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Document: Control of Hazardous Energy (Lockout) Policy

I. Purpose and Extent

- A. This policy outlines the minimum requirements for the lockout of hazardous energy sources during maintenance and/or servicing of machine equipment. It will be used to ensure that injury resulting from unexpected energization or start-up of the machine or equipment during service and maintenance does not occur.
- B. For this policy, energy sources include but are not limited to electrical, thermal, nuclear, chemical, pneumatic, steam, hydraulic, water, combustible/ flammable, and mechanical. Other chemical, physical, and/or biological hazards are identified and addressed. Because of the potential for and severity of injuries resulting from machinery start up, it is essential that the mill wide lockout procedures be followed.

II. Applicable Definitions

Affected Employee: A team member whose job requires them to: operate or use a machine or equipment on which servicing, or maintenance is being performed under lockout/tagout, or work in an area in which such servicing or maintenance is being performed.

Annual Review: MIOSHA requirement to yearly audit lockout procedure to identify any deficiencies or deviations and correct them.

Area Production Lock: The lock attached to the area lock box, by the area, as part of a multiple-lock lockout. This will be the first lock on, and the last lock off the area lock box. This lock ensures control of the key to the area safety locks and communicates that the lockout process is complete. Personal locks will not be attached to the lock box until this lock is attached.

Area Lock Box: The device used to secure the key and procedure to the area safety lock or locks.

Authorized Employee: A team member who locks out/tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment, has completed the Lockout Training Organize and Implement Form. An affected employee becomes an authorized employee when that team member's duties include performing servicing or maintenance.

Back Feed Tags: The tag placed on both sides (Normal & Temporary) of the electrical power when something is being powered from an alternative power source

Capable of Being Locked Out: An energy-isolating device is capable of being locked out if it has:

- a hasp or other means of attachment to which, or through which, a lock can be affixed, or
- a locking mechanism built into it.

Other energy isolating devices are capable of being 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.

Control Valve: Any valve used in the process for control that may be actuated automatically in response to process changes.

Dedicated Lock Set: A keyed alike lock set dedicated for a specific lockout procedure.

Deviation: The action of changing the established lockout procedure.

Energized: Connected to an energy source or containing residual or stored energy.

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Energy Isolating Device: A mechanical device that physically 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
- any similar devices used to block or isolate energy. Push buttons, selector switches, and other control circuit type devices are not energy isolating devices.

Energy Source: Any source of electrical, mechanical, thermal, nuclear (radiation), chemical, pneumatic, steam, hydraulic, water, or other energy.

Engulfment: The means of surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Generic Lock Set: A keyed alike lock set used in place of a designated lock set when special circumstances exist, such as:

- Items are added to a designated lockout procedure for a down
- the key for the designated lock set is lost
- the procedure is used infrequently. The main purpose of the Generic Lock Set is to have a keyed alike lock set for temporary use.

Generic Pipe/Pump/Fan Lockout: The isolation, not associated with a larger complex multiple lockout, of an individual pipe, pump or fan. It is a multiple lockout that may be executed by either Operations or Maintenance.

Hot Tap: A procedure used in the repair, maintenance and services activities which involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

Interlock: A device that prevents a one element from moving due to a state in another element.

Intermediate Energy State (IES): A state of energy of equipment or processes in which designated hazardous energy sources are at zero energy state (ZES) while maintaining other designated energies to perform minor tool changes and adjustments, or other minor, routine and repetitive servicing activities that are required to operate the equipment or process.

Keyed Alike Lock Set: A number of locks that can be opened with the same key. See Generic Lock Set, Personal Lock Set or Dedicated Lock Set.

Lockout: The placement of a lockout device on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device: A device that uses a positive means, such as a lock, or in limited cases a tag, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Lockout devices include, but are not limited to:

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- Locks
- Lock and chain
- Lockable valve handle covers (donuts)
- Single and multiple breaker covers

Long Term Lockout : A lockout that has been in place for more than a year time period.

Multiple Lockout (MLO): A multiple lockout is any lockout that is performed where more than a single energy source has been identified.

Multiple Lockout Device: A device designed so that many locks may be attached to one item.

Normal production operations: The utilization of a machine or equipment to perform its intended production function.

One Time/ Lockout: Lockout designed for potential or infrequent use.

Personal Lock Set: The set of locks utilized by an individual to secure the equipment and ensure the safety of the affected individual. Each team member is given 2-5 keyed-alike locks.

Post lockout review: A complete review of the lockout procedure after completion.

Qualified Person to Develop/Review Lockouts: A person who has the process knowledge, experience and the training in the mill's lockout policies and procedures to evaluate the lockout of equipment or machinery. This person must be assigned to the area, have a bid to the area, be signed off on the job, understand equipment functions and not be a Mill Trainee. The Lockout Coordinator and supervisors with process knowledge may also develop lockouts and should review the lockout with team members from operations that meet the above criteria whenever possible.

Servicing and/or maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and making adjustments or tool changes, where the team member may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Setting up: Any work performed to prepare a machine or equipment to perform its normal production operation.

Single Point Lockout: Lockout with only one energy source, requiring only one lock.

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 operated until the tagout device is removed.

Tagout Device: A prominent warning device, 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 operated until the tagout device is removed. Tags are not a substitute for locks and may only be used when equipment and/or machinery cannot be isolated with a lock. Tagout devices are:

- Blank flanges
- Disconnected/misaligned pipes
- Pins
- Bolted slip blinds
- Physically blocking, such as fan blades with a board

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III. Responsibility

- A. All team members, visitors and contractors are required to comply with this policy.
- B. Area Management will:
- Assure that all team members have received the required training and documentation including area specific training
 - Determine the team members that meet the definition of a Qualified Person
 - Assure that multiple lockout procedures are up to date and accurate
 - Assure that lockouts are executed properly including required documentation
- C. The Safety Department will:
- Provide training for all new team members.
 - Provide technical assistance and regulatory interpretations, and keep retention of documentation.
 - Provide routine audits of lockout procedures, lockout execution, and documentation
- D. Contractor/Outside Personnel:
- Must provide training for all of their team members.
 - Account for all personnel under our lockout procedures.
 - Will follow all aspects of this policy.
 - Are not permitted to execute lockouts unless approved by the Safety Department
Example: Contractor who regularly services equipment they are responsible for.
 - May provide a representative the opportunity to walk down a multiple lockout with an operations representative and confirm correct execution of the multiple lockout procedure.

IV. Training Requirements

- A. The employer shall provide training to ensure that the purpose and function of the energy control program are understood by team members and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by team members. Team members will be trained on an annual basis, training may include hands-on or computer based training. The training shall include the following:
- Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control. Authorized employees will receive training prior to their initial involvement with any lockout operation.
 - Each affected employee shall be instructed in the purpose and use of the energy control procedure. This training will also be given to affected employees as part of their orientation.
 - All other team members whose work operations are or may be in an area where lockout procedures may be utilized, shall be instructed about the procedure, and about the

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prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

- Team members shall also be trained on tagout systems when used.
- B. Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.
- C. Additional retraining shall also be conducted whenever a periodic inspection reveals or the employer has reason to believe that there are deviations from or inadequacies in the team member's knowledge or use of the energy control procedures. The retraining shall reestablish team member proficiency and introduce new or revised control methods and procedures, as necessary.
- D. Each department/area shall utilize the Organize and Implement Lockout Training form to manage initial training for team members in their area.
- E. The employer shall certify that team member training has been accomplished and is being kept up to date. The certification shall contain each team member's name and dates of training and will be maintained by the Training Department.

V. General Lockout Program Requirements

- A. All personnel are required to place a personal lock(s) or a tag (see definition) on machinery and/or equipment when starting of that equipment could be a hazard to them, or to others. This must be done before any maintenance, repair, modification, cleaning, or inspection is performed.
- B. Team members will be issued keyed alike sets of personal locks from the Safety Department, ranging from two to five locks with the team member's identification attached, depending on the craft or job in which they work. Each set of locks will have only two keys, one for the team member and the other to be retained by the Loss Prevention Department at the front gate(additional keys will not be allowed). Each person performing the work must place and remove their own personal lock on all isolation devices and/or multiple lockout boxes. If personal locks are not available, an individual should (in this order):
1. Contact a member of the safety department for a temporary lock with a paper tag affixed to it to identify the team member (print name on paper tag), or
 2. Use MCC lock with a paper tag affixed to it to identify the team member (print name on paper tag), or
 3. Use a lock from a generic lockout set with a paper tag affixed to it to identify the team member (print name on paper tag), or
 4. Use an area lock with a paper tag affixed to it to identify the team member (print name on paper tag).

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- C. Team members will not put their paper tags on the lock of another team member during a lockout to signify that they also are locked out. A paper name tag on someone else’s lock does not constitute a proper lockout.
- D. All personal locks issued under this policy are only to be used for lockouts.
- E. All machinery and equipment must be properly locked out before any activity covered by this policy occurs. Covered activities include maintenance, repair, modification, cleaning, or inspection where the starting or re-energizing of that equipment could constitute a hazard to the affected workers. Interlocks are not allowed and cannot be relied on as an isolation of energy as a lockout.
- F. All electrically driven machinery and equipment must be electrically disconnected at the switch box. Positive identification of the switch is required. This is done by matching the equipment numbers on the equipment and the corresponding electrical disconnect. In the event that the equipment numbers are missing or obliterated, an electrician must positively identify the correct electrical disconnect.
- G. De-energize equipment that is operated by electrical plug-in or air pressure by unplugging/uncoupling the electrical power sources must have a “DANGER – DO NOT OPERATE” tag attached or a plug lockout device at the plug or coupling.
- H. All hydraulic and pneumatic driven machinery or equipment will have the energy source(s) isolated or disconnected. Any valves that are closed or opened to accomplish must be locked in the required position.
- I. All mechanical or spring activated equipment will be tripped, blocked, or otherwise rendered incapable of activation and locked in place.
- J. All pipes carrying steam or hazardous fluids will be valved out and locked or blanked out when a potential hazard exists. Bleeding off pressure and/or residues is also required. Control valves, in general, are not designed, and should not be used for isolation purposes in a lockout unless they are able to be properly locked and tagged.
- K. If maintenance or E&I personnel are performing a task and that task is not complete when personnel go to remove their locks, then an maintenance or E&I area lock must be placed on the lockout before the last maintenance or E&I lock from the team member(s) performing the task which is not complete may remove their lock; regardless of what other locks are on the lockout.
- L. Production personnel are responsible for ensuring that the area is clear prior to machine startup.

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- M. Notification, of all affected employees, is the responsibility of the area and maintenance supervision before any work requiring lockout is performed. This can be accomplished by:
1. A documented pre-lockout group meeting with all affected employees (preferred method)
 2. Entry of a notice that must be read by all team members into a process unit's logbook.
 3. Posting on a designated area bulletin board.
 4. Verbal communication between operation and maintenance personnel.
- N. At times, observing equipment in operation with the guards and/or other protective devices removed or rendered inoperable is necessary. This is referred to as an Intermediate Energy State (IES). Written IES procedures are to be developed and reviewed prior to the task being completed or any guards removed. Under no circumstances may IES procedures be used to permit exposure to point of operation or power transmissions hazards.

Written IES procedures will incorporate the same criteria as zero energy state (ZES) procedures, and will be developed by the department that will be performing the task. If an IES procedure is used, a person performing the task must have full control of all power to prevent any unauthorized operation of equipment that could affect the safety of a person(s). For routine tasks that are performed under normal operations with energy present, refer to the Moving Equipment Policy Risk Assessment Checklist. The relationship between ZES, IES and the Moving Equipment Policy is shown as Attachment J.

If a written IES procedure is needed, one of the following two procedures must be developed, reviewed and used:

1. When equipment can be shutdown to remove guards or protective devices,
 - a) Shutdown the equipment and perform the Lock, Clear, Try, Off steps
 - b) Attach the IES tag to the area lock box
 - c) Remove the necessary guards, etc.
 - d) If necessary, set up barricades or rope off the area sufficiently to prevent contact with moving parts and to ensure that any personnel or property within the immediate area is protected.
 - e) Remove locks and start the equipment for observation.
2. When equipment cannot be shutdown to remove guards or protective devices without major disruptions the following applies:
 - a) Maintenance and operating personnel must survey each individual case and determine that they do not defeat the purpose of the lockout procedure by putting personnel at an unacceptable level of risk. Procedures must be established that ensure the safety of affected individuals during specific conditions under which the work is to be performed.
 - b) If there is a dispute/disagreement whether a job has been properly secured, a final decision will be rendered after consultation between the Area Manager or designee responsible for the area and the Safety Department.

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- O. Radiation Lockout Procedure - Before work is performed on equipment, or a vessel is entered, the area owner must first determine if the equipment or vessel contains a radioactive source. If it does, contact a E&I team member to assist in locking out the source and performing a survey of the area.

VI. Lock, Clear, Try, Off Procedures

- A. The following must be completed in all lockout situations, where equipment is energized by an electrical switch, push button, hydraulic valve, or other similar control device.
 1. LOCK - The authorized employee must place their lock on equipment/machinery to be locked out.
 2. CLEAR - Check to be sure the area is cleared of all personnel. If and when appropriate, station an observer.
 3. TRY - Activate the start button or control to ensure proper lockout is completed prior to performing any work on the equipment.
 4. OFF - Return the button or control to OFF status.

VII. Single-Point (Single Lock) Lockout

- A. When the equipment, requiring lockout, has only a single energy source, a single-lock lockout shall be performed. The following steps shall be followed.
 1. The person(s) performing the lockout will place their lock or tag on that energy source.
 2. After placing the lock, proceed with the Clear, Try, Off sequence.
 3. Contractors must place personal locks on energy source after it has been de-energized, locked, and the Clear, Try, Off sequence performed by operations or electricians.
- B. A single-lock lockout does not require a written procedure or documentation of its completion.

VIII. Multiple-Lock Lockout

- A. This section applies to lockouts, involving more than one energy source. The procedures for Generic Pipe, Pump or Fan lockouts are detailed in Section IX. "Generic Pipe, Pump and Fan Lockouts".
 1. Individual identification of hand valves used in lockout procedures
 - a) All hand valves identified in lockout procedures must be capable of being verified as being the correct valve to be locked out.
 - b) The preferred method is to have the hand valve tagged with a "HV" number assigned by the Engineering Dept. In addition, the hand valve should be tagged with the functional description.
 - c) It is the area's responsibility to identify each such lockout point.
 - d) In the absence of an HV# the lockout point must be verified as correct. This may be done by visual inspection, P & I drawings or by consulting with area supervision.
 - e) Do not use "As Per Description" as a general statement in equipment ID section.
 2. Development of Multiple-Lock Lockout Procedures
 - a) All multiple-lock lockouts require a written procedure.

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- b) A Multiple Lockout Development Checklist may be used as part of the multiple lockout procedure development process (Attachment G). Upon completion this checklist is to be turned into your supervisor and/or Lockout Coordinator.
- c) A standardized template (Attachment A) will be used across the mill for all multiple-lock lockout procedures
- d) The form will include the following information:
 - i) (Title) –Enter a brief description of the specific lockout. An example would be “E3 Wire Changing Lockout”
 - ii) Lockout No. – Each dedicated (annually reviewed) lockout procedure shall be individually identified, by area and unique number. That number should be entered here.
 - iii) Number of Locks and Tags required – Enter the total number of padlocks or tags required to successfully execute this lockout.
 - iv) Person responsible – This identifies job position responsible for maintaining the multiple lockout procedure in a current, usable format. Enter the name or position here.
 - v) Lock Set # - Each set of padlocks has its identifying number from the manufacturer stamped on the locks. An example would be M1234. Enter this identifying number here if s a dedicated lockset is being used. If a generic lock set is used fill in the lock number when executing the lockout.
 - vi) Date – Enter the date the multiple lockout procedure is executed.
 - vii) Lockout Box Location – If this lockout has a designated lock box location, list it here (if applicable). If it doesn’t, list where the non-dedicated or portable lock box is located (example: Machine Tender Control Room). Any non-dedicated or portable lock boxes need to be kept in a clean/dry environment and returned upon completion.
 - viii) List each individual step involved in completing the lockout. Include the following information.
 - (1) Step 1, 2, 3, etc. – This identifies each step of the multiple lockout procedure in the order the procedure is to be executed.
 - (2) “L” = Lock(s) Required, “T” = Tag(s) Required or “PS” = Procedure/Step Required – If a padlock is physically required place an “L” in the column next to the step number. If a tag is determined to be necessary place a “T” in the column next to the step number. Each step of the multiple lockout procedure must have an “L”, “T” or “PS” in this column.
 - (3) Description – This contains the text of the multiple lockout procedure. Please enter a brief sentence describing how the step is to be executed. This includes identifying any specific lockout devices to be used such as chains, a valve handle cover, breaker cover, blank flange, slip blind, etc. (reference Line Breaking Policy or Confined Space policy, if needed.)
 - (4) Valve or Equipment ID –Valves which are part of a multiple lockouts have a specific valve number . Specific pieces of equipment have equipment

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- numbers (ID#) (such as 12-1-4444-333). Enter the appropriate identification number associated with this step.
- (5) Lockout Status – Enter the status that the equipment or valve is in while it is locked out. Examples include: Open, closed, cleared, drained, blanked, on, off or disabled, etc.
 - (6) 1st Person Initials – Multiple Lockouts are executed, reviewed and developed using teams of at least two people. When a multiple lockout procedure is executed, one of the team members must place their initials here at the completion of each step, including verifying equipment is correctly labeled in the field.
 - (7) 2nd Person initials – The initials of the second member of the team are entered once each step is completed.
 - (8) Clear, Try, Off Initials – If the individual step requires execution of a Clear, Try, Off procedure a verification box needs to be included for that step. Initials of the person executing it are placed in this box once that step is complete and the Clear, Try, Off procedure is finished.
 - ix) “Lockout Executors” box – Printed names of the individuals executing the lockout in the field.
 - x) Notes – Any comments pertaining to this lockout are to be written here as part of the procedure’s development and/or execution. Examples include Confined Space entry, confirmation that pressure is drained from a line, unique PPE requirements, or description of a deviation.
 - xi) Procedure Review Date – This is the most recent date the procedure has been walked down for accuracy. The procedure is valid up for one year plus the remaining days in that month. Please list only the most current date and remove old dates. Procedures that are used infrequently, such that have not been used for more than one year, must be reviewed prior to use in a multiple lockout. The multiple lockout procedure review and locking out of that equipment cannot be conducted at the same time (a supervisor must approve the review before the lockout can be conducted).
 - xii) Reviewed By - The two individuals, who developed and field verified the initial procedure or completed the annual review, enter their names.
 - xiii) Procedure expires date – This is the date the lockout expires. This should be the last day of the month one year from the procedure review date.
 - xiv) Approved By- The management representative from the area enters their name signifying that the procedure for completing the annual reviews has been followed.
 - xv) Post Lockout Review by- The person who did the post lockout review prints and signs their name to verify the lockout has been reviewed
 - e) A Qualified Person is required to develop a multiple-lock lockout procedure. See definition of a “Qualified Person to Develop/Review Lockouts.”

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- f) The procedure is developed by utilizing operating knowledge, P&I drawings, and visual inspection to supply the information required on the Multiple-Lock Lockout Template.
 - g) A Multiple Lockout Development Checklist may be completed as part of the multiple lockout procedure development process (Attachment G). Upon completion this checklist is to be turned into your supervisor and then forwarded to the Safety Department.
 - h) After the procedure is developed, it needs to be reviewed and field verified by walking down the procedure in the operating area by two people utilizing the multiple lockout procedure review sheet.
 - i) Once that is completed, the two individuals who conducted the review and walk down enter the date it was completed and print their names on the procedure.
 - j) The final step requires that the Area Manager or their designee approve the procedure signifying it is current and accurate. That person prints and signs and dates the procedure after the review has been completed.
3. Multiple Lockout Procedure Verification and Revision
 - a) Each multiple lockout should be walked down and verified for accuracy at least once per year, or when changes to the system occur. At least two qualified individuals are required to do this either together or independently.
 - b) A Multiple Lockout Procedure Review Sheet must be completed as part of the multiple lockout procedure annual review process (Attachment H). Upon completion this checklist is to be turned into your supervisor and then forwarded to the Safety Department with the lockout procedure.
 - c) After review, the individuals must print their names on the multiple lockout procedure review sheet.
 - d) The Area Manager or their designee then approves the procedure by printing and signing and dating it.
 - e) The only time a revision date may be changed is when a walk down for verification and accuracy has occurred.
 4. Execution of Multiple-lock Lockouts
 - a) Area Operations are normally responsible for executing multiple-lock lockouts with the exception of generic pipe, pump and fan lockouts. An area box lock will be the first lock put on an area lockout box, and the last lock removed. In some instances where the best expertise does not reside in Operations, other appropriately trained and qualified personnel may take responsibility for executing a multiple lockout. Examples of this may include:
 - Mechanics locking out a steam or hydraulic system
 - E & I team members locking out a high voltage electrical system
 - b) A second person will be required to participate and verify each step of a multiple-lock lockout procedure has been completed. The Area will decide whether the second person is from Operations or Maintenance. Both individuals must verify each step of the procedure has been completed, by initialing the boxes for each step on the form.

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- c) All personnel working on the locked out equipment have the right and option of verifying that each step of a multiple-lock lockout procedure has been completed.
 - d) Multiple-lock lockouts will utilize area lock boxes or portable lock boxes
 - e) All locks identified for a specific procedure will be keyed alike and obtained from the Safety Department.
 - f) The authorized employees will carry out the lockout procedure after the equipment is disabled.
 - g) The LOCK-CLEAR-TRY-OFF will be performed.
 - h) The authorized employees will then place the key for the keyed-alike locks in the area lock box, along with the completed procedure. Both must be clearly visible through the glass on the area lock box.
 - i) The team members will then place an area lock on the area lock box. This lock will be the first lock put on the area lock box, and the last lock removed.
 - j) All team members working on the equipment must put their personal locks on the area lock box
 - k) Prior to beginning work, team members involved should conduct a pre job huddle.
 - l) To remove the locks and reestablish energy sources, reverse this procedure unless noted otherwise.
 - m) Area supervision will be responsible for conducting post lockout reviews on all multiple lockout procedures, once the work has been completed and the equipment has been started up. Any issues will be followed up with the people involved in the lockout.
 - n) Following the post lockout review the form must be sent to the Safety Department for record keeping.
5. Deviations from written procedures should not be used to avoid writing a new lockout procedure. If this becomes the case a new lockout should be developed. If it becomes necessary to deviate from an approved multiple-lock lockout, then the following procedure must be followed.
- a) The steps that were modified or not completed are identified on the lockout procedure by writing "deviation" across the "Initials" box or boxes,
 - b) The Area Manager or their designee must approve the deviation with a brief description of the reason for the deviation, date and print their name,
 - c) A standardized fluorescent orange "Deviation Warning" tag shall be attached to the area lock or multiple lock hasp on lock box, and
 - d) All unused locks from a dedicated procedure must be placed in the lock box. However, at times it may be necessary to use an unused lock(s) for the deviation, such as when a valve will be changed and you must use the lock(s) for another valve(s) or fixture(s) to make the lockout valid. In a deviation, if the lock point has been moved, the deviation must be described in the notes section of the multiple lockout procedure and initial boxes (for the 1st, 2nd and possibly Clear, Try, Off) must be added into the notes section for verification that the lock(s) has been applied.

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6. Back Feed: During a lockout procedure, if something is being powered from a back feed, you must follow the deviation procedure and place a lock on the back feed. A back feed tag must be filled out by E&I and placed on the back feed point and the normal power source.

IX. One Time/Pump/Pipe/Fan Lockout

- A. One time/pump/pipe/fan lockouts may be stored in the DMS for potential use. These aren't annually reviewed as there are no specific plans for use. Prior to use, these lockouts need to be reviewed/walked down as required in section VIII.

X. Generic Pipe, Pump and Fan Lockout

- A. At times an individual pipe, pump or fan, with more than a single energy source needs to be locked out. This generic procedure can be used only when a section of pipe, a pump or fan is being locked out and it is not part of a larger multiple-lock lockout procedure. Although simplified, these lockouts must still be documented with a written procedure because they involve more than one energy source.

A Generic Pump is any individual pump that is limited to:

- discharge(s)
- suction(s)
- a power source
- seal or flush water line(s)

- B. The following process must be followed:

1. Operations and Maintenance will agree on who documents and performs the lockout.
2. Operations will always confirm the accuracy of the lockout as a part of planning work or prior to the Maintenance activity beginning.
3. The generic pipe, pump or fan lockout procedure form (Attachments B, C & D) must be completed before the lockout is performed.
4. A keyed alike area lock set is utilized to lockout each energy source.
5. The Generic Pipe, Pump or Fan Lockout Procedure and key is placed in a multiple lockout lock box and each individual affixes his/her lock to that lockbox. The last person to remove his/her lock is responsible for safely returning that equipment back into service.
6. The documented generic procedure form shall be kept at the job site until the work is complete (in a lock box). List where the non-dedicated or portable lock box is located (example: Machine Tender Control Room). Any non-dedicated or portable lock boxes need to be located in an area clear of debris and other materials that may impact the procedure.
7. The person placing the locks shall put their initials on the lockout procedure as each step is completed. If more than one person is executing the lockout the second person shall initial the procedure after each step is completed.

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8. Upon completion of the work the generic procedure form will be reviewed by Supervision and forwarded to the Safety Department.

XI. Tagout

- A. Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
 1. When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
 2. Tags must be legible and understandable by all authorized employees, affected employees, and all other team members whose work operations are or may be in the area, in order to be effective.
 3. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
 4. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
 5. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

XII. Confined Space Entry Lockouts

- A. The following criteria must be considered when developing and reviewing lockouts for confined space entry: hazardous materials, non-hazardous materials, temperature and pressure. Reference the Confined Space Policy and Line Breaking Policy for complete details.
 - Examples of hazardous materials include (but not limited to): chlorine dioxide (including dilute); ammonia; chlorine; foul condensate/hot well condensates; sodium hydroxide (caustic); hydrogen peroxide; sulfuric acid; white, green and black liquors; sulfur dioxide, biocides, methanol and steam, etc.
 - Examples of non-hazardous materials include (but are not limited to): water, stock, color, clay, titanium dioxide, white water and non-hazardous products with normal/diluted concentrations of biocide, etc.
 - Temperature of the flowable material, if above 120 degrees F, is considered a hazardous material and must be handled accordingly.
 - Pressure is considered hazardous when \geq 90psi.
- B. Lockouts for hazardous materials may only be achieved through:
 1. Double block and bleed valves, or
 2. Blanking or blinding, or
 3. Misalignment or removal of a section of pipe.
- C. Lockouts for non-hazardous materials in which an engulfment hazard is present must have, at a minimum, redundancy on the lockout as follows:
 1. Locking out a valve and a pump, or

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2. Locking out two valves, or
3. Locking out a valve and a motor, or
4. Verify with the Safety Department for alternative redundancy method.

XIII. Vacuum Lines and Vessels for Grinding, Patching and Banding Live Lines

- A. A vacuum within lines and vessels is considered an energy source and a potential for hazards exists; therefore, they must be considered for lockout as would any other energy source under our policy. The following must be addressed before work is assigned on any vacuum line or tank:
1. The integrity of the line must be assessed (including external fixtures, such as brackets), by the work group involved (pre-job huddle) if invasive work such as grinding, patching or banding is to begin on the “live” line or vessel, the following must be reviewed:
 - a) Is the work to be conducted covered under the Hot Tapping Procedure? If yes follow Hot Tapping Procedure. If not, continue...
 - b) Is the line visually distorted or collapsed in any way.
 - c) Area Reliability Engineer and Maintenance Supervisor must get involved to determine if work can be conducted in or on the line or vessel (particularly if the line is to be worked on and not locked out). Ultrasonic Testing (UT) or equivalent may be required to be performed on a “live” line or vessel before work can begin. See ASME – Section VIII, Pressure Vessels, Thickness of Shells and Tubes Under External Pressure – section on vacuum systems.
 - d) Is the work necessary or can the work be put off until the system is down, or can work be altered to reduce hazard (reduce load or valve out).

XIV. Long Term Equipment or Area Lockout Procedures

- A. When an energy source or piece of equipment will be locked out for an extended period of time the following procedure will be used to perform the lockout.
1. The department is required to place an Area lock on the machine or equipment when the following conditions exist:
 - a) When a team member is to be taken off the job, the job is not yet complete, and another worker is not available. This would include shift changes. Personal locks are not allowed to be used for this lockout
 - b) Procedures must be in place to ensure continuity of a lockout from one shift to the next which clearly communicate the status of the equipment and ensures the safety of oncoming personnel. This procedure shall not allow any team member to leave their personal safety lock(s) in place when they leave the mill.
 - c) Equipment is moth balled or shut down for a period greater than one year.
 - d) When a multiple lockout procedure is used.
 2. Long-term locks must also be tagged when they are placed on the equipment, long term shall be considered greater than one year. The tags must contain the following information:
 - a) Printed name of Area Manager or designee authorizing the long term lockout.
 - b) The reason the lock was placed.

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- c) The date of the placement.

XV. Unlock Procedure

- A. After the service and/or maintenance is complete and equipment is ready for normal production operation, check the surrounding area (machines, equipment, etc.) to ensure that no one is exposed to a hazard.
- B. After all tools have been removed from the machine or equipment, guards have been reinstalled and team members are in the clear, remove all lockout devices and perform all procedural steps in reverse order unless otherwise noted.
- C. Activate all pertinent controls to reenergize the machine/equipment.
- D. Supervision will collect completed lockout procedures and conduct post lockout reviews.
- E. Lockout supplies must be returned to their designated area.

XVI. Key Release Procedure

- A. Whenever a lockout lock has not been removed, and the person who has control of the lock cannot be located, the Key Release Procedure must be utilized through Loss Prevention.

XVII. Auditing

- A. Periodic performance audits of multiple-lock lockout procedure execution are required by MIOSHA. These audits are conducted to ensure lockouts are executed correctly. These audits also identify areas of performance that need improvement. Audit results are used as an opportunity to provide feedback to those performing the lockouts and to update existing training programs. The following actions will be used as part of the auditing process.
 - 1. The Hourly Safety Advocates and Lockout Coordinators will be responsible for performing routine audits of random samples of the completed lockout procedure forms.
 - 2. Lockout execution will be observed “live” periodically to verify competency and identify opportunities.
 - 3. Periodic walk downs of executed multiple lockout procedures for proper execution/verification.
 - 4. The Safety Department will audit the overall lockout program at least annually.

The documentation affiliated with these audits will be retained in the Safety Department.

XVIII. Entrance and Work Restrictions for Motor Control Centers (MCCs)

- A. All entrances into MCCs shall be done in accordance with the Electrical safe work practices and procedures.

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XIX. Lockout Coordinator Position

A. For annual, seven week, and other (Planned) downs, a Lockout Coordinator may be designated. The Lockout Coordinator can be either a salaried or hourly team member. This person will be assigned to help lockouts be completed efficiently and correctly. The individual may be a person dedicated to a shutdown or to a specific area such as an MCC. The lockout coordinator does not need to be present 24 hours per day but does need to be present when the shutdown lockouts are being executed. Duties and responsibilities include:

- Involvement prior to a shutdown.
- Attending shutdown-planning meetings.
- Becoming familiar with the work and assures corresponding lockout procedures are identified and verified.
- Meeting with contractors to make them aware of required lockouts.
- Verifying correct lockout procedures are being followed.
- Coordinating walk-through of lockouts prior to the down.
- Center of communication when equipment and systems are ready for work.
- Carrying a radio or pager for ease of contact.
- Center of communications when Maintenance and Contractors have removed locks.
- Collecting and auditing lockout sheets after use, and sending them to the Safety Department



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Attachment A. Multiple-Lock Lockout Procedure Template

Multiple-Lock Lockout Procedure					Page 1 of 1		
Lockout No.:		Person Responsible:			Date:		
No. of Locks Required:		Lockout Lockset#:					
No. of Tags:		Lockout Box Location:					
Step#	"L" = Lock(s) Required	Description	Valve or Equipment ID	Lockout Status	1st Person Initials	2nd Person Initials	Clear Try Off Initials
1	PS	Verify all motors on lockout are off before locking out.	Motors on Lockout	Off			
2							
3							
4							
5							
6							
7							
Lockout Executors: 1. _____ 2. _____ (Print Name)							
DE DESCRIPTIONS, NOTES AND DEVIATIONS: 1. N/O=Normally Open N/C=Normally Closed 2. _____ 3. _____ 4. _____							
Procedure Review Date:		Reviewed By:			Reviewed By:		
Procedure Expires Date:		Approved By: _____ (Management Representative)			Post Lockout Reviewed By: _____ (Management Representative)		
L= Lock T= Tag PS= Procedural Step							

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Attachment B. Generic Pipe Lockout Procedure Template

Generic Pipe Lockout Procedure					Page 1 of 1		
ENTER AREA WHERE WORK IS BEING PERFORMED BELOW							
Generic Pipe Lockout							
Lockout No.:		Generic Pipe		Person Responsible:		Date:	
No. of Locks Required:				Lockout Lockset# :			
No. of Tags:				Lockout Box Location:			
Step #	Lock(s) Required	Description	Valve or Equipment ID	Status OPEN OR CLOSED	Person Initials	Person Initials	Clear Trg Off Initials
1		Hand Valve if Applicable					
2		Hand Valve if Applicable					
3		Hand Valve if Applicable					
4		Open Drain Valve if Applicable					
5							
6							
7							
8							
Lockout Executors: 1. _____				2. _____			
(Print Name)							
<p>DESCRIPTIONS, NOTES AND DEVIATIONS: Enter other steps as needed. If more than one person is executing the lockout the second person shall initial the procedure after each step is completed. Generic Pipe lockouts are to be used for pipe work such as, isolating automatic valves, flow meters or sections of pipe for tie-ins, etc.</p>							
				Post Lockout Reviewed By: (Management Representative)			

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Attachment C. Generic Pump Lockout Procedure Template

Generic Pump Lockout Procedure				Page 1 of 1			
ENTER AREA WHERE WORK IS BEING PERFORMED BELOW							
Generic Pump Lockout							
Lockout No.:		Generic Pump		Person Responsible:		Date:	
No. of Locks Required:				Lockout Lockset#:			
No. of Tags:				Lockout Box Location:			
Step #	"L" = Lock(s) Required	Description	Valve or Equipment ID	Lockout Status	1st Person Initials	2nd Person Initials	Clear Try Off Initials
1	PS	Verify Motor is off before locking out.	Motor or Pump of Lockout	Off			
1	L	Motor or Pump Name: MWL: MCC Stack No.: Row and Position:		Disabled			
2							
3							
4							
5							
6							
Lockout Executors: 1.		2.					
(Print Name)							
DESCRIPTIONS, NOTES AND DEVIATIONS: Enter other steps as needed. Generic pump lockouts can be used to perform work on any piece of equipment between the isolating inlet and outlet valves of the pump system.							
						Post Lock out Reviewed By: (Management Representative)	
L= Lock T= Tag PS= Procedural Step							

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Attachment D. Generic Fan Lockout Procedure Template

Single-Lock Fan Lockout Procedure					Page 1 of 1		
Lockout No.:		Fan		Person Responsible:		Date:	
No. of Locks Required:		1		Lockout Lockset#:			
No. of Tags:		0		Lockout Box Location:			
Step#	"L" = Lock(s) Required	Description	Valve or Equipment ID	Lock out Status	1st Person Initials	2nd Person Initials	Clear Try Off Initials
1	PS	Verify all motors on lockout are off before locking out.	Motors on Lockout	Off			
2	L	Motor: MWL: MCC: POS:		Disabled			
3	PS	If Operations is doing Lockout, Call Maintenance to Secure Fan from movement if applicable	Fan Blades	Secured			
Lockout Executors: 1.				2.			
(Print Name)							
DESCRIPTIONS, NOTES AND DEVIATIONS:							
1. N/O=Normally Open N/C=Normally Closed							
2. Secure fan while performing maintenance or alignment.							
3.							
4.							
						Post Lockout Reviewed By: (Management Representative)	
L= Lock T= Tag PS= Procedural Step							



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Attachment F: Intermediate Energy State (IES) Lockout Procedure Template

IES Procedure						Page 1 of 1		
No. of Locks Required:		0	Person Responsible:		*Enter Job Title (not personal name)		Date:	
No. of Tags:		0	Lockout Lockset#:					
			IES Posting Location:		IF APPLICABLE			
Step#	"L" = Lock(s) Required	Description	Valve or Equipment ID or Personnel	IES Status	1st Person Initials	2nd Person Initials	Clear Try Off Initials	
1								
2								
3								
4								
5								
IES Executors (If Applicable): 1. _____ 2. _____ (Print Name)								
DE DESCRIPTIONS and NOTE S: 1. N/O=Normally Open N/C=Normally Closed								
L= Lock T= Tag PS= Procedural Step								

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Attachment G: Multiple Lockout Procedure Development Checklist

MULTIPLE LOCKOUT PROCEDURE DEVELOPMENT SHEET

Multiple Lockout Procedure Title: _____

*It is the responsibility of the developers to confirm a zero energy state exists when properly locked out.
The procedure should be clearly named to prevent confusion with other procedures.*

Energy sources to consider (check all boxes):

- | Y | N | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical to a prime mover or motor |
| <input type="checkbox"/> | <input type="checkbox"/> | Electrical to any other device |
| <input type="checkbox"/> | <input type="checkbox"/> | Pneumatic to any prime mover, cylinder or actuator |
| <input type="checkbox"/> | <input type="checkbox"/> | Pneumatic energy within any line or device that is affected by this work |
| <input type="checkbox"/> | <input type="checkbox"/> | Steam |
| <input type="checkbox"/> | <input type="checkbox"/> | Hydraulic energy to any prime mover, cylinder or actuator |
| <input type="checkbox"/> | <input type="checkbox"/> | Hydraulic energy within any line or device that is affected by this work |
| <input type="checkbox"/> | <input type="checkbox"/> | Gravity |
| <input type="checkbox"/> | <input type="checkbox"/> | Chemical, biocides |
| <input type="checkbox"/> | <input type="checkbox"/> | Radioactive |
| <input type="checkbox"/> | <input type="checkbox"/> | Thermal |
| <input type="checkbox"/> | <input type="checkbox"/> | Mechanical |
| <input type="checkbox"/> | <input type="checkbox"/> | Stored energy such as springs, unsupported weight or tension |
| <input type="checkbox"/> | <input type="checkbox"/> | Stored energy as in the head within a tank, vessel or pipe |

Accessories that are needed should be identified:

- | | | |
|--------------------------|--------------------------|--------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Chains |
| <input type="checkbox"/> | <input type="checkbox"/> | Donuts |
| <input type="checkbox"/> | <input type="checkbox"/> | Clasps |
| <input type="checkbox"/> | <input type="checkbox"/> | Padlock |
| <input type="checkbox"/> | <input type="checkbox"/> | Pin/Block |
| <input type="checkbox"/> | <input type="checkbox"/> | Circuit breaker lockout device |
| <input type="checkbox"/> | <input type="checkbox"/> | Manual valve isolation devices |

If confined space entry is required, note on the lockout in the comments section. For a confined space entry, flowable materials need to be locked out with one of the following listed below:

- | | | | | | | | | | | | | | | |
|--------------------------|--------------------------|--|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|---|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | For hazardous materials (examples include but are not limited to: chlorine dioxide including dilute; ammonia; chlorine; foul condensate/hot well condensates; sodium hydroxide/caustic; hydrogen peroxide; sulfuric acid; white, green and black liquors; sulfur dioxide, biocides, methanol and steam, etc.), temperatures above 120°F, or pressure \geq 90psi, one of the following must be accomplished: <table border="0" style="margin-left: 20px;"> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Double block and bleed valves, or</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Blanking or blinding, or</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Misalignment or removal of a section of pipe.</td> </tr> </tbody> </table> | <input type="checkbox"/> | <input type="checkbox"/> | Double block and bleed valves, or | <input type="checkbox"/> | <input type="checkbox"/> | Blanking or blinding, or | <input type="checkbox"/> | <input type="checkbox"/> | Misalignment or removal of a section of pipe. | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Double block and bleed valves, or | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Blanking or blinding, or | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Misalignment or removal of a section of pipe. | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | For non-hazardous materials, lockout can be accomplished with a single lock lockout. | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | For non-hazardous materials in which an engulfment issue is present must have, at a minimum, a redundancy on the lockout as follows: <table border="0" style="margin-left: 20px;"> <tbody> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Locking out a valve and a pump, or</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Locking out two valves, or</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Locking out a valve and a motor, or</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td>Verify with the Safety Department for an alternative redundancy method</td> </tr> </tbody> </table> | <input type="checkbox"/> | <input type="checkbox"/> | Locking out a valve and a pump, or | <input type="checkbox"/> | <input type="checkbox"/> | Locking out two valves, or | <input type="checkbox"/> | <input type="checkbox"/> | Locking out a valve and a motor, or | <input type="checkbox"/> | <input type="checkbox"/> | Verify with the Safety Department for an alternative redundancy method |
| <input type="checkbox"/> | <input type="checkbox"/> | Locking out a valve and a pump, or | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Locking out two valves, or | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Locking out a valve and a motor, or | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | Verify with the Safety Department for an alternative redundancy method | | | | | | | | | | | | |

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- Is the lockout sequence in the proper order (i.e. isolation valves closed before drains are opened)?
 Is the correct method for Clear, Try, Off identified?
 Is line breaking required? If so, this should be noted in the comments/note section.

Procedure Developed by (print): _____ Date: _____

Procedure Reviewed by (print): (1) _____ (2) _____

PLEASE FORWARD THIS CHECKLIST ALONG WITH A COPY OF THE LOCKOUT TO a member of THE SAFETY DEPARTMENT or MAILBOX #51 FOR FILING

Attachment H: Multiple Lockout Procedure Review Checklist

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MULTIPLE LOCKOUT PROCEDURE REVIEW SHEET

Title of Lockout for Review: _____

The entire Lockout must be walked down and each lockout point verified or identified as accurate by two team members either together or separately. When the team members review the lockout separately, the supervisor is responsible for making sure possible enhancements or deficiencies are addressed before signing off.

Y N NA

- Did you review P&IDs or other drawings to determine if changes need to be made to the system and/or P&IDs? (Optional – based upon area needs)
 Did you walk down equipment/lockout?
 Did you review with team member(s) with process knowledge (process engineer, supervisor, operator, yourself, etc.)?
 If the lockout is for confined space entry, does it satisfy the requirements under section XI. Confined Space Entry Lockouts of this policy.
 Is the Title of this lockout appropriate?
 How many locks are required? _____
 Is the number of locks the same as when this multiple lockout was last reviewed?
 Does the number of locks required match the number of locks found in the box (for dedicated sets only)?
 Are the “L” for locks, “T” for tags and the “PS” for procedural steps identified?
 Do the number of locks and tags needed match the number of “L”s and “T”s on the lockout sheet.
 Are the steps in the lockout in the proper order (e.g., for safety purposes, such as (1) isolation valve closed before drain (2) prevent retracing steps)? May require reviewing with team member with process knowledge.
 Is the information in the description box accurate and easy to understand (e.g., size and type of hand valve if listed and does the location given make the valve easy to find)?
 Is the “Lockout Status” box on the multiple lockout sheet accurate?
 For valves, does the procedure indicate normal operation status (e.g., if valve is normally in the closed position it must be put back that way when lock removed)? Where appropriate, special lock removal and start-up procedures may apply.

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- Are all the clear/try/off boxes accurate (for example, need clear/try/off for pumps, motors, pneumatic devices and possibly other energy sources)?
- Does the description box on the sheet match the identifiers/tags at the MCC and on the equipment?
- Is the Lockout Box in good shape?
- Are each of the keys, tags and/or lock numbers legible and accurate?
- Are tie-off points available for all items on the lockout? If the item cannot be reached with a step ladder or individual will be working higher than 4 feet, fall protection is required.

Attach a copy of the Lockout Sheet used for this review.

Reviewer Names (print): (1) _____ (2) _____

Supervisor Review Signature: _____ Date: _____

After lockout is reviewed, PLEASE FORWARD THIS CHECKLIST ALONG WITH A COPY OF THE LOCKOUT TO a member of THE SAFETY DEPARTMENT or MAILBOX #51 FOR FILING

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Attachment I - Lockout Training Organize & Implementation Form

ORGANIZE AND IMPLEMENT - Lockout Training

PROJECT: Lockout Training **TEAM Member:** _____
Area: Labor Pool **NATURAL OWNER:** Lockout Coordinator
Equipment: _____ **DATE ASSIGNED:** _____
New Hire (Y/N): _____
Certification _____
Description: Multiple Lockout Trained - Authorized Employee

Step No.	Steps Identified	Person(s) Responsible	Step Target Dates (Estimated)		Step Completion Dates (Actual)
			Start	End	
1	Team member initial lockout training during their first week on the job in classroom setting, no field work or review. View video and take Lockout Quiz.	LO Coordinator			
2	Lockout Training in Verso Learning Center Application (This must be done before second round of Lockout Training).	LO Coordinator			
3	Able to navigate the DMS system - Make sure TMs can find the LOTO forms, policies and SOPS.	LO Coordinator			
4	Understanding of the Lockout forms and Process of Performing a Lockout.	LO Coordinator			
5	Assist on a lockout in second round of lockout training - Complete a lockout with assistance from Lockout Coordinator or Safety Advocate.	LO Coordinator			
6	Team member is able to complete a lockout from start to finish - Use DMS system to find forms, procure LOTO equipment needed, put Box together, Lockout equipment, Verify another Lockout, Break Lockout and return the system to normal use.	Hourly Trainer			
			<input type="checkbox"/> TARGET PROJECT COMPLETION DATE: _____		
No.	Difficulties We May or Did Encounter	Actions To Resolve		Date Resolved	
1					
2					
3					

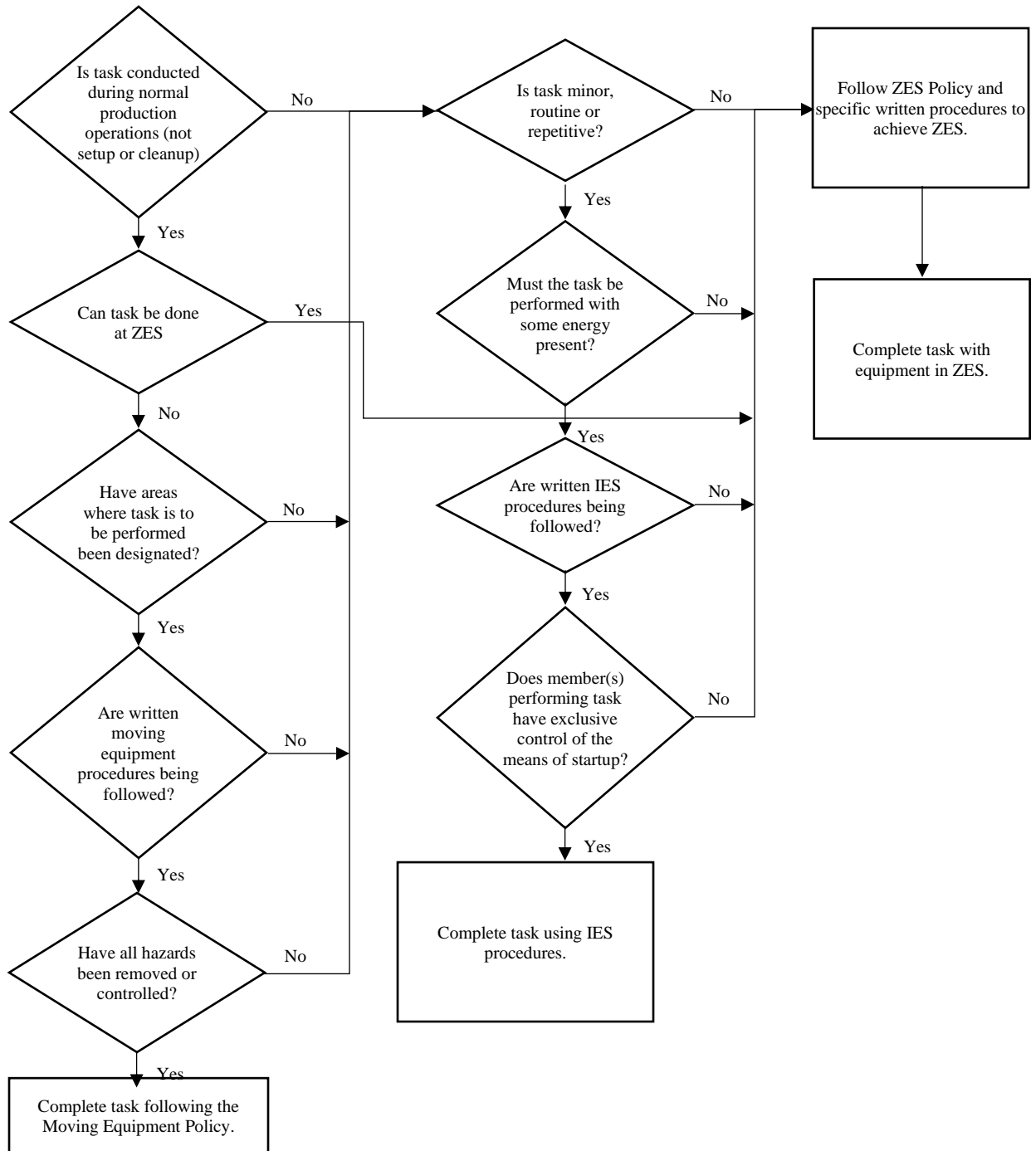
DATE STEPS AND DIFFICULTIES ARE IDENTIFIED:
 DATE PERSON(S) RESPONSIBLE, TARGET DATES AND ACTIONS TO RESOLVE ARE IDENTIFIED:
 DATE PROJECT IS TOTALLY COMPLETED.



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Attachment J - Relationship between ZES, IES and The Moving Equipment Policy



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Attachment K – LOTO Safety Refresher Training Form

LOTO Safety Refresher Training Form

DEPARTMENT: _____ CREW: _____
 DATE: _____ TIME: _____

THIS ATTENDANCE SHEET CERTIFIES THAT THE EMPLOYEE(S) SIGNED BELOW
 HAVE COMPLETED THE REFERENCE TRAINING LISTED BELOW AND
 ACKNOWLEDGE(S)/UNDERSTAND(S) THE TRAINING MATERIAL PRESENTED.

<u>CERIDIAN #</u>	<u>PRINT NAME</u>	<u>SIGN NAME</u>

<u>CHECK</u>	<u>TYPE OF TRAINING CONDUCTED</u>	<u>WHO CONDUCTED TRAINING</u> (Please Print Name)
	<u>Control of Hazardous Energy Policy</u> Esky Sharepoint\DMS\Safety\Company Policies\Control of Hazardous Energy Policy	
	<u>Electrical Safety & LOTO Overview</u> Esky Sharepoint\DMS\Operational Support\ Training\JobAid\Electrical Safety & LOTO Overview	
	<u>HANDS-ON TRAINING</u>	

Refresher Training in relevant topics shall be provided to the executor (s)/ reviewer (s) when:

- The lockout executor(s) has been involved in an incident involving error in executing lockout.
 - regardless if an injury or property damage resulted from error.
 - regardless if they were at fault or not.
- The lockout executor(s) has been observed performing lockout in an unsafe manner.
- The lockout reviewer(s) has been involved in an incident involving error in reviewing lockout.
- The lockout reviewer(s) has been observed reviewing lockout in an unsafe manner.

A copy of this LOTO Safety Refresher Training must be kept in the department's file and be made available upon request.



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Document: Control of Hazardous Energy (Lockout) Policy

Verso – Escanaba Mill			
Subject: Lockout Policy		Number: PC-01	
Effective Date: January 1, 2004		Pages: 17	
Revision Date: February 25, 2020		Approved By: Safety Leadership Committee	
Revision History			
REVISION	PAGE(S) AFFECTED	DATE	DESCRIPTION OF CHANGE
01	Page 7 – Section E Page 11 - Attachment A. Multiple-Lock Lockout Procedure Template	05/08/07	1. Deviations should not be used to avoid writing a new lockout procedure. If this becomes the case a new lockout should be developed. 2. Deviation approval line added.
02	Page 2 – II. Applicable Definitions – Lockout Device Section Page 3 – V. General Lockout Program Requirement Section – Item C & H Page 5 – V111. Multiple Lockouts – Section B #4 (C) and (G) #2	03/23/10	1. Language change regarding the use of lockout tags. Policy changes will take effect 04/01/10.
03	Page 2 – Applicable Definitions – Task Qualified Page 10 – XV. Entrance and Work Restrictions for Motor Control Centers (MCCs) – Section A	09/14/10	1. Task qualified language added to policy. Policy changes will take effect 12/01/10. 2. Language changed regarding Task Qualified Verso personnel and the wearing of 100% natural fiber clothing. Policy changes will take effect 12/01/10.
04	Page 4 – V. General Lockout Program Requirement Section – Item P	03/2011	1. Language added regarding maintenance and maintenance E&I area lock placed on lockout. Policy changes will take effect 03/2011.
05	Page 16 – Multiple Lockout Review Sheet	09/2013	1. MLPR Sheet changes conducted by team to improve review, communications and develop training.

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06	All pages	02/2020	Formatting changes, reorganization of sections, language changes to reflect regulatory requirements, removal of “Power On Lights”, addition of “Tag” section, addition of IES procedure, addition of definitions, addition of Organize and Implement Lockout Training form, updated forms in the appendices.
07	All pages Page 3 – Qualified Person to Dev Lockouts Page 7 – Single Point Lockout	08/2022	Formatting changes, lockout coordinator clarifications for developing/reviewing lockouts, contractor lockout execution allowance example, and contractor single point lockout procedure changes.
08	Page 3 – One time/pump/pipe/fan lockout definition Page 12 – One time/pump/pipe/fan Lockout Procedure Page 27 – Refresher Training Form	12/13/2023	Formatting changes, inclusion of one time/pump/pipe/fan lockout definition and scope of use in DMS, lockout refresher training form.