



Improperly removed lockout/tagouts have created hazardous conditions.

Events

Site/Facility: Rocky Flats Environmental Technology Site

Lockout/Tagout Equipment Removed without Authorization -- Reference: [RFO--KHLL-D&DOPS-2004-0006](#)

On April 5, 2004, demolition workers removed two locks and three tags that were still applied to electrical equipment in a facility undergoing D&D. The workers were performing electrical strip out of the facility and removed the lockout/tagout equipment without authorization. The facility was isolated from incoming electrical power by air gapping all wires. Workers were still required to wear appropriate personal protective equipment for electrical work and verify zero voltage conditions before removing equipment.

Important Points:	<ul style="list-style-type: none"> • Although the facility was designated as “cold and dark,” temporary power was being supplied from an alternate source for limited lighting. Even though the normal sources of hazardous energy had been removed, many systems still had locks and tags, which had not been formally cleared for removal. • The workers failed to stop work and formally request authorization to clear and remove locks and tags.
Contributors:	<ul style="list-style-type: none"> • The workers understood the lockout/tagout requirements yet because electrical power was isolated in the facility they falsely believed that approval to remove the locks and tags was not required.

Site/Facility: Savannah River Site FB-Line

Removal of Panel Cover Defeats Electrical Lockout/Tagout -- Reference: [SR--WSRC-FBLINE-2004-0002](#)

On February 19, 2004, a subcontractor removed a faceplate on a power panel to allow the tie-in of an electrical circuit. Removing the faceplate also removed the hardware and hazardous energy control tag isolating another circuit under an existing lockout/tagout. This action violated the facility safety manual.

Important Points:	<ul style="list-style-type: none"> • Permission was requested of the controlling authority and granted before removing the panel cover. However, when asked if removing the panel cover would disturb any existing lockout/tagout point, the controlling authority was incorrectly told it would not.
Contributors:	<ul style="list-style-type: none"> • The planning phase for the work was less than adequate. The planning engineer failed to identify the existing lockout/tagout during field walk-downs and during the planning phase. • A person-in-charge could have assessed the condition of the existing lockout/tagout to ensure all appropriate actions were taken, but management failed to designate a person to monitor the circuit tie-in as required by the facility’s Person-In-Charge Program.

Site/Facility: Idaho National Laboratory Spent Nuclear Fuel Operations

Removal of Lockout/Tagout Results in Uncontrolled Barrier -- Reference: [ID--BBWI-LANDLORD-2003-0005](#)

On May 1, 2003, a technical lead discovered that the 480-volt portion of a standby power system upgrade was energized and no longer isolated and locked out as required by the Level II Lockout/Tagout procedure. The system was energized from the feeder circuit breaker to a local disconnect. The disconnect switch was open but not

controlled by a lockout/tagout. Several electrical leads downstream of the disconnect switch were left exposed with insulation stripped in preparation for termination. This unsafe condition posed a potential shock hazard.

Important Points:	<ul style="list-style-type: none"> • The utilities organization authorized the release of the isolation on the feeder circuit breaker without ensuring that a lockout/tagout was installed on the local disconnect switch.
Contributors:	<ul style="list-style-type: none"> • The utilities organization had authority over the feeder circuit breaker but was not provided information on the status of the newly installed system downstream, which was under the control of another organization. • After the lockout/tagout was removed, entry into the facility was not allowed for security reasons which prevented locking and tagging the disconnect switch. When access was eventually allowed, management did not follow up on installing the lockout/tagout.

Site/Facility: Idaho National Laboratory Test Reactor Area

Lockout Clearance Authorized with Grounding Cluster Still Installed -- Reference: [ID--BBWI-TRA-2003-0003](#)

On April 28, 2003, authorization to clear a lockout/tagout on a circuit breaker for a pump motor was given by the person in charge; however, a grounding cluster installed as a precaution against induced voltage was still installed on the pump electrical circuit. An operations representative saw the grounds and rescinded the authority to remove the tags, preventing an electrical incident.

Important Points:	<ul style="list-style-type: none"> • The grounding cluster was not identified on the approved lockout/tagout as required by the Level II Lockout/Tagout Procedure, nor was it controlled by configuration management process of the electrical subcontractor who installed it. • The electrical subcontractor failed to inspect the work area to ensure that the work group's portion of the equipment was restored and ready to reenergize before releasing the lockout/tagout.
Contributors:	<ul style="list-style-type: none"> • The person in charge was aware that the subcontractor installed the grounding clusters but did not verify how they were being tracked. • Hold points for inspections and release of lockout/tagouts for testing purposes were not adequate to ensure all parties were involved as needed, resulting in decisions made by the person in charge to proceed without all steps being completed (e.g., removal of grounding clusters).

Important Considerations for Lockouts and Tagouts (Lessons Learned)

- Has a walkdown been performed to verify that configurations are safe to remove the lockout/tagout?
 - Has authorization been received to remove the lockout/tagout? Have all affected workers been contacted?
 - What sequence will be used to remove tags? What will be the impact on facility, system, or component operation as tags are removed?
 - For partially released clearances, who verified that the partial release would not endanger other work activities in the area? Are all groups cognizant of the tags to be cleared and what equipment will be returned to service? Have all parties signed off of the clearance?
 - Have all safety grounds been removed on electrical system lockout/tagouts?
 - Will removal of the lockout/tagout result in an unsafe condition?
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