Available Fault Current

**Level of PPE Required:_____**

| **Primary Source:** | **Secondary Source:** | **Equipment to be worked on:** |
|---|---|---|
| Substation: _____ | Substation: _____ | |
| Feeder: _____ | Feeder: _____ | |
| Panel: _____ | Panel: _____ | |
| **Affected Area Contact:** | | **Phone #:** |

**One-line schematic drawing of circuit – Indicate position of locks & tags:**

**Energized Work Procedure Checklist:**

***Instructions:*** **Check each step that applies & check off when completed. Insert steps as necessary. Use back of form if necessary.**

| | | |
|---|---|---|
| 1. Notify Program Administrator/owner/operator & obtain permission to begin work. | ❒ Applies | ❒ Step completed |
| 2. Review type & magnitude of energy & control methods with all crew members. | ❒ Applies | ❒ Step completed |

| | | |
|---|---|---|
| 3. If switching is involved, notify affected persons of expected duration. | ❒ Applies | ❒ Step completed |
| 4. Place caution tape, cones, signs or suitable barricades around work area. | ❒ Applies | ❒ Step completed |
| 5. Circle and put on required PPE. | 0 - 1- 2 | 3 - 4 |
| 6. Follow procedure checked below from Section 9 of Electrical Safety Program:<br>❒ Energized work – no labeling on equipment<br>❒ De-energized work – above 600 v. or secondary feeder from substation<br>❒ De-energized work – fed by more than 480 volts with overcurrent protection of 200 amps or more OR 208 volts with overcurrent protection of more than 225 amps<br>❒ De-energized work – fed by more than 480 volts with overcurrent protection less than 200 amps or 208 volts with overcurrent protection of 225 amps or less | ❒ Applies | ❒ Step completed |
| | Note: If another electrical safety procedure is used, indicate its name below and attach a copy. | |
| **Additional Steps Required by Specific Electrical Safety Procedure:** | | |
| | ❒ Applies | ❒ Step completed |
| | ❒ Applies | ❒ Step completed |
| | ❒ Applies | ❒ Step completed |
| **Restoration to Normal Operational Status** | | |
| After work is done, ensure machine or equipment is intact, controls are neutral & area is free of tools, grounds, parts, etc. | ❒ Applies | ❒ Step completed |
| If switching will be done, check work area to ensure all personnel are in the clear. | ❒ Applies | ❒ Step completed |
| Each employee should remove his/her tags. | ❒ Applies | ❒ Step completed |
| Remove warning barricade. | ☐ Applies | ☐Step completed |
| If applicable, notify affected persons that machinery or equipment is operational. | ❒ Applies | ❒ Step completed |
| Notify Program Administrator/ and Bldg. Mgr. that work is complete & return permit for cancellation. | ❒ Applies | ❒ Step completed |

| | |
|---|---|
| **Comments:** | |
| Permit authorized by Electrical Mgr. or Designee: | |
| Work completed as per permit: | **Signature of person in charge** **Date:**_____<br>_____<br>**Signature of workers**<br>_____<br>_____<br>_____<br>_____ |

## Levels of PPE for Hazard / Risk Category per NFPA 70E

0 Non-melting or untreated natural fiber long sleeve shirt and long pants. Non-conductive safety glasses or goggles, hearing protection and heavy duty gloves. Leather soled safety shoes.

1 Arc rated clothing of 4 cal/cm of long sleeves and pants or arc rated coverall and outer clothing such as a parka or rain gear. Arc rated face shield or arc flash suit hood. Non-conductive safety glasses, rubber insulated gloves, safety shoes and a hard hat with optional liner, hearing protection, heavy duty work gloves.
2 Arc rated of 8cal/cm long sleeves and pants or coverall and outer clothing such as a parka or rain gear, Arc rated flash suit hood or arc rated face shield with arc rated balaclava, hearing protection, non-conductive safety glasses, safety shoes, and rubber insulated gloves with leather protectors.
3 Arc rated 25 cal/cm long sleeve shirt, pants and. Arc outer clothing such as a parka or rain gear rated suit with hood. Hard hat, Non-conductive safety glasses or goggles, hearing protection, rubber insulated gloves with leather protectors, safety shoes.
4 Arc rated 40 cal/cm long sleeve shirt and pants under arc flash rated suit with arc rated hood, hard hat, Non-conductive safety glasses or goggles, hearing protection, rubber insulated gloves with leather protectors, safety shoes.

**Note 1**: **Hard hat requirements for electrical workers are:**
Class G: are designed to decrease the impact of falling objects and to lessen the risk of being exposed to low-voltage electrical conductors. They are tested at 2,200 volts of electrical charge to be certified.

Class E: are also intended to decrease the impact of falling objects and lessen the risk of coming into contact with high-voltage electrical conductors. Tested at 20,000 volts of electrical charge. Recognize that the voltages stated for hard hats are not indications of the voltage at which the helmets protect the wearer.

**Note 2: Safety Footwear** for electrical qualified workers must at a minimum be Non-conductive footwear marked **"EH".** Boots with Electrical Hazard Protection meet ANSI Z41 PT99 standards to provide protection from open circuits. The soles of Electrical Hazard Safety Shoes provide a safety barrier to protect employees from open electrical currents up to 600 volts. Electrical Footwear with this rating is insulated to help ground electricity from accidental contact with live circuits or electrical equipment. These "EH" rated footwear can have either steel or composite safety toes with their outer coating in good condition completely covering the toe. The Dielectric Boot is an insulating boot to give added protection against electric shock, capable of withstanding over 35kV on the sole and 20kV on the complete boot. These **"DI"** rated footwear must be worn when working on energized wiring / equipment and in battery rooms.

**Note 3:** For electrical hazard / risk category's 1 thru 4 **socks and underwear** consisting of melt able fibers such as acetate, nylon, polyester, polypropylene and spandex should not be worn. (an incidental amount of elastic used in nonmelting fabric underwear or socks is permitted.)