FLUOR
FEDERAL PETROLEUM OPERATIONS

FFPO Procedure Blue Sheet Form

A. Procedure Title (list manual, procedure series, or specific procedure #)

SPR Accident Prevention Manual
Section 29 Lockout/Tagout Program

B. Procedure Name/series type (i.e., operations, maintenance, etc.) ____E S & H_____

C. Check (✓) one of the following:

1. ___ Procedure(s) accepted "as is" with terminology replaced as denoted in the Site Procedures Approved Terminology Replacement List for the FFPO SPR M&O contract.

2. ___ In addition to the changes in approved terminology for the FFPO SPR M&O contract, improvements to the procedure are warranted:

____Category 1 Finding (Resolution prior to contract start)

____Category 2 Finding (Resolution within 90 days of contract start)

__✓__Category 3 Finding (Resolution to the Issues Management program)

D. Comments/Notes:

E. Forward a copy of this form to the FFPO Director, Business Management for revision tracking.

_____Signed_____ ____02/27/14_____

FFPO Reviewer Signature Date

_____Steve Mahan_____

FFPO Reviewer Print Name

Site Procedures Approved Terminology Replacement List

Approved Terminology Replacements	
Terminology to be Replaced	**Substituted Verbiage**
AGSC	M&O Contractor or MOC
Boeing	M&O Contractor or MOC
Construction Management Services or CMS contractor	M&O Contractor or MOC
DynMcDermott or DM or Company	M&O Contractor or MOC
DM Contract No.	M&O Contract
Organizational Changes	
William Gibson or “Hoot”	DOE Project Manager or DOE PM
Robert (Bob) McGough or DM Project Manager or CEO	MOC Project Manager or MOC PM
Randy Sutton (Acting) or DM General Counsel	MOC General Counsel or MOC GC
Scott Landry or DM APM, O&M and COO	MOC APM, O&M
APM, Cavern Integrity	Senior Director, Cavern Integrity
Colleen Yates or DM APM, Business Operations and CFO	MOC APM, Business Operations and CFO
APM, Security and Emergency Preparedness or Director, Security and Emergency Preparedness Division	Senior Director, Security & Emergency Preparedness
Henry Schmidt, Jordan Jones, or Duane Johnson	Senior Director, Security & Emergency Preparedness
Leslie Williams or APM, Data Systems or Data Systems Director	Senior Director, Data Systems
William Bozzo or DM APM, ES&H	MOC APM, ES&H
Walt Newcomb or DM Director, Energy & Sustainability	Director, Environmental
J.P. Martinez or DM APM, Engineering	MOC APM, Engineering

ACRONYMS

AGSC	ASRC Gulf States Constructors
APM	Assistant Project Manager
ASRC	Arctic Slope Regional Corporation
CAS	Contractor Assurance System
CFO	Chief Financial Officer
COO	Chief Operating Officer
ES&H	Environment, Safety, and Health
GC	General Counsel
M&O	Management and Operating
MOC	Management and Operating Contractor
O&M	Operations and Maintenance
PM	Project Manager

29. LOCKOUT/TAGOUT PROGRAM

Table of Contents

29.1. INTRODUCTION

29.1.1. Purpose

This section establishes requirements for the lockout/tagout of energy-isolating devices, and it will be used to ensure that personnel and machinery/equipment are isolated from all potentially hazardous energy. The described program complies with 29CFR 1910.147 and 1910.333.

NOTE
A lockout/tagout shall be performed prior to employees performing any service or maintenance activities where the unexpected energization, startup, or release of stored energy could cause personal injury or damage to equipment.

29.1.2. Scope

a. All affected personnel are required to comply with the restrictions and limitations imposed on them during lockout/tagout, including contractors and subcontractors.
b. Only authorized personnel shall perform lockout/tagout in accordance with the procedures contained in this section.

c. No persons will attempt to start, energize, or use a piece of equipment or machinery within the lockout boundaries while performing service or maintenance activities unless authorized to do so for testing purposes.

WARNING
Deliberately attempting to defeat or disregarding a lockout will result in disciplinary action up to and including termination.

d. Lockout/Tagout requirements apply regardless of who is performing the work.

NOTE
In accordance with DOE O 473.3, *Protection Program Operations,* firearms that have experienced an unusual operation are tagged “out of service” and segregated from operational firearms until certified by the armorers as being safe to operate.

29.2. GENERAL

29.2.1. Precautions and Limitations

a. Personnel will not be permitted to operate systems, components, and equipment that have been locked/tagged out.
   1. Entry will not be allowed into locked/tagged out vessels without a confined space entry permit.
   2. Testing will be conducted in accordance with the “Testing Phase” section of this chapter.
b. "Danger - Do Not Operate" tags will not be attached to any operating systems, components, or energized site equipment.
c. All affected and authorized personnel will receive an appropriate level of training and retraining.
d. Lockout/tagout devices will be singularly identified, will be the only devices used for controlling energy, and will not be used for other purposes.
e. Information on all forms and caution and danger tags will be printed legibly, signed, and dated.
f. All lockout/tagout functions will be promptly and accurately documented in the Lockout/Tagout Log, OSF92-0059 (sample located in the appendix). This includes employee locks, department locks, group locks, and tagouts.
g. When a change is planned in equipment safe clearance boundaries, all authorized and affected individuals will be notified of the change by the on-duty shift supervisor or designee before the change is made.
h. Electrical switches or remote equipment actuators will be placed in a safe configuration before deactivating.
i. Before any work is actually started, all de-energized equipment will be verified as safe by an authorized person who is going to do the work.
j. Outside service and construction personnel engaged in lockout/tagout activities are also covered by this procedure.

29.2.2. Color Coding

The colors of tags and locks will be standardized as described below.

a. "Danger - Do Not Operate" tags (figure 29-3) will be predominantly red, with letters of a contrasting color, and will contain the following information:
   1. Purpose
   2. Equipment name
   3. Equipment Location Number (ELN)
   4. Work order number/task number
   5. Signature of person applying the tag
   6. Date
   7. Lock/tag number.
      a) Tags used in conjunction with a lock shall have the corresponding lock number written on the tag.
      b) Tags used without a lock shall be assigned a number that will be recorded on the Lockout/Tagout Log and will be given the same respect as a physical lock. Use of a tag only should be limited and only in situations where a physical lockout cannot be performed.

b. "Caution Tags"
   1. The use of caution tags will be restricted to those situations in which a component or system is functional, but some precaution or item of information is necessary before operation.
   2. Caution tags **WILL NOT**:
      a) Be used for personal protection.
      b) Be used in place of a more appropriate administrative action.
   3. Caution tags **WILL:**
      a) Be uniquely identifiable and different in appearance from other facility tags (yellow or predominantly yellow, with lettering or symbols in a contrasting color).
      b) Have the following:
         1) ELN number
         2) Effective date
         3) Purpose
         4) Signature
      c) Be logged in the appropriate Caution Tag Log.
   4. The use of caution tags (figure 29-2) shall be controlled and documented.
   5. Situations requiring special operator or maintenance precautions will be brought to the attention of the shift supervisor.
   6. The appropriate supervisor or manager will determine the need for each caution tag and authorize its placement.
   7. Caution tags shall be placed so that they are readily apparent to an individual prior to operation of the tagged device, but not so as to obscure indicators or interfere with switches or other control devices.
   8. All caution tags will be reviewed periodically to verify their continued need and applicability.
   9. Caution tags remaining active for long periods will be brought to the attention of the shift supervisor.
   10. Caution tags may be used in conjunction with administrative locks.

c. Color codes for personal and group locks are indicated in Figure 29-1 (end of this section).

NOTE
Color-coded locks will only be used for controlling energy for servicing and maintenance of equipment. These locks will not be used for other purposes.

29.2.3. Training

The objective of training is to ensure that the purpose, function, and procedures of the Lockout/Tagout Program are understood by all affected personnel. Training will also give authorized personnel the knowledge and skills required for safe application, use, and removal of locks and tags as required by this procedure. The Site Safety Specialist and training coordinator will ensure that initial and refresher training is conducted, presented by a qualified trainer.

29.2.3.1. Training Requirements

a. Each authorized employee will receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
b. Each affected employee will be instructed in the purpose and use of energy control procedures.
c. All other employees, including subcontractors, whose work operations are or may be in an area where energy control procedures may be used, will be instructed about the procedure and about the prohibitions relating to attempts to restart or reenergize machines or equipment that are locked out or tagged out.
d. Job classification changes - Retraining will be provided for all authorized and affected employees whenever:
    1. Changes occur in their job assignments
    2. Changes are made to the machines to be operated
    3. New hazards are introduced by new or modified equipment or processes
    4. Changes are made in energy control procedures
e. Retraining will also be required when periodic inspection identifies inadequacies in employees' knowledge of use of the lockout/tagout procedure. This may be classroom or on-the-job training.

29.2.4. Periodic Inspections

Each site shall document an annual inspection and certification of specific energy control procedures by an authorized person not involved with the work being audited. This inspection will include each energy control procedure that is used at least once a year. Specific energy control procedures that are not used at least once a year will be inspected the next time used. The inspection procedure must include the following elements.

a. Where lockout is used for energy control, the periodic inspection shall include a review between the inspector and each authorized employee of the employee’s responsibilities under the energy control procedure being inspected.
b. Where tagout is used for energy control, the periodic inspection shall include a review between the inspector and each authorized and affected employee, responsibilities under the energy control procedure being inspected.
c. If deficiencies are noted during the inspection, corrective actions and retraining of employees, as necessary, must be done immediately.

d. The Annual Lockout and Tagout Inspection Checklist (located in the forms section of the S&H SharePoint site) will be used to perform periodic inspection. The supervisor or manager will keep a copy on file to show that the periodic inspection has been performed.

29.2.5. Transfer of Responsibility

To ensure continuity of lockout/tagout protection and orderly transfer of the operational lockout/tagout devices, a Lockout/Tagout Log will be used and kept in control room.

29.3. PROCEDURES FOR THE CONTROL OF HAZARDOUS ENERGY

29.3.1. Preparation

a. The first-line Operations supervisor/foreman and the worker will use the equipment-specific energy control procedures to fill out the Lockout/Tagout Log.
b. If a specific energy control procedure does not exist, the first line Operations supervisor/foreman and the worker will fill out the Lockout/Tagout Log.
    1. This log will be used to prepare an ESECP (Equipment Specific Energy Control Procedure) following the "Development and Use of Equipment Specific Energy Control Procedures (ESECP)" below after the task has been completed.
    2. The Equipment Specific Energy Control Procedure (located in the S&H SharePoint site) shall be used to perform an equipment-specific energy control.
c. The worker will obtain the lockout/tagout devices that are needed to control all energy to the machine and equipment.
d. The worker will obtain the required personal protective equipment to safely perform the task.
e. The initiator will prepare a Safe Work Permit (SWP) identifying lockout/tagout requirements and a description of the work to be performed.
f. The shift supervisor/foreman will review the SWP and lockout/tagout record and authorize the lockout/tagout.
g. M&O and Construction Management contractors and subcontractors are required to follow these procedures.

29.3.2. Lockout Placement

WARNING
Only a qualified person may energize/deenergize systems of 480 volts or below.
Only qualified electricians may energize/deenergize systems above 480 volts.

a. An authorized person will notify all affected employees that servicing or maintenance is required on a machine or equipment and the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
b. A multiple lockout adapter will be installed by Operations on each applicable energy-isolating device. Operations' locks/tags will be the first installed. This activity will be documented in block 10 of the Lockout/Tagout Log.
c. Authorized personnel will then place their personal safety locks on the same multiple lockout adapter as Operations.

d. Prior to start of work on equipment/systems that have been locked/tagged out, the authorized person performing the work or service will verify the equipment/system has been deenergized and affected piping close to the point of work isolated, in accordance with steps 1-4 below.
   1. An electrically powered machine shall be verified to be deenergized with the local start/stop button or switch.
      a) Electric wiring can be verified to be deenergized with an alternating voltage sensor or a voltmeter.
      b) The equipment with remote starting capability shall be tried from the remote starting position(s), and this shall be documented in the operator's log.
   2. If work will be performed near exposed deenergized conductors, a qualified person, equipped with personal protective equipment, will also use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are deenergized.
      a) The test will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed, even though specific parts of the circuit have been deenergized and are presumed to be safe.
      b) If the circuit to be tested is over 600 volts, nominal, the test equipment will be checked for proper operation immediately before and immediately after this test.
   3. If work will be performed on pipelines/pressure systems, the system pressure will be bled down and an effective means used to prevent repressurization caused by such means as leaking valves. One effective and recommended means is to double block and bleed where configuration and circumstances permit.
   4. To verify no stored or potential pressure/energy is present in a pneumatic or fluid system, a bleed valve will be opened closest to the point of work.
e. Once steps 1-3 above have been completed, this will be documented in Lockout/Tagout Log blocks 11, 12, and/or 13, and a Safe Work Permit will be issued for implementation.

NOTE
The operations lock is the first on and will not be used for the personal protection of workers. Personnel working on equipment will put their own personal lock on the energy-isolating device. A group lockout device may be applied when it is a group lockout.

29.3.3. Tagout Placement

a. When a tagout only is used as an energy-isolating device, the tag will be attached at the same location, if possible, that the lockout device would have been placed. Use of a tag only should be limited to situations where a physical lockout is not possible.
b. Because these tags may convey a false sense of security, special care is required in training personnel in their use and meaning.
   1. A “Danger - Do Not Operate” tag will be installed without a lockout device only if no locking mechanism is provided and therefore it is not physically possible to install a lockout device. Such a tag:
      a) shall not be removed by anyone but the person who installed it,
      b) is never to be bypassed, ignored, or defeated,
      c) is to be afforded the same respect and treatment as a lock,
      d) shall be legible, clear, and able to withstand environmental conditions,
      e) shall be numbered as a means of identification and recorded on Lockout/Tagout Log,

f) is to be understood by all employees to represent the same level of restraint as would a positive locking device, and
g) is to be discarded when removed.

2. Operations will place "Danger - Do Not Operate" tags near the energy-isolating device. Tagouts will be documented in blocks 10, 11, 12, and 13 of the Lockout/Tagout Log. Verifications will be performed in accordance with steps 1-4 in the "Lockout Placement" section above.
3. The Safe Work Permit may not be issued until these activities are completed.

WARNING

A tag used without a lock will be supplemented by at least one additional safety measure (control) that provides a level of safety equivalent to that obtained by use of a lock. Examples of additional safety measures include removal of an isolating circuit element, blocking a controlling switch, or opening an extra disconnecting switch.

29.3.4. Group Lockout

a. When servicing, maintenance or both is performed by a crew, craft, department, or other group, the procedure will afford the employees a level of protection equivalent to that provided by the implementation of a personal lockout/tagout device.
b. Group lockout/tagout devices will be used in accordance with the following specific requirements:
   1. Primary responsibility is vested in an authorized employee for a set number of employees working under the protection of a group lockout/tagout device.
   2. The authorized representative will install a group lock(s) and will document the installation in block 11 of the Lockout/Tagout Log.
   3. The authorized representative must comply with the "Lockout Placement" section above, part f, steps 1-4.
   4. The group lockout authorized representative will place group lock key(s) in the lockbox prior to placing his or her personal lock on the group lockbox. This personal lock will be the first on and last off of the lockbox.
   5. Each authorized employee will affix a personal lockout device to the group lockbox, before he or she begins work, and will remove that device when he or she completes work on the machine or equipment being serviced or maintained.
   6. When multiple group lockout boxes are used, each shall be identifiable to the ongoing task.

29.3.5. Control and Distribution of the Lockout/Tagout Log

a. Once all personal safety locks have been installed, the copies of the Lockout/Tagout Log will be distributed as follows:
   1. The original will be maintained in the open lockout/tagout file.
   2. The field copy will be attached to the original of the SWP and issued.
   3. The third copy will be attached to the copy of the SWP maintained by Operations.
   4. Logs that have been prepared without equipment-specific procedures will be identified and a copy forwarded to the Electrical Safety (ESC) Committee.

5. Lockouts that do not require an equipment specific energy control plan (lockout plan) because they meet the exemption requirement will be noted on the lockout/tagout section 1(c).

b. When the lockout/tagout devices have been removed and the equipment restored to service:
   1. The shift supervisor collects both copies of the Lockout/ Tagout log.
   2. The shift supervisor verifies that the Lockout/Tagout Log original is complete and accurate and takes necessary actions to correct deficiencies.
   3. The shift supervisor places the Lockout/Tagout Log original in a closed file.
   4. The original will be maintained per the RIDS schedule.
   5. The remaining copies are discarded.
c. Separation of Logs
   1. The open Lockout/Tagout Log files will be separated by system.
   2. The closed lockout/tagout file originals (copy 1) will be maintained in chronological order by removal/restoration date.
d. If the lockout/tagout removal/restoration phase has not been completed in its entirety, all copies will be placed with the original in the open Log file.
e. The original and field copy can be reissued for use with a new SWP or to complete the job/task.

EXCEPTION
The employer need not document the specific procedure for a particular machine or equipment, **when all eight of the following elements exist**:

1. The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shutdown, which could endanger employees;
2. the machine or equipment has a single energy source which can be readily identified and isolated;
3. the isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment;
4. the machine or equipment is isolated from that energy source and locked out during servicing or maintenance;
5. a single lockout device will achieve a locked-out condition;
6. the lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance;
7. the servicing or maintenance does not create hazards for other employees; and
8. the employer, in utilizing this exception, has had no accidents involving the unexpected activation or reenergization of the machine or equipment during servicing or maintenance.

29.3.6. Cord and Plug Connected Equipment

Cord and plug connected equipment can be worked on safely if:
a. the plug is under the exclusive control of the employee and physically in the possession of the employee, or
b. the plug is in arm's reach and in line of sight of the employee, or
c. the employee has affixed a lockout/tagout device on the plug.

29.3.7. Testing Phase

If it becomes necessary to energize equipment for testing or checking:

a. The shift supervisor and authorized personnel will determine jointly if it can be energized safely.
b. The machine or equipment will be cleared of tools and equipment.
c. Unessential employees shall be removed from the area.
d. All affected employees shall be notified that testing will be conducted.
e. All authorized personnel shall remove locks and tags.
f. The operator will remain in the immediate area and notify the control room operator that testing will be conducted.
g. All authorized personnel who removed locks shall reinstall their locks immediately after testing is completed.
h. An authorized person shall verify the deenergization.

29.3.8. Removal/Restoration Phase

29.3.8.1. Restoration Tripped Breaker

a. Any time a circuit has been de-energized by the operation of a protective device (such as a fuse or circuit breaker); the circuit must be checked by a qualified person to determine if it can be reenergized safely.
b. Under fault conditions, protective devices such as breakers can be damaged. Without such a check, it is possible for an employee to be injured in case of failure of the protective device.
c. The repetitive, manual reclosing of circuit breakers or reenergizing of circuits by replacing fuses is prohibited.
d. If it can be determined from the design of the circuit, and the overcurrent devices involved, that the automatic operation of a device was caused by an overload rather than a fault condition, no examination of the circuit or connected equipment is needed before the circuit is reenergized.

29.3.8.2. Restoration Lockout/Tagout

a. Prior to releasing a lockout/tagout, the craftsman or group lockout representative will check that the machine or equipment is operationally intact.
b. The authorized person or group lockout representative will also check to see that all nonessential items (for example, tools or trash) have been removed from the work area.
c. The authorized person will verify removal of all personal safety locks and document the removal on the original copy of the Lockout/Tagout Log.
d. After the craftsmen's locks are removed, the shift supervisor will ensure that the machine or equipment is operationally intact. He or she will also ensure that all nonessential items were removed from the work area. The shift supervisor will then authorize removal of Operation's lock and tag and restoration of the equipment/system to service. The shift supervisor will document this in block 18 of the original copy of the Lockout/Tagout Log.
e. Operations will remove locks/tags and record removal in block 19 of the Lockout/Tagout Log.
f. Operations/Maintenance will place the component in the proper position as indicated in block 20 of the Lockout/Tagout Log. This positioning will be documented in block 21.
g. The component(s) position will be independently verified by an authorized person; this will be documented in block 22 of the Lockout/Tagout Log.
e. The shift supervisor will ensure that the control room operator's copy of the Lockout/Tagout Log is discarded.
f. The authorized person will ensure that all affected employees are notified that the lockout/tagout has been removed.

29.3.9. Exceptions to Normal Removal Procedure

In the event that the person who applied the lock is not available, the shift supervisor will: the shift supervisor will:

a. Verify that the authorized employee/subcontractor who applied the lockout/tagout device is not available to remove it.
b. Make all reasonable efforts to contact the authorized employee/subcontractor to inform him or her that the lockout/tagout device needs to be removed.
c. Obtain concurrence to remove lock(s)/tag(s) from the authorized employee's/subcontractor departmental manager and the site director.
d. Ensure the above information is logged in the Operations log.
e. Physically remove the lock.
f. Request that the departmental manager notify the authorized employee/subcontractor that his or her lock/tag has been removed before they resume work at the site.
g. Perform notifications in accordance with SPRPMO 231.1, "Occurrence Reporting and Processing Systems."

29.3.10. Coordination With Other Procedures/Requirements

Several additional procedures exist that require locking out, tagging, or both. These independent procedures -- for example, fire protection and, Interim Repair/Mitigation Authorization (IRMA), and report of repair -- do not fall under the criteria of this procedure.

a. However, **they cannot be used for control of hazardous energy**.
b. The independent procedures do not lessen, detract from, or reduce the effectiveness of this hazardous energy control procedure, which will take precedence over the independent procedures when used for protection of personnel.

29.4. EQUIPMENT SPECIFIC ENERGY CONTROL PROCEDURES (ESECP)

This section provides instructions for the use, implementation, retention and distribution of equipment specific energy control procedures (ESECP). This document can be found in the forms section of the S&H SharePoint site.

29.4.1. Development and Use of Equipment Specific Energy Control Procedures

29.4.1.1. Procedure Development/Approval

a. An ESECP shall be developed for servicing or maintenance, in accordance with OSHA 1910.147, this section of the APM, and chapter 9 (section 1 and 2) of the Conduct of Operations at the Strategic Petroleum Reserve.
b. The Operations Manager, Maintenance Manager, and Site Safety Specialist or their designees shall approve each ESECP prior to use.
c. Each ESECP shall be field-verified for accuracy and validated with signatures by authorized representatives from Operations, Mechanical, and Instrumentation and Electrical (I&E) prior to use.

29.4.1.2. Procedure Control and Distribution

a. Hard copy originals, with approval/validation signatures, of all site ESECPs shall be maintained in the site Technical Data Center (TDC), stored in SharePoint.
b. Each site will develop, maintain, and control a database of the latest revision of all ESECPs.

c. The database shall be password protected. The ESECP database shall be available to necessary site personnel in a “Read Only” format.
d. The cover sheet of each ESECP located in the protected database will indicate “approval signatures on file in TDC.”
    1. In the event a revision is needed, an employee authorized to complete the revision retrieves an electronic copy.
    2. At this point the original and electronic copy of the ESECP will be removed from the file/database and the procedure will not be used until the procedure has been re-approved and validated in accordance with this procedure.

29.4.1.3. Use of Approved ESECP

a. A hard copy of the applicable ESECP will be printed from the controlled database.
b. The craft supervisor/foreman or SMTR will verify the ESECP is the correct procedure needed for the job to be performed.
c. The craft supervisor/foreman/designee, SMTR, or in some cases the shift supervisor or designee, will use the ESECP to complete the Lockout/Tagout Log.
d. Operations will be given the Lockout/Tagout Log and applicable procedure at least 24 hours prior to the start of work whenever possible.
e. Operations shall prepare equipment in accordance with the applicable procedure and Lockout/Tagout Log on the evening shift prior to the day work is scheduled to begin.
f. Craftsmen shall apply personal safety locks prior to start of work, try equipment to verify isolation, and perform the scheduled task.
g. After the job is complete and the removal/restoration section of the Lockout/Tagout Form is complete, the copy of the ESECP shall be discarded and not used for other lockouts.

29.5. TABLES: LOCKOUT/TAGOUT PROGRAM

TABLE 29.1. LOCKOUT/TAGOUT PROGRAM RESPONSIBILITIES

Position or Department	Responsibility
Site Director or Designee	a. Approve the removal of a personal safety lock when the authorized person is unavailable.
Departmental Manager or Designee	a. Ensure that authorized personnel are notified prior to starting work of the removal of personal safety locks as described in this section.
First Line Supervisor	a. Review with each worker the task to be performed, identifying all hazardous and stored energy sources. a. Review with workers the lockout/tagout and safe electrical procedures required to perform the task.
Maintenance Manager	a. Provide final interpretation and determine the applicability of any specific provision of this procedure.
Shift Supervisor/ Foreman	a. Ensure that hazardous energy is controlled in accordance with this procedure. b. The oncoming shift supervisor will assume the responsibility for the lockout/tagout system from the off-going shift supervisor at shift change in accordance with current operations turnover procedures. c. Review the Lockout/Tagout Log and ongoing SWPs with all affected site personnel on each shift.
Site Personnel	a. Immediately notify the shift supervisor of any observed deviation from or violation of this procedure for immediate corrective action, to ensure the safety of personnel and equipment.

TABLE 29.1. LOCKOUT/TAGOUT PROGRAM RESPONSIBILITIES	
Position or Department	**Responsibility**
Site Safety Specialist	a. Periodically monitor the Lockout/Tagout Program. b. Assist with training site employees.
Contractors/ Subcontractors	a. Follow the specified lockout/tagout procedures herein.

29.6. FIGURES: LOCKOUT/TAGOUT PROGRAM

FIGURE 29-1. COLOR CODES FOR PERSONAL AND GROUP LOCKS	
Operations	blue
Mechanical	yellow
Electrical	red
Instrumentation	orange
Group	as specified by the site
Subcontractors	Use color-coded locks agreed upon with the contractor by the site. Duplication of color codes already applied is prohibited.

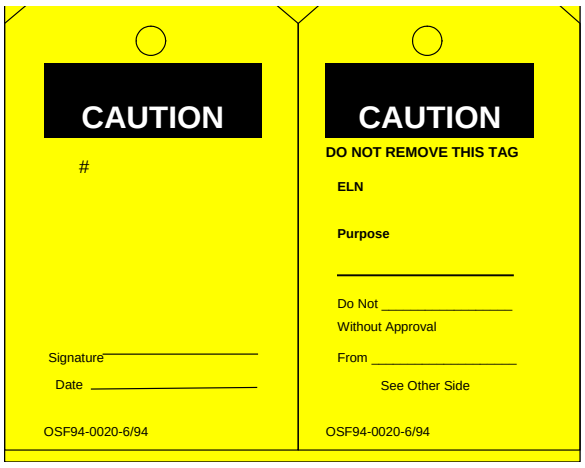

Figure 29-2. Caution Device.

Figure 29-3. Tagout Device.