

## LOCKOUTS AND TAGOUTS

### 1.0 Objective

The objective of this surveillance is to evaluate the effectiveness of the laboratory's lockout/tagout activities. Surveillance activities encompass preparation of the tagout, placement and documentation of the tagout, removal of the tagout, closeout documentation, and return to service of the equipment.

### 2.0 References

- 2.1 DOE 5480.19, *Conduct of Operations Requirements for DOE Facilities*
- 2.2 DOE-STD-1030-92, *Guide to Good Practices for Lockouts and Tagouts*
- 2.3 INPO 85-017 Rev 2, *Guidelines for the Conduct of Operations at Nuclear Power Stations*
- 2.4 INPO 87-002, Rev 1, *Good Practice, Tagging Procedures for the Protection of Personnel, Components, and Systems*
- 2.5 OSHA Title 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*

### 3.0 Surveillance Activities

These surveillance activities include review of removal from service and lockout/tagout of a system or component; removal of lockout/tagout from a system or component and restoration to service of the system; review of lockout/tagout documentation; and placement of a lockout/tagout for a system or component. For these surveillance activities, the Facility Representative or Environmental, Safety, and Health Support Specialist should select a system or component important to worker, public, or facility safety. These surveillance activities have been designed such that each surveillance activity may be conducted independently, at different times, and for different systems or components. The Facility Representative or Environmental, Safety, and Health Support Specialist should, however, conduct each of these surveillance activities within the time period scheduled for this surveillance in accordance with the Operational Awareness Plan.

Activity 1 - The Facility Representative or Environmental, Safety, and Health Support Specialist selects a system or component that is scheduled to be isolated or removed from service as a result of maintenance, testing, or other activity. The Facility Representative or Environmental, Safety, and Health Support Specialist observes preparation of the lockout/tagout, removal of the system or component from service,

and placement of the lockout/tagout including completion of required documentation.

Activity 2 - The Facility Representative or Environmental, Safety, and Health Support Specialist selects a system or component that is scheduled to be restored to service. The Facility Representative or Environmental, Safety, and Health Support Specialist observes removal of the lockout/tagout and restoration of the system or component to service.

Activity 3 - The Facility Representative selects a system or component that has been removed from service and placed under lockout/tagout. The Facility Representative or Environmental, Safety, and Health Support Specialist reviews the lockout/tagout documentation and verifies proper placement of the lockout/tagout in the field.

### **CAUTION**

**In the conduct of this surveillance, the Facility Representative or Environmental, Safety, and Health Support Specialist should not attempt to position any component. The Facility Representative or Environmental, Safety, and Health Support Specialist should utilize authorized operations personnel to perform any manipulation of components to verify position.**

**Surveillance Guideline  
 LOCKOUTS AND TAGOUTS**

Surveillance No.: \_\_\_\_\_

Facility: \_\_\_\_\_

Date Completed: \_\_\_\_\_

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
Activity 1 - Preparation and placement of a lockout/tagout				
1.	Are facility personnel preparing the lockout/tagout qualified and authorized for these activities?	_____	_____	_____
2.	Are current approved copies of drawings and vendor documentation used when preparing the lockout/tagout?	_____	_____	_____
3.	Is the scope of the lockout/tagout sufficient to accomplish the intended purpose of the lockout/tagout?	_____	_____	_____
4.	Have all required departments reviewed and approved the lockout/tagout?	_____	_____	_____
5.	If an energy or toxic material isolating device has the capability of being locked out, is the device locked out rather than being tagged out?	_____	_____	_____
6.	If an isolating device cannot be locked out, is the device being tagged out with danger tags? Is the tagout method as effective as lockout with regards to protecting the employee?	_____	_____	_____
7.	Has the authorized manager approved removal of the system from service and placement of the lockout/tagout?	_____	_____	_____
8.	If removal of the system or component from service has resulted in entry into a limited condition of operation, have required compensatory actions been completed?	_____	_____	_____
9.	Does an appropriate manager notify affected personnel before the application of lockout/tagout devices?	_____	_____	_____
10.	Is the lockout/tagout applied only by personnel qualified and authorized for these activities?	_____	_____	_____

**Surveillance Guideline**  
**LOCKOUTS AND TAGOUTS**

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
11. Are lockout/tagout devices easy to identify, durable, standardized, substantial, and used for no other purpose other than lockout/tagout?	_____	_____	_____
12. Is all required information filled out completely, accurately, and legibly on all tags?	_____	_____	_____
13. When key-operated locks are used, is access to the keys restricted to authorized personnel?	_____	_____	_____
14. Are specific techniques for verifying the position of locked/tagged components established and followed?	_____	_____	_____
15. Do lockout/tagout devices clearly indicate the identity of the person and organization applying the device?	_____	_____	_____
16. Are lockout/tagout devices appropriately affixed to the proper components?	_____	_____	_____
17. Is all potentially hazardous stored energy or residual energy relieved, disconnected, restrained, or otherwise rendered safe?	_____	_____	_____
18. Are measures taken to ensure stored energy will not re-accumulate to a hazardous level?	_____	_____	_____
19. Are control switches tagged in a position corresponding to the desired protective state of the equipment (e.g., OFF, Neutral, Pull-To-Lock) even when another device provides the primary isolation from the energy source?	_____	_____	_____
20. If electrical grounding devices are required, are the location and sequence for installation of each device specified in the lockout/tagout? Are the devices danger tagged?	_____	_____	_____

**Surveillance Guideline  
 LOCKOUTS AND TAGOUTS**

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
21. Are systems that operate at high temperatures (e.g., greater than 200°F for a water system) or high pressures (e.g., greater than 500 psig) isolated from the work area by two closed valves in series? Is a telltale vent or drain between the isolation valves tagged in the open position?	_____	_____	_____
22. Are systems containing hazardous materials isolated by two valves in series? Is the isolated section purged?	_____	_____	_____
23. If a pneumatically or solenoid-operated valve that fails open is used for isolation purposes, is the power supply isolated and the valve forcibly closed with an installed locking device or gag? Are the valve and its power supply isolation points tagged?	_____	_____	_____
24. If a pneumatically or solenoid-operated valve that fails closed is used for isolation purposes, is the power supply isolated and the valve visually confirmed to be closed? Are the valve and its power supply isolation points tagged?	_____	_____	_____
25. If a motor-operated valve is used for isolation purposes, is its power supply isolated and tagged?	_____	_____	_____
26. Are local control points and remote control points (control switches, reach rods) both tagged?	_____	_____	_____
27. Have independent verification activities been completed as specified by facility procedures? For example, verification that a redundant component was not inadvertently affected by the lockout/tagout, or independent verification that the proper component was isolated may be specified.	_____	_____	_____
28. If independent verification is required, are the independent verification activities conducted in accordance with the established procedures?	_____	_____	_____
29. Is the effectiveness of the lockout/tagout verified in accordance with established procedures?	_____	_____	_____

**Surveillance Guideline  
 LOCKOUTS AND TAGOUTS**

YES      NO      N/A

Activity 2 - Removal of a lockout/tagout

- |     |   |       |       |       |
|-----|---|-------|-------|-------|
| 30. | Has the authorized manager approved removal of the lockout/tagout and restoration of the system or component to service?  | _____ | _____ | _____ |
| 31. | Are affected personnel notified before removal of the lockout/tagout and restoration of the system or component to service?   | _____ | _____ | _____ |
| 32. | Prior to removal of lockout/tagout, has the system or component been verified to be operationally intact?   | _____ | _____ | _____ |
| 33. | Has the workspace been checked to ensure that all personnel have been positioned safely or removed from the area?   | _____ | _____ | _____ |
| 34. | Has the area been inspected to ensure that all tools and non-essential items have been removed?   | _____ | _____ | _____ |
| 35. | Has the sequence for removal of the lockout/tagout and realignment and restoration of the system or component been specified and implemented?   | _____ | _____ | _____ |
| 36. | Are components that could cause automatic operation of a circuit breaker or valve when control power or pressure is restored, positioned such that automatic operation will not occur during removal of the lockout/tagout? | _____ | _____ | _____ |
| 37. | Is the removal of lockouts/tagouts documented?  | _____ | _____ | _____ |
| 38. | Does the authorizing manager verify that all removed lockouts/tagouts have been removed and are accounted for?  | _____ | _____ | _____ |
| 39. | Are post-maintenance tests specified and implemented determining operability of the system prior to return of the system to service?  | _____ | _____ | _____ |

**Surveillance Guideline  
LOCKOUTS AND TAGOUTS**

YES    NO    N/A

Activity 3 - Review of an active lockout/tagout

**CAUTION**

**The Facility Representative or Environmental, Safety, and Health Support Specialist should not attempt to position any component. The Facility Representative or Environmental, Safety, and Health Support Specialist**

**should utilize authorized operations personnel to perform an manipulation of components to verify position.**

- |     |  |       |       |       |
|-----|--|-------|-------|-------|
| 40. | Has the lockout/tagout record been completely, accurately, and legibly filled out?   | _____ | _____ | _____ |
| 41. | Has the lockout/tagout record been periodically reviewed by facility management? Have these reviews been documented?                                   | _____ | _____ | _____ |
| 42. | Has facility management periodically reviewed the continued applicability of and necessity for the lockout/tagout? Have these reviews been documented? | _____ | _____ | _____ |
| 43. | For the lockout/tagout, have all locks and tags been properly affixed to the specified components?   | _____ | _____ | _____ |
| 44. | Is all information on the tags accurately completed?   | _____ | _____ | _____ |

45. Have all components been correctly positioned in accordance with the lockout/tagout?

\_\_\_\_\_

OTHER:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

**Surveillance Guideline  
LOCKOUTS AND TAGOUTS**

YES      NO      N/A

_____			
_____			
_____	_____	_____	_____
_____			
_____			
_____	_____	_____	_____

**NOTES/COMMENTS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PERSONNEL CONTACTED:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Surveillance Guideline  
LOCKOUTS AND TAGOUTS**

**IF MORE SPACE IS NEEDED FOR FINDINGS, OBSERVATIONS, AND FOLLOWUP  
ITEMS - USE ADDITIONAL SHEETS**

**FINDINGS:**

Finding No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Finding No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Finding No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Surveillance Guideline**  
**LOCKOUTS AND TAGOUTS**

**OBSERVATIONS:**

Observation No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Observation No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Observation No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Surveillance Guideline**  
**LOCKOUTS AND TAGOUTS**

**FOLLOWUP ITEMS:**

Followup Item No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Followup Item No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Followup Item No.: \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Surveillance Guideline**  
**LOCKOUTS AND TAGOUTS**

LABORATORY MANAGEMENT DEBRIEFED AND RESULTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Facility Representative or  
Environmental, Safety, and Health Support Specialist