

APPENDIX G – DOA ELECTRICAL SAFETY RULES

1.0 DOA ELECTRICAL SAFETY RULES

1.1 INTRODUCTION

The following electrical safety rules shall be included as part of the specifications for all jobs involving electrical work-

1.2 ELECTRICAL CIRCUITS

Electrical circuits that operate over 120 volts phase-to-ground, or are served by transformer capacity over 150 kva, shall be deenergized before work is begun.

Electrical circuits shall be considered deenergized only when one of the following conditions exist:

- (a) Switches connecting subject circuitry to the energy supply are observed in the OPEN position, with an air break, and safety tagged in the OPEN position.
- (b) Electrically operated switches are visibly OPEN, blocked, or racked in the OPEN position and safety tagged OPEN.
- (c) Oil switches observed OPEN in a sight window and tagged OPEN, or oil fuse cutout with fuse carrier removed and tagged OPEN.

Note-. If it cannot be definitely determined that the energy supply is OPEN, the subject circuit shall be grounded and the ground connection safety tagged before work proceeds.

1.3 USE OF RED SAFETY TAGS

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- (a) Safety tags shall be filled out and connected to any switch or equipment opened. This is necessary for protection of personnel working on associated circuits.
 - (b) Equipment with safety tag attached shall not be operated, and configuration of tagged connection shall not be altered.
 - (c) Safety tags shall be removed only by the DOA employees who placed the tag, or by another DOA employee authorized in writing by the employee who placed the tag.
- 1.4 Personnel handling insulated cables operated at over 240 volts to ground shall wear 5,000-volt rubber gloves and a face shield.
- 1.5 Insulated cables that have been in operation shall be cut only with grounded cable shears.
- 1.6 All personnel working around energized electrical equipment shall wear standard insulation nonconducting hard hats, and shall not wear garments with metallic zipper fasteners.
- 1.7 Contractors engaged on DOA projects or working on DOA property shall be governed by DOA rules, except all safety tags shall be placed or removed by the DOA employee inspecting the contractor's work under the direction of the Airport Electrical Superintendent. The contractor shall designate a supervisor for all contract personnel and operations. Said supervisor shall be on the job whenever contract operations are in progress.
- 1.8 DOA "Electrical Safety Rules" shall be read and observed by all personnel engaged in electrical work upon premises controlled by the DOA.
- 2.0 ELECTRICAL CONSTRUCTION STANDARDS

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The following represent minimum standards for electrical construction work at Houston Intercontinental, and represent the minimum electrical drawing notes to be included on Tenant Improvement construction documents.

- (1) Tenant shall secure all required permits.
- (2) Tenant shall comply with the latest City of Houston Electrical Code, National Electrical Code (N.E.C.), and any other applicable codes and standards.
- (3) Power circuitry shall be wired in metallic conduit or raceway (rigid galvanized, rigid aluminum, I.M.C., E.M.T., VViremold, etc.).

Exception- Underground feeders and branch circuits may be installed in Schedule 40 or Schedule 80 PVC conduit in compliance with the N. E.C. if a hazard warning tape is properly installed over conduit when the trench is back-filled.

- (4) All underground feeders and branch circuits shall be installed in conduit.
- (5) Type AC (BX) cable shall be used for "fixture whips" only.
- (6) Data or telecommunications cable, in public areas shall not be concealed.
- (7) Minimum wire size for lighting and receptacle circuits shall be No. 12 AWG
- (8) Conductor color coding shall be consistent along the entire length of a circuit (i.e., the color of a conductor shall not be changed at a junction box or pull point in a conduit run).
- (9) Wall plates with bushed openings shall be installed at each point where a data or telecommunications cable enters or exits a wall.
- (10) Wall plate with bushed openings for cable or for flush wiring devices shall be of stainless steel.
- (11) Use of pull chain-operated fixtures shall be prohibited

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- (12) All ballast-operated fixtures (fluorescent, mercury vapor, metal halide, sodium vapor, etc.) shall be equipped with in-line fuses.