Lockout Policy: The Control of Hazardous Energy

1. Purpose

This policy establishes requirements for the control of hazardous energy through the development and implementation of hazardous energy-isolation Lock-Out and Tag-Out (LOTO) procedures.

2. Scope

This policy is applicable when employees and/or contractors are maintaining, installing, modifying or servicing equipment where there is a potential for the release of hazardous energy (active or stored) which may cause injury. The release of hazardous energy may be due to the equipment being energized unexpectedly or as a result of the work being performed on the equipment. Exceptions to this policy are as follows:

A. Hand-held power tools or stationary equipment whose electrical power may be controlled by the unplugging of equipment from the energy source when the plug and cord are under the control of the individual performing the servicing or maintenance;

B. Equipment supplied by electrical energy only of a magnitude of less than 50 volts. Working on a less than 50 volt source in an electrical panel that also contains voltages equal to or higher than 50 volts does not meet this exception.

C. Diagnostic work on electrical equipment to troubleshoot, calibrate and/or test (refer to the Electrical Safety Policy).

Note: After the diagnostic process is complete if work requires maintenance, installing, modifying or servicing of equipment an approved LOTO Form 47-199 shall be required. If the diagnostic process is required during a LOTO process, the diagnostic steps shall be included in LOTO Form 47-199.

D. Hot tap operations (stopple system equipment installation and removal operations) involving transmission and distribution systems for substances such as gas, steam, water, or petroleum products when they are performed on pressurized pipeline.

The following are applicable to or referenced in this policy:

- Authorization to Work
- Confined Space Entry
- Cold Work
- Hot Work
- Electrical Safety
- Stop Work
- Operations Lock Policy

3. Minimum Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Supporting Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LOTO Form 47-199 (shall be completed by the LOTO Writer and shall be validated by a USPL Operations Person.)</td>
<td>Sections 4, 5, 6, DRM</td>
</tr>
<tr>
<td>2. A Simple LOTO Form 47-199B may be used when a single type of energy source requires</td>
<td>Section 4, 5, 6,</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Flow control butterfly-type valves (non-isolation type) shall not be used for energy-isolation when Primary Source Ignition hot work is part of the work phase covered by the applicable LOTO Form 47-199.</td>
</tr>
<tr>
<td>4.</td>
<td>Tank inlet and outlet lines (except fire foam lines) shall be blinded where the contents are removed prior to entry. Subsurface fire foam/water injection lines where they are connected to a foam/water source shall be blinded.</td>
</tr>
<tr>
<td>5.</td>
<td>All energy sources associated with equipment to be isolated shall be able to accept or be modified to accept a LOTO lock and be locked in the position that isolates individuals from the hazardous energy when installing, servicing, modifying or performing maintenance on equipment.</td>
</tr>
<tr>
<td>6.</td>
<td>The current TL/TM shall review all LOTO Forms 47-199 prior to implementation.</td>
</tr>
<tr>
<td>7.</td>
<td>The DOM shall approve the use of a LOTO PIC Designee by reviewing and signing LOTO Form 47-199 and LOTO PIC Designee Form 47-199A.</td>
</tr>
<tr>
<td>8.</td>
<td>The DOM shall approve LOTO Form 47-199 when Primary Source Ignition Hot Work is part of the work phase and Proven Double Block and Bleed is not achievable.</td>
</tr>
<tr>
<td>9.</td>
<td>The TL/TM is responsible for the management and retention of the completed LOTO Form 47-199, Simple LOTO Form, LOTO Inspection Report, LOTO Lock and Tag Cutting Form, and LOTO PIC Designee Forms.</td>
</tr>
<tr>
<td>10.</td>
<td>The LOTO Person In Charge (PIC) shall be responsible for the overall implementation of each LOTO Form 47-199.</td>
</tr>
<tr>
<td>11.</td>
<td>Unless a LOTO PIC Designee is used, the LOTO PIC’s LOTO locks and tags shall be the first on and last off the identified equipment for individual LOTOs or a lockbox for group LOTOs.</td>
</tr>
<tr>
<td>12.</td>
<td>In group LOTO applications, the LOTO PIC shall use the group LOTO equipment tag with their LOTO locks on the equipment's energy isolation devices identified in Section A of LOTO Form 47-199.</td>
</tr>
<tr>
<td>13.</td>
<td>USPL employees shall use USPL LOTO locks and tags; contractors may use their own locks but shall use USPL LOTO tags.</td>
</tr>
<tr>
<td>14.</td>
<td>Each Authorized Person shall apply their individually-keyed LOTO lock and tag to a group lockbox for group LOTO or to each energy-isolation device for individual LOTO.</td>
</tr>
<tr>
<td>15.</td>
<td>All LOTO locks and tags for individual and group LOTO situations shall be removed by the person who applied them, except for group LOTO PIC replacement situations.</td>
</tr>
<tr>
<td>16.</td>
<td>Group LOTO requires a different type of tag called a Group LOTO Equipment Tag on the isolated equipment that allows the current and replacement LOTO PIC to only remove their LOTO lock and tag from the lockbox if a change in LOTO PIC is required.</td>
</tr>
<tr>
<td>17.</td>
<td>All Authorized Persons shall sign and date Section E of the approved LOTO Form 47-199 prior to performing work on equipment listed on the form.</td>
</tr>
<tr>
<td>18.</td>
<td>Cutting and removal of LOTO locks and tags shall require the completion and approval of the LOTO Lock and Tag Cutting Form.</td>
</tr>
<tr>
<td>19.</td>
<td>A minimum of one LOTO Form 47-199 shall be inspected, for each Inspection Category, per month per team.</td>
</tr>
<tr>
<td>20.</td>
<td>Hierarchy of Isolation Control shall be applied as indicated in Appendix IX. Deviation approval shall be obtained for any LOTO procedure that cannot achieve the Minimum Isolation Method for the task category as indicated in Appendix IX.</td>
</tr>
</tbody>
</table>
4. Definitions

**Affected Person** – An individual who is responsible for the operation and use of the equipment listed on LOTO Form 47-199 but who is not protected by or performing work under that form. Affected Persons may include people such as Control Center personnel, terminal managers, team leaders, technicians, other contractors on site who are authorized to operate the isolated equipment.

**Authorized Person** – An individual who will be physically working or performing service on the isolated equipment identified on LOTO Form 47-199 or Simple LOTO Form 47-199B. Authorized Persons assure they are protected from the release of hazardous energy by placing their LOTO lock and tag on each energy-isolation device or on the group lockbox which contains the keys to the LOTO PIC’s locks that were placed on each energy-isolation device.

**Blind** – An engineered metal device inserted between two flanges or attached to a single flange or piece of equipment to achieve isolation of hazardous energy. It is rated and sized by maximum pressure and pipe diameter and shall have its pressure rating and type stamped on the edge of the blind.

**Controlled Line Break** – A maintenance procedure used to reduce pressure, drain equipment and/or a line segment usually at a flange, and to confirm isolation and de-energization when other means of relieving pressure are not available or practical.

**Craft or Work-Group Lock (PROHIBITED)** – One lock used to protect or represent a group of individuals as opposed to or in conjunction with each individual applying their own individually-keyed LOTO lock and tag.

**Double Block and Bleed (DBB)** – For piping systems, this is the use of two closed block valves or one valve body with two valve seats (e.g., Twin Seal valve) with a bleeder/vent or some other method for relieving pressure and fluid between the valves/valve seats. Closure of two single block valves on one side of the work area without use of vents or drains between the two valves is considered single valve isolation (SVI).

**Drain/Vent Tag** – A yellow colored tag used to identify valves/fittings that are operated to drain or vent a system under a LOTO procedure. The tag shall be labelled with the LOTO Procedure Number and identified as Drain or Vent.

**Energy-Isolation Device** – A mechanical device that physically prevents the transmission or release of energy. Examples of energy-isolating devices include, but are not limited to, the following: manually-operated electrical circuit breaker; disconnect switches; in-line valves; block valves; blinds; stopples; freeze plugs; shielding for nuclear devices; and a manually-operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently.

Note: Push buttons, selector switches, interlocks, and other control circuit-type devices are not energy-isolating devices.

**Energy Source** – Electrical (including stored/residual/cathodic), chemical, mechanical, hydraulic (liquid product, natural gas or ram), pneumatic (air pressure), radiation, vapor (hydrocarbon vapor), or other energy source that could cause injury.

**Equipment Descriptor** – A statement used in the LOTO Form 47-199 or Simple LOTO Form 47-199B that identifies the equipment and its location. Equipment descriptors are used for equipment which does not have, nor is required to have, an equipment number. A descriptor may apply to the following equipment if it has not been assigned a number: PLCs, drains, vents, stand-alone flanges used for controlled line breaking, and instrumentation.

**Equipment Number** – A number **physically-on or affixed-to** the equipment that will be used to identify the equipment listed in the LOTO Form 47-199 or Simple LOTO Form 47-199B. A number on the equipment used for another purpose, e.g., P&ID number, LDAR number, inventory number, can be used as the equipment number for LOTO purposes.

**Group Lockout** – A process for controlling the keys to LOTO locks through the use of a lockbox, whereby the LOTO PIC places LOTO locks and group LOTO equipment tags on each piece of equipment identified on LOTO Form 47-199 and then places the keys in a lockbox. The lockbox is closed, and the LOTO PIC’s LOTO lock and tag are the first lock and tag secured to the lockbox, after which each Authorized Person attaches his or her individually-keyed LOTO lock and USPL tag to the lockbox. The LOTO locks and tags shall be removed by the individual who applied them.
Group LOTO Equipment Tag – A prominent warning and information tag that contains the name of the LOTO PIC applying the LOTO lock, the date the LOTO lock was applied, and the corresponding LOTO number. **This tag shall only be applied on the energy isolating device in a group LOTO situation and not on a lockbox.** The USPL-supplied group LOTO equipment tag shall be securely fastened to the LOTO lock and then to the equipment, in accordance with the sequential steps in Section A of LOTO Form 47-199 to indicate that the equipment being controlled may not be operated until the LOTO lock and group LOTO Equipment tag are removed by the current LOTO PIC.

**Immovilizing Device** – The mechanism used to attach the LOTO lock to the energy-isolating device to secure it in the isolated position. Typical immobilizing devices include chains, hasps, circuit breaker LOTO devices, and fuse cavity LOTO devices.

Note: Plastic chain shall not be used as an immobilizing device.

**Individual Lockout** – A process whereby the LOTO PIC places their LOTO lock(s) and tag(s) on each piece of equipment identified in the LOTO Form 47-199, followed by each Authorized Person placing their LOTO lock and tag on each piece of equipment (a lockbox is not used). The LOTO locks and tags shall be removed by the individual who applied them.

**Live Systems** – Any piping, pipeline or process equipment that contains hazardous materials and is in a normal active or fully ready operational state.

**Lockout** – The placement of a LOTO lock and tag on an energy-isolating or immobilizing device, in accordance with an approved LOTO Form 47-199, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the LOTO lock and tag are removed.

**LOTO** – An abbreviation for Lock Out and Tag Out.

**LOTO Lock** – A lock (or installed rated blind or OID) that prevents either the energizing of equipment under individual LOTO or the opening of a lockbox under group LOTO. See Appendices VI and VII for USPL LOTO lock and blind requirements.

Note: Contractor LOTO locks shall be individually-keyed or a combination lock where only the Authorized Person knows the combination.

**LOTO Person in Charge (LOTO PIC)** – USPL Operations Person, who can act in an Authorized Person role and is accountable for the implementation of LOTO Form 47-199. This applies to a replacement LOTO PIC when applicable.

**LOTO Person in Charge Designee (LOTO PIC-Designee)** – An individual who performs specific tasks on behalf of the LOTO PIC when it is not practical for the LOTO PIC or may introduce risk to the LOTO PIC. LOTO PIC Designee is only used for specific Right-of-Way and off-shore platform work identified in this policy, reference Appendices I, II, and III.

**LOTO Tag** – A prominent warning and information tag that contains the printed name of the person applying the LOTO lock, the date the LOTO lock was applied, a contact phone number where the person applying the tag can be reached and the corresponding LOTO number. **This tag shall only be applied to energy-isolating devices during individual LOTO or on the lockbox for group LOTO.** The USPL-supplied LOTO tag shall be securely fastened to the LOTO lock (or installed rated blind or OID), in accordance with the sequential steps in Section A of LOTO Form 47-199. This tag shall not be used on locks applied to energy-isolation devices during group LOTO.

**LOTO Writer** – An individual assigned by the TL/TM to complete Sections A, B and C of LOTO Form 47-199 and who has completed USPL LOTO training.

**Minimum Isolation Requirements:** A single block on each side of the work area and drain to bleed the hazardous energy from the work area. Isolation and complete de-energization of electrical energy from the work area.

**Minimum Isolation Method -** Appendix IX – Hierarchy of Isolation Control.

**Other Isolation Devices (OIDs)** – other isolation devices such as stopples, freeze plugs, engineered plugs or other non-standard isolation devices that require specific tools or processes to install. Use of OIDs shall be treated as higher risk potential methods that shall require Deviation Approval. Other types of temporary plugs, such as Foreman or Carber plumber’s plugs, are not considered OIDs and are intended for non-pressured, vapor control use only.
Operating Pressure – the pressure (psig) that is present on the process side of an isolation point from the time of isolation through LOTO duration.

Operations Lock – Any lock other than an USPL LOTO lock or a contractor’s individually keyed LOTO lock, refer to Section 10.

Operations Personnel or Operations Person – For the purposes of this policy, a USPL employee who is acting in an operations role for equipment they are authorized to operate or maintain.

Positive Isolation (PI) – the most secure method of isolation, achieved by utilizing blinds, blind flanges, disconnection or removal of piping along with blinding, capping or plugging live ends with bolted, threaded or welded fittings. See Appendix VI – Isolated Equipment Utilizing Blinds.

Proven DBB or SVI Isolation – A condition whereby valve isolation can be confirmed by Closed and Locked Valves; Drains/Vents are verified clear of blockage and no obstruction (e.g., check valve, relief valve control valve, strainer) shall be between the isolation valve and drain; system de-pressured and drained; confirmed tight valve shut-off and/or no re-accumulation or infiltration of hazardous energy.

Simple LOTO – A LOTO application that does not require the use of LOTO Form 47-199 but shall meet all the conditions and requirements of Section 6.2 and complete Simple LOTO Form 47-199B, reference Appendix VIII.

Single Valve Isolation (SVI) – A single block on each side of the work area and drain to bleed the hazardous chemical and hydraulic energy from the work area. Check valves, relief valves or control valves are not to be used as isolation valves.

Specialized Contractor – Contractors who maintain USPL equipment at a facility and who provide steps in Section A of LOTO Form 47-199 for the equipment they maintain, including, but not limited to: VRU/VCU, electrical equipment, fire detection and/or suppression systems.

Tag-Out-Only (PROHIBITED) – The placement of a LOTO tag as the only means of controlling an energy-isolating device (locks are not used).

Validation – The process where USPL Operations Personnel, who are LOTO trained, confirm that information in the LOTO Form 47-199 (draft or reuse) is correct. An Authorized Person shall confirm that information in a Simple LOTO Form 47-199B is correct.

Verification – Is a process to assure that isolation and de-energization have been accomplished.

Work Area – The location(s) identified on the LOTO Form 47-199 in the P&ID, diagram, drawing, sketch, electrical one-line diagram, etc., which shows where work will be performed after the equipment has been isolated and de-energized.

Zero Energy State – The safe energy state condition to conduct work which prevents the unexpected release of energy to the work area and does not have the capability of causing harm to employees or environment.

5. Roles and Responsibilities

5.1. Affected Person shall
   A. Not tamper with any equipment or isolation devices involved in an active LOTO.
   B. Not perform or help perform any maintenance and servicing on equipment identified on LOTO Form 47-199 or isolated by way of the LOTO Form 47-199.

5.2. Authorized Person shall
   A. Review LOTO Form 47-199 for understanding with the LOTO PIC prior to working on any equipment listed on LOTO Form 47-199.
   B. Apply their individually-keyed LOTO lock and tag to a group lockbox or to each energy-isolation device for individual LOTO and write the date of when they applied their LOTO lock and tag in Section E of LOTO Form 47-199.
1. Have the right to confirm de-energization (i.e., verification) of the equipment listed on the form.
2. Document their understanding of Sections A, B and C (if used) by completing Section E.
   Note: An Authorized Person may be involved in multiple LOTOs at the same time.
C. Remove their individually-keyed LOTO lock(s) and tag(s) and write the date of when they removed
   their LOTO lock and tag in Section E of LOTO Form 47-199, reference Section 8.4.
D. Conduct validation and complete the Simple LOTO Form 47-199B prior to its use or reuse.

5.3. District Operations Manager (DOM) shall

   Note: The term DOM is used throughout this document and is inclusive of the Operation and
   Maintenance Manager, Area Operations Manager and any other equivalent roles.
A. Confirm that an annual review is conducted of the previous year’s LOTO inspection reports and are
   accountable for the presentation of the findings and issues to USPL Authorized Persons.
B. Approve the use of a LOTO PIC Designee by reviewing and signing the LOTO Form 47-199 and
   LOTO PIC Designee Form 47-199A.
C. Approve LOTO Form 47-199 where Primary Source Ignition Hot Work is part of the work phase
   covered by the form and Proven Double Block and Bleed is not achievable.
D. Approve or seek appropriate approval for Minimum Isolation Method Deviations as indicated in
   Appendix. IX Hierarchy of Isolation Control.

5.4. LOTO Person in Charge (LOTO PIC) shall

   A. Obtain the approved LOTO Form 47-199 from the TL/TM. Confirm it is the appropriate LOTO Form
      47-199 for the work to be performed and that it contains current management approval.
   B. Confirm that the equipment numbers and descriptors documented throughout the LOTO Form 47-
      199 are correct for the equipment involved and that the equipment numbers are physically on the
      equipment prior to implementation of Section A in the form.
   C. Confirm that a LOTO Form 47-199 that is going to be reused has met all the requirements of
      Section 7.3 of this policy.
   D. Be responsible for the overall implementation of the LOTO (i.e., follow procedure steps, verifying
      isolation, de-energization, implementation of specified controls, confirm Zero Energy State prior to
      work on isolated equipment, maintenance of isolation, interim testing and re-energization).
      Note: If the LOTO PIC is not knowledgeable or qualified in the maintenance of the equipment (e.g.
      VRU/VCU, high energy electrical, fire systems) they may utilize a Specialized Contractor to assist
      with the isolation, de-energization, verification and re-energization of this equipment.
   E. Determine whether a LOTO PIC Designee is to be utilized. If so, confirm completion of the LOTO
      PIC Designee Form 47-199A (see Appendices I, II and III). Advise the LOTO Writer to indicate in
      Section A of LOTO Form 47-199 the steps which the LOTO PIC Designee shall implement. Submit
      both forms to the appropriate TL/TM and DOM for review/approval.
   F. For individual LOTO situations apply their LOTO locks and tags “first” and remove their LOTO locks
      and tags “last” from all equipment identified in Section A of the form in their sequentially correct
      order.
   G. For group LOTO:
      1. For each piece of equipment identified in Section A of the form apply a LOTO lock and group
         LOTO equipment tag to the equipment’s energy-isolation device in sequentially correct order.
      2. Apply their LOTO lock and tag “first” to the lockbox and remove their LOTO locks and tags
         “last”.
   H. Instruct Affected Persons in the purpose and use of the LOTO and instruction to not attempt to
      restart or re-energize equipment that is listed in the applicable LOTO Form 47-199.
   I. Request the TL/TM to assign an inspector if an inspection is required.
J. Sign Section D of LOTO Form 47-199 after application of their LOTO locks and tags.

K. Review the LOTO Form 47-199, face-to-face with all Authorized Persons, at the beginning of the LOTO process and in the course of the LOTO process as new Authorized Persons report to work, prior to the application of the Authorized Person’s LOTO lock and tag.

L. Provide USPL LOTO tags to contractor’s employees.

M. Confirms that each Authorized Person applies their individually-keyed LOTO lock and tag to a group lockbox or to each energy-isolation point for individual LOTO and that Section E of LOTO Form 47-199 is complete.

N. Observe and confirm that interim testing steps as listed in Section A are completed.

O. Communicate to all Authorized Persons that open pipe (includes instrumentation tubing and product lines) shall not be left unattended. If open pipe cannot be in the visual proximity of site personnel it shall be closed by blinding, installation of engineered caps, threaded plugs or the open pipe reconnected.

1. Plumber’s plugs shall not be used for this purpose.

P. Manage LOTO PIC replacement according to Section 12.

Q. Confirms that each Authorized Person removes their individually-keyed LOTO lock and tag to a group lockbox or to each energy-isolation point for individual LOTO and that Section E of LOTO Form 47-199 is complete.

R. Manage the LOTO Lock and Tag Cutting procedure according Section 13 and Appendix IV.

S. Maintain and be responsible for the active field copy of the LOTO Form 47-199 that contains the completed action steps in Section A and has the signatures in Sections D and E until the LOTO process is completed and equipment returned to final service.

T. Make “field changes” to an approved LOTO Form 47-199 that is being implemented according to Section 7.

U. Forward LOTO Form 47-199 to the TL/TM for filing after Section E is completed.

5.5. LOTO Person in Charge Designee (LOTO PIC Designee) shall

A. Only be used for the implementation of LOTO Form 47-199 that involve:

1. Isolation of points on the pipeline right-of-way or in multiple pipeline facilities where the work is performed on the pipeline right-of-way and it is covered by a single form

2. Isolation points at two pipeline stations, where the work is performed at one station and requires isolation at a second station and it is covered by a single form.

3. Isolation points on multiple offshore platforms covered by a single form

4. Isolation points between an onshore location’s valve(s) and an offshore platform(s) covered by a single form

B. Apply and remove LOTO locks and group LOTO equipment tags to and from energy-isolating devices under a group LOTO situation.

C. Complete only the steps identified for the LOTO PIC Designee on LOTO Form 47-199.

5.6. LOTO Writer shall

A. Complete USPL LOTO training and be current on their training frequency.

1. Contractors are permitted to be LOTO writers.

B. Obtain the necessary documents, P&IDs, drawings, electrical one-line diagram and photographs (if needed) to develop a LOTO Form 47-199.

C. Be responsible for the development of LOTO Form 47-199.
1. **Use a marked drawing/diagram to review and recommend the Minimum Isolation Method from the Hierarchy of Isolation Control (Appendix IX) requirements to TL/TM.**

2. **In the General Information Section of LOTO Form 47-199, indicate the Task Type, Minimum Isolation Method or Deviation to be applied and approval documentation required as specified in the Hierarchy of Isolation Control (Appendix IX).**

D. Determine if individual or group LOTO will be used for the isolation type to ensure the proper tags are utilized.

### 5.7. **Operations Personnel shall**

A. Complete USPL LOTO training and be current on their training frequency.

B. Conduct validation of draft LOTO Forms 47-199 prior to TL/TM review.

1. A Specialized Contractor shall accompany USPL Operations Personnel performing the validation if they aided in the development of the form (i.e., provided steps in Section A).

C. Conduct validation of previous approved LOTO Forms 47-199 prior to reuse.

D. Conduct periodic inspections during the implementation of Section A of LOTO Form 47-199 per Section 14 of this policy.

### 5.8. **Operations Team Lead/Terminal Manager (TL/TM) shall**

A. Assign individuals who have completed USPL LOTO training to write the draft LOTO Form 47-199.

1. Approve the use of Contract LOTO Writers and ensure they are trained.

2. **Review/select and approve the Minimum Isolation Method or Deviation from the Hierarchy of Isolation Control (Appendix IX) with LOTO writer.**

B. Assign individuals who have completed USPL LOTO training to be a LOTO PIC/LOTO PIC Designee.

C. Assign a USPL Operations Person who has completed USPL LOTO training to validate the draft LOTO Form 47-199.

1. The person validating the LOTO Form 47-199 shall not be the LOTO Writer, except for Simple LOTO Form 47-199B.

D. Confirm that all conditions for the use of a Simple LOTO Form 47-199B are met and approve the Authorized Person to perform the Simple LOTO.

E. Inform the Asset Operator to update the SIMOPS board, LOTO Register and ATW form when a Simple LOTO Form 47-199B is utilized.

F. Review the validated LOTO Form 47-199 and confirm that it includes the following:

1. **The procedure applies the appropriate Minimum Isolation Method from the Hierarchy of Isolation Control (Appendix IX) or the appropriate Deviation.**

2. The equipment listed in Section A is the same as the equipment shown in Sections B and C (if applicable).

3. The appropriate sequence-of-steps, in their correct and proper order, is listed in Section A.

4. The work area and the product flow direction arrows are identified and included in Section B.

G. Consult, if necessary, with the LOTO Writer and other subject matter experts during their review process to confirm that the LOTO steps will achieve the isolation necessary to perform the intended work.

H. Prior to approval, determine if the Minimum Isolation **Methods from the Hierarchy of Isolation Control (Appendix IX) can be met and if they cannot, assign personnel to perform a Level 2 HITRA and accomplish appropriate approvals as indicated in Appendix IX.**

I. Approve LOTO Form 47-199 or Simple LOTO Form 47-199B.
J. Forward LOTO Form 47-199 for the DOM's approval that involve the following:
   1. Primary Source Ignition Hot Work in the work phase that cannot be isolated by **Proven Double Block and Bleed**, 
   2. Use of LOTO PIC Designee, or 
   3. As indicated in Appendix IX, Hierarchy of Isolation Control. 

K. Manage the physical and/or electronic storage of draft and approved LOTO Forms 47-199 and Simple LOTO Form 47-199B. The LOTO Share Point site will still be available and is recommended for electronic storage.

   Note: If electronic storage is utilized, the initials of the approver and the date it was approved may be added to the file name to provide a quick reference.

L. Be accountable for modifying equipment to accept a LOTO lock and tag.

M. **Be accountable for completion of** the required number of periodic inspections of LOTO Form 47-199; reference Section 14 & Appendix V.

   1. Note: This assignment can be made when the TL/TM is approving the LOTO Form 47-199.

N. Recommend to the DOM a LOTO PIC Designee.

O. Designate a replacement LOTO PIC, when applicable.

P. Be accountable for ordering LOTO locks and tags, and group LOTO equipment tags per the requirements of Appendix VII.

Q. Review LOTO Lock and Tag Cutting forms and approve the cutting and removal of the LOTO lock and tag per the requirements of Section 13.

R. Determine if LOTO locks and tags are to be removed and replaced with operation locks, reference Section 10.

S. Be accountable for forwarding the P&ID(s) and electrical one-line diagram(s) that need to be updated to the appropriate resource.

T. A TL/TM who has pipeline/terminal Supervisor(s) working for them may assign their LOTO roles, responsibilities and duties to them, through the Delegation of Authority process.

### 5.9. Subject Matter Experts, Technical Authorities, Discipline Leads, Engineers, Project Engineers, Project Managers shall

A. Provide technical support, as requested by Operations Personnel, in developing and/or reviewing LOTO Form 47-199.

B. Provide technical support, as requested by Operations Personnel, in assessing new equipment being installed during the work phase and the steps required to be written into the LOTO Form 47-199 for the energization of this new equipment.

### 6. LOTO Form 47-199 Development

#### 6.1. Assignment

A. LOTO requests shall adhere to the Work Management Process.

B. TL/TM shall assign a LOTO Writer to develop the form.

C. LOTO Writer obtains the form from the DRM website.

#### 6.2. Simple LOTO

A. A Simple LOTO shall meet all of the following requirements:
1. Equipment shall have only a single type of energy source which can be readily identified and isolated (e.g. only electrical energy for a rectifier, or only hydraulic energy for a pressure gauge, or only one hydraulic energy source, e.g. product only no additives, for a load head coupler).
   a) The single electrical energy source shall be less than or equal to 600 volts.
   b) There shall be no collateral sources of energy in or connected to the equipment.
2. A single energy isolation device shall achieve de-energization and isolation to which a single LOTO lock and USPL tag shall be applied. Examples of single energy isolation devices are:
   a) One circuit breaker isolates a rectifier.
   b) One valve isolates a pressure gauge.
   c) One valve isolates a load head coupler.
   Note: A tank’s inlet or outlet valve’s pressure/thermal relief valve does not meet this condition because there are two isolation points, upstream and downstream, of the pressure/thermal relief valve.
3. Equipment has no potential for stored or residual energy, or the reaccumulation of stored energy after it is shut down which could endanger employees.
4. The same Authorized Person shall perform the entire Simple LOTO and the associated work which includes: isolation, de-energization, affixing the USPL LOTO lock and tag, verification of isolation and de-energization, performing the servicing or maintenance, removing their LOTO lock and tag, and re-energizing the equipment.
5. The servicing or maintenance on the isolated equipment does not create hazards for other employees.
6. Incidents involving the unexpected activation or re-energization of the equipment during servicing and maintenance have not occurred in the past.

B. LOTO Form 47-199 does not have to be completed for a Simple LOTO.

C. Simple LOTO procedures are not subject to the LOTO Inspection Process.

D. The LOTO PIC role is not applicable for Simple LOTO.

E. TL/TM is authorized to approve the form and shall do so by one of the following methods:
   1. Physically signing their name in the “TL/TM Signature” box and physically writing the date in the “Date” box.
   2. Use an Electronic Digital Signature with a time and date stamp in the “TL/TM Signature” box.
   3. Email their approval to the Authorized Person if they are not physically on site. This email shall be attached to the form prior to implementation.
      a) After receiving the TL/TM's email, the Authorized Person prints their name in the “Authorized Person Printed Name on behalf of the TL/TM” box and writes the date in the “Date” box.

F. If there are no changes on a previously developed form pertaining to the equipment, TL/TM approval and the Authorized Person as confirmed by revalidating it according to the conditions in 6.4.A.1, the form can be immediately reused.

G. The Simple LOTO shall be documented in the LOTO Register which is a tab in the ATW Policy’s Permit Register. All fields will be completed by the Asset Operator but the following modifications apply:
   1. The LOTO number in the LOTO Register shall be noted as “Simple LOTO”.
   2. The LOTO name in the LOTO Register shall be the equipment’s number(s) or the equipment’s individual name(s) and location(s).
   3. The LOTO Inspection Category in the LOTO Register shall be marked with “NA”.

Issue Date: August 22, 2017
Effective Date: January 1, 2018
Next Review Date: August 22, 2022
The controlled version of this document can be found in DRM in the HSSE Policies folder.
H. In Section A of the ATW Form under “Other Applicable Actions, Policies and Procedures” check “LOTO Procedure Box” and write “Simple LOTO” in the “LOTO Number Box”.

6.3. Writing

A. The LOTO Writer shall complete the LOTO Form 47-199, (reference DRM) utilizing the information listed below and in Appendices.

1. Contractors may be LOTO Writers if they are trained in USPL’s LOTO policy and LOTO Form 47-199.
   a) Where Specialized Contractors are used to maintain equipment they may be utilized to assist in the development of the isolation, de-energization, verification to confirm Zero Energy State, maintenance of isolation and de-energization, interim testing and re-energization steps in Section A.

2. For electrical lockouts, i.e. when work will be done on electrical systems, the Writer shall be an electrically Qualified Person.

B. The LOTO Writer shall confirm the following: the equipment; equipment number or descriptor; the equipment line-up with either a P&ID, drawing, sketch and/or electrical one-line diagram; the equipment and procedural sequence of steps in their proper and correct order in Section A for isolation, de-energization, verification to confirm Zero Energy State, maintenance of isolation and de-energization, interim testing and re-energization.

1. If a P&ID or electrical one-line diagram is found to be inaccurate, it shall be “field corrected” for the use in Section B or a separate line drawing shall be used.
   a) The LOTO Writer shall forward inaccurate P&IDs and electrical one-line diagrams, with required corrections noted, to the TL/TM so they can be updated.
   b) The TL/TM is accountable to make the official changes and forward the documents for correction according to USPL-GP-08-0211, Engineering Drawing Maintenance.

2. The LOTO Writer shall assign equipment numbers or equipment descriptors after communicating with the TL/TM for equipment that does not presently have them for the purposes of LOTO (e.g., piping less than two inches, PLC or instrumentation, flanges, vents, etc.).

C. Flanges involved (e.g. in controlled line breaking or blinding) shall be identified by an equipment number or equipment descriptor that describes their purpose in Section A.

Note: When controlled line breaking/breaking containment is used to achieve and maintain de-energization, a Cold Work-Breaking Containment permit is required, and the safety items on the Level 2 HITRA Form shall apply.

D. To prevent over pressurization of lines, flanges, valves, equipment, etc., that may occur due to LOTO isolation, the venting points need to be included in Section A.

E. When OIDs are used on equipment to be isolated and de-energized, the writer shall consult with a technician who is competent and has been trained in the installation, operation and use of the OID. The writer shall include in the LOTO procedure the OID equipment (e.g. stopple plugs, TORs, freeze plugs) and the appropriate OID installation steps used to isolate and de-energize a system as well as the appropriate steps to remove OID equipment and re-energize a system that involved use of OID equipment. and Authorized Persons involved with OID installation shall apply their locks to the LOTO PIC Lockbox or individual pieces of equipment prior to installation of the OID.

F. The “work areas” and “product flow direction arrows” shall be identified on the P&ID(s), line diagrams, drawings, sketches, and/or line sheets used in Section B. Identifying the “work area” can be with a text box and/or color coding with an explanation.

G. Positive Isolation shall be required when Primary Source Ignition (PSI) Hot Work is part of the work phase covered by the form. If Positive Isolation is not achievable Deviation Approval is required.
H. Cathodic protection shall be shut off and dissipated prior to opening a tank and may be turned back on when the Clean Tank Certificate is issued. Consult the appropriate Corrosion Specialist for applicable shut off procedures.

1. If flammable material or vapor (coating/painting/product) is present or used for maintenance after the Clean Tank Certificate is issued the Cathodic Protection shall be shut off and de-energized according to the steps in Section A.

I. Steps to assure isolation and de-energization are maintained shall be included as needed in Section A. These may include:

1. Drain, Vent, Bleed monitoring
2. Isolation verification confirmation
3. Equipment "overnight" positions
4. Management of hydraulic and/or vapor energy re-accumulation
5. Location and number of earthing / grounding devices

J. If the work under a LOTO involves a cutout and/or disconnecting/reconnecting pipe, valves, equipment, etc., cathodic protection shall be de-energized during these activities according to the steps listed in Section A.

K. New equipment installed during the work phase or existing equipment reconfigured to affect its function shall have its energization position identified in the re-energizing steps of Section A.

L. Equipment that has been de-energized, subsequently removed, and not replaced shall be noted in the re-energization steps of Section A.

M. Maintenance or work steps shall not be included in Section A.

N. Interim testing steps shall be documented in Section A.

1. If the interim test needs to be repeated and the steps are identical, the steps only need to be listed once.

2. Interim testing can occur at any phase of the LOTO, including during the work phase, in which case the re-energizing and de-energizing steps shall be listed.

O. Photographs are optional and may be inserted in Section C at the discretion of TL/TM and the LOTO PIC.

P. If a LOTO PIC Designee is to be utilized, reference Appendix I and have the LOTO PIC complete the forms in Appendices II or III.

Q. Blinding steps shall be included in Section A, reference Appendix VI.

6.4. Validation

A. A USPL Operations Person, other than the LOTO Writer, who is trained in the USPL LOTO Policy, shall validate the completed draft of LOTO Form 47-199, or an Authorized Person who develops the Simple LOTO Form 47-199B shall validate it by the following:

1. Physically confirming (i.e. visual walk down) that the following are correct:

   a) The General Information Section of the Title Page includes the Task Type, Minimum Isolation Method or Deviation method to be applied per the Hierarchy of Isolation Control and required supporting Deviation documentation and approval levels are indicated.

   b) The procedure and approval documentation.

   c) The equipment, its location, and energy magnitude.

   d) Equipment line-up.

   e) Equipment number shall be on a permanent tag attached to the equipment. Apply the tag with a number to the equipment if not present.

The controlled version of this document can be found in DRM in the HSSE Policies folder.
f) Equipment number on the equipment matches the equipment number in Sections A, B and C (if used).

 g) Equipment descriptor in Sections A, B and C (if used) is correct for the equipment.

 h) Equipment and procedural steps shall be sequentially listed in their proper and correct order in Section A for accurate and complete isolation, de-energization, verification to confirm Zero Energy State, maintenance of isolation and de-energization, interim testing and re-energization and that they match the information on the P&ID, drawing, diagram, sketch and/or electrical one-line diagram.

 i) The procedure satisfies the Minimum Isolation Method or Deviation approved by the TL/TM per the Hierarchy of Isolation Control.

 2. For electrical lockouts, i.e. when work will be done on electrical systems, the Validator shall be an electrically Qualified Person.

 B. The validator shall confirm that all identified energy-isolating or immobilizing devices are able to accept a LOTO lock and tag and notify the TL/TM if this cannot be accomplished.

 C. If a Specialized Contractor is used during the development of LOTO Form 47-199 to provide isolation and de-energization steps, they shall participate in the validation and shall be documented on the form with USPL Operations Personnel.

 D. To minimize the hazard of commuting, more than one USPL Operation Person may be used to validate the draft form when it applies only to the following situations:

   1. Right of Way pipeline segments under one LOTO form.
   2. Isolation points at two pipeline stations under one LOTO form.
   3. Multiple offshore platforms under one LOTO form.
   4. An onshore location and offshore platform(s) under one LOTO form.

 Note: Each validator’s name and the specific procedure steps listed in Section A that they validated shall be noted in the General Information Section.

 E. Inaccuracies found by the validation process shall be communicated to the LOTO Writer by the validator.

 F. After the form is revised the validator shall confirm the corrections have been completed.

 G. The validator shall forward the form to the TL/TM for their review and approval after the validation is completed.

 7. Management Review and Approval Process

 The following requirements establish the review and approval authority for field-validated LOTO Form 47-199. USPL Delegation of Authority requirements apply to all LOTO Form Approvals.

 7.1. TL/TM Actions for LOTO Form 47-199

 A. Shall review all validated forms and document their review by entering their name in the “TL/TM Typed/Printed Name” box and the date in the “Date Reviewed” box on the Title Page of Form 47-199.

 B. Prior to approval, determine if the Minimum Isolation Method Requirements can be met per the Hierarchy of Isolation Control and if they cannot pursue appropriate Deviation requirements.

 C. Authorized to approve forms and shall do so by one of the following methods:

   1. Physically sign their name in the “TL/TM Signature” box and physically write the date in the “Date Approved” box on the Title Page.
   2. Use an Electronic Digital Signature with a time and date stamp in the “TL/TM Signature” box.
3. Email their approval to the LOTO PIC if they are not physically on site. This email shall be attached to the Title Page of the form prior to implementation.
   a) After receiving the TL/TM’s email, the LOTO PIC prints their name in the “LOTO PIC Printed Name on behalf of the TL/TM” box and dates the Title Page.

D. Shall sign their name or use their Electronic Digital Signature with a time and date stamp in “TL/TM Signature” box, check the “NA” box next to the TL/TM “Date Approved” box (does not complete the “Date Approved”) and forward the forms to the DOM for approval that involve the following:

1. Deviation of Minimum Isolation Method as indicated in the Hierarchy of Isolation Control (Appendix IX).
2. Utilization of a LOTO PIC Designee(s) for Right of Way and Offshore locations as referenced in Appendices I, II, and III.
3. Accountable for the retention of the approved forms.

7.2. DOM Approval for LOTO Form 47-199

A. Authorized to approve forms that involved the items in 7.1.D by one of the following methods:

1. Physically sign their name in the “DOM Signature for PSI Hot Work and/or LOTO PIC Designee” box and physically write the date in the “Date Approved” box on the Title Page.
2. Use an Electronic Digital Signature with a time and date stamp in the “DOM Signature for PSI Hot Work and/or LOTO PIC Designee” box.
3. Email their approval to the LOTO PIC if they are not physically on site. This email shall be attached to the Title Page of the form prior to implementation.
   a) After receiving the DOM’s email, the LOTO PIC prints their name in the “LOTO PIC Printed Name on behalf of the DOM for PSI Hot Work and/or LOTO PIC Designee” box and dates the Title Page.

B. Authorized to approve Form 47-199A when a LOTO PIC Designee is utilized as referenced in Appendices I, II and III.

7.3. Reuse of LOTO Form 47-199

A. LOTO PIC shall confirm the following prior to reuse:

1. The procedure is on Form 47-199 and is re-validated as required by Section 6.4.A.1. If there are no changes to the previously approved form as confirmed by re-validating with the items in Section 6.4.A.1, the form can be signed in the General Information Section of the Title page by the Operations Person who performed the re-validation and immediately reused in its original format.
2. If only the reviewer, approver and/or Title Page General Information Section needs to be updated or changed, the form shall go through the Management Review and Approval process and updated with the current reviewer, approver and/or General Information Section requirements.
   a) Documentation of the review and approval shall follow the requirements listed in 7.1 and 7.2 if required.
   b) The updated General Information Section and/or signatures shall be documented on the Title Page of the form contained in this policy (Form 47-199 (Rev 2/2017) and attached to the previously approved procedure on Form 47-199 prior to implementation.
   c) Note: The remainder of the form may be used in its previous format and does not need to be updated to the most current form.
3. If the changes are other than the reviewer, approver or Title Page General Information Section, the procedure shall be updated or rewritten depending on the version of Form 47-199 being used as described below. The form shall be validated and go through the Management Review and Approval Process prior to implementation.
a) If using the 2013 or 2017 version of Form 47-199, update the procedure.
b) If using a version of Form 47-199 which is prior to 2013, then rewrite the procedure on Form 47-199 (Rev 2/2017).

7.4. Field changes to an approved LOTO Form 47-199

A. The LOTO PIC may make “field changes” to an approved form that is being implemented if the following requirements are met:

1. Work on isolated equipment is suspended and all Authorized Persons remove their personal lock from the lockbox or single isolating device.
2. The LOTO PIC makes “handwritten” changes to Sections A, B and C (if used) of the form prior to proceeding with the LOTO implementation.
3. Prior to implementing a field change the LOTO PIC validates the change relative to other procedural steps that may be affected and also verifies that isolation and de-energization are maintained.
4. Deviation requirements and approvals are completed as indicated in Appendix IX, including any changes to Level 2 HITRA.
5. The TL/TM grants verbal approval for the change to the LOTO PIC prior to the LOTO PIC implementing the change.
   a) The DOM’s verbal approval shall be required for items in 7.1. D.
6. The TL/TM or DOM sends an email to the LOTO PIC documenting the scope of the change and their approval, and this email is attached to the “handwritten” changed copy of the form by the end of the work shift.
   Note: Examples of a change would be a valve identified on the form is not holding and an additional valve needs to be added to the appropriated sections of the form to isolate the line or the requirements for the Minimum Isolation Method selected cannot be met.
7. The LOTO PIC prints their name in the “LOTO PIC Printed Name on behalf of TL/TM for Field Changes per Phone Approval” box or “LOTO PIC Printed Name on behalf of DOM for Field Changes per Phone Approval” box and dates the Title Page of the form.
8. The LOTO PIC communicates to all Authorized and Affected Persons the changes made to Section A.

B. If the field change is permanent, a new and current form shall be written, validated and go through the Management Review and Approval Process after the work is completed so it can be reused.

C. At the completion of the LOTO process, i.e., de-energization & isolation, performing work, re-energization, if no field changes occurred; the LOTO PIC checks the “NA” box for field changes on the Title Page of the LOTO form.

8. LOTO Form 47-199 Implementation

8.1. Pre Isolation – The LOTO PIC shall

A. Obtain the approved form from the TL/TM.
   1. Confirm the form is approved by current management, reference Section 7.
B. Confirm the scope of work is applicable to Section A.
C. Review the form with USPL Operations Personnel and contractors responsible for isolation and/or de-energization of the equipment.
D. Notify Affected Person(s) that a LOTO will be implemented and on what specific equipment.
E. Notify the Asset Operator to update the SIMOPs board and Shift Handover Log, if applicable.
8.2. Equipment Isolation – LOTO PIC shall

A. Confirm the isolation of the equipment by the proper sequence of steps (i.e., in their correct order of isolation) identified in Section A.

B. Confirm the equipment numbers are correct in Section A and are physically located on the equipment.

C. Confirm the equipment descriptors are correct in Section A.

8.3. Equipment De-energization – LOTO PIC shall

A. Confirm that the isolation is proven and all hazardous energy (active, stored or residual) has been de-energized, disconnected or restrained, and rendered non-hazardous in the proper sequence of steps (i.e., in their correct order) identified in Section A and that equipment to be worked on is at Zero Energy State.

Note: Confirmation of de-energization and Zero Energy State requires the LOTO PIC to observe de-energization by means that shall include reading accurate gauges/meters, opening proven obstruction free drains/vents/bleeds, taking measurements or actions to confirm equipment to be worked on is isolated, de-pressured, drained and/or electrically de-energized and relieved of hazardous energy prior to commencing work.

If the isolation cannot be proven or the original Minimum Isolation Method or Deviation approved by the TL/TM cannot be achieved, the LOTO PIC shall not allow work on isolated equipment to progress until the isolation can be proven or additional approvals and controls are implemented as granted and approved by TL and/or DOM.

B. Drain/Vent Tags shall be applied to equipment used to drain, vent and/or bleed energy from the isolated system and to maintain de-energization.

C. For electrical lockouts, warnings, or other alerting techniques, shall be affixed to de-energized electrical equipment to indicate it is in a safe state for work, i.e. de-energized or within the lockout procedure scope, and warnings also affixed to adjacent energized electrical equipment to indicate it is not in a safe state for work, i.e. energized or outside the lockout procedure scope. Reference the USPL Electrical Safety Policy or contact the I&E Engineer assigned to the asset for clarity to the requirements.

D. For withdrawable electrical equipment:

1. If the equipment is capable of being racked to an ‘isolated’ position such that it can be mechanically secured in that position and subsequently cannot be fully withdrawn from the housing or racked back in, then the lock/tag may be applied to the withdrawable portion, if stated on the isolation plan. Otherwise the lock/tag shall be placed at the location of the isolation and not on the withdrawable equipment.

2. Fuses for switchracks, contactors and PT/CPT applications shall be secured and either chained/cabled together utilizing a LOTO lock or locked in a box to prevent re-installation.

E. For aerial electrical power distribution isolation points which are not capable of accepting a locking device, the LOTO lock and tag shall be applied to all the entrance points, e.g., substation fence gates, to identify that an isolation point is inside. For substation access restricted to utility access only, only tagging shall be applied to those access gates.

8.4. Application of LOTO Lock and Tag and Verification

A. General Requirements – applicable to both Group and Individual LOTO methods

Note: Specific requirements for securing isolation using Group or Individual methods are detailed in Sections B and C below.

Note: The use of a craft or work-group locks shall not be used in USPL LOTO applications.

Note: Operations Locks shall not be used in USPL LOTO applications.

Note: Tag-Out-Only shall not be used to secure energy-isolation in USPL LOTO applications.
1. After the LOTO PIC has placed their locks and tags (per Section B or C below), the LOTO PIC shall review the approved LOTO Form with each Authorized Person before they place their LOTO locks and tags on each energy-isolation device or lockbox.
   a) LOTO tags may be reused.
   b) The writing on the LOTO tags shall be legible for the duration of the LOTO.

2. USPL LOTO PIC and/or Authorized Persons shall only use the LOTO locks and tags as referenced in Appendix VII.

3. Each contractor in an Authorized Person role shall use their individually-keyed lock (one key for one lock or set of locks for one person) and USPL LOTO tags (supplied by the LOTO PIC).
   Note: Contractors may be provided USPL LOTO locks.

4. A LOTO tag shall be affixed to the LOTO lock or as close as possible to a blind or OID listed in Section A.

5. Prior to initially working on the equipment, the LOTO PIC shall verify equipment isolation and de-energization of the equipment has been accomplished and that it is at Zero Energy State. Verification may be accomplished by but not limited to the following examples:
   a) Attempting to restart the equipment or system by using the operating controls (e.g., switches, push buttons, etc.) to verify energy isolation and de-energization.
   b) If no operating controls are present, the equipment shall be checked with the appropriate test instruments (e.g. pressure gauge, volt meter) and/or visual inspection to verify that energy isolation and de-energization has been accomplished.
   c) Opening low point bleeds, drains, vents and controlled line breaking. Drain/Vent Tags shall be applied to all drains, vents, bleeds used in a procedure.
   Note: A Specialized Contractor or Qualified Electrical Individual (working under the direction of the LOTO PIC) may be used to verify isolation and de-energization if the LOTO PIC is not qualified or knowledgeable to perform these tasks.

6. The LOTO PIC informs all Authorized Persons they have the right to verify that each piece of equipment involved in Section A has been isolated and they have the right to test the equipment or view the testing for de-energization.

7. All Authorized Persons hang their LOTO locks and tags (reference Sections B and C below for individual and group LOTO requirements).

8. The LOTO PIC shall confirm that all Authorized Persons have each applied their individually-keyed LOTO lock and tag to each energy-isolation device (individual LOTO) or lockbox (group LOTO).

9. The LOTO PIC shall sign and date Section D of the validated and approved form after all isolation, de-energization and verification steps in Section A are completed.

10. Each Authorized Person (e.g., USPL and contractor) shall confirm their understanding of Sections A, B and C (if used) to be utilized by signing Section E and printing the date of when they applied their LOTO lock and tag prior to performing work under the LOTO procedure.

11. The LOTO PIC shall confirm that all Authorized Persons have signed and dated Section E.

12. If there is a reaccumulation of stored energy to a hazardous level, it is necessary to confirm the accumulation points and take mitigating action until:
   a) The work is completed, or
   b) The possibility of such accumulation no longer exists.

13. Hasps may be used to accommodate multiple LOTO locks and tags on a lockbox or on individual pieces of equipment.

14. As Authorized Persons permanently complete their assignment, they shall remove their LOTO lock and tag and print the date of when they removed their LOTO lock and tag in Section E.
a) Each Authorized Person who is returning to work on the isolated equipment may leave their LOTO lock and tag on the individual piece of equipment’s energy-isolation device (individual LOTO) or lockbox (group LOTO) for duration of work scope.

b) If each Authorized Person is returning to work on the isolated equipment and removes their LOTO lock and tag each day, the Authorized Person shall meet with the LOTO PIC each day to review the verification requirements contained in this Section 8.4.

B. Group LOTO Utilizing a Lockbox

1. The LOTO PIC shall attach a LOTO lock and group LOTO equipment tag on each energy-isolating device for the equipment involved in Section A.

2. The LOTO PIC shall confirm that all keys for LOTO locks applied to the energy-isolation devices in Section A have been placed in the lockbox.

3. The LOTO PIC’s LOTO lock and tag are placed on the lockbox.

4. Each Authorized Person shall attach their individually-keyed LOTO lock and tag to the lockbox.

   a) A lockbox shall have sufficient receptacles and/or hasps to accommodate the LOTO locks and tags for all Authorized Persons involved in the LOTO.

C. Individual LOTO

1. The LOTO PIC shall be the first to attach their LOTO lock and tag on each energy-isolating device for each piece of equipment.

2. Each Authorized Person shall attach their individually-keyed LOTO lock and tag on each energy-isolating device.

8.5. Equipment Released for Work - LOTO PIC shall

A. Communicate to all Authorized Persons that open pipe (includes instrumentation tubing and product lines) shall not be left unattended. If open pipe cannot be in the visual proximity of site personnel it shall be closed by blinding, installation of engineered caps, threaded plugs or the open pipe reconnected.

   1. Plumber’s plugs shall not be used for this purpose.

B. Informs the Asset Operator to enter the LOTO information into the LOTO Register which is a tab in the ATW Policy’s Permit Register after all steps in Section A that pertain to isolation, de-energization and verification are complete.

C. Releases the equipment protected by the LOTO procedure for Authorized Persons who have signed and dated Section E to commence work.

D. Assure isolation, de-energization and Zero Energy State are maintained throughout the duration of the work phase.

   1. Maintain drains, vents, and bleeds to manage potential hydraulic and/or vapor energy re-accumulation.

   2. Re-check isolation integrity daily prior to beginning work on an isolated system.

   3. Manage re-accumulation of hazardous energy to a safe level as indicated in Level 2 HITRA or other approved/accepted control practice or process.

   4. Re-verify de-energized conditions as needed or as specified in Section A of the procedure or Level 2 HITRA.

E. Confirms Interim Testing during the work phase, see Section 9.

F. A copy of relevant sections of the equipment lockout procedure, e.g., Title Page, Section A (Procedure), and Section B (PIDs or Drawings) of Form 47-199, shall be available with the ATW at the work site for as long as the isolation is in place.
9. Interim Testing

9.1. General Requirements

A. At the point where equipment is isolated, de-energized and released for work, if it is required that LOTO locks and tags be temporarily removed from the energy-isolating devices for the purposes of interim testing (e.g., testing rotation of pumps, MOVs, electric motor(s), VRU/VCU, testing integrity of Cathodic Protection System, venting strainers with hydraulic energy to remove air) each step of re-energization and de-energization shall be sequentially listed in their proper order of isolation in Section A of LOTO Form 47-199 by the LOTO Writer (see required steps in 9.2 below).

9.2. Performing Interim Testing

A. Prepare for re-energizing.
   1. The LOTO PIC shall confirm that the correct isolated equipment is identified for interim testing and re-energizing.
   2. All work applicable to the specific LOTO Form 47-199 is stopped.
   3. The LOTO PIC shall notify all Authorized and Affected Persons of the specific equipment that will be re-energized.

B. Remove LOTO Locks and Tag(s).
   1. Each Authorized Person shall remove their LOTO lock and tag from either the lockbox (group LOTO) or applicable equipment (individual LOTO) involved in the interim test and sign/date Section E of LOTO Form 47-199.
   2. LOTO PIC shall confirm that all Authorized Persons have removed their LOTO locks and tags.
   3. LOTO PIC shall be the last person to remove LOTO lock(s) and tag(s) as follows:
      a) Individual LOTO - Their LOTO lock(s) and tag(s) from equipment to be re-energized for interim testing
      b) Group LOTO - Their LOTO lock and tag from the lockbox and LOTO lock(s) and group LOTO equipment tag(s) from the equipment to be re-energized for interim testing.
         Note: LOTO PIC shall leave / replace the LOTO keys from equipment that is not affected by interim testing in the lockbox and secure with the LOTO PIC LOTO lock and tag.
   4. LOTO PIC shall confirm energy-isolation devices, bleed points, spigots, etc., are in the correct position, as specified in Section A of LOTO Form 47-199, that are necessary to conduct the interim test.

C. Perform Interim Test - Do not list the work steps

D. Post Interim Test - Isolation and De-energization of Equipment - Group LOTO
   1. After the interim test is complete the LOTO PIC shall:
      a) Confirm the return of the energy-isolation device(s), bleed points, spigots, etc. to the correct position per Section A of LOTO Form 47-199.
      b) Apply their LOTO lock(s) and the group LOTO equipment tag(s) to each energy-isolating device for the equipment that was involved in the interim testing per Section A of LOTO Form 47-199.
      c) Verify that the equipment is isolated and de-energized.
   2. LOTO PIC shall take their LOTO lock and tag off the lockbox and reinsert the keys that were removed for the interim test back into the lockbox.
   3. LOTO PIC shall reinstall their LOTO lock and tag on the lockbox.
4. The LOTO PIC shall inform all Authorized Persons they have the right to verify that each piece of equipment involved in Section A of LOTO Form 47-199 has been isolated and they have the right to test the equipment or view the testing for de-energization.

5. All Authorized Persons shall reattach their LOTO lock and tag on the lockbox and sign/date Section E of LOTO Form 47-199.

6. The LOTO PIC shall inform all Affected Persons that Section A of LOTO Form 47-199 will be reimplemented and on what specific equipment.

7. After isolation, de-energization, and verification the LOTO PIC informs all Authorized Persons that work can commence.

E. Post Interim Test - Isolation and De-energization of Equipment - Individual LOTO

1. After the interim test is complete the LOTO PIC shall:
   a) Confirm the energy-isolation device(s) and bleed points, spigots, etc., have been returned to the correct position, as specified in Section A of LOTO Form 47-199.
   b) Apply their LOTO locks and tags to each energy-isolation device for the equipment involved in the interim testing.
   c) Verify that the equipment is de-energized as specified in Section A of LOTO Form 47-199.

2. All Authorized Persons shall reattach their individual-keyed LOTO locks and tags to each energy-isolation device and sign/date Section E of LOTO Form 47-199.

3. Each Authorized Person shall verify isolation and de-energization of the equipment.

4. The LOTO PIC shall inform all Affected Persons that Section A of LOTO Form 47-199 will be reimplemented and on what specific equipment.

5. After isolation, de-energization, and verification the LOTO PIC informs all Authorized Persons that work can commence.

10. Operations Locks

A. LOTO locks and tags may remain on the equipment while work is not being performed for short duration periods, e.g., such as waiting for parts or equipment repair.

Note: Reference the Operational Locks Policy for Assets isolated for long duration or removed from Service that is applicable to your facility.

11. Final Re-energization of Equipment to Service

A. The LOTO PIC shall inspect the work area to confirm that equipment, tools and materials have been removed and that equipment components are operationally intact.

B. For Group LOTO applications:
   1. Each Authorized Person removes their LOTO lock and tag and dates Section E of LOTO Form 47-199.
   2. LOTO PIC removes their LOTO lock and tag from the lockbox(s).
   3. LOTO PIC then removes their LOTO lock(s) and group LOTO equipment tag(s) from the individual pieces of isolated equipment in their proper sequence.

C. For Individual LOTO applications:
   1. Each Authorized Person removes their LOTO lock(s) and tag(s) and dates Section E of LOTO Form 47-199.
2. LOTO PIC removes their LOTO locks and tags from all individual pieces of equipment in their proper sequence.

D. The LOTO PIC shall confirm that all individuals have been safely positioned or removed from the work area prior to re-energization.

E. The LOTO PIC shall inform all Affected Persons that the LOTO locks have been removed and re-energization of the equipment may commence.

F. The LOTO PIC shall notify the Asset Operator that LOTO Form 47-199 is completed and to update the LOTO Register which is a tab in the ATW Policy’s Permit Register, SIMOPs board and Shift Handover Log.

G. After the work is complete, the LOTO PIC shall forward the completed LOTO Form 47-199 to the TL/TM and the form shall be retained for one year from the date of issue or until the DOM annual meeting is held.

12. LOTO PIC Replacement

The replacement LOTO PIC, designated by the TL/TM, is accountable for maintaining the LOTO Form 47-199 from the point of departure of the original/previous LOTO PIC.

12.1. Group LOTO utilizing a Lock Box

A. If a LOTO PIC is replaced the following sequence shall occur:

1. The incoming LOTO PIC reviews for understanding the LOTO Form 47-199 with the outgoing LOTO PIC.

2. The outgoing LOTO PIC has a verification discussion with the incoming LOTO PIC.

3. The incoming LOTO PIC applies their LOTO lock and tag to the lockbox.
   Note: The lockbox should have a LOTO hasp attached to accommodate multiple LOTO PIC locks.

4. The outgoing LOTO PIC removes their LOTO lock and tag from the lockbox.

5. The incoming LOTO PIC informs all Authorized Persons of the change.

6. The new LOTO PIC signs Section D1 of LOTO Form 47-199 in the replacement LOTO PIC box.

12.2. Individual LOTO

A. If a LOTO PIC is replaced the following sequence shall occur:

1. All work covered by the LOTO Form 47-199 shall stop because there can only be one LOTO PIC for multiple pieces of equipment.

2. The incoming LOTO PIC reviews for understanding the LOTO Form 47-199 with the outgoing LOTO PIC.

3. The outgoing LOTO PIC has a verification discussion with the incoming LOTO PIC.

4. The incoming LOTO PIC places their LOTO lock and tag on the equipment’s energy-isolating device before the outgoing LOTO PIC removes their LOTO lock and tag from the same energy-isolating device.

5. The incoming LOTO PIC informs all Authorized Persons of the change.

6. The new LOTO PIC signs Section D1 of LOTO Form 47-199 in the replacement LOTO PIC box.
13. Cutting and Removal of a LOTO Lock and Tag

13.1. Each LOTO lock and tag shall be removed by the Authorized Person who applied the LOTO lock and tag except when a LOTO PIC is replaced when it pertains to the use of the Group LOTO Equipment Tag. If the Authorized Person who applied the LOTO lock and tag is not available to remove it and efforts to contact that person or their supervisor have failed, that LOTO lock and tag shall be cut in accordance with the requirements listed below and Appendix IV:

A. The LOTO PIC shall complete the LOTO Lock and Tag Cutting Form and forward it to the appropriate TL/TM for approval.

B. The TL/TM shall review the form with the LOTO PIC and can approve the cutting of LOTO lock and tag.

Note: Approval via signature, phone or by email is acceptable. The email approval shall be attached to the form.

C. The LOTO PIC shall forward the completed form to the TL/TM. The TL/TM shall retain the form until after the DOM convenes the annual meeting(s) with USPL Authorized Persons to review the findings of LOTO inspections performed during the year within their area of responsibility. The information on the LOTO cutting form may be needed for the review.

D. The LOTO Lock and Tag Cutting Form is not required if the Authorized Person, presently working at the site, loses their LOTO Lock key and cuts their LOTO Lock under the direction of the LOTO PIC.

E. LOTO locks and tags that are cut off shall not be retained.

14. Periodic Inspections of LOTO Form 47-199 Implementation

14.1. Frequency and Number of Inspections

A. One LOTO procedure of each Inspection Category (Appendix V) implemented per month per team shall be inspected. If there are no LOTO’s for a specific Inspection Category implemented in a month, then there are no requirements to perform an inspection for that category that month.

1. The LOTO Register which is a tab in the ATW Permit's Register allows for the accurate tracking of Inspection Categories, see ATW Policy.

2. 

B. Each inspected procedure shall count towards only one Inspection Category. If a procedure covers multiple Inspection Categories, the primary equipment and/or energy type or magnitude to be worked on shall determine the Inspection Category.

Example: If isolating a tank, the “ Tanks” Inspection Category would be used even though other equipment categories are covered by the form. The tank is the primary purpose of the isolation.

14.2. LOTO Inspection Personnel

A. The individual performing the LOTO inspection shall be an Authorized Person(s) not utilizing the LOTO at the time of the inspection.

14.3. LOTO Inspection Requirements:

A. The procedure shall be inspected from start to finish (i.e., from de-energizing through re-energizing) to ensure that it is accurate, correctly followed and provides appropriate protection.
1. It is acceptable for different LOTO inspection personnel to inspect parts of the procedure (i.e. one person may inspect the de-energizing sequence, and another person may inspect the re-energizing sequence).
   
a) If multiple LOTO inspection personnel are used to inspect the procedure they shall be identified on the inspection documentation and it shall note which part of the inspection they conducted.

B. The LOTO inspector shall:

1. Interview a minimum of one Authorized Person to review their understanding of their responsibilities under the procedure. Additional Authorized Persons can be interviewed at the Inspector’s discretion.
2. Immediately inform the LOTO PIC or Authorized Person(s) of any deficiencies in Section A or in its implementation.
3. Use the LOTO Field Inspection Sheet from the COW Audit Assurance Form to accomplish the inspection.
4. Review the results of the inspection with the TL/TM.
5. Complete the LOTO Field Inspection Sheet and forward to the TL/TM.
   
a) TL/TM shall enter the inspection results in the LOTO Tab of the COW Audit Assurance Entry Form.
   
b) TL/TM shall assure any deficiencies or inadequacies identified in the inspection are appropriately corrected and/or addressed.

C. The DOM shall assure an annual meeting(s) of USPL Authorized Persons occurs and the findings of LOTO inspections performed during the year within their area of responsibility are reviewed.

1. Attendance at the annual meeting should be appropriately documented.

15. Third Party LOTOs

A. When a 3rd party commissions work (pays for it) that involves isolation of USPL equipment, USPL Operations Personnel shall isolate the equipment as identified in the 3rd party LOTO procedure and secure with a USPL Operations Lock.

B. When USPL commissions work involving 3rd party equipment, the 3rd party is responsible for isolating their equipment. USPL’s LOTO policy shall then be followed including the application of USPL LOTO locks and tags on the 3rd party equipment.

16. LOTO Lock and Tag Ordering and Specifications

A. See Appendix VII “LOTO Lock and Tag Order Form and Information”.

17. Training and Competency

A. USPL Operations Personnel, Authorized Persons, LOTO PICs, LOTO PIC-Designees, LOTO Writers/Validators, TL/TM and DOMs shall be trained for their roles. LOTO Writer/Validators and LOTO PICs shall also be certified in their role.

Note: Refer to the USPL Control of Work Training and Competency Matrix for specific training requirements.

B. Contractors shall provide verification prior to the start of work that Authorized Persons have been trained in their company’s LOTO program that complies with OSHA Standard 29 CFR 1910.147.
18. References

- ASME B16.48 “Line Blanks”
- BP Group Engineering Technical Practice GP 35-20
- BP Group Standard - Personal Safety - Control of Work (CoW)
- BP OMS Guide Permit to Work
- OSHA STD 1-7.3 - Control of Hazardous Energy (Lockout/Tagout) - Inspection Procedures and Interpretive Guidance.
- NFPA 70E - Standard for Electrical Safety in the Work Place
Appendix I

LOTO PIC Designee

1. General

1.1. The purpose of the LOTO PIC Designee is to perform specific tasks on behalf of the LOTO PIC who is responsible for the overall implementation of the LOTO Form 47-199 in instances where it is not practical or may introduce risk for the LOTO PIC to travel to equipment involved in the implementation of LOTO Form 47-199.

1.2. The requirements listed below are specific to the use of a LOTO PIC Designee. Additional requirements for the implementation of a LOTO Form 47-199 (i.e. the LOTO PIC’s responsibilities) are applicable and are detailed in Section 8 of this policy.

1.3. The use of a LOTO PIC Designee shall only be permitted for the implementation of LOTO Form 47-199 involving the following:

   1.3.1. Isolation of points on the pipeline right-of-way that may also involve isolation in one or more pipeline facilities where the work is performed on the pipeline right-of-way and it is covered by a single form.

   1.3.2. Isolation points at two pipeline stations, where the work is performed at one station and requires isolation at a second station and it is covered by a single form.

   1.3.3. Isolation points on multiple offshore platforms that are covered by a single form.

   1.3.4. Isolation points between an onshore location’s valves and offshore platform(s) covered by a single form.

2. Pre-Isolation of Equipment

2.1. LOTO PIC shall be responsible for completion of the LOTO PIC Designee Form 47-199A.

2.2. The LOTO PIC shall review steps on the approved LOTO Form 47-199 that apply to the LOTO PIC Designee and identify any that involve the sequential interaction of the LOTO PIC and LOTO PIC Designee prior to implementation.

2.3. Communication steps between the LOTO PIC and LOTO PIC Designee roles shall be included in Section A of LOTO Form 47-199.

   2.3.1. As one role completes their sequence of steps, a communication occurs prior to the other role beginning their sequence of steps (e.g., LOTO PIC implements steps 1 through 4, communicates to LOTO PIC Designee(s) so they can implement their steps 5 through 8, LOTO PIC Designee completes steps 5 through 8 and informs LOTO PIC they are completed).

2.4. The TL shall designate a LOTO PIC Designee by one of the following:

   2.4.1. Physically signing their name in the “TL Signature Box” and physically writing the date in the “Date Approved” box on the Title Page.

   2.4.2. Using an Electronic Digital Signature with a time and date stamp in the “TL Signature Box”.

   2.4.3. Emailing their approval to the LOTO PIC if they are not physically on site. This email shall be attached to the LOTO PIC Designee Form 47-199A prior to implementation.

      2.4.3.1. After receiving the TL’s email, the LOTO PIC physically signs and dates the LOTO PIC Designee Form 47-199A in the “LOTO PIC Physical Signature on behalf of the TL” box.

2.5. The LOTO PIC Designee Form 47-199A and the applicable LOTO PIC Designee steps noted in Section A of LOTO Form 47-199 shall be approved by the DOM.

2.6. DOM is authorized to approve the form and shall do so by one of the following methods:

   2.6.1. Physically signing their name in the “DOM Signature Box” and physically writing the date in the “Date Approved” box on the Title Page

   2.6.2. Using an Electronic Digital Signature with a time and date stamp in the “DOM Signature Box”.

The controlled version of this document can be found in DRM in the HSSE Policies folder.
2.6.3. Emailing their approval to the LOTO PIC if they are not physically on site. This email shall be attached to the LOTO PIC Designee Form 47-199A prior to implementation.

2.6.3.1. After receiving the DOM’s email, the LOTO PIC physically signs and dates the LOTO PIC Designee Form 47-199A in the “LOTO PIC Physical Signature on behalf of the DOM” box.

2.7. The LOTO PIC Designee shall only perform the steps in their sequential order as identified for the LOTO PIC Designee in Section A of LOTO Form 47-199.

2.8. If Authorized Persons perform work at the LOTO PIC Designee’s location, the LOTO PIC Designee shall be a USPL employee or a contractor who is an approved Asset Operator Designee trained in USPL LOTO Policy. The LOTO PIC Designee shall:

2.8.1. Obtain an approved copy of LOTO Form 47-199 from the LOTO PIC prior to implementation.

2.8.2. Review the LOTO Form 47-199 with all Authorized Persons responsible for isolation and/or de-energization of the equipment in the LOTO procedure.

2.8.3. Confirm the scope of work is applicable to the information on LOTO Form 47-199.

2.8.4. Notify Affected Person(s) that an implementation of LOTO Form 47-199 will be performed and on what specific equipment.

2.8.5. Notify the Asset Operator to update the SIMOPs board and Shift Handover Log, if applicable.

2.9. If Authorized Persons are not to perform work at the LOTO PIC Designee’s location, the LOTO PIC Designee may be a contractor who is qualified to operate the equipment.

3. Equipment Isolation – LOTO PIC Designee shall:

3.1. Confirm the equipment numbers are correct and are physically located on the equipment at their respective locations.

3.2. Confirm the equipment descriptors are correct for the equipment at their respective locations.

3.3. Confirm the isolation of equipment by the sequence identified on LOTO Form 47-199.

4. Equipment De-energization – LOTO PIC Designee shall:

4.1. Confirm that all hazardous energy (active, stored or residual) has been de-energized, disconnected, or restrained, and rendered non-hazardous in the sequence identified on LOTO Form 47-199.

4.1.1. Note: Confirmation of de-energization may require the LOTO PIC Designee to witness and observe de-energization (e.g., watching a pressure gauge drop to zero).

4.2. If there is reaccumulation of stored energy to a hazardous level, it is necessary for the LOTO PIC Designee to confirm the accumulation points and take mitigating action until:

4.2.1. The work is completed, or

4.2.2. The possibility of such accumulation no longer exists.

5. Application of LOTO Lock and Tag and Verification

5.1. The LOTO PIC Designee shall apply their LOTO locks and group equipment LOTO tags on the equipment’s energy-isolation devices per the steps identified for the LOTO PIC Designee in Section A of LOTO Form 47-199.

5.2. Prior to working on the equipment, the LOTO PIC Designee shall verify equipment isolation and de-energization of the equipment has been accomplished. Examples of verification methods are listed below, but are not limited to the following:

5.2.1. Attempting to restart the equipment or system by using the operating controls (e.g., switches, push buttons, etc.) to verify energy isolation and de-energization,

5.2.2. If no operating controls are present, the equipment shall be checked with the appropriate test instruments (e.g. pressure gauge, volt meter) and/or visual inspection to verify that energy isolation and de-energization has been accomplished,

5.2.3. Opening low point bleeds, drains, vents and controlled line breaking.
5.2.4. Note: A Specialized Contractor or Qualified Electrical Individual (working under the direction of the LOTO PIC) may be used to verify isolation and de-energization if the LOTO PIC is not qualified or knowledgeable to perform these tasks.

6. Control of LOTO PIC Designee Keys for Implementation of LOTO Form 47-199 and LOTO PIC Designee Form 47-199A - Right of Way

6.1. The LOTO PIC Designee is used to isolate and de-energize on behalf of the LOTO PIC and shall give their energy isolation device LOTO lock keys to the LOTO PIC. The LOTO PIC places the keys in the LOTO PIC’s lockbox and secures it with their LOTO lock and tag prior to the start of work.

6.2. The LOTO PIC Designee shall apply their LOTO lock and tag to the LOTO PIC lockbox.

6.3. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title LOTO PIC Designee Energy Isolation, De-energization and Verification.

6.4. The LOTO PIC shall print and sign their name and date Form 47-199A under the title LOTO PIC Securing of Isolation.

6.5. If an Authorized Person(s) performs work at the location(s) where a LOTO PIC Designee(s) is utilized, an additional lockbox(s) shall be utilized at the location where the work is to be performed.

6.5.1. The LOTO PIC Designee shall give their energy isolation device LOTO lock keys to the LOTO PIC. The LOTO PIC places the keys in the LOTO PIC’s lockbox and secures it with their LOTO lock and tag prior to the start of work.

6.5.2. The LOTO PIC Designee shall apply their LOTO lock and tag to the LOTO PIC lockbox.

6.5.3. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title LOTO PIC Designee Energy Isolation, De-energization and Verification.

6.5.4. The LOTO PIC shall print and sign their name and date Form 47-199A under the title LOTO PIC Securing of Isolation.

6.5.5. LOTO PIC Designee key(s) from their lock(s) on the LOTO PIC lockbox is transported and placed in a lockbox at the LOTO PIC Designee’s location.

6.5.6. LOTO PIC Designee shall place their LOTO lock and tag on the lockbox at their location.

6.5.7. Authorized Person(s) at the LOTO PIC Designee’s location shall place their LOTO lock(s) and tag(s) on the LOTO PIC Designee’s lockbox.

6.5.7.1. Note: The above steps demonstrate the process of “daisy-chaining” of lockboxes.

6.5.8. The LOTO PIC Designee informs all Authorized Persons they have the right to verify that each piece of equipment involved in the Section A of LOTO Form 47-199 has been isolated and they have the right to test the equipment or view the testing for de-energization.

6.5.9. Each Authorized Person (e.g., USPL and contractor) shall confirm their understanding of Sections A, B and C (if used) of LOTO FORM 47-199 by signing and listing the date of when they applied their LOTO lock and tag in Section E of LOTO Form 47-199 prior to performing work under this LOTO Form.

6.5.10. The LOTO PIC Designee shall confirm that all Authorized Persons have signed Section E of the LOTO Form 47-199.

6.5.11. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title LOTO PIC Designee Daisy-Chaining of Multiple Lockboxes.

6.5.12. As Authorized Persons permanently complete their assignment, they shall remove their LOTO lock and tag from the LOTO PIC Designee’s lockbox and print the date of when they removed their LOTO lock and tag in Section E of LOTO Form 47-199.

6.5.13. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title of LOTO PIC Designee Re-energization upon completion of re-energization of the equipment. Additional requirements pertaining to re-energization are listed in Section 9.

7. Control of LOTO PIC Designee Keys for Implementation of LOTO Form 47-199 and LOTO PIC Designee Form 47-199A for Offshore Platforms
7.1. LOTO lock keys for the isolated equipment on each platform may be maintained by the respective LOTO PIC Designee on each platform. LOTO lock keys are not required to be transported to the LOTO PIC.

7.2. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title LOTO PIC Designee Energy Isolation, De-energization and Verification.

7.3. If an Authorized Person(s) performs work at the location(s) where a LOTO PIC Designee(s) is utilized, a lockbox shall be utilized at each platform where the work is to be performed. In these instances the following requirements shall apply to preserve isolation of the equipment involved in the LOTO for all Authorized Persons:

7.3.1. LOTO PIC Designee shall place their equipment LOTO lock keys in their lockbox and place a LOTO lock and tag on the lockbox.

7.3.2. Authorized Person(s) at the LOTO PIC Designee’s location shall place their LOTO lock and tag on the LOTO PIC Designee’s lockbox.

7.3.3. LOTO PIC Designee shall inform all Authorized Persons they have the right to verify that each piece of equipment on their platform and the other platforms involved in the Section A of LOTO Form 47-199 has been isolated and they have the right to test the equipment or view the testing for de-energization.

7.3.3.1. If a request is made, Section A may be implemented and work may proceed with the remaining Authorized Persons under the LOTO Form 47-199.

7.3.4. Each Authorized Person (e.g., USPL and contractor) shall confirm their understanding of Sections A, B and C (if used) of LOTO FORM 47-199 by signing and listing the date of when they applied their LOTO lock and tag in Section E of LOTO Form 47-199 prior to performing work under this LOTO Form 47-199.

7.3.5. The LOTO PIC Designee shall confirm that all Authorized Persons have signed Section E of the LOTO Form 47-199.

7.3.6. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title of LOTO PIC Designee Authorized Persons.

7.4. As Authorized Persons permanently complete their assignment, they shall remove their LOTO lock and tag and print the date of when they removed their LOTO lock and tag in Section E of Form 47-199.

7.5. The LOTO PIC Designee shall print and sign their name and date Form 47-199A under the title of LOTO PIC Designee Re-energization upon completion of re-energization of the equipment. Additional requirements pertaining to re-energization are listed in Section 9.

8. **Equipment Released for Work**

8.1. After all the steps in Section A of LOTO Form 47-199 that pertain to isolation, de-energization and verification are complete and initialed, the LOTO PIC shall release the equipment for work to the Authorized Persons who have signed and dated Section E of LOTO Form 47-199.

8.2. If there are Authorized Persons working at the LOTO PIC Designee’s site, the LOTO PIC Designee shall inform them that the LOTO PIC has released the equipment for work to the Authorized Persons who have signed and dated Section E of LOTO Form 47-199.

9. **Re-energization**

9.1. The LOTO PIC and LOTO PIC Designee shall communicate with each other throughout the re-energization process to complete the steps listed in Section A of LOTO Form 47-199 in the proper sequence.

9.2. When the work is complete the LOTO PIC Designee shall remove their LOTO lock and tag from the LOTO PIC’s lockbox and retrieved their equipment LOTO lock keys.

9.3. The LOTO PIC shall physically remove their LOTO locks and group LOTO equipment tags from the equipment’s energy-isolation devices according to the steps listed on Form 47-199.

9.4. The LOTO PIC shall confirm that all individuals have been safely positioned or removed from the work area prior to re-energization.

9.5. The LOTO PIC informs all Affected Persons that the LOTO locks have been removed and re-energization of the equipment will commence.
9.6. If there are Authorized Persons working at the LOTO PIC Designee’s work site they shall remove their LOTO lock and tag from the LOTO PIC Designee’s lockbox and date Section E of LOTO Form 47-199.

9.7. The LOTO PIC Designee shall:

9.7.1. Retrieve their key from the LOTO PIC’s lockbox.

9.7.2. Retrieve their equipment LOTO Lock key(s) from the LOTO PIC lockbox.

9.7.3. Physically remove their LOTO locks and group LOTO equipment tags from the equipment’s energy-isolation devices according to the steps listed on LOTO Form 47-199.

9.7.4. Inspect the work area to confirm that equipment, tools and materials have been removed and that equipment components are operationally intact.

9.7.5. Confirm that all individuals have been safely positioned or removed from the work area prior to re-energization.

9.7.6. Inform all Affected Persons that the LOTO locks have been removed and re-energization of the equipment will commence.

9.7.7. Return their completed copy of LOTO Form 47-199 and LOTO PIC Designee Form 47-199A to the LOTO PIC.
Appendix II
LOTO PIC Designee Form 47-199A - Right of Way

<table>
<thead>
<tr>
<th>LOTO PIC Designee Form 47-199A - Right of Way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each LOTO PIC Designee shall be listed on a separate form.</td>
</tr>
<tr>
<td>USPL LOTO PIC Designee printed name:</td>
</tr>
<tr>
<td>Non USPL LOTO PIC Designee printed name:</td>
</tr>
<tr>
<td>Are DOT Operator Qualifications (OQ) required for the LOTO PIC Designee?</td>
</tr>
<tr>
<td>Printed name of who verified the LOTO PIC Designee’s OQ qualifications in IS Net World:</td>
</tr>
<tr>
<td>The LOTO PIC shall attach Form 47-199 to this form and list the procedure number:</td>
</tr>
</tbody>
</table>

**TL Designation of the LOTO PIC Designee**

I designate the LOTO PIC Designee listed above to apply and remove LOTO locks and group LOTO equipment tags on the equipment's energy isolating devices for the steps noted in Section A of Form 47-199.

<table>
<thead>
<tr>
<th>TL Printed Name:</th>
<th>TL Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOTO PIC Physical Signature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on Behalf of the TL (attach e-mail):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**District Operations Manager**

I approve the LOTO PIC Designee listed on this form to implement the identified LOTO PIC Designee steps from Section A of Form 47-199 which includes the communication process between the LOTO PIC and LOTO PIC Designee.

<table>
<thead>
<tr>
<th>DOM Printed Name:</th>
<th>DOM Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOTO PIC Physical Signature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on Behalf of the DOM (attach e-mail):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOTO PIC Designee Energy Isolation, Deenergization and Verification**

The equipment, scope of the work, equipment numbers/descriptors listed on Form 47-199 are the same for the current job. Energy isolation, deenergization and verification have been completed for the equipment identified in accordance with the applicable steps I have initialed on Form 47-199. I have placed my LOTO lock(s) and tag(s) as required and have returned the key(s) to the LOTO PIC for placement in the LOTO PIC's lock box. I shall attach my LOTO lock and tag on the LOTO PIC's lock box after the LOTO PIC places my key(s) in their lock box and attaches their LOTO PIC LOTO lock and tag to the lock box:

| LOTO PIC Designee Printed Name: | LOTO PIC Designee Physical Signature: | Date: |

**LOTO PIC Securing Of Isolation**

I have received the LOTO PIC Designee's LOTO lock key(s) and have secured them in the LOTO PIC's lock box with my LOTO lock and tag. The LOTO PIC Designee has attached their LOTO lock and tag to the LOTO PIC's lock box. I understand that upon completion of the work, the LOTO PIC Designee identified on this form will obtain their LOTO lock key(s) from my lock box and remove their LOTO lock(s) and group LOTO equipment tag(s) from the equipment energy isolating device(s).

| LOTO PIC Printed Name: | LOTO PIC Physical Signature: | Date: |

**LOTO PIC Designee Daisy-Chainning of Multiple Lockboxes**

If Authorized Persons perform work at the location where the LOTO PIC Designee is utilized, an additional lock box shall be utilized where the work is to be performed. I have placed my LOTO lock key from the LOTO lock and tag I placed on the LOTO PIC's lock box in a lock box at my (LOTO PIC Designee's) location. I have placed a LOTO lock and tag on that lockbox. All Authorized Persons have placed their LOTO locks and tags on my lock box. I have informed all Authorized Persons that each piece of equipment involved in the LOTO procedure has been isolated and they have the right to test the equipment or view the testing for deenergization. All Authorized Persons have signed and dated Section E of LOTO Form 47-199.

| LOTO PIC Designee Printed Name: | LOTO PIC Designee Physical Signature: | Date: |

**LOTO PIC Designee Reenergization**

I have obtained my LOTO lock keys from the LOTO PIC’s lock box, removed my LOTO lock(s) and group LOTO equipment tag(s) from the energy isolation device(s) and reenergized the equipment in accordance with the applicable steps I have initialed in Section A of LOTO Form 47-199. I shall return the completed LOTO Form 47-199 and LOTO PIC Designee Form 47-199A: Right of Way to the LOTO PIC.

| LOTO PIC Designee Printed Name: | LOTO PIC Designee Physical Signature: | Date: |
Appendix III

**LOTO PIC Designee Form 47-199A - Off Shore Platforms**

<table>
<thead>
<tr>
<th><strong>LOTO PIC Designee Form 47-199A - Offshore Platforms</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Printed Name of TL who nominates the LOTO PIC Designee.</td>
<td>Revised 6/13</td>
</tr>
<tr>
<td>USPL LOTO PIC Designee printed name:</td>
<td>NA</td>
</tr>
<tr>
<td>Non USPL LOTO PIC Designee printed name:</td>
<td>NA</td>
</tr>
<tr>
<td>Are DOT Operator Qualifications (OQ) required for the LOTO PIC Designee?</td>
<td>Yes</td>
</tr>
<tr>
<td>Individual's printed name who verified the LOTO PIC Designee's OQ qualifications in IS Net World.</td>
<td></td>
</tr>
</tbody>
</table>

The LOTO PIC shall attach Form 47-199 to this form and list the procedure number.

**TL Authorization of LOTO PIC Designee**

I designate the LOTO PIC Designee listed above to apply and remove LOTO locks and group LOTO equipment tags on the equipment's energy isolating devices for the steps noted in Section A of Form 47-199.

<table>
<thead>
<tr>
<th>TL Printed Name:</th>
<th>TL Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOTO PIC Physical Signature on Behalf of the TL (attach e-mail):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**District Operations Manager**

I approve the LOTO PIC Designee listed on this form to implement the identified LOTO PIC Designee steps from Section A of Form 47-199 which includes the communication process between the LOTO PIC and LOTO PIC Designee.

<table>
<thead>
<tr>
<th>DOM Printed Name:</th>
<th>DOM Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOTO PIC Physical Signature on Behalf of the DOM (attach e-mail):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOTO PIC Designee Energy Isolation, Deenergization and Verification**

The equipment, scope of the work, equipment numbers/descriptors listed on Form 47-199 are the same for the current job. Energy isolation, deenergization and verification have been completed for the equipment identified in accordance with the applicable steps I have initialed on Form 47-199. I have placed my LOTO lock(s) and group LOTO equipment tag(s) on the applicable equipment's energy isolation device(s) on my platform.

<table>
<thead>
<tr>
<th>LOTO PIC Designee Printed Name:</th>
<th>LOTO PIC Designee Physical Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**LOTO PIC Designee with Authorized Persons**

If Authorized Persons perform work at the location where the LOTO PIC Designee is utilized, an additional lock box shall be utilized where the work is to be performed. I have placed my LOTO lock key(s) from the LOTO lock and group LOTO equipment tag(s) in a lock box at my (LOTO PIC Designer's) location. I have placed a LOTO lock and tag on that lockbox. All Authorized Persons have placed their LOTO locks and tags on my lockbox. I have informed all Authorized Persons that each piece of equipment involved in the LOTO procedure has been isolated and they have the right to test the equipment or view the testing for deenergization. All Authorized Persons have signed and dated Section E of LOTO Form 47-199.

<table>
<thead>
<tr>
<th>LOTO PIC Designee Printed Name:</th>
<th>LOTO PIC Designee Physical Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**LOTO PIC Designee Reenergization**

I have obtained my LOTO lock keys from the LOTO PIC Designee's lockbox, removed my LOTO lock(s) and group LOTO equipment tag(s) from the energy isolation device(s) and reenergized the equipment in accordance with the applicable steps I have initialed in Section A of LOTO Form 47-199. I shall return the completed LOTO Form 47-199 and LOTO PIC Designee Form 47-199A-Multiple Offshore Platforms to the LOTO PIC.

<table>
<thead>
<tr>
<th>LOTO PIC Designee Printed Name:</th>
<th>LOTO PIC Designee Physical Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>
# Appendix IV
## LOTO Lock and Tag Cutting Form

**LOTO Lock and Tag Cutting and Removal Form**

<table>
<thead>
<tr>
<th>This form is to be completed by the LOTO PIC</th>
<th>Revised 6/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print the name of the LOTO PIC requesting cutting/removal:</td>
<td>Date of request:</td>
</tr>
<tr>
<td>Print the name of absent lock owner:</td>
<td>Name of lock owner’s company:</td>
</tr>
<tr>
<td>LOTO Form #</td>
<td></td>
</tr>
</tbody>
</table>

**The LOTO PIC is required to attempt to contact the lock owner**

| Lock owner contacted and notified prior to cutting the LOTO lock and tag: | Yes [ ] No [ ] |
| If yes or no list the following: |
| Date: | Time: |

**The LOTO PIC is required to attempt to contact the lock owner’s supervisor if unable to contact the lock owner.**

| Lock owner’s supervisor contacted and notified prior to cutting the LOTO lock and tag: | Yes [ ] No [ ] |
| If yes or no list the following: |
| Date: | Time: |

**If able or unable to contact and notify the lock owner or the lock owner’s supervisor, TL/TM approval is required and then the lock can be cut and tag removed.**

| Name, date and time of TL/TM granting approval for cutting the LOTO lock and tag: | Date: Time: |
| Print name: | |
| Sign name: | |
| LOTO PIC name on behalf of TL/TM for phone or email approval: | |
| Lock and tag out - Date and Time: | LOTO PIC signature: |
| If the lock owner is coming back to work on the system where their lock was cut off list when they were notified their lock and tag were removed. | Date: Time: |

**LOTO PIC shall forward the completed form to the TL/TM.**
Appendix V
LOT0 Inspection Report

<table>
<thead>
<tr>
<th>Inspection Category: (check one below)</th>
<th>Person(s) performing Inspection: (list below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Tanks</td>
<td>Name:</td>
</tr>
<tr>
<td>= Electrical &amp; Hydraulic Combined</td>
<td>I inspected (check all that apply): deenergization</td>
</tr>
<tr>
<td>= Piping / Hydraulic only</td>
<td>Name:</td>
</tr>
<tr>
<td>= Electrical High voltage (&gt; 600 Volts AC)</td>
<td>I inspected (check all that apply): deenergization</td>
</tr>
<tr>
<td>= Electrical Low voltage (&lt; 600 Volts AC)</td>
<td>Inspection included a review with Authorized Persons of their responsibilities under the procedure: YES</td>
</tr>
</tbody>
</table>

Authorized Employee(s) included in Inspection: (list below)

Inspection Findings are indicated on the LOTO Field Inspection Sheet: YES

LOTO PIC Name:

Name:

Person Performing Inspection Certification: I hereby certify that the information in this inspection report is true and correct and that the inspection was conducted in accordance with the OSHA Control of Hazardous Energy Lockout/Tagout) Standard 29 CFR Section 1910.147.

(signature): __________________________

Appendix VI
Isolated Equipment Utilizing Blinds

Blinds are installed to effectively isolate and secure equipment, vessels, and piping from hazardous energy so that repairs, maintenance, or servicing can be conducted without injury. Blinds take the place of LOTO locks in the implementation of LOTO Form 47-199.

1. **General Requirements**
   1.1. For the purpose of this LOTO Policy, a blind can be called a disc, blank, plate, slip, spectacle, skillet, swing, figure-8 or any other name, but its intended use is to stop hydraulic energy.

1.2. Blinding must be done if any of the following conditions exist:

   1.2.1. Whenever the system is open and USPL personnel are not physically on the scene and in control of the double blocks. System components might include pipelines, valves, strainers, meters, pumps, heat exchangers, air eliminators, etc.

   1.2.2. Work inside a storage tank where the contents of the tank are removed to achieve entry.

1.3. Blinding is not required for in-service tank work above a floating roof (internal or external). Utilizing block valves shall achieve isolation of product flow. **For the purposes of completing the Hierarchy of Isolation**
Control on the Form 47-199, Task Type shall be Breaking Containment <= 145psig, Minimum Isolation Method, shall be Proven SVI and no Deviation is required.

2. **Blind Criteria**

2.1. In addition to any STPs and SMPs that apply to blinding, the following criteria must be met when blinds are used:

2.1.1. Blinds, their bolting, and gaskets shall conform to the piping design pressure limits for the line, reference USPL-GP 42-0062, Bolting and Gaskets.

2.1.2. Bolting shall be of the correct length to accommodate for any extra thickness.

2.1.3. Blinds shall be purchased (not field made) and sized per the latest edition of either ASME B16.48 “Line Blanks” or B31.3 section 304.53 and in either case stamped with the pressure rating of the blind.

2.2. If you have questions please consult with the USPL Technical Authority - Hydraulics and Onshore Pipeline Design.

3. **Opening Preparations for the Installation/Removal of a Blind**

3.1. If the system is pressurized, a Cold Work-Breaking Containment permit shall be required to open the flange, drain the system, and then install/remove the blind.

3.2. If the system is depressurized by use of vents or drains, the task of installing/removing the blind shall be assessed against the Hierarchy of Controls and the appropriate Minimum Isolation Method applied to the task.

3.3. Before opening any flanged joint for the installation/removal of a blind, consideration shall be given to the increased risk of the short duration job and an ATW or Level 2 HITRA shall be required along with Section A procedure steps to identify the necessary controls to assure safe isolation for blind installation/removal.

3.4. Some items to consider for the risk assessment are listed below but are not limited to the following:

3.4.1. Confirm the exact location where the blind is necessary.

3.4.2. Determine that the equipment or piping is prepared and properly released for blinding.

3.4.3. Confirm that correctly sized and rated blinds are to be installed.

3.4.4. Verify that lines and equipment have been depressurized and drained.

3.4.5. Where a check valve is located between two isolation valves, pressure verification is required on each side of the check valve.

3.4.6. Ensure that drain valves are open, where available, by using proper “rod out” equipment (i.e., a rod or other device used to ensure that the drain valve is free of debris).

3.4.7. **Authorized Persons used to install/remove blind shall work under the direction of the LOTO PIC.**

3.4.8. The LOTO PIC shall review the isolation and de-energization procedure up to the point of blind installation/removal with the Authorized Persons used to install/remove the blind.

3.4.9. The Authorized Persons used to install/remove the blind shall apply their locks to the LOTO PIC Lockbox or individual pieces of equipment prior to blind installation.

3.4.10. Determine what product or material has been contained in the equipment or piping. If this material is hazardous, obtain and wear the appropriate protective clothing and equipment per the USPL PPE Matrix (located in the safety manual).

3.4.11. If equipment to be blinded is above atmospheric pressure, make sure that pressure is relieved to the greatest extent possible and it is safe to install the blind.

3.4.12. Make provisions to capture any hydrocarbons that may drain to atmosphere from the system.

3.4.13. Consideration shall be made for the amount of flange spread necessary to remove and insert the blanks and the orientation of the flanges.

3.4.14. Consideration shall be given for the line support requirements where a removable spool or blind point is provided.
4. **Opening a Flanged Joint for the Installation/Removal of a Blind**

   4.1. Use the appropriate safety precautions listed in Section A of LOTO Form 47-199, ATW and/or the Level 2 HITRA.

   4.2. Keep flanges open for a minimum length of time, consistent with the safe installation/removal of the blind.

   4.3. When opening flanges suspected of containing toxic gases, perform air monitoring to determine the level of respiratory protection required for the task.

5. **Installation of Blinds**

   5.1. The inlet and outlet lines (except fire foam lines) shall be blinded where the contents of the tank are removed prior to entry. Subsurface fire foam/water injection lines where they are connected to a foam/water source shall be blinded.

   5.2. Blinds should be installed at the flange as close as possible to the vessel, tank, or equipment under consideration.

   5.3. When vessels or process equipment are interconnected in such a way that blinding of each is not possible or practical, the combination is to be considered as one vessel. The combination shall be appropriately blinded and prepared as a unit.

   5.4. A blind shall have a gasket installed on both sides when being installed between two flanges and a gasket on one side of an end pipe blind.

   5.5. Where there are concerns about tank roof (fixed or floating) integrity a Working at Heights Permit, fall protection assessment, shall be conducted when it is necessary to walk on the tops of storage tanks to install blinds.

   5.6. The location of all blinds shall be noted in Section A of LOTO Form 47-199.

   5.7. A completed LOTO tag shall be hung as close as possible to the blind.
## Appendix VII

### LOTO Lock and Tag Order Form and Information

BeAed is the exclusive supplier of USPL LOTO Locks and Tags.

**ORDER DATE:** ____________  
**Order Number:** PLBU-2006MSA021

**TO:**  Jennifer Edwards  
FROM:  US Pipelines and Logistics

**Location Name:** BeAed Corporation  
**Contact Name:** Alvin, TX 77512

**Shipping Address:** Phone: 281-331-2035  
**Fax Orders to:** 281-331-6000

**Fax:**

**SINGLE LOCKS (One key for one lock)**

<table>
<thead>
<tr>
<th>Lock Series Number</th>
<th>Shackle Length</th>
<th>Area 2 engraving - Yes/No</th>
<th># of Locks ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1105</td>
<td>1 inch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1106</td>
<td>1.5 inch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1107</td>
<td>3.0 inch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Insert engraving for Area 2 here - maximum of 10 characters: __________________________

*Note:* Insert engraving for Area 5 here - maximum of 2 characters: __________________________

**LOCK SETS (One key for a specified number of locks)**

<table>
<thead>
<tr>
<th>Lock Series Number</th>
<th>Shackle Length</th>
<th>Area 2 Engraving - Yes/No</th>
<th># of Locks per Lock Set</th>
<th># of Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td>1105</td>
<td>1 inch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1106</td>
<td>1.5 inch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1107</td>
<td>3.0 inch</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* Insert engraving for Area 2 here - maximum of 10 characters: __________________________

*Note:* Insert engraving for Area 5 here - maximum of 2 characters: __________________________

### LOCKOUT TAGS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Tag Color</th>
<th># of Tags Ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>BN# 201-0291-03</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>BN# 201-0291-04</td>
<td>Red</td>
<td></td>
</tr>
<tr>
<td>BN# 201-0291-05</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td>BN# 201-0291-06</td>
<td>Green</td>
<td></td>
</tr>
<tr>
<td>BN# 201-0291-07</td>
<td>Blue</td>
<td></td>
</tr>
</tbody>
</table>

### GROUP LOTO EQUIPMENT TAGS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Tag Color</th>
<th># of Tags Ordered</th>
</tr>
</thead>
<tbody>
<tr>
<td>BN# 201-0291-08</td>
<td>White/Red Border</td>
<td></td>
</tr>
</tbody>
</table>
The following applies to all orders:

BeAed will provide only one patented key (i.e., not reproducible) per lock or per lock set.

The locks will be orange in color and engraved as follows:

- **AREA 1** (lock front top) - engraved with USPL
- **AREA 2** (lock front bottom) - optional field for engraving (maximum of 10 characters)
- **AREAS 3 and 4** - will not be used for engraving
- **AREA 5** (lock back bottom) - engraved with location’s first two letters of the location name (e.g., O’Hare = OH, Freeman = FR, Manhattan Station = MA, Brooklyn = BR).

Sequence number shall be issued and tracked by BeAed.

LOTO lock keys will be engraved with the same location initials and sequence number from Area 5 of the lock.

Lock shackles will fit through the LOTO tag eyelets; however nylon ties may be used to secure the tags if needed.

---

**LOCK SERIES NUMBERS AND SPECIFICATIONS**

<table>
<thead>
<tr>
<th>American Lock Series</th>
<th>Shackle Length</th>
<th>Shackle Diameter</th>
<th>Body Width</th>
<th>Body Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1105</td>
<td>1”</td>
<td>¾”</td>
<td>1.5”</td>
<td>¾”</td>
</tr>
<tr>
<td>1106</td>
<td>1.5”</td>
<td>¾”</td>
<td>1.5”</td>
<td>¾”</td>
</tr>
<tr>
<td>1107</td>
<td>3”</td>
<td>¾”</td>
<td>1.5”</td>
<td>¾”</td>
</tr>
</tbody>
</table>
The tag below is used on equipment for Individual LOTO and on the lockbox for Group LOTO.

### Tag Front

**DANGER**

**LOCKED OUT**

The person listed below applied this LOTO lock and tag.

This LOTO lock and tag shall only be removed by the person listed below:

- **Print Name:**
- **Date Applied:**
- **Phone No.:**
- **Procedure No.:**

---

### Tag Back

**DANGER**

**This energy source has been LOCKED OUT!**

**DO NOT OPERATE**

**Remarks:**

---

The tag below is used only on the equipment’s energy isolation device for Group LOTO.

### Tag Front

**DANGER**

**GROUP LOTO EQUIPMENT TAG**

DO NOT OPERATE

The LOTO PIC listed below applied this LOTO lock and tag.

- **Name:**
- **Date:**
- **Procedure No.:**

---

### Tag Back

**DANGER**

**This energy source has been LOCKED OUT!**

This LOTO lock and tag shall be removed by the current LOTO PIC who has signed Form 47-199.

This LOTO tag shall only be applied to equipment under a group LOTO procedure and not on a Lockbox.

**Remarks:**
### Simple LOTO Form

**SIMPLE LOTO Form 47-199B**

<table>
<thead>
<tr>
<th>The Authorized Person shall identify and validate the equipment by confirming the following: the equipment is correct, the number or descriptor is correct and that the number is located on the equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>List the equipment, its location and equipment number or equipment descriptor covered by this Simple LOTO.</td>
</tr>
</tbody>
</table>

1. Equipment shall have only a single type of energy source which can be readily identified and isolated (e.g. only electrical energy for a rectifier, or only hydraulic energy for a pressure gauge, or only hydraulic energy for load head coupler).

   a. Electrical energy shall be less than or equal to 600 volts.
   b. There shall be no collateral sources of energy in or connected to the equipment.

2. A single energy isolation device shall achieve deenergization and isolation to which a single LOTO lock and tag shall be applied. Examples of single energy isolation devices are:

   a. One circuit breaker isolates a rectifier
   b. One valve isolates a pressure gauge

   Note: A tank’s inlet or outlet valve’s pressure/thermal relief valve does not meet this condition because there are two isolation points, upstream and downstream, of the pressure/thermal relief valve.

3. Equipment has no potential for stored or residual energy, or the reaccumulation of stored energy after it is shut down which could endanger employees.

4. The same Authorized Person shall perform the entire Simple LOTO and the associated work which includes: isolation, deenergization, affixing the USPL LOTO lock and tag, verification of isolation and deenergization, performing the servicing or maintenance, removing their LOTO lock and tag, and reenergizing the equipment.

5. The servicing or maintenance on the isolated equipment does not create hazards for other employees.

6. Incidents involving the unexpected activation or reenergization of the equipment during servicing and maintenance have not occurred in the past.

**Authorized Person**

I confirm the validation of the equipment listed and that this Simple LOTO meets all the requirements listed above.

<table>
<thead>
<tr>
<th>Authorized Person Printed Name:</th>
<th>Authorized Person Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**Operations TL/TM Authorization of the Simple LOTO**

I approve this Simple LOTO and the Authorized Person to perform the Simple LOTO. I have informed the Asset Operator to update the SIMOPS board, LOTO Register and ATW Form.

<table>
<thead>
<tr>
<th>TL/TM Printed Name:</th>
<th>TL/TM Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Authorized Person Printed Name on behalf of the TL/TM after receiving their email:</th>
<th>Date:</th>
</tr>
</thead>
</table>

**Authorized Person**

Authorized Person prints their initials in the space on the right to verify that each step listed below is completed.

I isolated and deenergized the equipment that has a single energy source.

I affixed my one LOTO lock and USPL tag to the equipment's single energy isolation device.

I verified isolation and deenergization.

I performed the work i.e., maintenance, installing, modifying or servicing on the equipment with no assistance from any other individual.

I removed my one LOTO lock and tag and reenergized the equipment identified above.

After the equipment is reenergized the Authorized Person shall forward this completed Simple LOTO Form 47-199B to the TL/TM.
Appendix IX
Hierarchy of Isolation Control

The highest quality and security of isolation that is reasonably practicable in the prevailing circumstances shall always be used. Deviation from a selected Minimum Isolation Method shall follow the requirements indicated in the Deviation and Deviation Approval columns below. The following list describes various possible isolation methods in decreasing order of security and effectiveness:

<table>
<thead>
<tr>
<th>Task Type</th>
<th>Minimum Isolation Method</th>
<th>Deviation</th>
<th>Deviation Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel entry, Tank Entry below Floating Roof</td>
<td>Positive Isolation at the closest point to vessel/tank.</td>
<td>Positive Isolation at next available point</td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by DOM</td>
</tr>
<tr>
<td>PSI Hot Work</td>
<td>Proven DBB</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unproven DBB or Proven SVI</td>
<td></td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by DOM</td>
</tr>
<tr>
<td></td>
<td>Positive Isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Isolation Device(OID) with written procedure or Unproven SVI on shut down systems</td>
<td></td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by DOM</td>
</tr>
<tr>
<td></td>
<td>Other Isolation Device(OID) with written procedure or Unproven SVI on live systems</td>
<td></td>
<td>Safety Policy Deviation</td>
</tr>
<tr>
<td>Breaking Containment operating pressure &gt;145 psig</td>
<td>Proven DBB</td>
<td>Unproven DBB, Proven SVI, or Unproven SVI</td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by TM/TL</td>
</tr>
<tr>
<td>Breaking Containment operating pressure &lt;= 145 psig</td>
<td>Proven SVI</td>
<td>Unproven SVI</td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by TM/TL</td>
</tr>
<tr>
<td>Electrical / Instrumentation</td>
<td>Disconnect/Breaker/Fuses/Energy Isolation Device opened or applied and locked plus test confirmation de-energized</td>
<td>Lock not applied</td>
<td>Level 2 HITRA reviewed &amp; LOTO Procedure approved by TM/TL</td>
</tr>
</tbody>
</table>