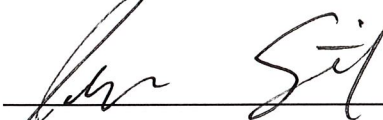



Tagout/Lockout BSB 0200-08

Prepared by:


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BOILER SAFETY BUREAU
STANDARD OPERATING PROCEDURE MANUAL

1.0 PURPOSE:

To provide instructions to employees and enable them to protect themselves from the unexpected start-up or energizing of equipment and machinery.

2.0 SCOPE

This instruction is applicable to all Bureau inspection personnel, including Inspectors, Inspector Supervisors and Bureau Management. The instruction will also be applicable to any other person who in conjunction with the Bureau employs tag out/lock out procedures to ensure the safety of Bureau personnel.

3.0 PERSONNEL RESPONSIBILITIES

- 3.1 The Bureau Chief - BSB has the overall responsibility for implementation of this instruction and to assure that inspection staff is properly trained in the requirements herein.
- 3.2 Inspector Supervisors are responsible for ensuring that inspectors use this instruction when applicable.
- 3.3 Bureau inspection staff is responsible for cognizance, understanding and strict use of this instruction when conducting inspections requiring tag out/lock out of pressure equipment.

4.0 HEALTH AND SAFETY ISSUES

Addressed in the body of this document.

5.0 POLICY:

- 5.1 The Bureau Chief shall:
 - 5.1.1 Implement lockout procedures for authorized employees to follow.
 - 5.1.2 Provide equipment and training for authorized employees.
- 5.2 The Bureau Chief shall provide equipment and training for each affected employee.
- 5.3 Lockout procedures shall be utilized for each activity meeting the definition of affected field activity, unless the Chief Inspector determines that the activity meets the requirements for exemption.
- 5.4 All Bureau field employees shall be trained to recognize the Bureau's locking and tagging devices, and in their responsibilities under this instruction.

6.0 PROCEDURE:

6.1 Definitions:

- 6.1.1 Affected field activities—Activities performed by field staff which places a portion of their body within a piece of equipment, and/or

within contact range of the point of operation, moving parts, energy source or energy transmission parts of such equipment.

- 6.1.2 Authorized Employee—An employee who is issued a lockout device and/or tagout device, and who is authorized to employ the device during field activities.
- 6.1.3 Energized—Connected to an energy source or containing residual or stored energy.
- 6.1.4 Energy-isolating device—A mechanical device that physically prevents the transmission or release of energy from machinery or equipment.
- 6.1.5 Energy source—Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- 6.1.6 Lock out—The placement of a lockout device on an energy isolating device for the purpose of ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lock out device is removed.
- 6.1.7 Lock-out device, Lock—A device that utilizes a positive means to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.
- 6.1.8 Field activities—Workplace activities such as inspections and other similar activities which require the removal of a guard and/or the exposure of the employee to the point of operation, moving parts, energy sources, and/or energy transmission parts.
- 6.1.9 Tag out—the placement of a tag out device on an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tag out device is removed.
- 6.1.10 Tag-out device, Tag—A prominent warning device and a means of attachment which can be securely fastened to an energy isolating device to indicate a tag out condition.

6.2 Instructions

- 6.2.1 The Supervisor of each employee expected to perform field activities shall:
 - a) Issue each authorized employee lockout devices, gang lock devices, tagout devices and tag attachment devices.
 - b) Provide training to Authorized Employees as specified in paragraph 5.4.

- c) Observe Authorized Employees performing lockout activities. New employees must be observed in the first year of employment.
 - 1. The Supervisor shall determine if the lockout procedures are adequate to provide employee protection and efficient performance and shall recommend necessary changes to the Bureau Chief.
 - 2. The Supervisor shall determine if any Employee under his/her jurisdiction is deviating from established procedures and shall make plans to provide such Employees with retraining.
 - 3. The supervisor shall document the performance of these activities during field visits.

6.2.2 General Lockout/ Tagout Procedures

- a) Each Employee, prior to engaging in an affected field activity, shall ensure that the equipment is locked out.
 - 1. The Employee shall instruct the owner to reduce the equipment to a zero-energy state. If the owner has a lockout procedure, the Employee shall instruct the owner to utilize the procedure using a gang-lock device.
 - 2. The Employee shall observe the shutdown activities if possible. The Employee shall require the owner to demonstrate that the equipment cannot operate.
 - 3. The Employee shall apply a lock and tag on the energy-isolating device of the equipment. If the energy isolating device cannot accept a lock, the Employee shall apply a tag utilizing a tag attachment device.
- b) The Employee may then proceed with the affected field activity.
- c) The Employee shall not leave the equipment with his/her lock applied except in emergency situations.
 - 1. If an Employee leaves a lock in place, he/she shall:
 - i. Make every feasible effort to return in a timely manner to remove the lock.
 - ii. Notify his/her Supervisor upon return to the duty station that an emergency condition developed, explain the conditions, and

indicate whether the lock had been ultimately removed.

2. It is the responsibility of the Supervisor to determine if the incident could be reasonably considered an emergency situation.
- d) Upon completion of the affected field activities:
1. If the owner has a lockout procedure, the Employee shall remove his/her lock and/or tag and notify the owner that activities are completed.
 2. If the owner does not have a lockout procedure, the Employee shall remove his/her lock and tag only if a representative of the owner is present.
 3. The Employee shall account for all tag-out/lock-out devices prior to leaving the property.
- e) If a Supervisor becomes aware that a lock or tag applied by an Employee under his/her jurisdiction was left in place, and that the Employee cannot immediately return to remove the lock:
1. The Supervisor or designee shall go to the location of the locked-out equipment as soon as feasible.
 2. The Supervisor or designee shall have the owner demonstrate that the equipment has been returned to safe operating condition.
 3. If the Supervisor or designee is satisfied with the demonstration, he/she shall remove the lock or tag.

6.3 Lockout Equipment:

6.3.1 Each Authorized Employee shall be issued lockout devices, tag-out devices, means to affix tag out devices and ganglock devices.

6.3.2 The Supervisor shall provide any other lockout device determined to be necessary to perform lock-out activities.

6.3.3 Lock-out Devices

- a) The Bureau Chief shall select the lockout device to be used by Bureau employees.
- b) The lockout device shall be the same brand name, color and shape throughout the Bureau.

- c) One key shall be issued to each Authorized Employee along with the lock and one key shall be retained by the Supervisor of the Authorized Employees.

6.4 Tagout Devices

6.4.1 Caution: Tags serve as warning devices that are affixed to energy isolation devices and do not provide the physical restraint on those devices that is provided by a lock. Tags may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program.

- a) Tagout devices can only be utilized when an energy isolating device is not capable of being locked out, unless the owner of the equipment can demonstrate that the tagout device provides the same level of protection as lockout.
- a) When a tag is used it can only be removed with the authorization of the one who affixed it and cannot be ignored, bypassed, or otherwise defeated.
- b) Tags must be legible and understandable by authorized employees, affected employees and all other employees.
- c) Tags and their means of attachment must be made of materials that will withstand the environmental conditions encountered in the workplace.
- d) Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

6.4.2 Tags shall be standardized throughout the Bureau, with the following characteristics:

- a) The words: "LOCKED OUT. DO NOT START, ENERGIZE, OR OPERATE." or similar language.
- b) The words: "THIS LOCK MAY ONLY BE REMOVED BY" or similar language and the name of the person applying the lock.

- c) The name and telephone number of the Unit of the person applying the lock and instructions for contacting the Supervisor in the event that the Employee applying a lock or tag cannot remove it.

6.4.3 Tagout Attachment Devices:

- a) The device used to affix a tag when used in lieu of a lockout device shall be of sufficient strength to resist inadvertent removal.
- b) The device shall be attachable by hand and shall be non-reusable.

6.5 Training:

6.5.1 Authorized Employees

General Lockout Procedures

- a) The Supervisor shall ensure that each Authorized Employee receives training in general lockout/tagout procedures and any Bureau procedures:
 - 1. Once per year,
 - 2. within two months of a change in procedures,
 - 3. within two weeks of identification of any deviation by the Employee from the procedures.
- b) Training in lockout/ tagout shall include:
 - 1. Recognition of hazardous energy sources.
 - 2. Lock out equipment and use.
 - 3. How and when to apply a lock and tag.
 - 4. When a tag alone may be applied.
 - 5. The steps for equipment shutdown, temporary restoration and full restoration
 - 6. The criteria for identifying activities which require lock-out.
 - 7. The steps for leaving the worksite with a lock in place.

6.5.2 All Employees

- a) Each Supervisor shall ensure that each new Employee under his/her jurisdiction is made aware of the meaning of locks and tags within the first two weeks of employment.
- b) The Bureau Chief shall design training for all Employees on awareness of the Bureau's lock-out program, which shall include:
 - 1. The appearance and meaning of the locks and tags
 - 2. The responsibility of the Employee in a lock-out condition
 - 3. The authority of Authorized Employees in a lock-out condition
 - 4. The criteria for identifying Authorized Employees
- c) Each Supervisor shall ensure that each Employee under his/her jurisdiction receives the awareness training:
 - 1. Within three months of employment
 - 2. Once per year

7.0 CUSTOMER SERVICE REQUIREMENTS

Not applicable

8.0 ***DATA AND RECORD MANAGEMENT***

- 8.1 Records of inspector training and observation on this procedure shall be kept on file. ***Records shall be maintained in accordance with the Functional Schedule for North Carolina State Agencies as adopted by State Archives, a Division of the North Carolina Department of Natural and Cultural Resources.***