



Lockout/Tagout Procedure - TMC Air Handler Supply/Return Fans October 2018

A. General

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment.

It shall be used for two reasons:

- (1) To ensure that the machine or equipment is stopped and isolated from all potentially hazardous energy.
- (2) The machine is locked out before employees perform any servicing or maintenance, where the unexpected energization or start-up of the machine or equipment, or the release of stored energy, could cause injury.

B. Compliance with This Program

All TMC employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. Authorized employees are required to perform lockout in accordance with this procedure.

Authorized employees in this case are the TMC electricians and HVAC technicians. All employees upon observing that the air handler supply/return fans are locked out shall not attempt to start, energize, or use it.

C. Procedural Sequence– Authorized Employee

- (1) Notification: Notify those working in the area and the HVAC supervisor that servicing or maintenance is required on the air handler supply/return fans and that it must be shut down prior to lockout.
- (2) Identification: Identify the type and magnitude of the energy. Understand the hazards and know the methods used to control the energy. The following apply to the air handler supply/return fans:
 - i. Electrical Energy Hazard – line voltage
 - ii. Mechanical Energy Hazard – air generated movement of the pulley, shaft and belt.
- (3) Check the air handler supply/return fans for proper operation, if possible.

- (4) Shut down the air handler supply/return fans by calling the HVAC BMS Department who will shut down the control signal to the unit.
- (5) Deactivate the electrical energy by turning off the power at the VFD disconnect for each unit.
- (6) Lockout the disconnect for each VFD with shop or individually assigned locks.
- (7) Ensure that the equipment is disconnected from the energy source by:
 - i. Verifying no one is exposed.
 - ii. Visual check for locked disconnect and absence of power to the VFD.
- (8) Wedge fan shaft by placing a rubber block between the pulley and belt to prevent rotation.
- (9) Those servicing the air handler supply/return fans may now safely work on the equipment.

D. Restoring Equipment to Service – Authorized Employee

Perform the following steps when work on the air handler supply/return fans have been completed and the equipment is to be returned to normal operation:

- (1) Walk around all sides of the equipment (if possible).
- (2) Check the area around and below the air handler supply/return fans. Make sure that nonessential items have been removed and that equipment components are operationally intact.
- (3) Check the work area to ensure that all employees are safety positioned or removed from the area.
- (4) Verify that the HOA or VFD are in the “off” position.
- (4) Remove all wedges used between the pulley and belt.
- (5) Remove locks and any tags used to identify those performing lockout.
- (6) Turn VFD disconnects to the “on” position.
- (7) Notify HVAC BMS that the unit is ready to be turned on and put back in service.

- (8) Observe equipment in operation and listen for abnormal sounds after startup. If problems are noted, re-apply lockout steps as indicated in this procedure. Consider what steps are needed to resolve and implement.

Prepared by TMC Maintenance