UNIV

Lockout Procedure - TMC Production Power May 2024

A. General

This procedure has been developed to assist employees who are providing production power for events, performing repairs on transformers/electrical disconnects or performing routine maintenance. The primary hazard when working on this type of equipment is electrical power at the main disconnect, transformer, secondary disconnects and cam locks, which need to be locked out (when required) to prevent injury.

B. Compliance with This Program

All employees who provide production power or work on transformers and disconnects are required to comply with the restrictions and limitations imposed during the use of lockout.

<u>Authorized personnel</u> are required to perform lockout in accordance with this procedure. Authorized personnel in this case are electricians who have authority to shut down disconnects and perform lockout.

C. Sequence of Lockout – Authorized Employee

- (1) Notify the individuals listed below that work will be performed on the transformers, disconnects or cam locks and that the equipment must be shut down and locked out.
 - a. Those working in the area
 - b. TMC Electrical Shop Supervisor
 - c. Event Production Head Electrician
- (2) Identify the location, type and magnitude of electricity supplied to the disconnects and transformers. Understand the hazards associated with electricity and methods to control it.

The following power is supplied to main disconnects, transformers and secondary disconnects:

Main Disconnect - Electrical Hazard

Lockout (480 volts, 3 phase power)



Transformer - Electrical Hazard

Lockout (480 volts, 3 phase power to 120/208 volt, 3 phase power)

Secondary Disconnects - Electrical Hazard

Lockout (120 volts/208 volts, three phase)

- (3) Identify the main disconnect, transformer, secondary disconnects and cam locks at the location that will be used to provide power for the event and/or require servicing or maintenance.
- (4) Go to the main disconnect or secondary disconnects and deactivate power by pulling the breaker handle down to the "off" position.
- (5) Test that power has been deactivated on the main disconnect by using a voltmeter to check:
 - a. Phase to ground all three phases
 - b. Phase to phase all three phases
- (6) If the readings on the meter are zero, then no power is present. If power registers on the meter, determine the source of power and shut down to produce a zero energy state.
- (7) Apply lockout device, lock and tag to the main disconnect breaker handle.
- (8) The equipment is now safe and work can proceed on the main disconnect, transformers, secondary disconnects or cam locks.

D. Restoration of Equipment to Service

When work on the main disconnect, transformers, secondary disconnects or cam locks have been completed and the equipment is to be returned to normal operational status, the authorized employee who performed the initial lockout on the equipment will:

- (1) Check area around and below the main disconnect, transformer, secondary disconnects or cam locks to ensure that nonessential items have been removed and that all components are operationally intact.
- (2) Check the work area to ensure that all employees have been safely positioned or removed from the area.



- (3) Notify those in Section C-1, that work has been completed and power is being restored to the equipment.
- (4) Remove the locks, tags, and lockout devices from the main disconnect or secondary disconnects.
- (5) Move the main or secondary disconnect breaker handle to the "on" position.
- (6) Using a meter, check that power has been restored to the main or secondary disconnect.
- (7) Inform employees or event staff that the equipment is operational and now available for use.

Prepared by TMC Maintenance