Facilities Operations Policy and Procedures

Electrical Switching Associated With High Voltage Gear

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Electrical Switching Policy and Procedures

Document History

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Approvals

This document requires following approvals:

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1.1 **Purpose:** The Department Utilities Distribution Systems shall maintain a policy consistent with OSHA, NFPA, and NEC to insure electrical work associated with high voltage switch gear is done in accordance with good safe work practices and federal, state, and local laws and regulations.

1.2 **Scope:** This procedure shall apply to all electrical distribution switchgear from the site of incoming power source or point of generation to the load center disconnect switch including load center transformers, main breakers and tie breakers. This procedure applies during all repairs, maintenance, modifications, installations, and switching activities. This procedure outlines the responsibilities and steps to be taken for proper switching of electrical switchgear as well as the required notifications and record keeping associated with the same.

1.3 **Requests:** Any work that is to be performed on a Yale University Utilities Distribution System’s feeder, sub-station, or switchgear must be submitted through the Facilities Service Request with associated charging instructions. A FAMIS work order must be generated and received by the Utilities Distribution Systems Manager no later than 15 business days prior to the requested date of work. All requests will be coordinated through the Utilities Distribution Systems Manager. The Utilities Distribution Systems Manager will work diligently to accommodate the request but will ultimately determine the scheduling date.

   **Note:** At no time will contact be made with a Yale University Local 35 Utilities Distribution Systems High Voltage employee unless directed to do so by the Utilities Distribution Systems Manager.

1.4 **Switching Order:** Utilities Distribution Systems (Contractors) Electrical Switching Order forms can be obtained electronically from the Utilities Distribution Systems Manager. Switching Orders forms must be filled out completely and returned to the Utilities Distribution Systems Manager for review and approval 15 business days prior to the requested date of switching. Switching Order forms that have been altered, format changed, or saved to a PDF will not be accepted.

1.5 **Responsibility:** This document enforces a shared responsibility between Utilities Distribution Systems Management, Facilities Engineering Management, Power Plant Management, Facilities Construction & Renovation Management, and all internal and external trade’s personnel.

1.6 **Equipment:** As required by OSHA 1910.269, 1926.955, 1926.956, 1926.959, NEC, and the NFPA 70E
Procedure:

Normal Switching Activities (scheduled)

1. A Switching Order shall be written (typically by the party performing the activities) which outlines those activities step by step, designates estimated times, assigns responsibility, safety measure and PPE. A review and approval meeting which includes all personnel involved in the activity, Utilities Distribution Systems, Facilities Engineering, Facilities Construction & Renovation, and Power Plant management as well as trade representation from Utilities Distribution Systems High Voltage Electricians. This group can vary depending on the degree of activity however, as a minimum at least two (2) individuals at a management level, one (1) representing Facilities Engineering and the other representing Utilities Distribution Systems shall review and approve final Switching Order prior to execution.

2. Immediately prior to any planned Switching Order activity all parties involved will participate in a pre-safety meeting (tailgate) to thoroughly review required PPE, LOTO, and the Utilities Distribution (Contractors) Electrical Switching Order. It shall be the responsibility of Utilities Distribution Systems management to insure this policy is complied with.

3. Utilities Distribution Systems shall designate an individual to coordinate switching with all parties involved including the Power Plant Control Room and will act as the switching coordinator. This may at the agreement of Utilities Distribution Systems, Facilities Engineering, and Power Plant management be a Utilities Distribution Systems High Voltage Electrician for small limited switching activities, or require the management from Utilities Distribution Systems, Facilities Engineering, or the Power Plant in larger scale requirements. The responsibility of this individual is to coordinate switching upon the request of Utilities Distribution Systems or Facilities Engineering and to record all Switching Order activities performed.

4. The Switching Coordinator shall be responsible at the location(s) where switching is to occur and shall be the only person to communicate the Switching Orders.

5. Switching Coordinator shall establish direct communication with the Power Plant Control Room via radio and/or telephone.

6. All switching will be requested to the Switching Coordinator and authorization granted by the same prior to any action taken. These should be consistent with the agreed upon switching orders.

7. The Switching Coordinator will log all actions including time of occurrence.

8. The Switching Coordinator shall not deviate from the switching orders without ceasing switching activities and reconvening the pre-safety meeting team to agree upon change in protocol before proceeding with the appropriately modified switching orders.

9. Upon completion of the switching activity the final condition of the electrical equipment is to be summarized on the Switching Order document. A signature of Utilities Distribution Systems Manager is required to close out the switching protocol.

10. Switching documents are to be maintained as part of the Utilities Distribution Systems records and are subject to audit by Yale and or outside concerns (e.g. OSHA)
Emergency Switching Activities:

1. In the rare event it becomes necessary to perform switching prior to preparation of Switching Orders and a pre-safety meeting, such activities may be conducted only at the direction of the Utilities Distribution Systems Manager, Facilities Engineering Manager, or Power Plant Manager. Under these conditions the action can only be taken to stabilize a situation which possesses significant danger. Once a safe stable condition is established, a safety meeting to review additional switching must be conducted with all parties involved before proceeding.

Attached is a sample copy of a standard Switching Order to be used in association with this procedure.