TITLE: **Circuit Lockout/Tagout Guidelines for Floor Coordinators**

CATEGORY**: Operations**

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ABSTRACT**:**

These work guidelines apply to the Lockout/Tagout (LO/TO) of 110/208 V T (technical) panels only. If LO/TO of a 480V panel is required, call FMS to do the LO/TO. The Floor Coordinator will be responsible for identifying the circuit to be locked out and witness the Zero voltage verification done by qualified personnel.

Lockout/Tagout

Be sure that your training is up to date. Required courses are: ESH114, ESH114PR, ESH371, and ESH375 (NFPA 70E). Be familiar with ES&H manual Chapter 7.1.

1. Floor Coordinators, AES-CFG or FMS must perform facility lockout of a circuit that a construction or service contractor will be working on. The facility lockout is applied first.
    A) Construction and service contractors must supply their own locks.
    B) Construction and service contractors shall **NOT** use a Master red banded lock.
2. If the Floor Coordinator or AES-CFG is requesting FMS to lock out a circuit that is powering a panel, verify that everything connected to that panel can be de-energized.
    A) Call 4-1001 to contact the FMS Operations mechanic.
    B) Complete the form labeled Request for Electrical Lockout/Tagout. The completed form must be given to FMS personnel performing the LOTO.
3. Each ANL Employee who is to work on the equipment must place a lock and tag on the energy-isolating devices, with approved locks and tags obtained from the nearest lockout station or FMS LOTO station.
4. Turning off and locking out a circuit breaker
    A) Safety glasses, long sleeved cotton shirt and long cotton pants must be worn.
    B) Check the label on the outlet for the breaker and source location.
    C) Check the panel legend on the inside of the breaker panel to assure that the information matches.
    D) Since circuits generally have more than one receptacle, check all receptacles on the circuit to verify that all equipment plugged into the circuit may be shut down/disengaged for the task. Use the panel legend and outlet labels to identify all affected outlets; if this information is not sufficient, contact FMS for assistance.
    E) Assure that the equipment has a single hazardous energy source that can be readily isolated. For example, check that water systems, or air systems and other hazardous energy sources are not involved. Otherwise this is a complex lockout and needs a written procedure
    F) Get locking devices to isolate the circuit.
    G) Get an approved lock and tag obtained from the nearest lockout station.
    H) Identify the circuit breaker to be locked out.
    I) Stand to the side of the panel, turn head away from the panel and place the breaker switch in the OFF position. Do not stand directly in front of the breaker as it is being operated.
    J) Apply locking device.
    K) Apply lock and tag with employee information to the locking device.
    L) Enter required information in the LO/TO logbook.
5. Verification

Prior to starting work on equipment that has been locked out, all personnel who are to work on the equipment must verify that it is isolated and de-energized. For example, if a motor is hard wired into the circuit, turn on the motor control switch to verify that it is not working. Note that the lockout may be verified by witnessing the actual verification by another person, e.g. the Floor Coordinator can be witness to actual verification by FMS personnel, qualified contractor or qualified ANL personnel doing the work. The Floor Coordinators or AES-CFG must verify that the circuit that they have locked out has been de-energized.

A) Caution: Auto-start switches must be reset to neutral or off position after the test.

B) Although the APS or FMS employees are not "working" on the circuit, they provide the facility lockout and must confirm that the system is deenergized.

C) Qualified person performing the verification shall:

i. Wear proper PPE including: non-conductive safety glasses, long sleeve cotton shirt, and long cotton pants.

ii. Verify voltage sensing device operation.

ii. Sense voltage & loss of voltage upon isolation (when circuit is de-energized).

iv. Re-verify voltage sensing device operation.

6. Place the LO/TO key in the nearest FC office key cabinet.
7. The Floor Coordinator will check that contractors and ANL personnel are using the correct locks and that tags are filled out correctly.
8. The equipment is now locked and tagged. Work may begin.

Release from Lockout/Tagout

1. Follow the "Lockout/Tagout Key Transfer Guidelines for Floor Coordinators" to obtain the key to the lock if the release from lockout has to be carried out by a different Floor Coordinator from the one who applied the lock.
2. If FMS has applied the lock call 4-1001 to have the lock removed.
3. Perform the following steps:

a. The Floor Coordinator must wear a long sleeve, natural fiber shirt, long natural fiber pants and safety glasses.

b. When work is complete, the FC will make sure all controls are returned to "OFF", all tools are removed, and all personnel are clear of the equipment before start of unlocking procedures. The locks and tags must be removed by the individuals who installed them or by the authorized back-up.

c. When the FC, AES-CFG personnel or FMS operator is switching on a breaker, stand to the side of the panel and look away. Do not stand directly in front of the breaker.

d. The FC or the affected employee responsible for the equipment will test equipment after lock removal to confirm it is functioning properly.

e. The FC will Notify the affected employees that the machine or system is back in service.

i) If possible have the employee responsible for the equipment present when returning power to the equipment.

ii) Verbal notification is acceptable.

4. Locks must be returned to the lockout station and the logbook entry completed.

REFERENCES

Environment, Safety and Health Manual - ANL-East:
Section 7.1 Control of Hazardous Energy and Lockout/Tagout