



LELAND OLDS STATION SAFETY PROCEDURE

Origination Date: 2-9-2024	Procedure No.: LOS-SAF-35	Revision No.: R3
Affected Area(s): LOS Plant Site	Originator: Safety Coordinator	
	Final Approval/Date: Plant Manager	
Procedure Description: Control of Hazardous Energy (LOTO/Clearance) Energy Verification Program		

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I. PURPOSE / SCOPE

- A. This program establishes the minimum performance requirements for hazardous energy control. The program outlines principles of a uniform operations-controlled Lockout/Tagout protective system that will provide protection for personnel when the unexpected energizing/start-up of machinery or equipment, or the release of stored energy from machinery or equipment, could cause injury to employees or damage to equipment, with minimum interruption of service and minimum delay to necessary work.
- B. The program shall consist of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start-up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source and rendered in-operative. [1910.147 (c) (1)].
- C. Additional safeguards necessary to complete the work safely may be added by supervision at any time. The Leland Olds Station (LOS) Clearance Program uses locks if the device can be locked out and tags to secure each point of protection against accidental operation.
- D. This program deals with personnel protection and will be reviewed with all plant personnel at least annually. This program will be reviewed and/or revised annually at a minimum.



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E. This program is part of the LOS Life Critical Safety Rule Program (LOS-SAF-00).

II. DEFINITIONS OF TERMS

- A. **Affected Employee:** A person whose job requires them to work in proximity to a machine or equipment on which servicing, or maintenance is being performed under lock out or tag out, or whose job requires them to work in an area in which such servicing or maintenance is being performed.
- B. **Authorized Employee:** A person who requests that machines or equipment be locked and/or tagged out to perform servicing or maintenance on that machine or equipment. To become an Authorized Employee, the person must have completed training on the Clearance Program and be familiar with the work to be done and the danger involved. An Affected Employee becomes an Authorized Employee when that employee's duties include performing servicing or maintenance covered in this program.
- C. **Black Lock:** A lock used by the Operating Authority for the protection of personnel. It is to be placed on the assigned lock box(s) after equipment or systems have been isolated.
- D. **Blue Lock:** BEPC Authorized Employee personal lock, issued by Operating Authority and used primarily for the protection of BEPC personnel. The blue lock will be placed on lock boxes associated with the piece of equipment that has been locked and tagged out. A blue lock can also be used on equipment as part of a single point isolation.
- E. **Boundaries:** Includes all isolation points within a Clearance.
- F. **Capable of Being Locked out:** An energy isolating device can be locked out if it has a hasp or other means of attachment to which, through which, a lock can be affixed, or a locking mechanism built into it. Other energy isolating devices can be locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device, or permanently alter its energy control capability.
- G. **Clearance:** Authorization to perform specified work or permission to enter a restricted area. It is a Permit for Work that involves Lockout/Tagout.
- H. **Clearance ID Badge:** An identification badge with the Authorized Employee's picture, name and employee number, or contractor name that is used in conjunction with a personal lock.
- I. **Clearance Record:** The Clearance Record is the documenting form and binding contract for the protection transaction.
- J. **Competent Person:** A person to be contacted when an employee does not understand any point of the company's program or procedure(s). The Supervisory Authority, Operating Authority, Safety Coordinator and Qualified Operators are competent persons.
- K. **Contractor:** A person or company that undertakes a contract to provide materials or labor to perform a service or do a job. For a contractor to receive a clearance they must be classified



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as a "Class A" contractor at LOS and their designated authorized employee must have documented proof of understanding the LOS LOTO program.

- L. **Danger "Do Not Operate" Clearance Tag**: (white tag with a red border): Standard printed tags which are attached to energy sources to denote that the device shall not be operated until the Primary Clearance Holder in charge of the work has reported that it is clear and has given specific authorization to operate the device. **Refer to appendix.**
 1. **IT MUST BE UNDERSTOOD** that the individual who is authorized to approve operation of equipment under the protection of the "**RESTRICTED USE**" has complete responsibility when doing so and will be held accountable for consequences.
- M. **Energized**: Connected to an energy source device or containing residual or stored energy.
- N. **Energy-Isolating Device**: A device that prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; 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; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
- O. **Energy Isolation by Tagout Only**: A prominent warning, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be energized or operated until the tagout device is removed.
- P. **Energy Isolation Verification**: Before any actual maintenance or servicing work is started on the machinery or equipment, the operations authorized employee will verify that de-energization and isolation has been effectively accomplished by checking, verifying, re-checking, and documenting in front of maintenance or contractor groups.
- Q. **Equipment/Area Inspection**: Inspection of a work area to ensure that all personnel and nonessential items (e.g., tools, spare parts) are removed to a safe location, and that all the machine or equipment components are operationally intact.
- R. **Exclusive Control**: Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or startup of the equipment is controlled by the unplugging of equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance. This also applies to Green Restricted Use Clearance being under the exclusive control of the employee performing servicing.
- S. **Function Test**: An energization process performed to determine equipment functionality.
- T. **Green Restricted Use Clearances**: shall be identified by using a Green Restricted Use tag when equipment such as air heaters, manlifts, overhead doors, cranes, traveling screens, etc. must be energized during maintenance activities. Also, when troubleshooting an



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electrical/electronic circuit, adjusting limit switches on a damper, cleaning of the coal system, or static check of the precipitator, etc.

- U. **Hazardous Energy:** Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear (radiation), steam/thermal, gravity, or other energy that could cause injury to personnel.
- V. **Lockout:** The placement of a lockout device on an energy-isolating device or removing/disconnecting the power source on equipment, in accordance with this established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- W. **Lockout Device:** A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy-isolating device in the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.
- X. **Lock Box:** A box used in the lockout/tagout process. The lock box will contain locks that are keyed alike. Each box will be numbered, and the locks will have the same number as the box.
- Y. **Locking Center:** The Shift Supervisor's office where lock boxes are stored on shelves.
- Z. **Normal Production Operations:** The utilization of a machine or equipment to perform its intended production function.
- AA. **Operating Authority:** The Shift Supervisory Staff in the Operation Section is the "Operating Authority" in the power plant and the administrator of this program.
- BB. **Orange Lock:** Contractor's authorized employee lock, issued by Operating Authority, used primarily for the protection of personnel. The orange lock will be placed on lock box associated with the piece of equipment/system that has been locked and tagged out.
- CC. **Point of Protection:** An energy isolation point, grounding device, block, blank, restraint, blind, or other safeguard designed to withstand, with appropriate safety factor, all forces to which they will be subjected. Personal grounds are in addition to grounding devices and are never used as a replacement for a grounding device on the same wire run. Personal grounds are not tagged.
- DD. **Primary Clearance Holder:** An authorized employee who signs on the Green Restricted Use Clearance Tag and is responsible for the work being performed, and the safety of the employees within their Work Group who are working under the protection of the Red Tag Clearance. To become a primary clearance holder, one must have completed training on the clearance program, be familiar with the work to be done and the danger involved, and not within their six-month probationary period. The Primary Clearance Holder designation is used only on a Green Restricted Tag Clearance. Refer to appendix?
 - **The Primary Clearance Holder** is Responsible for following the Clearance Program and Procedures and for representing the work group when signing on to a clearance.
- EE. **Qualified Operator:** A Qualified Operator is an individual that has been trained on the equipment or system(s) needing a clearance and authorized by the Operating Authority to isolate equipment or system(s) by installing and removing locks and tags.



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- FF. **Red Lock:** Used primarily for the protection of personnel. The red lock will be put on energy sources associated with the piece of equipment/systems that has been locked and tagged out.
- GG. **Site Contacts:** Basin Electric Power Cooperative (BEPC) on-site employee that directs contractors.
- HH. **Stored Energy Source:** Any device that is capable of holding energy after equipment is shut down. This includes, but is not limited to, capacitors, tanks, pipes, springs, and flywheels.
- II. **Supervisory Authority:** The Plant Manager or designee. This person may delegate this authority if necessary.
- JJ. **Tagout:** The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be energized or operated until the tagout device is removed. The Do Not Operate tag is symbolic of a lock and must be treated as such.
- KK. **Work Group:** This is only used for contractors.

III. **ROLES AND RESPONSIBILITY**

A. **Applicability**

1. This procedure shall apply to all work being completed that requires the control of hazardous energy within LOS. This work may include activities such as, but not limited to: erecting, installing, constructing, repairing, adjusting, inspecting, cleaning, testing, operating, or maintaining equipment.
2. Administration of the Lockout/Tagout Clearance Program and Procedures is, in every case, vested in the Operating Authority.

B. **Responsibility**

1. **Safety Coordinator is responsible for:**
 - a. Developing a safe plan with employees for hard to reach valves that are not accessible by ladder, scissor lift, or scaffold.
 - b. Ensuring monthly physical inspections of the clearance program are conducted.
 - c. Annual review of this clearance program.
 - d. Ensuring initial and annual training is completed.
 - e. Maintaining clearance records for one year.
 - f. Maintaining training records.
2. **Supervisory Authority is responsible for:**
 - a. Overseeing the safe administration of this program
 - b. Enforcing the program and disciplinary actions regarding violations of the program and procedures
 - c. Authority of operations, maintenance and proper completion of work tasks.



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3. **Operating Authority is responsible for:**
 - a. Establishing the boundaries.
 - b. Issuing clearances and ensuring adequate protection has been provided.
 - c. Designating Qualified Operators.
 - d. Informing the Authorized Employee requesting a clearance of the protection boundaries and whether or not the equipment is safe to commence work.
 - e. Answering questions regarding clearance boundaries and assisting personnel in locating "Danger Do Not Operate" tags.
 - f. Maintaining clearance boundaries
 - g. Maintaining locks, tags, and clearance records
4. **Other Supervisors are responsible for:**
 - a. Ensuring training is complete.
 - b. Assigning Authorized Employees to complete the work.
 - c. Ensuring employees obtain adequate clearances to perform work.
5. **Qualified Operators are responsible for:**
 - a. Isolating the equipment and/or system by following the isolation list issued with clearance.
 - b. Placing the tags, locks, and isolation devices on each isolation point.
 - c. Verifying that the equipment has been isolated.
 - d. Check that all work is completed, guards/breakers are in place, materials and affected employees are removed.
 - e. Removing tags, locks, and isolation devices when required to do so by the Operating Authority.
 - f. Signing the Isolation List, Amend, Remove, Test and De-Isolation List sheets in the Placed By, Verified By and Removed By sections.
 - g. Returning all tags, locks and Clearance sheets to the Operating Authority.
6. **Authorized Employees are responsible for:**
 - a. Requesting Clearances from the Operating Authority.
 - b. Verifying that the equipment and/or system has been isolated.
 - c. Properly and legibly filling out the Clearance Sheet.
 - d. Commencing work safely.
 - e. Placing their assigned ID LOTO Badge with a BEPC/Contractor employee lock.
 - f. Ensuring the area is clean and returned to normal working conditions after the job is completed.
7. **Affected Employee(s) are responsible for:**
 - a. Not performing any part of the LOTO procedure. This is a person who works in or round the area where servicing or maintenance is being performed on machines or equipment.
 - b. Becoming an authorized employee when that employee's duties include performing servicing or maintenance covered under this procedure.
8. **Site Contacts are responsible for:**



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- a. Coordinating the LOS Clearance program to any and all contractors within their control and ensuring they have been properly trained and understand the program requirements.
9. **Contractors are responsible for:**
 - a. Designating and training Authorized Employees.
 - b. Accounting for all personnel working under clearance either through crew verification or similar roster.
 - c. Ensuring the safety of their employees.
 - d. Verifying placement of "Danger Do Not Operate" Tags and Locks.
 - e. Verifying all work is completed, Example: guards/breakers are in place, materials and affected employees are removed.
 - f. Verifying that the equipment has been isolated.
 - g. Ensuring the area is clean and returned to normal working conditions after the job is completed.

IV. **Procedure**

A. **Preparation**

1. The shutdown of equipment, machinery, and/or systems required for servicing/maintenance will be conducted by operations and/or other departments in accordance with LOS procedures.
 - a. The Operating Authority will identify, and list on the clearance sheet, all energy sources that must be isolated before that piece of equipment can be serviced.
 - b. If changing boundaries such as additions, deletions, and changes to clearance isolation points, the clearance list must be approved by the Operating Authority or designee.
 - 1) Locations where tubing, unions, pipes, etc. have been disconnected as part of isolation shall be included on the clearance list.

Note: Disconnected piping shall be positioned so that it does not remain in alignment or close proximity to hazards created by Affected Employees.

B. **Placement of Locks, Tags, Isolation Devices, & Verification:**

1. A request is made for a clearance to perform work to the Operating Authority by an Authorized Employee.
2. A clearance isolation list is developed, including the assigning a lockbox(s):
 - a. Boundaries and isolation points are identified by the requestor and Operating authority.
 - b. The Operating Authority will initial the "issued-by" section of the clearance. It is up to the **Authorized Employee** and the **Operating Authority** to determine the placement of the LOTO devices. The final decision for clearance is the responsibility of the Operating Authority.



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3. A Qualified Operator will receive the Isolation List from the Operating authority.
4. Then:
 - a. Locks and isolation devices will be determined by Qualified operator and Operating authority
 - b. Verify with Control Room Operator equipment/system has been shut down
 - c. Isolate the equipment and/or system per isolation by following the position section on the Isolation List
 - d. Place the tags, isolation devices, and locks on each component necessary
 - e. If a lock cannot be placed on isolation point, hang tag with cable tie, notify Operating authority and make note on isolation list and tag.
 - f. The Qualified Operator and Operating Authority will ensure that all energy has been released.
 - g. Qualified operator will initial the "Placed By" section on the Isolation List.
5. All sources, including drains, will be secured in a manner to prevent the release of energy.
6. Each "Danger Do Not Operate" Tag will contain the following information:
 - a. Date placed on equipment.
 - b. Position of the equipment isolation or being in a Do Not Operate status.
 - c. Location of tag, e.g., equipment or valve number, description of the device.

Note: Each isolation point must be tagged.
7. At this point, equipment is de-energized, isolated and lock(s)/tag(s)/Isolation devices are placed and verified by the Qualified Operator.

Note: For the DCS/PLC, a tag will be placed at the corresponding monitor in the control room and verification of the yellow box with a red letter "T" must be displayed.
8. Once the Operating Authority receives the isolation list and it is properly completed
 - a. Operating Authority issues the Clearance.
 - b. Operating Authority will lock the box using a designated black lock.
 - c. The key to that lock will then be placed in the Operating Authority's lockable cabinet.
9. Prior to starting work, the **Authorized Employee** will:
 - a. Be notified by Operating Authority that clearance is issued
 - b. Receive a copy of isolation list
 - c. Walk down isolations with list, all while:
 - 1) **Checking** that personnel are not in or on the machinery equipment, or in the surrounding area in a position to possibly be injured by the activation of the energy source.



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Note: For zero energy verification, the DCS/PLC will have a tag placed at the corresponding monitor in the control room and verification of the yellow box with a red letter "T" must be displayed.

- 2) **Rechecking** all energy sources and lockouts are in place and ensuring equipment cannot be started. No work may be performed on the equipment until a successful de-energization has been verified.
 - d. Once boundaries have been verified and each "Do Not Operate" tag is initialed by authorized employee(s) , they shall initial the "**verified**" section of the clearance sheet.
 - e. Hand written "Verified" section may be required on some clearance sheets
 - f. Each employee signing on a clearance shall place a personal clearance ID badge with a blue lock on corresponding lock box and will be responsible for said key throughout the duration of the clearance.
 - g. Authorized Employee(s) performing work on equipment/system(s) will sign on clearance
 - h. Authorized Employee(s) will then go perform service on equipment/system(s)
10. **Contractors** shall follow Section IV in addition to the following:
- 1) A Group Representative will verify and initial the "Do Not Operate" tags and position of isolated equipment/system(s)
 - 2) Will attach orange contractor lock with red clearance ID badge to the corresponding lock box.
 - 3) Sign on to the clearance sheet, record clearance badge number beside Group Representative name, and submit roster of employees working under that clearance.
 - 4) When the job is complete, the Contractor will notify Operating Authority.
 - 5) Group Representative will verify all employees on roster are accounted for and then sign off on the clearance.
 - 6) Remove their lock and ID Badge(s).
- Note:** A signature/initial shows the requester (authorized employee) individual has walked down and acknowledges the job has been isolated and is safe to work.

C. Releasing Protection:

1. Upon completion of the job, the Authorized Employees will notify the Operating Authority of the status of the equipment and if it is available for service.
2. Prior to the removal of "Danger Do Not Operate" tags and locks, the Operating Authority:
 - a) Will obtain confirmation from all authorized employees that the job has been completed
 - b) Will check to verify that all individuals have signed off the clearance form



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- c) All personal locks with clearance ID badges have been removed from lock box.
3. The Qualified Operator shall make a complete inspection of all equipment to assure that it is ready for service.
4. They will also ensure that all conditions are safe by:
 - a) Ensuring employees are safely positioned or removed before restoring equipment to service.
 - b) This final inspection shall be made before Clearance tags and locks are removed.
5. After the final inspection has been made:
 - a. Operating Authority will retrieve corresponding lockbox key from controlled cabinet
 - b. Operating Authority will designate a Qualified Operator
 - c. All locks and tags will be removed by Qualified Operator
 - d. All isolation points will be placed back in operating positions during tag/lock removal
 - e. The locks/tags will be returned to the Operating Authority
 - f. Qualified Operator will initial/sign the "Removed By" section on clearance list
 - g. Once clearance is completed, tags may not be reused and will be destroyed by the Operating Authority

D. Testing of Equipment:

1. Such testing will only be conducted when no other work is being performed by any personnel on the equipment being tested and the equipment and/or system must be clear of tools and materials.
2. When equipment or systems needs to be tested:
 - a) All personnel signed on to that clearance will be notified by the Operating Authority
 - b) All personnel shall sign off the clearance.
3. All testing of equipment or systems will be performed only after
 - a) A partial release of the clearance has been approved and conducted by the Operating Authority.
 - b) Applicable "Danger Do Not Operate" tags and locks will be removed
 - c) Only then will the test be performed
4. Upon completion of the testing
 - a) A determination will need to be made by the Authorized Employees and Operating Authority to replace tags and locks
 - b) Or to completely release the clearance.
5. All other authorized employees requesting continued protection must sign back onto the clearance form.



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6. Personnel signing back on to the clearance form **will verify that** all required protections are restored.
7. If testing is required multiple times, utilize the **restricted use tag**.

E. Green Restricted Use Clearances:

1. Green Restricted Use Clearances shall be identified by the use of a Green Restricted Use tag(s)
2. When equipment such as air heaters, manlifts, overhead doors, cranes, traveling screens, etc. must be energized during maintenance activities.
3. When a Green Restricted Use Clearance is issued by the Operating Authority, operations gives exclusive control of that piece of equipment to a Qualified Operator.
4. The following applies for the use of Green Restricted Use Clearances:
 - a. Defined work scope and an isolation list must be developed and used for specific pieces of equipment if a Green Restricted Use Clearance is utilized.
 - b. If used within a confined space, the confined space must be permit required.
 - c. Red and Green clearance tags will NEVER be used on a piece of EQUIPMENT simultaneously.
5. General Procedures for Green Restricted Use Clearances include the following:
 - a. Develop work scope
 - b. Request Clearance to perform work.
 - c. An isolation list is developed, identifying isolation points
 - d. Create Green Restricted Use clearance
 - e. A Qualified Operator is given exclusive control of that piece of equipment and signs on the Clearance.
 - f. Only ONE Qualified operator signs on to clearance signifying exclusive control
 - g. Initials "Placed by" on isolation list
 - h. Qualified operator hangs Green Restricted Use Tag at point of operation with an isolation device **if applicable**.
 - i. Once the job is complete, an Equipment/Area Inspection is performed.
 - j. The Qualified Operator removes the green tag(s). and initials "Removed by" on isolation list
 - k. The Qualified Operator signs off of the Clearance.
 - l. Operating Authority verifies that tags have been removed and individual is signed off.
 - m. Operating Authority releases the Clearance.



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F. Work Continuing Beyond Shift Change:

1. If the equipment being worked on is not ready for operation and will be worked on by signed-on authorized employees the next day,
 - a) They will remain signed onto the clearance form
 - b) Their lock will remain on the lockbox assigned to the job.
2. If the equipment being worked on is not ready for operation, and second shift personnel will continue the work
 - a) A crew member from the evening shift will sign onto the clearance form
3. If new personnel are signing onto the clearance form
 - b) They will verify proper placement of locks with "Danger Do Not Operate" tags
 - c) Then place clearance ID badge with personal lock on corresponding lock box

G. Releasing a Clearance in the Absence of the Authorized Employee:

1. If authorized employees who have signed onto the clearance form are absent
 - a) The Operating Authority must attempt to contact those employees at home.
 - b) If unable to contact the employee:
 - I. Then contact must be made with the employee's supervisor or supervisor designee to release the clearance and remove their tag(s) and lock(s).
 - II. It is the supervisor's responsibility to verify and obtain confirmation from all work personnel that all work has been completed.
2. When any doubt exists about the release of equipment for operation:
 - a) The supervisor will call the authorized employee(s) at home to determine if the clearance can be released
 - b) If authorized employee(s) cannot be reached:
 - I. The on-duty Operating Authority and work group supervisor will verify that all tasks on the equipment or system have been completed
 - II. If both supervisors agree that it is safe, the work group supervisor will sign personnel off of the clearance form **(See Appendix F)**
3. Supervisors releasing the clearance assume full responsibility for the status and release of the equipment in question.
 - a. Spare keys will be kept securely in the Safety Coordinator's office for Operating Authority to access once Off-Duty Clearance Release Form has been completed.
4. Upon release of the clearance:
 - a) The work group supervisor will issue an "Off-Duty Clearance Release Form" to authorized employee(s) they signed off
 - b) Release form will be signed by authorized employee(s)
 - c) Follow foot note on form for distribution requirements.



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H. When a Clearance is Not Required:

1. When changing blades, bits, grinding wheels or other attachments on hand and portable tools:
 - a) The power supply cord or battery must be disconnected before change out begins.
2. Cord- and plug-connected electrical equipment are not required to be tagged if:
 - a) The equipment is unplugged
 - b) The plug is under the single control of the individual performing the servicing and/or maintenance.
3. Minor tool changes, adjustments, hooking up hoses, operating valves and other minor servicing activities that take place during normal operations do not require the equipment to be tagged out:
 - b) These activities should be routine in nature, repetitive, and integral to the use of equipment.
 - c) These types of activities must be performed without the possibility of injury due to the unexpected energizing, startup, release of stored energy, or movement of equipment parts.

V. TRAINING:

- A. Training will be provided to all employees whose work may be regulated by this program. Understanding the responsibilities outlined above will be the primary objective of the training.
- B. Training may include, but is not limited to, potential hazards, clearance procedures, responsibilities, hands on testing and inspections.
- C. Training will be provided:
 1. Before the employee is first assigned duties covered by this program.
 2. Anytime there is a change in job assignment.
 3. Whenever there is a change in Clearance operations that presents a hazard about which the employee has not previously been trained.
 4. Whenever there is a deviation from the work scope or there are inadequacies in the employee's knowledge.
- D. The training will establish employee proficiency in the duties required by this program
- E. If it will introduce new or revised procedures as necessary for compliance with this program.
- F. Refresher training in this program will be conducted annually.
- G. Training documentation will include at a minimum the employee's name, employee number, and the date of the training.



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VI. PERIODIC INSPECTIONS:

- A. Review or audits of this program and facility procedures shall be conducted at least annually.
- B. Reviews/audits are conducted to correct any deviations or inadequacies identified.
- C. Field audits shall be performed by employees from LOTO Advisory Team, Safety Committee or Safety Coordinator
- D. Field audits should include
 - a) Review/discussion between the individual(s) performing the field inspection
 - b) Discussions with Qualified Operator, and the Affected Employee(s)
 - c) Audit should include, but not limited to:
 - I. The employee's responsibilities under the clearance program or facility procedure.
 - II. Any issues or concerns using the program
 - III. Suggestions for improvements
- E. Audits shall identify the equipment or systems isolated, the date of the inspection, employees included in the inspection, and the person performing the inspection.

VII. RECORD RETENTION:

- A. Clearance Records, Clearance Review/Audit Records, and Training Records will be retained in accordance with the Basin Electric Power Cooperative Retention Schedule.

VIII. Appendix:

- A. Verification Flow Chart
- B. Example of LOS Clearance Tagging Order (Old Program)
- C. Example of LOS Red "Do Not Operate" tag
- D. Example of LOS NiSoft Clearance Sheet (3 pages)
- E. Example of green restricted use tag
- F. Example of Off-duty release form

IX. REFERENCES:

- A. OSHA Regulations 29CFR 1910.147
- B. OSHA Regulations 29CFR 1910.269



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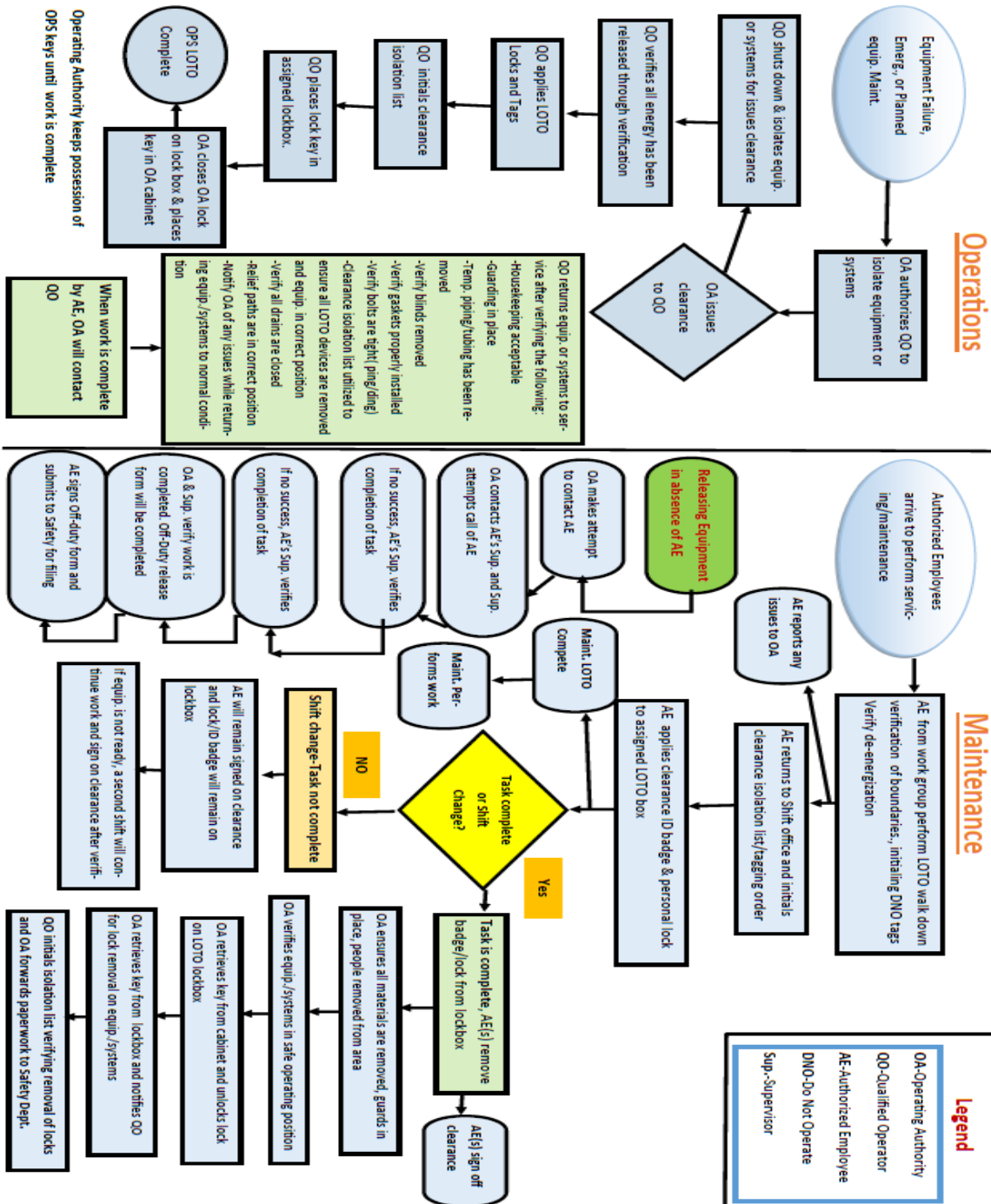
X. REVISION HISTORY

Revision Number	Description of Change	Written by	Approved by	Revision Date	Effective Date
1	Updated Titles			4/25/2011	4/25/2011
2	Added verification of boundaries	Matt M.	Jason C.	8/10/2022	8/10/2022
3	Updated format/Adding use of Locks	Matt M.	Jason C./Advisory Team	07/2023	2/9/2024



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Appendix A - Verification Flow Chart





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Appendix B – LOS Tagging Order (OLD)

Martech Consulting 09/11/2023
Basin Electric Cooperative, Leland Olds Station
Equipment Tagging Order Form

B Fluidizing Blower

Clearance #: 1055402
Unit/Area: Common All
Asset #: 5106
Equipment Name: FLUIDIZING BLOWER B

WO#	Issued To	INT	Date	Time	Nature of Work	Equipment Release		
						INT	Date	Time
	ByacZella	CB	9-11-23	7:46	Replace Belt	CB	9-11	1717
	Chris Baker	CB	9-11	7:45	Replace Belt	CB	9-11	1717
	Chris Baker	CB	9-11	15:30	Replace Belt	CB	9-11	1717
	Dakota Adams	OS	9-11	15:30	Replace Belt	CB	9-11	1717

CB
Chris Baker

Release Comments

Rev TagNo Tag Location

- 01 SCREEN, COMPUTER
- 02 START BUTTON - CONTROL PANEL
- 03 BREAKER, MCC.FLY ASH, 6C
- 06 FLUIDIZING AIR HEATER "B", BREAKER 8D
- 07 FLUIDIZING BLOWER "B" AIR COOLER (FAN) BREAKER.SEC.5B
- 08 SWITCH, FOR AIR HEATER, ON LOCAL PANEL

Iss by	Pla by	Rem by	Iss by	Pla by	Rem by	Iss by	Pla by	Rem by
ByacZella	CB	CB						
CB	CB	CB						
CB	CB	CB						
CB	CB	CB						
CB	CB	CB						
CB	CB	CB						

Verified By ByacZella

Additional Notes

Supplemental Signature Log Required?



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Appendix C – Do Not Operate Tags

**DANGER
Do Not
Operate**

**SAFETY
FIRST**


DANGER

**HANDS
OFF**

THIS APPARATUS/EQUIPMENT SHALL
NOT BE OPERATED UNTIL THE
OPERATING AUTHORITY HAS
INSTITUTED REMOVAL OF THIS TAG

See Other Side

**DANGER
Do Not
Operate**

 **BASIN ELECTRIC
POWER COOPERATIVE**

Clearance # 1008524-A
Area: Unit 2 All
SCOTBLOWER IR #154
SWITCH

Tag # 01
11/18/2002


Leland Olds Station



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Appendix D – NiSoft Clearance Sheet

FLYASH Silo ALIMAK ELEVATOR



**BASIN ELECTRIC
POWER COOPERATIVE**
A Teachers' Energy Cooperative

**Basin Electric Power Cooperative
LELAND OLDS STATION**

Clearance

Clearance # *2023/00691CL*

Date *05/26/2023 13:42*

WO #

Lockset #

Red Tag Clearance Green Tag Clearance

Created By: *Trana, Tim* Requested By: _____

Unit # *COMMON FACILITIES* Area: *ELEV (ELEVATORS & MANLIFTS)*

Equipment Name
FLY ASH ALIMAK ELEVATOR

Description Of Work
SWITCH AND BREAKER

Confined Space # _____

Hot Work # _____

SIGN ON	PURPOSE	DATE/TIME	SIGN OFF	DATE/TIME
Name: <i>Tim Trana</i>	_____	Date: <i>5/26</i>	Name:	Date:
Employee #:		Time: <i>1400</i>	Employee #:	Time:
Name:		Date:	Name:	Date:
Employee #:		Time:	Employee #:	Time:
Name:		Date:	Name:	Date:
Employee #:		Time:	Employee #:	Time:
Name:		Date:	Name:	Date:
Employee #:		Time:	Employee #:	Time:
Name:		Date:	Name:	Date:
Employee #:		Time:	Employee #:	Time:
Name:		Date:	Name:	Date:
Employee #:		Time:	Employee #:	Time:

Comments



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**LELAND OLDS STATION
CLEARANCE ISOLATION LIST**

Unit # COMMON FACILITIES

Area ELEV (ELEVATORS & MANLIFTS)

Clearance # 2023/00691CL
Date 05/26/2023 13:42
WO #
Lockset #

Equipment Name:
FLYASH ALIMAK ELEVATOR

Description Of Work:
SWITCH AND BREAKER

Event Order Tag #	Isolation Point	Position	Energy Source	Location	Issued By	Placed By	Verified By	Removed By
1 1	FLYASH ALIMAK ELEVATOR - SWITCH	OFF	MCC FLYASH, 10BL	AT ALIMAK				
2 2	FLYASH ALIMAK ELEVATOR - BREAKER	OPEN & LOCKED	MCC FLYASH, 10BL	FLYASH MCC ROOM, 2ND FLOOR FLYASH BUILDING				

Additional Notes



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LELAND OLDS STATION CLEARANCE ISOLATION LIST

Unit # COMMON FACILITIES

Area ELEV/ELEVATORS & MANLIFTS

Equipment Name:
FLY ASH ALIMAK ELEVATOR

Clearance # 2023/00691CL
Date 05/26/2023 13:42
WO # _____
Lockset # _____

Description Of Work:
SWITCH AND BREAKER

Event Order	Tag #	Isolation Point	Position	Energy Source	Location	Issued By	Placed By	Verified By	Removed By
3	3	-00191661 FLY ASH ALIMAK ELEVATOR GROUND FLOOR LANDING DOOR	LOCKED SHUT			DB	MLG		
4	4	-00191671 FLY ASH ALIMAK ELEVATOR 2ND FLOOR LANDING DOOR	LOCKED SHUT			DB	MLG		
5	5	-00191681 FLY ASH ALIMAK ELEVATOR 3RD FLOOR LANDING DOOR	LOCKED SHUT			DB	MLG		
6	6	-00191691 FLY ASH ALIMAK ELEVATOR 4TH FLOOR LANDING DOOR	LOCKED SHUT			DB	MLG		
7	7	-00191701 FLY ASH ALIMAK ELEVATOR 5TH FLOOR (TOP) LANDING DOOR	LOCKED SHUT			DB	MLG		


Last event will be to verify isolation by attempting to start



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Appendix E – Green Restricted Use Tag

SPECIAL INSTRUCTIONS TAG

 **BASIN ELECTRIC
POWER COOPERATIVE**

Tag # 5210

Tag Issued To: Mark

Tagging Location: Test Loc

Job Completed By: _____ Date _____

(Return Tag To Operations Upon Completion)

Test _____



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Appendix F – Off-Duty Clearance Release Form

**BASIN ELECTRIC POWER COOPERATIVE
LELAND OLDS STATION
OFF-DUTY CLEARANCE RELEASE FORM**

TO: _____ DATE: _____

FROM: _____

Contact Attempt: (circle one) Phone or In Person _____ How Many Attempts: _____

Date Contacted: _____ Time Contacted: _____

Because you could not be contacted in person or by telephone, your LOTO on Clearance Number _____ was released on the following system equipment under the authorization of _____ Personal Lock Number _____

System/Equipment Description: _____

Description of the reason for the emergency that necessitated the Off-Duty Release:

For the purpose of this document, an emergency for an Off-Duty Clearance Release is defined as: *an unexplained situation or sudden occurrence of a serious and urgent nature that would place a person or equipment in an unsafe or hazardous condition or demands immediate action to assure continued generation or delivery.*

I am aware that I have been signed off of this LOTO Clearance and that the Clearance is Released:

Signed: _____ Date: _____
(Employee Released, Off-Duty)

WHITE-Supervisor YELLOW-Employee

LOS 12-11-2023



Procedure No. LOS-SAF-35	Revision No. R3
Procedure Description: Control Of Hazardous Energy (LOTO/Clearance) Energy Verification Program	

<u>Ryan Fisk</u> Ryan Fisk (Feb 9, 2024 11:36 CST)	
Safety Director	Date
<u>Matt Middlemas</u> Matt Middlemas (Feb 9, 2024 10:53 CST)	
LOS Safety Coordinator	Date
<u>Braden Fagenbush</u> Braden Fagenbush (Feb 9, 2024 11:53 CST)	
AVS/LOS Maintenance Superintendent	Date
<u>Bill Foster</u> Bill Foster (Feb 9, 2024 11:48 CST)	
AVS/LOS Operations Superintendent	Date
<u>Tony Michlitsch</u> Tony Michlitsch (Feb 9, 2024 11:42 CST)	
LOS Plant Superintendent	Date
<u>Jason D Cowan</u> Jason D Cowan (Feb 9, 2024 11:20 CST)	
AVS/LOS Plant Manager	Date



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LOS-SAF-35 Control Of Hazardous Energy 2024

Final Audit Report

2024-02-09

Created:	2024-02-09
By:	Sarah Feist (sfeist@bepc.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAXbv_wuaC1er4mnhJo2RUezndqqGLh5ge

"LOS-SAF-35 Control Of Hazardous Energy 2024" History

- Document created by Sarah Feist (sfeist@bepc.com)
2024-02-09 - 4:50:25 PM GMT - IP address: 216.235.161.1
- Document emailed to rfisk@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Document emailed to mmiddlemas@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Document emailed to bfagenbush@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Document emailed to bfooster@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Document emailed to amichlitsch@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Document emailed to jcowan@bepc.com for signature
2024-02-09 - 4:51:17 PM GMT
- Email viewed by amichlitsch@bepc.com
2024-02-09 - 4:52:23 PM GMT - IP address: 216.235.161.1
- Email viewed by mmiddlemas@bepc.com
2024-02-09 - 4:52:57 PM GMT - IP address: 216.235.161.1
- Signer mmiddlemas@bepc.com entered name at signing as Matt Middlemas
2024-02-09 - 4:53:13 PM GMT - IP address: 216.235.161.1



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Procedure Description: Control Of Hazardous Energy (LOTO/Clearance) Energy Verification Program	

- Document e-signed by Matt Middlemas (mmiddlemas@becp.com)
Signature Date: 2024-02-09 - 4:53:15 PM GMT - Time Source: server- IP address: 216.235.161.1
- Email viewed by bfagenbush@becp.com
2024-02-09 - 4:58:32 PM GMT- IP address: 216.235.161.1
- Email viewed by bfoster@becp.com
2024-02-09 - 5:19:39 PM GMT- IP address: 168.151.199.58
- Email viewed by jcowan@becp.com
2024-02-09 - 5:20:13 PM GMT- IP address: 174.213.247.80
- Signer jcowan@becp.com entered name at signing as Jason D Cowan
2024-02-09 - 5:20:40 PM GMT- IP address: 174.213.247.80
- Document e-signed by Jason D Cowan (jcowan@becp.com)
Signature Date: 2024-02-09 - 5:20:42 PM GMT - Time Source: server- IP address: 174.213.247.80
- Email viewed by rfisk@becp.com
2024-02-09 - 5:35:53 PM GMT- IP address: 216.235.161.1
- Signer rfisk@becp.com entered name at signing as Ryan Fisk
2024-02-09 - 5:36:14 PM GMT- IP address: 216.235.161.1
- Document e-signed by Ryan Fisk (rfisk@becp.com)
Signature Date: 2024-02-09 - 5:36:16 PM GMT - Time Source: server- IP address: 216.235.161.1
- Signer amichlitsch@becp.com entered name at signing as Tony Michlitsch
2024-02-09 - 5:42:34 PM GMT- IP address: 216.235.161.1
- Document e-signed by Tony Michlitsch (amichlitsch@becp.com)
Signature Date: 2024-02-09 - 5:42:36 PM GMT - Time Source: server- IP address: 216.235.161.1
- Signer bfoster@becp.com entered name at signing as Bill Foster
2024-02-09 - 5:48:57 PM GMT- IP address: 209.62.238.3
- Document e-signed by Bill Foster (bfoster@becp.com)
Signature Date: 2024-02-09 - 5:48:59 PM GMT - Time Source: server- IP address: 209.62.238.3
- Signer bfagenbush@becp.com entered name at signing as Braden Fagenbush
2024-02-09 - 5:53:23 PM GMT- IP address: 216.235.161.1
- Document e-signed by Braden Fagenbush (bfagenbush@becp.com)
Signature Date: 2024-02-09 - 5:53:25 PM GMT - Time Source: server- IP address: 216.235.161.1
- Agreement completed.
2024-02-09 - 5:53:25 PM GMT



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