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## 1. About this Protocol

| Purpose | This protocol was established to protect personnel from the unexpected release of |
| :--- | :--- |
| hazardous energy during installation, maintenance, service, or repair activities |  |
| involving hazardous energy sources. |  |

Objective To establish minimum requirements for identifying, isolating, de-energizing, and locking/tagging out energy isolating devices.

Scope

Variances

Superseded
Documents

Applicability This protocol applies to personnel involved in or responsible for installation, maintenance, service, or repair activities involving hazardous energy sources on Devon equipment.

Contractors will have their own program that meets or exceeds Devon's Energy Isolation Protocol.
This protocol defines the roles and responsibilities within the different aspects of the energy isolation process including, but not limited to, shutdown, isolation, deenergization, group energy isolation, personnel or shift change, release from energy isolation, non-owner lockout/tagout device removal process, and inspection.

None

Lockout/Tagout Implementation Plan 320-IP

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## 3. Roles

Division/Business
Unit Leadership

Line Supervisor

Environmental, Health and Safety

## Devon Employees

Contract Company
Representative

Reinforce adherence to this protocol and provide resources for application of the protocol. Ensure employees responsible for energy isolation duties receive required training.

Understand how this protocol applies to personnel in their area of responsibility. Ensure personnel have training, skills, knowledge and understanding to comply with this protocol. Check periodically to ensure the requirements of this protocol are being met. Provide equipment needed to complete lockout/tagout (e.g., locks, tags, chains, hasps, car seals, wedges, key blocks, etc.).

Monitor compliance through the audit process. Provide technical resources and tools for protocol application.

Adhere to the requirements of this protocol. Identify and report gaps in this protocol. Complete required training.

Comply with regulatory requirements and follow this protocol.

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## 4. Protocol Prerequisites

### 4.1 PROTOCOL OVERVIEW

This Devon Energy EHS protocol establishes minimum requirements for securing, locking/tagging out energy isolating devices, and for the protection of workers from the unexpected release of hazardous energy during installation, maintenance, service, or repair activities involving hazardous energy sources.

### 4.2 APPLICABLE STANDARDS

29 CFR 1910.147 - The Control of Hazardous Energy (Lockout/Tagout)
OSHA DIRECTIVE NUMBER: CPL 02-00-147, 2/11/08
ASME B16.48 - Line Blanks
ASME B31.3 - Process Piping
Devon Hot Work Protocol
Devon General Electrical Safety Protocol
Devon Qualified Electrical Safety Protocol
Devon Pre-Job Planning Protocol
Devon Confined Space Protocol
Devon Cased Hole Well Control Manual - Rig Workovers

### 4.3 REQUIRED MATERIALS, EQUIPMENT, INFORMATION, OR OTHER RESOURCES

Lockout/Tagout devices.

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## 5. PROTOCOL

### 5.1 TASKS EXEMPT FROM LOCKOUT/TAGOUT

## Step Required Action

## Role

Authorized
Person

- Work on cord and plug electric powered equipment provided the equipment is unplugged and the plug is under the exclusive control of the person performing work.
- Work on battery operated electrical tools provided batteries are removed before performing maintenance, service, repair, or adjustment.
- Hot tap operations provided a written specific hot tap procedure is developed and approved by division management prior to the hot tap operation and that the following is demonstrated:
- Continuity of service is essential
- Shutdown of the system is impractical
- Special equipment is used to provide effective personnel protection
- Live electrical work and electrical troubleshooting provided all required electrical safety requirements are followed.
Note: Refer to the Hot Work Protocol for additional hot tap requirements.
Note: Refer to the General Electrical Safety Protocol and Qualified Electrical Safety Protocol for electrical requirements.


### 5.2 PROVISION OF LOCKOUT/TAGOUT DEVICES

## Step Required Action

5.2.1 Standardize lockout/tagout devices for the facility or area for the Line Supervisor equipment types listed below (e.g., color, shape, size, etc.).
Note: Lockout/tagout devices must be uniquely identified, not issued for any other purposes (e.g., locking gates, toolboxes, lockers, out of service equipment, etc.), and be durable enough to withstand the environment to which they are exposed for the maximum time that exposure is expected.

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- Personal Locks - assigned to personnel for use on energy isolating devices during a personal lockout, or to attach to a lockbox during group lockout. Personal locks will be issued with a single key.
- Equipment Locks - assigned to personnel for use on energy isolating devices during a personal or group lockout. Equipment locks will be issued with a single key.
Note: Lockout devices must be substantial enough to prevent removal without the use of excessive force (such as with the use of metal cutting tools).
- Tags - assigned to personnel for use during personal or group lockout/tagout. See Appendix A for tag requirements.
Note: Tagout devices and the means to attach them must be substantial enough to prevent inadvertent or accidental removal (such as non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength no less than 50 pounds (e.g., all environment-tolerant nylon cable tie, etc.)).
- Other lockout/tagout devices - numbered car seals, chains, hasps, etc. assigned to personnel for use during personal or group lockout/tagout.
5.2.2 Issue lockout/tagout devices to authorized personnel upon Line Supervisor successful completion of required training as listed in Section 8.1.


### 5.2.3 Maintain control of key for locks. <br> Authorized Person

5.2.4 Upgrade equipment to accommodate lockout devices during major modifications or when replacement of equipment is performed.

### 5.3 ISOLATION PROCEDURE



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Note: The equipment specific isolation procedure is required to be on-site when energy isolation is being conducted.

Note: Written procedures are not required under certain circumstances. Use the flow chart in Appendix B to determine if a written equipment specific isolation procedure is required.
5.3.2 Identify and document additional measures to be taken when energy Authorized Person isolation is managed only with tagout methods. Additional measures must provide the same level of safety as lockout and can include, but are not limited to, the following:

- The removal of an isolating circuit element
- Blocking of a control switch
- Opening of an extra disconnecting device
- Removal of a valve handle(s)

Note: Additional measures must reduce the likelihood of inadvertent activation.

### 5.4 SHUTDOWN AND ISOLATION

The authorized person must ensure that equipment is safely shut down and isolated.

| Step | Required Action | Role |
| :---: | :---: | :--- |
| 5.4.1 | Perform the following actions in preparation for shutdown:  <br> $\bullet$ Conduct a pre-task tailgate as required by the Pre-Job <br> Planning Protocol. | Authorized <br> Person |
|  | $\bullet$ | Notify all personnel of the isolation procedure, shutdown, <br> and isolation prior to equipment shutdown. |

5.4.2 Shut down and isolate equipment following the sequence listed in the equipment specific isolation procedure.

Authorized Person

Note: Follow equipment shutdown procedure if equipment has shutdown procedures.
5.4.3 Use blinds that are pressure rated for the system when the blind is used as the primary energy isolating device and document on the equipment specific isolation procedure.

Line Supervisor / Authorized Person

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Note: The American Society of Mechanical Engineers (ASME) B16.48 and
ASME B31.3 standards include information for blind and blank
specifications.
5.4.4 Implement positive isolation for confined space entry work or when welding, cutting, or grinding is to be performed. Positive isolation includes, but is not limited to:

- Double block and bleed with lockout/tagout
- Blinding
- Physically disconnecting

Note: Appendix C provides examples of positive isolation.
Note: Refer to the Confined Space Protocol for confined space requirements.

Note: Refer to the Hot Work Protocol for hot work requirements.
5.4.5 Release stored energy to achieve a zero-energy state. De-energization

- Opening drains, blow downs, and/or vents
- Waiting defined period that is sufficient to complete electrical dissipation

Note: When opening bleeder valves, it is important to ensure that the bleeder valve is not plugged inside. In situations where there is the potential for having trapped pressure behind a blind flange or a bull plug, care should be taken to relieve the pressure before the blind flange or bull plug is disengaged from the thread.
5.4.6 Apply locks in accordance with the equipment specific isolation procedure when energy isolating devices are capable of being locked out in combination with chains, wedges, key blocks, valve covers, adapter pins, etc. and maintain sole possession of the lockout device key. Attach a tag to each lockout device used.

Note: When tagout alone is used, the tag will be affixed to clearly indicate that the operation or movement of the energy isolating device(s) is prohibited.
5.4.7 Verify equipment and process has been isolated, equipment will not start, and stored or trapped energy has been released (zero-energy

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state). Document verification on the equipment specific isolation procedure.
Verification of isolation can be accomplished by using:

- Visual verification
- Flow diagrams
- Schematics
- Other positive means

Verification of de-energization includes, but is not limited to:

- Actuating on/off switches (local)
- Checking with a voltmeter
- Ensuring de-pressurization of system through drains, blow downs, vents, etc.
- Drilling a hole in piping before cutting

Note: Supervisor approval is required prior to drilling a hole in piping.
5.4.8 Verify isolation and de-energization following extended breaks or Authorized absences greater than one hour to validate the equipment and process Person is isolated, equipment will not start, and stored or trapped energy is released.
5.4.9 When personnel change during the energy isolation or the work will span more than a single shift, perform the required steps in Section 5.6.

Authorized Person

### 5.5 GROUP ENERGY ISOLATION

The group energy isolation process is used in situations where there are multiple employees, contractors or crews working under lockout/tagout on a piece of Devon equipment led by a Devon group leader. When contractors are engaged in installation, maintenance, service, or repair activities on Devon equipment without Devon personnel, Devon and the contractor must inform each other of their respective energy isolation procedures.

## Step Required Action Role

5.5.1 Designate an authorized person to act as the group leader for the group Line Supervisor energy isolation.
5.5.2 Perform the required steps in Section 5.4 to shut down and isolate the Group Leader equipment.

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5.5.3 Verify that an equipment lock, and a tag have been affixed to each Group Leader energy isolating device in accordance with the equipment specific isolation procedure, and that the equipment lock key(s) is placed inside the lockbox prior to affixing a personal lock on the lockbox. For jobs involving a single energy isolating device, a hasp and personal locks/tags may be used for group lockout/tagout.
Note: All group lockout/tagout activities involving more than a single energy isolating device will use a lockbox and a set, or multiple sets, of equipment locks.

Note: Each authorized person participating in the group energy isolation must be informed of their right to verify the effectiveness of the lockout/tagout measures and must be allowed to personally verify, if they so choose, that hazardous energy sources have been effectively isolated according to the equipment specific isolation procedure.
5.5.4 Verify that each authorized person working on the equipment applies a Group Leader personal lock and tag to the group lockbox or hasp.
5.5.5 When personnel change during the energy isolation or when the work Group Leader will span more than a single shift, perform the required steps in Section 5.6.
5.5.6 When required, perform the steps in Section 5.7 to re-energize and test Group Leader the equipment during the job.
5.5.7 Perform the required steps in Section 5.8 to release the energy

Group Leader isolation.
5.5.8 Verify that each authorized person working on the equipment removes Group Leader their personal lock/tag from the lockbox or hasp when they have completed their work.

### 5.6 PERSONNEL OR SHIFT CHANGE

Personnel change occurs when an individual is replaced during a personal or group lockout/tagout. Shift change occurs when a personal or group lockout/tagout will exceed a single shift (e.g., work will continue the following day, or the next shift, etc.).

Step Required Action
Role
Personnel Change Requirements

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5.6.1 Inform on-coming individual(s) of the equipment involved in the energy isolation, location of energy isolating device(s), and any other requirements associated with the installation, maintenance, service, or repair being performed.

Note: Authority to remove lockout/tagout devices may be transferred to the on-coming authorized person during the handover of the equipment specific isolation procedure.

| 5.6 .2 | Remove personal lock(s)/tag(s) from the group lockbox, hasp, or energy <br> isolating device(s). | Off-Going <br> Authorized Person |
| :--- | :--- | :--- |
| 5.6 .3 | Verify that lockout/tagout devices are in place according to the <br> equipment specific isolation procedure and the energy isolation is in a <br> zero-energy state. | On-Coming <br> Authorized Person |
| 5.6 .4 | Attach personal lock(s)/tag(s) to the group lockbox, hasp, or energy <br> isolating device(s) prior to beginning the installation, maintenance, <br> service, or repair and maintain sole possession of the lockout device <br> key. | On-Coming <br> Authorized Person |

## Shift Change Requirements

5.6.5 When work will span more than a single shift, or when the lockbox may have all locks removed prior to completing work, attach a numbered car seal on the group lockbox and document the number on the equipment specific isolation procedure.

Off-Going
Authorized Person

Autfor Authorized Person

On-Coming Authorized Person

On-Coming Authorized Person service, or repair and maintain sole possession of the lockout device key.

| 5.6.5 | When work will span more than a single shift, or when the lockbox may <br> have all locks removed prior to completing work, attach a numbered car <br> seal on the group lockbox and document the number on the equipment <br> specific isolation procedure. | Off-Going <br> Authorized Person / <br> Group Leader |
| :--- | :--- | :--- |
| 5.6 .6 | Inform on-coming individual(s) of the equipment involved in the energy <br> isolation, location of energy isolating device(s), and any other <br> requirements associated with the installation, maintenance, service, or <br> repair being performed. | Off-Going <br> Authorized Person / <br> Group Leader |

Note: Authority to remove lockout/tagout devices may be transferred to the on-coming authorized person during the handover of the equipment specific isolation procedure.
5.6.7 Remove personal lock from the group lockbox.

Off-Going Authorized Person / Group Leader

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| 5.6.8 | Verify that the car seal number on the lockbox matches the number on | On-Coming |
| :--- | :--- | :--- |
| the equipment specific isolation procedure, and that the car seal has | Authorized Person / |  |
| not been broken. | Group Leader |  |

Note: This allows the on-coming shift to verify that the key(s) for the locks on the energy isolating device(s) were not removed from the lockbox during the shift change.

| 5.6.9 | If the car seal has been broken, place a new car seal on the group <br> lockbox and record the new car seal number on the equipment specific <br> isolation procedure once verification of isolation and de-energization <br> has been confirmed. | On-Coming <br> Authorized Person / <br> Group Leader |
| :--- | :--- | :--- |
| 5.6 .10 | Verify that lockout/tagout devices are in place according to the <br> equipment specific isolation procedure and the energy isolation is in a <br> zero-energy state. | On-Coming <br> Authorized Person / <br> Group Leader |
| 5.6 .11 | Attach a personal lock/tag to the group lockbox prior to beginning the <br> installation, maintenance, service, or repair and maintain sole <br> possession of the lockout device key. | On-Coming <br> Authorized Person / <br> Group Leader |

### 5.7 RE-ENERGIZE AND TEST EQUIPMENT DURING THE JOB

While performing maintenance, service, or repair on equipment, it is occasionally necessary to test the equipment as part of the diagnosis, or to verify resolution of the problem. The steps below list the process for re-energizing and testing equipment when necessary, during the energy isolation.

| Step | Required Action | Role |
| :--- | :--- | :--- | :--- |
| 5.7.1 | Notify all personnel in the area, of the need to re-energize and test the <br> equipment. | Authorized Person / <br> Group Leader |
| 5.7.2 | Inspect the work area to ensure that nonessential items have been <br> removed, guards have been reinstalled and that equipment <br> components are operationally intact. | Authorized Person / <br> Group Leader |
| 5.7.3 | Inspect the work area to ensure that all personnel are safely positioned <br> or have been removed. | Authorized Person / <br> Group Leader |
| 5.7.4 | Remove the lockout/tagout device(s). | Authorized Person / <br> Group Leader |


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| 5.7.5 | Return isolation valve(s) to proper alignment, energize, and test the equipment. | Qualified Person |
| :---: | :---: | :---: |
| Note: Follow equipment start-up procedure if equipment has start-up procedures. |  |  |
| 5.7.6 | If additional maintenance, service, or repair is necessary, perform the required steps in Section 5.4 and Section 5.5. | Authorized Person / Group Leader |
| 5.7.7 | Notify all personnel in the area that the testing is complete. | Authorized Person / Group Leader |
| 5.8 | RELEASE FROM ENERGY ISOLATION |  |
| Step | Required Action | Role |
| 5.8.1 | Inspect the work area to ensure that nonessential items have been removed, guards have been reinstalled and that equipment components are operationally intact. | Authorized Person / Group Leader |
| 5.8.2 | Inspect the work area to ensure that all personnel are safely positioned or have been removed. | Authorized Person / Group Leader |
| 5.8.3 | Verify work is complete and remove all lockout/tagout devices from the equipment and/or group lockbox. | Authorized Person / Group Leader |
| 5.8.4 | Notify all personnel that the lockout/tagout devices have been removed and the equipment is ready for use. | Authorized Person / Group Leader |
| 5.8.5 | Return isolation valves to proper alignment and energize the equipment. | Qualified Person |
| Note: Follow equipment start-up procedure if equipment has start-up procedures. |  |  |

### 5.9 WELL SERVICING

In addition to the requirements listed in this section, the Devon Cased Hole Well Control Manual - Rig Workovers outlines well control barrier expectations for well servicing work.

## Step Required Action

 Role|  |  |  |
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5.9.1 Prior to rig up, the contract rig supervisor shall conduct a pre-task Line Supervisor tailgate meeting to discuss the energy isolation plan. The plan shall include the well production (surface) equipment as well as down hole pressure and how each are going to be controlled throughout the duration of the well servicing operation.
5.9.2 The Person in Charge (PIC) and contract rig supervisor shall ensure the Line Supervisor well is isolated using lockout/tagout device(s) when connecting or disconnecting well production equipment that is supplied with an energy source, or contains residual or stored energy (e.g., flow line, sales line, pumping unit, electrical, ESP, etc.).
5.9.3 Prior to commencing well servicing operations, the contract rig

Line Supervisor supervisor shall ensure the well is visually checked for pressure through a proper blow down point. Gauges are often faulty and shall not be relied on solely for this pressure check. If pressure is indicated, the PIC and contract rig supervisor shall be notified; then proper steps shall be taken to remove pressure. If pressure cannot be safely removed, the PIC and contract rig supervisor shall develop a plan to operate safely under pressure and the plan shall be communicated to the entire rig crew before commencing operations.
5.9.4 Just prior to rig down, the contract rig supervisor shall conduct a pre-

Line Supervisor task tailgate meeting to discuss how hazardous energy is going to be controlled while well servicing equipment is being removed.

### 5.10 ENERGIZED ELECTRICAL SYSTEMS

If work is required on an energized electrical system that cannot be shut down and de-energized, the following steps are required to be completed.

| Step | Required Action | Role |
| :--- | :--- | :--- |
| 5.10 .1 | Assign personnel who are trained and qualified for the type of work. | Line Supervisor |
| 5.10 .2 | Follow the required steps in the General Electrical Safety Protocol and <br> Qualified Electrical Safety Protocol for work on energized electrical <br> systems. | Line Supervisor / <br> Qualified <br> Electrician |


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### 5.11 NON-OWNER LOCKOUT/TAGOUT DEVICE REMOVAL

The non-owner lockout/tagout device removal process is written for the few instances when the individual that applied a lockout/tagout device to a piece of equipment or group lockbox is not available to remove the lockout/tagout device.

| Step | Required Action | Role |
| :--- | :--- | :--- | :--- |
| 5.11.1 | Verify that the lock/tag owner is not on location, at the facility, or <br> working elsewhere. If the lock/tag owner is either at the facility or <br> working elsewhere, stop the non-owner lockout/tagout device removal <br> process. | Authorized <br> Person / Group <br> Leader |
| 5.11.2 | Attempt to contact the lock/tag owner using normal communication <br> methods. | Authorized <br> Person / Group <br> Leader |
| 5.11.3 | Verify removal of the lockout/tagout device will not endanger anyone <br> associated with the equipment or facility being locked/tagged out. | Authorized <br> Person / Group <br> Leader |
| 5.11.4 | Identify any safety concerns and implement corrective actions. | Authorized <br> Person / Group <br> Leader |


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Note: In the event the superintendent is unavailable, the superintendent's manager can be contacted for approval.

Note: Devon superintendent approval and contract company manager approval is required for contractor lockout/tagout device removal.

| 5.11.6 | Remove the lockout/tagout device. | Authorized <br> Person / Group <br> Leader |
| :--- | :--- | :--- |
| 5.11 .7 | Notify the owner whose lockout/tagout device was removed prior to <br> their return to the work site. | Authorized <br> Person / Group <br> Leader |

### 5.12 INSPECTION

Periodic energy isolation inspections verify that written procedures are completed properly and adequately to provide worker protection. Additionally, it ensures that employees are familiar with their responsibilities under the energy isolation protocol and continue to implement the equipment specific isolation procedures properly. These inspections can be performed by any authorized Devon employee.

## Step Required Action <br> Role

5.12.1 Conduct periodic inspections by observing authorized employees Line Supervisor executing energy isolation with written equipment specific isolation procedures.

Note: Foremen and assistant foremen with authorized employees will perform at least four inspections per year.
5.12.2 Observe the application of the procedure by reviewing the following: Energy Isolation

- The employees are following the steps in the energy isolation Inspector procedure
- The employees involved know their responsibilities of lockout/tagout for the procedure being inspected
- The procedure is adequate to provide the necessary protection

| 5.12.3 | Document the energy isolation inspection review by completing and | Energy Isolation <br> signing the Energy Isolation Annual Inspection Review Form <br> Inspector |
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| (Attachment C). |  |  |


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| 5.12.4 | Correct any deviations from and/or inadequacies identified in the <br> energy isolation procedure during the energy isolation annual <br> inspection. | Energy Isolation <br> Inspector |

Note: Refresher training will be required as indicated in step 8.1.4.

> 5.12.5 Review the compliance of the Energy Isolation Protocol during periodic EHS inspections and annual EHS field reviews / EHS audits.

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## 6. Terms and Definitions

## Energy Isolation Terms and Definitions

| Affected Employee / | An employee/person whose job requires the individual to operate equipment <br> where installation, maintenance, service, or repair activities involving |
| :--- | :--- |
| Person | hazardous energy sources is being performed under lockout/tagout, or to <br> work in an area where installation, maintenance, service, or repair activities <br> involving hazardous energy sources are being performed. |


| Authorized Employee / <br> Person | An employee/person who is trained and designated by supervision to apply <br> lockout/tagout devices on equipment to perform installation, maintenance, <br> service, or repair activities involving hazardous energy sources. |
| :--- | :--- |

Blind A properly rated and sized metal plate inserted between gasketed pipe flanges to prevent the flow of gas or fluid in either direction.

| Capable of Being | An energy isolating device that has a means of attaching a lock, or locking <br> devices, without the need to dismantle, rebuild or replace the energy |
| :--- | :--- |
| Locked Out | isolating device, or permanently alter its energy isolating capability. |

Car Seal A uniquely numbered steel or plastic zip tie that can be affixed through the hole in the lockbox and cannot be removed unless broken.

Energized Equipment that is supplied with an energy source or contains residual or stored energy.

> Energy Isolating Device A mechanical device that physically prevents the transmission or release of energy. Check valves, push buttons, selector switches and other control circuit-type devices are not energy isolating devices. Energy isolating devices include, but are not limited to, the following:

- A manually operated electrical circuit breaker
- A manually operated disconnect switch
- A line valve
- A block

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- Any similar device used to block or isolate energy (e.g., chaining pumping unit counterweights, blocking and locking engine flywheel, etc.)
\(\left.$$
\begin{array}{ll}\text { Energy Isolation } \\
\text { Inspector }\end{array}
$$ \begin{array}{l}An authorized employee who has been designated by line supervision to <br>

perform periodic inspection(s) of the energy isolation process.\end{array}\right]\)| Includes electrical, mechanical, hydraulic, pneumatic, chemical, thermal, |
| :--- |
| Energy Source |
| stored, vacuum, wind, gravitational or other energy. |

Group Energy Isolation A system of securing energy isolating device(s) with lockout and/or tagout, in accordance with an established procedure, when multiple personnel are performing installation, maintenance, service, or repair activities involving hazardous energy.

Group Leader An authorized person designated and responsible for coordinating and overseeing energy isolation for multiple personnel.

Hot Tap A method used in maintenance, service or repair activities which involves making a connection to existing equipment (pipelines, vessels, or tanks) under pressure, to install connections or appurtenances.

Lockbox
A secure box used to store equipment lock keys during group lockout/tagout, which allows personnel to install their personal lock/tag on the box.

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| Lockout | The placement of a lock on an energy isolating device, in accordance with an <br> established procedure, ensuring that the energy isolating device and the <br> equipment being controlled cannot be operated until the lockout device is <br> removed. |
| :--- | :--- |
| Lockout Device | A device that uses a positive means (e.g., locks, cables, chains, hasps, blind <br> flanges, bolted slip blinds, etc.) to hold an energy isolating device in the safe <br> position and prevent the equipment from being energized. |
| Personal Lock | A uniquely keyed lock with only one key issued to personnel for their <br> protection during a personal or group lockout/tagout. |
| Positive Isolation | The use of a double block and bleed, or a combination of blinds and block <br> valves to secure an energy source. |
| Tagout | The placement of a tagout device on an energy isolating device, in accordance <br> with an established procedure, to indicate that the energy isolating device <br> and the equipment being controlled may not be operated until the tagout <br> device is removed. |


| Tagout Device | A highly visible tag used as a warning. It is securely fastened to an energy <br> isolating device, in accordance with an established procedure, to indicate that |
| :--- | :--- |
| the energy isolating device and the equipment being controlled may not be |  |
| operated until the tagout device is removed. |  |

Qualified Electrician A person who has received training in, and has demonstrated skills and knowledge in, the construction and operation of electric equipment, installations and the hazards involved.

Qualified Person A person who has been trained and authorized to operate a specific piece of equipment.

Zero-Energy State
A condition in which an isolated piece of equipment is physically prevented from release of all potential and/or stored energy and verified incapable of an inadvertent release.

## General Terms and Definitions

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| Area | Individual operating fields or components that collectively comprise a region. Areas normally include an area office. |
| :---: | :---: |
| Area Office | A field office with assigned personnel that support an area (e.g., Artesia, Carlsbad, Gillette, etc.). |
| Business Unit | Individual components that collectively comprise a division. Business units may also be referred to as basins. |
| Contract Company Representative | A contractor who is assigned responsibilities and oversight for a specific task that requires adherence to Devon EHS Protocols. |
| Division | The division operations of Devon are Strategic-Services, Corporate, Facilities \& Pipeline and U.S. |
| Enterprise <br> Classification Structure (ECS) | Part of Devon's strategic plan for managing information assets. The ECS is the published list of all records classes, the period for retaining each and their designated disposition. |
| Facility | A collection of structures, piping, valves, vessels, tanks, compression, and processing equipment located in close geographic proximity, that are involved directly in the development, production, processing or delivery of oil and gas to market (e.g., a tank battery, drill site, well site, compressor station, pipeline, gas plant, etc.). |

Field EHS A titled position that provides EHS guidance and support within a division.

Line Supervisor

Person In Charge (PIC) A person that is authorized by Devon to perform specific tasks.

Region/District Individual components that collectively comprise a division.

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## 7. Document Management

### 7.1 REVISION DETAILS

The following changes were made to this Protocol during the latest revision:

## Section, Changes Made, Reasons for Change

Moved Tasks Exempt from Lockout/Tagout section to 5.1 from 5.10.
Moved Provision of Lockout/Tagout Devices section to 5.2 from 5.1.
Moved Isolation Procedure section to 5.3 from 5.2.
Moved Shutdown and Isolation section to 5.4 from 5.3.
Moved Group Energy Isolation section to 5.5 from 5.4.
Moved Personnel or Shift Change section to 5.6 from 5.7.
Moved Re-Energize and Test section to 5.7 from 5.5.
Moved Release from Energy Isolation section to 5.8 from 5.6.
Moved Energized Electrical Systems section to 5.10 from 5.11.
Moved Non-Owner Lock or Tag Removal section to 5.11 from 5.8.
Multiple (1.0, 3.0, 5.3.1, 5.4.1, 5.5.0, 5.5.1, 5.5.3, 5.6.4, 5.8.0, 5.12.0, 5.12.1, 5.12.2, 5.12.3, 5.12.4, 6.0, 8.1.1, 8.1.2, 8.1.3, 8.2.2, 8.2.3, Appendix A, Appendix C, Attachment C): modified term 'lockout/tagout' to 'energy isolation' throughout various steps in the protocol where the energy isolation process applied to more than lockout and tagout.

Multiple (1.0, 3.0, 5.1.1, 5.2.1, 5.2.3, 5.3.1, 5.3.2, 5.4.0, 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5, 5.4.6, 5.4.7, 5.4.8, 5.4.9, 5.4.10, 5.5.1, 5.5.3, 5.5.8, 5.6.1, 5.7.1, 5.7.7, 5.10.1, 6.0): modified 'worker / individual / employee / group / person / personnel' to 'personnel / person / individual' throughout protocol for consistency and to clarify people in which protocol applies.

Multiple (5.2.1, 5.5.0, 5.5.3, 6.0): modified 'group locks' to 'equipment locks' throughout protocol to clarify the locks could be used for more than in a group setting.

Multiple (5.2.2, 5.2.3, 5.4.4, 5.5.4, 5.5.8, 8.1.2): added 'authorized' throughout protocol and role to clarify or reiterate the person a required action applies to.
1.0: added 'Devon equipment' to the applicability section to clarify this protocol applies to personnel during energy isolation activities on Devon equipment.
5.1.1: removed exemption for tasks performed where the energy isolation devices are under the exclusive control of the individual performing the work and removed the note describing what exclusive control is to align with regulation.
5.1.1: added additional requirements for the hot tap exemption to ensure additional safeguards are provided in the protocol.

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5.1.1: added exemption for live electrical work and electrical troubleshooting to tasks exempt from lockout/tagout since you would perform these tasks without lockout/tagout and align with the Electrical Protocols.
5.1.1 note: added note to refer to the hot work protocol for additional hot tap operations to ensure requirements for hot tap are reviewed in the hot work protocol.
5.1.1 note: added note to refer to the General Electrical Safety Protocol and Qualified Electrical Safety Protocol for electrical requirements to ensure requirements for performing live electrical work and electrical troubleshooting are reviewed in the Electrical Protocols.
5.2: removed duplicate term 'uniquely identified' throughout section to remove duplicate terminology.
5.2.1: moved step to standardize lockout/tagout devices to 5.2 .1 since you would standardize equipment prior to issuing equipment.
5.2.1: kept note from old step and moved the intro language to step 5.2 .1 since it applies to all lockout/tagout devices.
5.2.1: added 'on energy isolating devices' to clarify where personal and equipment locks can be used.
5.2.1: added language to personal and equipment lock key language to clarify an authorized person will have a single key for locks.
5.2.1: removed language that locks must be durable enough to withstand workplace and weather conditions since it was duplicate language.
5.2.1: added language for lockout device requirements, tags, tagout device requirements and other lockout/tagout devices to provide additional clarity on the lockout/tagout device requirements.
5.2.3: removed 'personal' so that step will apply to all lock types.
5.3.0: removed language on the application of lockout/tagout on energy control devices since this section applies to the isolation procedure only.
5.3.1: moved and modified language to establish equipment specific isolation procedure from intro to step 5.3.1 since it is a similar requirement.
5.3.1: removed bulleted items describing the equipment specific isolation procedure form and referenced the Equipment Specific Isolation Procedure Form Attachment since the Attachment contains the requirements.
5.3.2: added 'provide the same level of safety as lockout' to clarify the measures that will be taken for tagout only methods.
5.4.0: removed language that stored energy will be safely removed in the intro which is duplicated in 5.4.5.
5.4.1: added 'as required by the Pre-Job Planning Protocol' in the first bullet point to reference the requirement.
5.4.1: added 'isolation procedure' to the second bullet point to clarify what is required to notify personnel of prior to equipment shutdown.
5.4.1: removed third bullet point which is addressed in the group energy isolation intro section.

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5.4.2: added 'shut down' to step to improve the protocol.
5.4.2: removed step to follow the operating procedure for equipment when one exists for shutdown and placed in note in 5.4.2 since equipment may not have a shutdown procedure.
5.4.3: moved language to document blinds installed during energy isolation to 5.4 .3 which included language on blinds.
5.4.3: added note that ASME B31.3 and ASME B16.48 standards include information for blind and blank specifications to provide references.
5.4.4: moved note that Appendix C provides examples of positive isolation from positive isolation definition to note in 5.4.4 since Appendix C was not referenced in the protocol sections.
5.4.4: removed note that the well completions procedure/plan will be implemented to control hazardous energy during wellhead installation which is covered in the well servicing section.
5.4.4: added notes to refer to the confined space and hot work protocols for requirements as a reminder that additional requirements may be necessary.
5.4.5: added new step and moved, modified, and added language to make releasing stored energy to achieve a zero-energy state to 5.4 .7 which algins with sequence of equipment specific isolation procedure form.
5.4.5: added electrical example of achieving a zero-energy state which was not covered in the step.
5.4.5: moved note on opening bleeder valves from to 5.4 .5 since it pertains to releasing stored energy.
5.4.6: moved and modified language to apply locks in accordance with the isolation procedure from another section to 5.4.6 since it is an isolation step and not a procedural step.
5.4.6: added 'valve covers' for devices that locks can be applied in combination with as an additional example.
5.4.6: moved language to maintain sole possession of the lockout device key to 5.4 .6 since it is the section where locks are applied. Removed language to place the group key in the group lockbox which is duplicated in the group section of the protocol.
5.4.7: added 'zero-energy state' to reiterate what zero-energy is.
5.4.7: added verification of zero-energy step to document on the equipment specific isolation procedure since it is part of the procedure but was not included in the protocol language.
5.4.7: modified verification of de-energization list to align with verification and not isolation.
5.4.7: added note that supervisor approval is required prior to drilling a hole in piping to clarify the requirements for that step in the verification of de-energization.
5.4.8: removed shift change language which is covered in the group section and removed duplicate language of what verification of de-energization includes which is included in a previous step.
5.4.9: added new step to implement steps in the personnel or shift change section as a reminder for requirements covered in another section.

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5.5.0: added 'led by a Devon group leader' to end of first sentence to clarify the group energy isolation process is applicable when Devon personnel are involved.
5.5.0: added language on expectations when contractors are performing energy isolation on Devon equipment without Devon personnel to clarify the requirements.
5.5.2: added new step to implement steps in the shutdown and isolation section as a reminder for requirements covered in another section.
5.5.3: added language 'For jobs involving a single energy isolation device, a hasp and personal locks may be used for group lockout/tagout' which was not previously included and can be accomplished without a lockbox.
5.5.3: moved language in intro about all group lockout/tagout activities to 5.5 .3 and added language 'involving more than a single point of isolation' to cover the addition of added language in the step.
5.5.4: added 'hasp' to the step to supplement the added language in previous step for single isolation devices.
5.5.5: moved and modified language from a step that was removed and added to new step to refer to the section for personnel or shift change requirements as a reminder for requirements covered in another section.
5.5.6: added new step to implement steps in the re-energize and test equipment during the job section as a reminder for requirements covered in another section.
5.5.7: added new step to implement steps in the release of energy isolation section as a reminder for requirements covered in another section.
5.5.8: added 'tag' to clarify the lock and tag must be removed when work is complete.
5.5.8: added hasp to the step to supplement the added language in previous step for single isolation points.
5.6.0: added 'Personnel' to section title and modified intro language to include requirements on what personnel change is since personnel change was added to the section.
5.6.1: added new step to inform on-coming individuals of the requirements and added note that authority to remove lockout/tagout devices may be transferred to the on-coming authorized person to improve the protocol in the personnel change requirements.
5.6.2: added new step that off-going authorized personnel must remove their personal lock(s)/tag(s) to reiterate removal of personal devices must take place during personnel change.
5.6.3: added verifying zero-energy to reiterate that the on-coming authorized person needs to verify zeroenergy.
5.6.4: added new step that on-coming authorized personnel must attach personal lock(s)/tag(s) prior to performing work since they are required to have control.
5.6.5: moved language that a numbered car seal be placed on the group lockbox and the number recorded on the equipment specific isolation procedure from intro to new step 5.6 .5 since it is a required step.
5.6.5: removed 'as an isolation device' to clarify where to document on the equipment specific isolation procedure which was modified during the revision and there is a dedicated section to document car seal numbers on the new form.

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5.6.6: added new step to inform on-coming individuals of the requirements and added note that authority to remove equipment lockout/tagout devices may be transferred to the on-coming authorized person to improve the protocol in the shift change requirements.
5.6.7: added new step that off-going authorized personnel must remove their personal lock(s)/tag(s) to reiterate removal of personal devices must take place during shift change.
5.6.8: added new step and moved portion of car seal language to 5.6 .8 since it is a separate step.
5.6.8: moved language for on-coming shift to verify that no keys were removed during shift change from intro to note in 5.6 .8 since it is a step.
5.6.10: added new step for on-coming shift to verify lockout/tagout devices are in place according to the procedure since shift change requirements are separate from personnel change.
5.6.11: added new step that on-coming shift must attach personal lock(s)/tag(s) prior to performing work since shift change requirements are separate from personnel change.
5.7: added group leader to role throughout section to cover personal or group energy isolation.
5.7.5: added language to return isolation valves to proper alignment which was not included to re-energize equipment.
5.7.5: added language in note to follow equipment start-up procedure when one exists to reiterate following procedure.
5.7.6: modified language to perform required steps in sections 5.4 and 5.5 to cover all steps for energy isolation if additional work needed to be performed.
5.8.3: added language to remove lockout/tagout devices since removal was not previously covered.
5.8.3: modified 'personal locks' to 'lockout/tagout devices' to make applicable to personal or group lockout/tagout.
5.8.5: added language to return isolation valves to proper alignment which was not included to release energy isolation.
5.8.5: moved language to follow equipment start-up procedure when one exists from step to note for consistency within the protocol.
5.9: added 'contract' to rig supervisor throughout section to clarify this is the contract supervisor.
5.9.0: moved language from note in last step of section that the cased hole well control manual outlines well control barrier expectations for well servicing work to the intro of section since it applies to all steps.
5.10.2: modified to include following steps in the General and Qualified Electrical Safety Protocols to improve the protocol.
5.10.3: eliminated PPE step since 5.10.2 now addresses following the steps in the General and Qualified Electrical Safety Protocols which includes PPE requirements.
5.11: removed 'personal' throughout section which could apply to equipment locks also.

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5.11: modified 'authorized person' to 'lock/tag owner' in various steps in section to match section language.
5.11.0: removed language in the intro that the non-owner lock or tag removal process will not be used if the lock owner is at work which is duplicated in step 5.11.1.
5.11.3: modified 'isolation' to 'lockout/tagout' to provide clarity that it is the lock and/or tag device instead of a valve.
5.11.5: moved superintendent approval for non-owner lockout/tagout device removal step to 5.11 .5 to arrange in order in which approval is required.
5.11.5: added 'lock/tag location' to list of approval items needed to remove lockout/tagout devices to improve the protocol.
5.11.5: added 'that device was removed' to end of last bullet point to clarify purpose of notifying lock/tag owner.
5.12.1: added 'energy isolation with written' to clarify inspections are performed during the execution of energy isolation.
5.12.2: added language in the second bullet point to clarify the responsibilities of lockout/tagout are reviewed during the periodic inspection.
5.12.2: removed fourth bullet point since changes would be documented in another step.
5.12.4: added note to remind inspector that refresher training will need to be assigned as indicated in step 8.1.4.
5.12.5: added 'periodic inspections' to clarify compliance must be reviewed during inspections also.
6.0: Affected Employee/Person: modified definition to match changes made in the protocol.
6.0: Authorized Employee/Person: modified definition to match changes made in the protocol.
6.0: Blind: added definition of blind to improve the protocol.
6.0: Energy Isolation Inspector: added definition of energy isolation inspector to improve the protocol.
6.0: Equipment Lock: added 'in a kit' to clarify locks in a kit are keyed alike.
6.0: Exclusive Control: removed exclusive control definition since it was removed from the protocol.
6.0: Group Energy Isolation: modified definition to match changes made in the protocol.
6.0: Group Leader: removed 'set number' and added 'multiple individuals' to clarify it's not intended to be a set number of people.
6.0: Hot Tap: added definition of hot tap to improve the protocol.
6.0: Personal Lock: modified definition to reflect changes made in protocol.
6.0: Appropriate Leader: removed definition which does not apply to the protocol but applies to the protocol approval process.

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6.0: Approval Date: removed definition which does not apply to the protocol but applies to the protocol approval process.
6.0: PIC: removed language indicating where PIC is defined within the protocol section which is no longer applicable in the protocol template.
8.1: added training frequency notes to awareness (8.1.1), authorized (8.1.2) and hands-on checklist (8.1.3) level steps to provide visibility on the training frequency for the levels of energy isolation training.
8.1.3: removed 'assign an Authorized Person to' which is duplicated in the note of the step.
8.1.4: modified 'the employer has' to 'there is' since the protocol applicability is for Devon personnel.
8.1.6: added new step to ensure contract company representatives understand the requirements of the protocol to align with the requirements of the contract company representative definition.
8.2.3: added 'or email' to non-owner lockout/tagout device removal approval form since email is also acceptable.

Appendix A: moved Lockout/Tagout Tag Appendix to arrange where it is mentioned in the protocol.
Appendix A: added phone number to lockout/tagout tag example to improve the protocol.\}
Appendix A: added new requirement that tags must be legible and understandable by all personnel in the area to improve the protocol.

Appendix B: modified 'Exclusion' with 'Exception' in Appendix title to align with new flow chart arrangement.
Appendix B: modified Equipment Specific Isolation Procedure Exception Flow Chart Appendix arrangement.
Appendix C: moved Positive Isolation Appendix to arrange where it is mentioned in the protocol.
Attachment A: moved the Equipment Specific Isolation Procedure Form to arrange where it is mentioned in the protocol.

Attachment A: modified the Equipment Specific Isolation Procedure Form to align with protocol and protocol changes. Added affected personnel, authorized personnel and personnel/shift change sections.

Attachment A: added a supplemental sheet for additional isolation points to accompany large lockout/tagout jobs.

Attachment B: moved the Non-Owner Lockout/Tagout Device Removal Approval Form to arrange where it is mentioned in the protocol.

Attachment B: modified the Non-Owner Lockout/Tagout Device Removal Approval Form to align with protocol changes.

Attachment C: moved the Energy Isolation Annual Inspection Review Form to arrange where it is mentioned in the protocol.

Attachment C: updated the Energy isolation Annual Inspection Review Form.
Attachment D: moved the Approval, Review, and Modification History to the last attachment.

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### 7.2 APPROVAL

This procedure has been approved by:

| Name | Title |
| :--- | :--- |
| Garrett Jackson | VP, ESG \& EHS |

### 7.3 SEEKING AND APPROVING VARIANCES

Variances to this document will be submitted in accordance with the EHS Document Control and Records Management Protocol.

### 7.4 RELATED DOCUMENTS

## Document Name

Energy Isolation Equipment Specific Isolation Procedure
Energy Isolation Equipment Specific Isolation Procedure - Additional Isolation Points
Energy Isolation Non-Owner Lockout/Tagout Device Removal Form
Energy Isolation Annual Inspection Review Form
Energy Isolation Approval, Review and Modification History
Energy Isolation Authorized Employee Hands-On Checklist
Energy Isolation One-Pager

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## 8. Additional Related Information

### 8.1 TRAINING AND CERTIFICATION REQUIREMENTS

## Step Required Action Role

8.1.1 Provide awareness level training to employees who enter the field, Line Supervisor but are not authorized employees as defined in this protocol, that provides the purpose and use of energy isolation procedures, including:

- Recognition of when and why energy isolation procedures are being used
- Purpose of energy isolation procedures
- Importance of not tampering with lockout/tagout devices
- Importance of not starting or using equipment that has been locked or tagged out
Note: Awareness level training is required initially with no set retraining frequency.
8.1.2 Provide authorized training to employees who will perform energy Line Supervisor isolation on equipment in the safe application, use and removal of lockout/tagout devices, including the following:
- Recognition of hazardous energy sources
- Type and magnitude of the hazardous energy
- Hazardous energy sources in the workplace
- Energy isolation procedures (to include the methods and means to isolate and control those hazardous energy sources)

Note: Authorized training is required initially with no set retraining frequency.

### 8.1.3 Perform the Energy Isolation Authorized Employee Hands-On Checklist with any authorized employee prior to their initial authorization to perform energy isolation duties.

 Line SupervisorNote: The line supervisor can perform the hands-on checklist or can assign another authorized person to perform the hands-on checklist.

Note: Hands-on checklist training is required initially with no set retraining frequency.

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## Line Supervisor

8.1.4 Provide refresher training to be conducted whenever a periodic inspection under Section 5.12 reveals, or whenever there is reason to believe that there are deviations from, or inadequacies, in the employee's knowledge or use of the energy control procedures.
8.1.5 Provide retraining for all authorized and affected employees Line Supervisor whenever there is a change in their job assignments; a change in machines, equipment or processes that present a new hazard; or when there is a change in energy control procedures.
8.1.6 Ensure contract company representatives understand the requirements of this protocol.

Line Supervisor

### 8.2 RECORDS/LOGS/REPORTS

| Step | Required Action | Role |
| :--- | :--- | :--- |
| 8.2.1 | Forward completed Equipment Specific Isolation Procedure(s) Forms for <br> filing. | Authorized Person / <br> Group Leader |
| 8.2 .2 | Forward completed Energy Isolation Annual Inspection Review Forms <br> for filing. | Energy Isolation <br> Inspector |

8.2.3 File the records as noted below: Line Supervisor

| Record |  <br> Number | Enterprise <br> Retention Time | Classification Structure <br> Code |
| :--- | :--- | :--- | :--- |
| Equipment Specific <br> Isolation Procedure | See Field Office File <br> Directory | 1 Year | N/A |
| Non-Owner <br> Lockout/Tagout Device <br> Removal Approval <br> Form (or email) | See Field Office File <br> Directory | 1 Year | N/A |
| Energy Isolation Annual <br> Inspection Review <br> Form | See Field Office File <br> Directory | 1 Year | N/A |
| Energy Isolation <br> Authorized Employee <br> Hands-On Checklist | See Field Office File <br> Directory | Employment + 5 Years | HR 80 |

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Note: The records management enterprise classification structure code is listed as a reference, which should be utilized when records are sent to stored records.

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## Appendix A: Lockout/Tagout Tag

Tags used for energy isolation activities shall meet the following requirements (example of a tag is provided below) or be equivalent:

- The word "DANGER" must be written on both sides of the tag in red font, or white font with a red background.
- The only colors allowed to be used on the tag are red, white, and black.
- One side of the tag will read the following or equivalent:

> DO NOT
> OPERATE
> EQUIPMENT
> LOCKOUT/TAGOUT
> THIS LOCK \& TAG
> TO BE REMOVED ONLY
> BY THE PERSON
> SHOWN ON BACK

- Opposite side of tag shall identify the authorized person applying the device(s) (e.g., name, date, phone number, reason for lockout/tagout).
- Must be legible and understandable by all personnel in the area.


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Appendix B: Equipment Specific Isolation Procedure Exception Flow
Chart


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## Appendix C: Positive Isolation

Positive isolation can be achieved using several techniques. These techniques can include use of valves, blinds, and bleeders.

Example 1) - Single blind inserted in a line


Example 2) - Isolation valve, with an open bleeder valve followed by a blind


Best practice not to have the unrated fantail blind.
Example 3) - Double blinded with an open bleeder


Best practice not to have the unrated fantail blind.

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Example 4) - Single isolation valve and blind without a bleeder valve


## Example 5) - Single isolation valve with plumbers plug and vent



## Complex System Isolation

The isolation and de-inventory of a complex system needs to be well planned out. Isolating a pump may require the isolation of the energy source to the driver, as well as the inlet valve and outlet valve. Complex systems such as gas plants, compressor stations or water treatment facilities have a variety of systems that are interlocked and work together. These systems cannot be completely and effectively isolated for a complete or partial shutdown simply by isolating the inlet and outlet of the facilities. These systems' isolation procedures need to correlate with the shutdown and de-inventory process, to ensure the most efficient and effective isolation. The following items need to be considered when isolating a complex system:

- Scope of work to be done (e.g., confined spaces, hot work, line breaks, etc.)
- Effect of any ongoing facility or unit operations (e.g., flare system, storage tanks, vent lines, etc.)
- De-inventory system and connection (e.g., does it have a flare system, are there any system blocks, etc.)
- Is the system designed to allow trapped pressure to accumulate?


## Best Practices

- Shut system down to allow for systematic isolation and de-inventorying.
- Select blow down valves in system low points for liquids and high points for gases.
- Select multiple blow down valves to open for a system.


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## Energy Isolation Protocol

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## Verification Prior to Restoring to Service

When restoring a complex system back into service, it is equally important to verify that all the lockout/tagout devices have been removed (e.g., locks, blinds, etc.). Equipment will need to be reenergized and started up using the equipment or unit start up procedure to eliminate potential releases or overpressure situations.

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## Attachment A: Equipment Specific Isolation Procedure Form

Equipment Specific Isolation (Lockout/Tagout) Procedure

| Date: |  |  | Prepared by: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area: |  |  | Location: |  |  |  |  |
| Specific Equipment: |  |  |  |  |  |  |  |
| Identifiy all types of hazardous energy sources (Check all that apply): $\square$ |  |  |  |  | $\square$ Flammable gas/liq | uids | $\square$ Electric |
| $\square$ Hazardous chemical |  | $\square$ Hydraulic | $\square$ Steam | $\square$ Pneumatic | $\square$ Other (specify): |  |  |

Isolation Procedure, Shutdown, and Isolation

| STEP 1: Identify and list below each isolation point required to render equipment safe. (List in preferred order) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Isolation Point/Device | Isolation <br> Position <br> open / Clased / <br> Off/Binnded |  | od <br> Togaut | Normal <br> Position <br> Open/Clased $/$ <br> On/Off/ <br> Binded | Person Responsible | Valve/Device returned to "Normal Position"? (Miviai) |
| 1. |  | $\square$ | $\square$ |  |  |  |
| 2. |  | $\square$ | $\square$ |  |  |  |
| 3. |  | $\square$ | $\square$ |  |  |  |
| 4. |  | $\square$ | $\square$ |  |  |  |
| 5. |  | $\square$ | $\square$ |  |  |  |
| 6. |  | $\square$ | $\square$ |  |  |  |
| 7. |  | $\square$ | $\square$ |  |  |  |
| 8. |  | $\square$ | $\square$ |  |  |  |
| 9. |  | $\square$ | $\square$ |  |  |  |
| 10. |  | $\square$ | $\square$ |  |  |  |
| 11. |  | $\square$ | $\square$ |  |  |  |
| 12. |  | $\square$ | $\square$ |  |  |  |
| 13. |  | $\square$ | $\square$ |  |  |  |
| 14. |  | $\square$ | $\square$ |  |  |  |
| 15. |  | $\square$ | $\square$ |  |  |  |
| SIEP 2: List additional measure(s) taken when isolation is managed with tagout only to provide same level of safety as lockout: (e.8, removal of isolsting circuit element, blocking of control switch, remorel of valve handie(g), etc.) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| STEP 3: Notify all personnel of the isolation procedure, shutdown, and isolation. |  |  |  |  |  |  |
| STEP 4: Shut down and isolate each hazardous energy source in the order listed above. |  |  |  |  |  |  |
| STEP 5: List method(s) taken to remove stored energy to achieve a zero-energy state: (e.g, opening drains, blow downs, and/or vents; waiting defined period that is sufficient to complete electrical dissipation; etc.) |  |  |  |  |  |  |
| STEP 6: Apply lockout/tagout devices in the order listed above. |  |  |  |  |  |  |
| SIEP 7: List method(s) taken to verify hazardous energy sources are isolated, and equipment is safe (zero-energy state): (e8, attusting onj/ff swithes; dhecing with a volimeter; ensuring depressurization of syatem through draiss, blow downs, vents, etc; ete.) |  |  |  |  |  |  |


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## Release from Energy Isolation

STEP 1: Inspect the work area to ensure that noneassential items have been removed, guards have been reinstalled and that equipment components are operationally intact.
SIEP 2: Inspect the work area to ensure that all personnel are saffely positioned or have been removed.
STEP 3: Verify work is complete and remove all lockout/tagout devices.
STEP 4: Notify all personnel that lockout/tagout devices have been removed and equipment is ready for use.
STEP 5: Refer to isolation procedure above, retum isolation valves to proper alignment and energize the equipment.

| Emplovee/person whose job requires the individual to operate equipment where installation, maintenance, service, or <br> repair activities involving hazardous energy sources is being performed under lockout/tagout, or to work in an area where <br> installation, maintenance, sevice, or repair activities involving hazardous energy sources are being performed. |  |  |
| :---: | :---: | :---: |
| Name | Name | Name |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
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## Attachment B: Non-Owner Lockout/Tagout Device Removal Approval Form

Non-Owner Lockout/Tagout Device Removal Approval Form

| Date: |  | Location: |
| ---: | ---: | ---: |
| Requestor name: |  |  |
| Lock/Tag owner name: |  |  |
| Method used to attempt to |  |  |
| contact lock/tag owner: |  |  |
| Lock/Tag location: |  |  |
| Reason for removal: |  |  |
| Is equipment safe to operate: |  |  |
| Authoriring superintendent: |  |  |
| Signature: |  |  |
| Method used to notify lock/tag <br> owner that device was removed: |  |  |


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## Attachment C: Energy Isolation Annual Inspection Review Form

Energy Isolation Annual Inspection Review Form


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## Attachment D: Approval, Review and Modification History

Approval, Review and Modification History


[^0]:    Authorized Person

