Texas Tech University Physical Plant Energized Parts Work Permit

INSTRUCTIONS

- A. Verify precautions listed at right (or do not proceed with the work).
- B. Complete the form below and obtain necessary approval signatures prior to commencement of work.
- C. Must be conspicuously posted at work site.

ENERGIZED PARTS WORK DONE BY:

□ Contractor

□ BMC Qualified Person

| PERMIT | DATE: | TIME: | | |
|--|-------|-------|--|--|
| ISSUED | | | | |
| LOCATION/BUILDING & FLOOR: | | | | |
| | | | | |
| | | | | |
| NATURE OF JOB: | | | | |
| WHERE OF JOD. | | | | |
| | | | | |
| | | | | |
| NAME OF PERSON DOING ENERGIZED WORK: | | | | |
| | | | | |
| | | | | |
| SHOP NAME: | | | | |
| | | | | |
| | | | | |
| PHONE NUMBER: | | | | |
| | | | | |
| | | | | |
| I and Carther | -1 | | | |
| I verify the above location has been examined, the | | | | |
| precautions checked on the Required Precaution | | | | |
| Checklist have been taken and permission is | | | | |
| authorized for this work. | | | | |
| SIGNED (Director): | | | | |
| | | | | |

| PERMIT | DATE: | TIME: |
|---------|-------|-------|
| EXPIRES | | |

REQUIRED PRECAUTIONS CHECKLIST

Training

□ Are employees who are at risk of electric shock trained in and familiar with the safety-related work practices required?

 \Box Are qualified employees (those who are permitted to work on or near exposed energized parts) given the following training: (a) The skills and techniques necessary to distinguish exposed live parts from other electrical equipment; (b) The skills and techniques necessary to determine the nominal voltage of exposed live parts; and (c) The clearance distances specified below and the corresponding voltages to which the qualified person will be exposed?

| Minimum Distances for Voltage Ranges | | | |
|--------------------------------------|---------------|---|--|
| Voltage range* | | Required minimum | |
| (phase to phase) | | distance between | |
| | | workers and exposed, energized parts | |
| 300V and less | | Avoid contact | |
| >300V | ≤750V | 1 foot 0 inches | |
| >750V | $\leq 2kV$ | 1 foot 6 inches | |
| >2kV | $\leq 15 kV$ | 2 feet 0 inches | |
| >15kV | $\leq 37 kV$ | 3 feet 0 inches | |
| >37kV | ≤121kV | 3 feet 6 inches | |
| >87.5kV | ≤121kV | 4 feet 0 inches | |
| >121kV | $\leq 140 kV$ | 4 feet 6 inches | |
| | | | |

PP/OP 02.05 Attachment A 02/16/2010 Page 1 \Box Is the degree of training determined by the risk to the person?

Work Practices

 \Box Are all live parts de-energized and red tagged/locked prior to employees working on them, unless de-energizing increases hazards or is not possible because of equipment design or operational limitations? **Note:** Live parts that operate at less than 50 volts to ground need not be de-energized if they do not cause increased exposure to electrical burns or explosion due to electrical arcs.

 \Box If live parts are not de-energized, are other practices used to protect persons who may be exposed to electrical hazards?

□ Do these work practices protect the body against direct contact with energized parts and against indirect contact through a conductive object.

Working On or Near Exposed Deenergized Parts

 \Box If an employed has contact with parts of fixed electrical equipment or circuits that have been de-energized, have the circuits energizing the parts been locked and/or tagged?

□ Is a written copy of electrical safety procedures available for inspection?

□ Are safe procedures determined before circuits or equipment are de-energized?

 \Box Are the circuits and equipment to be worked on disconnected from all energy sources? **Note:** Control circuit devices, such as push buttons, selector switches, and interlocks may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

□ Has stored, hazardous electric energy been released? **Note:** Capacitors shall be discharged. If the stored electric energy might endanger personnel, high capacitance elements shall be short-circuited and grounded.

 \Box Is stored non electrical energy in devices that could reenergize electric circuit parts blocked or relieved enough to prevent circuit parts from being accidentally energized by the device?

□ Is a lock and tag placed on each disconnecting means used to de-energize circuits and equipment?

□ Is the lock attached so no one can operate the disconnecting means?

Does each tag have a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag?

Note: If a lock cannot be applied, or if the tagging procedure will provide a level of safety equivalent to that of a lock, a tag may be used without a lock.

 \Box When a tag is used without a lock, is at least one additional safety measure used that provides a level of safety equivalent to that obtained from a lock? **Note:** Examples of additional safety measures include removing an isolating circuit element, blocking a control switch, or opening an extra disconnecting switch.

 \Box Is a lock placed without a tag only under all the following conditions? (a) only one circuit or piece of equipment is deenergized, (b) the lockout period does not extend into the next work day, (c) employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure.

□ Are the requirements below met before

any circuit or equipment can be considered de-energized? (a) a qualified person verifies that the equipment cannot be restarted, (b) a qualified person verifies that the circuit elements and parts of equipment to which employees will be exposed are de-energized. The qualified person must also determine whether any energized conditions exist as a result of inadvertently induced voltage or unrelated voltage feedback (even though parts of the circuit have been de-energized and presumed to be safe).

 \Box Are all the following requirements met (in the order given) before circuits or equipment are reenergized. even temporarily? (a) a qualified person verified that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed so that the circuits and equipment can be safely energized, (b) Persons exposed to the hazards associated with reenergizing the circuit or equipment are warned to stay clear of circuits and equipment. (c) Each lock and tag is removed by the person who applied it or under his or her direct supervision. However, if the person who applied the lock or tag is absent from the workplace, the lock or tag may be removed by a qualified person designated to perform this task provided that: 1) the person who applied the lock or tag is not available at the workplace, 2) the person who applied the lock or tag is aware that the lock or tag has been removed before he or she resumes work.. (d) All persons are clean of the circuits and equipment.

 \Box Are only qualified persons permitted to work on electric circuit parts or equipment that have not been de-energized? **Note:** This applies to work performed on exposed live parts (involving either direct contact or contact by means of tools or material) or near enough to them for persons to be exposed to hazards they present.

 \Box Are employees restricted from entering

spaces containing exposed energized parts, unless illumination is provided that enables them to perform the work safely?

□ Are employees prevented from handling conductive materials and equipment that are in contact with the person's body that may contact exposed energized conductors or circuit parts?

□ If employees must handle longdimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, have work practices been instituted (such as the use of insulation, guarding, and materials handling techniques) that will minimize the hazard?

Do portable ladders have nonconducting side rails when they could contact exposed, energized parts?

□ Is the use of conductive articles of jewelry, clothing (such as watchbands, bracelets, rings, keychains, necklaces, metalized aprons, cloth with conductive threads, or metal head gear) prohibited for persons working with electricity?

□ Are employees prohibited from performing housekeeping duties where live parts present an electrical contact due to housekeeping duties that must be performed near such parts?

□ If employees do conduct housekeeping duties near live electrical circuits, are adequate safeguards (such as insulating equipment or barriers) used?

□ Are Safety Observer and CPR requirements met?