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1.0 PURPOSE

This procedure describes the mandatory processes required for removing of personal protection when remote tagging is in use.

2.0 APPLICATION

The ZES (Zero Energy State) Program is applicable at all Vale Ontario operations.

Parameters for Electrical Locking & Tagging	
Up to 600 volts	<ul style="list-style-type: none"> • Employees must be trained and qualified to ZES003
Greater than 600 volts and up to 15kV	<ul style="list-style-type: none"> • Employees must be trained and qualified to ZES003 • Power Department will follow MPROC-55001 High Tension Lines, High Tension Switching Procedure between 600 volts and up to 15kV • All other departments will follow MPROC-50001 Electrical Department Switch Room and Substation Access Procedure <ul style="list-style-type: none"> ○ Employees must be trained and qualified electrical tradespersons or have been trained, qualified and permitted through MPROC-50001 ○ Requires communication with the plant’s Electrical Department to establish the level of involvement required from them
Greater than 15 kV	<ul style="list-style-type: none"> • Requires Power Department

2.1. EXCEPTIONS

- High tension power lines and related equipment are under the direct control of the Power Department i.e. all 230kV, 69kV, and 44kV lines and equipment. All personnel must follow Power Department procedure MPROC-55001 High Tension Lines, High Tension Switching Procedure
- Overhead lines and related equipment below 15kV must follow plant specific policies and procedures
- Equipment greater than 15kV not owned by the Power Department e.g. Cottrell, must follow plant specific policies and procedures

3.0 REFERENCES

The following references were used in the development of this document or are related to it. Reference should always be made to the most current official version of these regulations.

- Occupational Health and Safety Act
 - Ontario Regulation 854, Sections 160, 185
 - Ontario Regulation 632/05, Confined Spaces Section 14
- CSA-Z460 Control of Hazardous Energy

4.0 DEFINITIONS

Authorized: a person who has been given permission to perform the task

Cascaded Lock Bock: a lock box that contains the keys from an identified red project lock that has been affixed to the exterior of another lock box or lock boxes

De-energized: disconnected from all energy sources and not containing residual or stored energy.

Do Not Operate Tag: a yellow reusable tag that indicates authorization from the System Operator must be obtain before removing tag or operating of the device (used by Electrical Tradespeople)

Delayed Starts: used to delay the operation of a process or start of a motor, pump, fan, etc. The time can be varied depending on the requirements and typically uses time delay relays to accomplish it.

Designated Tagger: a qualified worker or another person who installs and removes project personal protection and manages status tags

Device: a piece of equipment or a mechanism designed to serve a special purpose or perform a special function

Energy Source: any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, gravity, pressurized, flow of material or other stored energy.

Energy Isolating Device: a mechanical device that physically prevents the transmission or release of energy, such as a disconnect of switches, valves, spades, or blocks

Equipment: any machine driven by electricity or any other prime mover, and/or combination of machines that operates as a system / process, such as pumps, fans, electric motors, mobile machines, vessels, piping, valves, etc.

Frequency Drive: a type of motor controller used with AC motors to vary the frequency and voltage supplied to the motor (In doing so, it can vary the motor speed to match the load requirements of the motor such as controlling the speed of a conveyor belt, fan, mine hoist, etc.)

Grounding Device: an approved device to mechanically connect electrical conductors to ground

Ground Tag: a green tag identifying that a grounding device has been installed on the circuit

Hold Off Tag: Affixed to fused disconnects or breaker control handles by a linesman or P&C technician (tag issued by the Systems Operator) to prevent individuals from reclosing a tripped device

Interlocks: Used in electrical circuits, it is usually a device (common switch, infrared beams, photo detectors, etc.) used to prevent undesirable actions in a piece of equipment, machine or process.

Isolate: a process use or action taken to introduce any number of approved physical barriers between the equipment and sources or forms of energy and/or process material.

Isolation Equipment Operator: a qualified person who operates the Energy Isolation Device (i.e. controls, valves, etc.)

Isolation Equipment Operator: a qualified person who operates the energy isolation device.

Lock Box: a lockable device with provision to secure/see and count keys and hold forms that can be used in two applications: 1) By a Designated Tagger to secure keys and hold the lock box form 2) By a Local Tagger to secure the remote tagging form and hold the lock box form

Lock Extender: a red device used to allow multiple personal protection locks to be installed on an energy isolating device

Lockout Device: a mechanical means of locking an energy isolation device, using a Personal Protection Lock.

Local Tagger: a qualified person who uses a Remote Tagger to install the Local Tagger's personal protection locks and tags on energy isolating devices

Personal Protection Lock: an approved single keyed red lock capable of locking an energy isolating device or a lock box

Personal Protection Tag: an approved red tag that is used in conjunction with a personal protection lock to lock and tag an energy isolating device

Project Lock: an approved single keyed blue lock that is used by a Designated Tagger to secure keys in a lock box

Protected Worker: a Tagger who has installed personal protection and has verified a Zero Energy State

Qualified: a competent person designated by his/her employer as being qualified because of knowledge, training and experience to safely perform an assigned task.

Remote Tagger: a qualified person who operates, locks and tags energy isolation devices on behalf of a Local Tagger

Running Repairs: a repair to a piece of mobile equipment that is in an energized state (Two types of running repairs: 1. Running repairs with power ON + key ON / engine not running and the electric/hydraulic motor is not energized – personal protection tag required in operators control area 2. Running repairs with key ON / engine running or electric / hydraulic motor energized – personal protection tag and a qualified operator required in operator's control area)

Soft Starts: Used with AC motors to reduce the load and torque on the powertrain and current surge during start up. Allow the motor to slowly (softly) ramp up to full speed.

Status Tag: an approved white tag identifying why an energy isolating device may not be operated so as to protect equipment

Station Guarantee Tag: a white, reusable numbered tag used by Power Department to identify the fact that a certain device is being used to protect a person or group of persons while working on or near equipment

Superintendent: the level of management that supervisors who are in charge of equipment and/or processes report to.

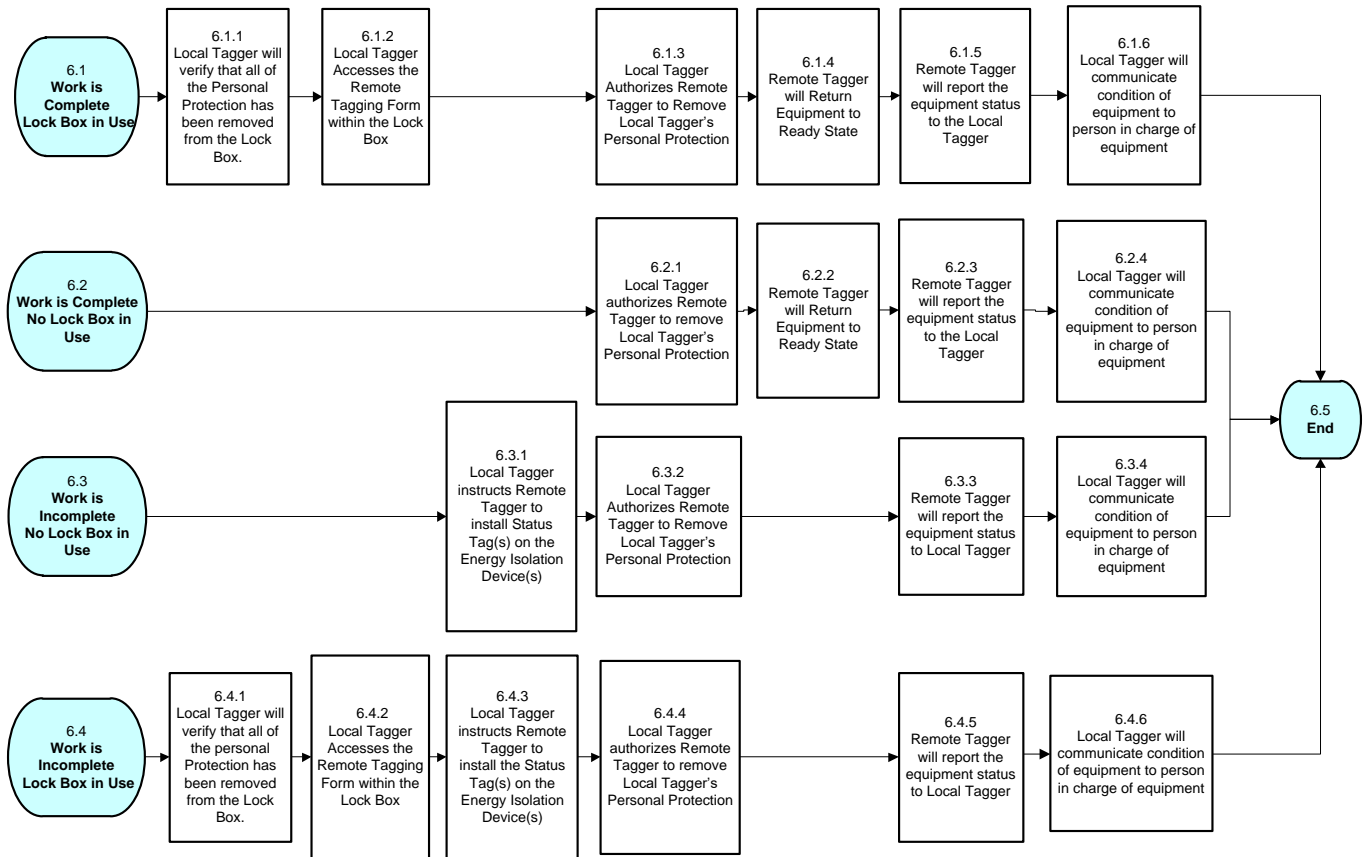
Tagger: a qualified worker who installs and removes his/her personal protection and manages status tags.

Variance: an approved plant specific measure put in place when it is impractical or unsafe to follow the Zero Energy State Locking and Tagging Procedure

Zero Energy State: a state where all hazardous energy has been isolated and de-energized, or otherwise controlled to manage risk.

5.0 REMOTE TAGGING REMOVING PERSONAL PROTECTION

The following flowchart outlines the mandatory steps required for removing personal protection when remote tagging is in use.



There are four scenarios described for removing personal protection when using remote tagging:

- Work is complete – lock box in use
- Work is complete – no lock box in use
- Work is incomplete – no lock box in use
- Work is incomplete – lock box in use

6.0 ZES PROCEDURE – FLOWCHART #6

FC: 6.1 WORK IS COMPLETE – LOCK BOX IN USE

The purpose of this process is to outline the duties of a Local Tagger and Remote Tagger when the work is complete and a lock box is being used.

FC: 6.1.1 LOCAL TAGGER WILL VERIFY ALL PERSONAL PROTECTION HAS BEEN REMOVED FROM LOCK BOX

The purpose of this step is to ensure the lock box is not protecting any worker.

The work is complete and a lock box is being used. The lock box should no longer be required since the work is complete. However, the Local Tagger cannot assume that the lock box is no longer required. They must ensure that the lock box is protecting no workers before proceeding any further.

An example might be that all workers have reported their work as complete. As the last worker is about to remove their lock, they remember that they haven't replaced a guard on the drive belts. They leave their identified red lock in place on the lock box and return to finish the work. The lock box is still protecting the worker. The Local Tagger cannot proceed until the protected worker removes their identified red lock from the lock box.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

The Local Tagger must ensure that the lock box is protecting no workers before proceeding any further.

FC: 6.1.2 LOCAL TAGGER ACCESSES THE REMOTE TAGGING FORM WITHIN THE LOCK BOX

The purpose of this step is to access the Remote Tagging Form within the lock box.

The work is complete and a lock box is being used. No identified red locks are on the lock box. The only lock left on the lock box is the blue project lock. This indicates that the lock box is no longer required.

Since the work is complete, the Local Tagger must access the remote tagging form within the lock box. The Local Tagger will use it while performing the next step (removing their personal protection from the remote energy isolation device).

The Local Tagger will:

1. Remove the blue project lock from the lock box.
 - The blue project lock and its key are to be stored in their normal storage location.
2. Remove the Lock Box Form, strike an x across the form and hand it in to the Supervisor.
 - The form will not be reused.
 - The forms used in the Supervisor's area of responsibility must be kept on file by that Supervisor.
 - These forms must be maintained on file for a minimum of six months. Where lock boxes are used infrequently (i.e., once or twice a month), the last 10 forms, at minimum, must be maintained on file by the Supervisor.
3. Return the lock box to its normal storage location.

This step can only be performed after all Taggers have removed their identified personal protection locks from the lock box.

FC: 6.1.3 LOCAL TAGGER AUTHORIZES REMOTE TAGGER TO REMOVE LOCAL TAGGER'S PERSONAL PROTECTION

The purpose of this step is to remove the Local Tagger's Personal Protection.

The Local Tagger has the Remote Tagging Form that will be used during the communication with the Remote Tagger for the removal of the Local Tagger's personal protection.

The Local Tagger will contact the Remote Tagger and confirm the information on the remote tagging forms.

The Local Tagger will instruct the Remote Tagger to remove the Local Tagger's red personal protection lock and tag as listed on the remote tagging forms.

The Remote Tagger removes the lock from each energy isolating device that is listed on the remote tagging form.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

This step is performed when the personal protection is no longer required.

FC: 6.1.4 REMOTE TAGGER WILL RETURN EQUIPMENT TO READY STATE

The purpose of this step is to return the equipment to the ready state if there are no other tags present.

The Remote Tagger has removed the Local Tagger's personal protection from the energy isolating device(s).

The energy isolating device(s) must be operated to put the equipment in the ready state. The Remote Tagger must be a qualified Isolation Equipment Operator. You could be injured if you improperly operate an Energy Isolating Device.

The Isolation Equipment Operator is accountable for using proper methods for de-isolation and re-energization.

De-Isolating is performed after personal protection is removed and the isolation is no longer required.

FC: 6.1.5 REMOTE TAGGER WILL REPORT THE EQUIPMENT STATUS TO THE LOCAL TAGGER

The purpose of this step is to ensure the Remote Tagger has performed their remote tagging duties.

On a job that requires remote tagging, the Remote Tagger must advise the Local Tagger of every action that they have performed on behalf of the Local Tagger.

The Remote Tagger will inform the Local Tagger of each specific energy-isolating device that they have unlocked on behalf of the Local Tagger. Additionally, they will inform the Local Tagger of any energy isolating device that they have operated and whether the device has been left in the isolated or de-isolated position.

The communication must cover every energy-isolating device that has been listed on the remote tagging form. This reduces the potential for confusion and ensures that all energy sources are handled in a consistent manner.

The Remote Tagger is accountable for initiating the communication.

The Local Tagger is accountable for the topics covered in the communication:

- What remote energy isolating devices have been unlocked on their behalf
- What remote energy isolating devices have been operated
- The status of the energy isolating devices: Have they been left in the isolated or de-isolated position.

This step is performed after the Remote Tagger has unlocked the energy isolating device(s) and performed any required de-isolation.

FC: 6.1.6 LOCAL TAGGER WILL COMMUNICATE CONDITION OF EQUIPMENT TO PERSON IN CHARGE OF EQUIPMENT

The purpose of this step is to communicate with the person in charge of the equipment after work has stopped.

The person in charge of the equipment or process must be aware of incomplete and completed work. They must be aware that equipment has been de-isolated or remains isolated. They must coordinate the equipment re-commissioning with other work and production schedules.

Some of the things that the person in charge is concerned about when work is complete:

1. Starting the equipment may cause a production upset.
2. Starting the equipment may affect the safety of other work in the area.
3. Other work in the area may need to be completed before starting the equipment.
4. Accounting for people during an emergency situation.

Some of the things that the person in charge is concerned about when work is incomplete:

- What work is remaining
- When the equipment will be ready for re-commissioning
- Extra work that may be required based on what was discovered during the work
- Production delays if the equipment cannot be de-isolated in a timely manner

The Local Tagger is accountable for performing this step.

The communication should clarify:

- The scope of the work performed. What work is remaining? Extra work that may be required based on what was discovered during the work.
- The state of the energy isolation devices.
- If the equipment is ready for service. If not, an estimate of when it will be ready for service.
- Any commissioning requirements that they are aware of.

The person in charge of the equipment is expected to use this information when they consider continuing repairs or starting the equipment.

The Local and Remote Taggers will dispose of the Remote Tagging Forms. The forms are not to be reused. In some instances, this step is documented by signing off burning, confined space or other work permits.

FC: 6.2 WORK IS COMPLETE – NO LOCK BOX IN USE

The purpose of this flowchart is to outline the duties of the Local Tagger and Remote Tagger when the work is complete and no lock box has been used.

FC: 6.2.1 LOCAL TAGGER AUTHORIZES REMOTE TAGGER TO REMOVE LOCAL TAGGER'S PERSONAL PROTECTION

The purpose of this step is to remove the Local Tagger's Personal Protection.

The Local Tagger has the Remote Tagging Form that will be used during the communication with the Remote Tagger for the removal of the Local Tagger's personal protection.

The Local Tagger will contact the Remote Tagger and confirm the information on the remote tagging forms.

The Local Tagger will instruct the Remote Tagger to remove the Local Tagger's red personal protection lock and tag as listed on the remote tagging forms.

The Remote Tagger removes the lock from each energy isolating device that is listed on the remote tagging form.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

This step is performed when the personal protection is no longer required.

FC: 6.2.2 REMOTE TAGGER WILL RETURN EQUIPMENT TO READY STATE

The purpose of this step is to return the equipment to the ready state if there are no other tags present.

The Remote Tagger has removed the Local Tagger's personal protection from the energy isolating device(s).

The energy isolating device(s) must be operated to put the equipment in the ready state. The Remote Tagger must be a qualified Isolation Equipment Operator. You could be injured if you improperly operate an Energy Isolating Device.

The Isolation Equipment Operator is accountable for using proper methods for de-isolation and re-energization. De-Isolating is performed after personal protection is removed and the isolation is no longer required.

FC: 6.2.3 REMOTE TAGGER WILL REPORT THE EQUIPMENT STATUS TO THE LOCAL TAGGER

The purpose of this step is to ensure the Remote Tagger has performed their remote tagging duties.

On a job that requires remote tagging, the Remote Tagger must advise the Local Tagger of every action that they have performed on behalf of the Local Tagger.

The Remote Tagger will inform the Local Tagger of each specific energy-isolating device that they have unlocked on behalf of the Local Tagger. Additionally, they will inform the Local Tagger of any energy isolating device that they have operated and whether the device has been left in the isolated or de-isolated position.

The communication must cover every energy-isolating device that has been listed on the remote tagging form. This reduces the potential for confusion and ensures that all energy sources are handled in a consistent manner. The Remote Tagger is accountable for initiating the communication. The Local Tagger is accountable for the topics covered in the communication:

- What remote energy isolating devices have been unlocked on their behalf
- What remote energy isolating devices have been operated

- The status of the energy isolating devices: Have they been left in the isolated or de-isolated position.

This step is performed after the Remote Tagger has unlocked the energy isolating device(s) and performed any required de-isolation.

FC: 6.2.4 LOCAL TAGGER WILL COMMUNICATE CONDITION OF EQUIPMENT TO PERSON IN CHARGE OF EQUIPMENT

The purpose of this step is to communicate with the person in charge of the equipment after work has stopped.

The person in charge of the equipment or process must be aware of incomplete and completed work. They must be aware that equipment has been de-isolated or remains isolated. They must coordinate the equipment re-commissioning with other work and production schedules.

Some of the things that the person in charge is concerned about when work is complete:

- Starting the equipment may cause a production upset.
- Starting the equipment may affect the safety of other work in the area.
- Other work in the area may need to be completed before starting the equipment.
- Accounting for people during an emergency situation.

Some of the things that the person in charge is concerned about when work is incomplete:

- What work is remaining
- When the equipment will be ready for re-commissioning
- Extra work that may be required based on what was discovered during the work
- Production delays if the equipment cannot be de-isolated in a timely manner

The Local Tagger is accountable for performing this step.

The communication should clarify:

- The scope of the work performed. What work is remaining? Extra work that may be required based on what was discovered during the work.
- The state of the energy isolation devices.
- If the equipment is ready for service. If not, an estimate of when it will be ready for service.
- Any commissioning requirements that they are aware of.

The person in charge of the equipment is expected to use this information when they consider continuing repairs or starting the equipment.

The Local and Remote Taggers will dispose of the Remote Tagging Forms.

The forms are not to be reused. In some instances, this step is documented by signing off burning, confined space or other work permits.

FC: 6.3 WORK IS INCOMPLETE – NO LOCK BOX IN USE

The purpose of this flowchart is to outline the duties of the Local Tagger and Remote Tagger when the work is incomplete and no lock box has been used.

FC: 6.3.1 LOCAL TAGGER WILL INSTRUCT REMOTE TAGGER TO INSTALL STATUS TAG(S) ON THE ENERGY ISOLATION DEVICE(S)

The purpose of this step is to maintain the zero-energy state until it is safe and practical to re-energize.

The Local Tagger has personal protection on the remote energy-isolating device(s) and will be removing it. There may be equipment hazards that are related to the incomplete work.

The Local Tagger must secure the equipment in the de-energized state by using status tags to warn isolation equipment operators. Isolation equipment operators will not operate energy isolation devices that are status-tagged.

Additionally, persons in charge of the equipment can use the information on the status tag to make decisions about their equipment.

The Local Tagger will instruct the Remote Tagger to install the status tag on the energy-isolating device(s). The Remote Tagger will perform the status-tagging on behalf of the Local Tagger.

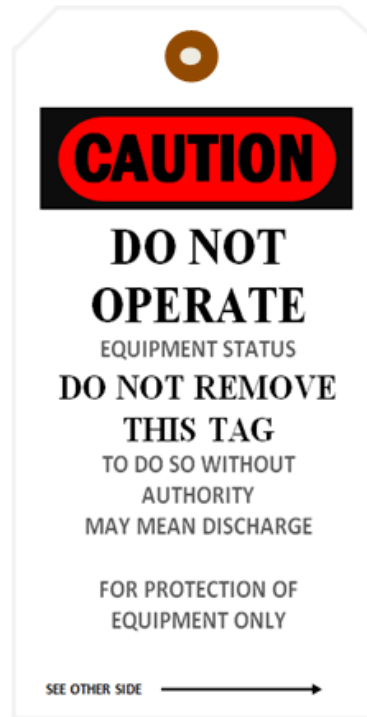
One Status Tag will be affixed for each energy-isolating device that the Remote Tagger has locked and tagged on behalf of the Local Tagger.

The Remote Tagger will fill in the status tag, using the Local Tagger's name and affix it to the energy isolating device. Status tags must be installed before the personal protection is removed.

Example: Status Tag



FRONT



BACK

FC: 6.3.2 LOCAL TAGGER AUTHORIZES REMOTE TAGGER TO REMOVE LOCAL TAGGER'S PERSONAL PROTECTION

The purpose of this step is to remove the Local Tagger's Personal Protection.

The Local Tagger has the Remote Tagging Form that will be used during the communication with the Remote Tagger for the removal of the Local Tagger's personal protection.

The Local Tagger will contact the Remote Tagger and confirm the information on the remote tagging forms.

The Local Tagger will confirm with the Remote Tagger that the required Status Tag(s) on the energy isolating device(s) has/have been installed.

The Local Tagger will then instruct the Remote Tagger to remove the Local Tagger's red personal protection lock and tag as listed on the remote tagging forms.

The Remote Tagger removes the lock from each energy isolating device that is listed on the remote tagging form.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

This step is performed when the personal protection is no longer required and Status Tags have been installed as required.

FC: 6.3.3 REMOTE TAGGER WILL REPORT THE EQUIPMENT STATUS TO LOCAL TAGGER

The purpose of this step is to ensure the Remote Tagger has performed their remote tagging duties.

On a job that requires remote tagging, the Remote Tagger must advise the Local Tagger of every action that they have performed on behalf of the Local Tagger.

The Remote Tagger will inform the Local Tagger of each specific energy-isolating device that they have unlocked on behalf of the Local Tagger. Additionally, they will inform the Local Tagger of any energy isolating device that they have operated and whether the device has been left in the isolated or de-isolated position.

The communication must cover every energy-isolating device that has been listed on the remote tagging form. This reduces the potential for confusion and ensures that all energy sources are handled in a consistent manner.

The Remote Tagger is accountable for initiating the communication.

The Local Tagger is accountable for the topics covered in the communication:

- What remote energy isolating devices have been unlocked on their behalf
- What remote energy isolating devices have been operated
- The status of the energy isolating devices: Have they been left in the isolated or de-isolated position.

This step is performed after the Remote Tagger has unlocked the energy isolating device(s) and performed any required de-isolation.

FC: 6.3.4 LOCAL TAGGER WILL COMMUNICATE CONDITION OF EQUIPMENT TO PERSON IN CHARGE OF EQUIPMENT

The purpose of this step is to communicate with the person in charge of the equipment after work has stopped.

The person in charge of the equipment or process must be aware of incomplete and completed work. They must be aware that equipment has been de-isolated or remains isolated. They must coordinate the equipment re-commissioning with other work and production schedules.

Some of the things that the person in charge is concerned about when work is complete:

- Starting the equipment may cause a production upset.
- Starting the equipment may affect the safety of other work in the area.
- Other work in the area may need to be completed before starting the equipment.
- Accounting for people during an emergency situation.

Some of the things that the person in charge is concerned about when work is incomplete:

- What work is remaining
- When the equipment will be ready for re-commissioning
- Extra work that may be required based on what was discovered during the work
- Production delays if the equipment cannot be de-isolated in a timely manner

The Local Tagger is accountable for performing this step.

The communication should clarify:

- The scope of the work performed. What work is remaining? Extra work that may be required based on what was discovered during the work.
- The state of the energy isolation devices.
- If the equipment is ready for service. If not, an estimate of when it will be ready for service.
- Any commissioning requirements that they are aware of.

The person in charge of the equipment is expected to use this information when they consider continuing repairs or starting the equipment.

The Local and Remote Taggers will dispose of the Remote Tagging Forms. The forms are not to be reused. In some instances, this step is documented by signing off burning, confined space or other work permits.

FC: 6.4 WORK IS INCOMPLETE – LOCK BOX IN USE

The purpose of this flowchart is to outline the duties of the Local Tagger and Remote Tagger when the work is incomplete and a lock box is being used.

FC: 6.4.1 LOCAL TAGGER WILL VERIFY ALL PERSONAL PROTECTION HAS BEEN REMOVED FROM THE LOCK BOX

The purpose of this step is to ensure that the lock box is not protecting any worker.

The work is incomplete and a lock box is being used. The lock box must be removed because remote tagging cannot extend beyond the end of the shift. However, the Local Tagger cannot assume that the lock box is no longer required. They must ensure that the lock box is protecting no workers before proceeding any further.

An example might be that all workers have stopped work for the day and reported the work status. As the last worker is about to remove their lock, they remember that they have left a guard suspended over the drive belts. They leave their identified red lock in place on the lock box and return to lower the guard to the floor. The lock box is still protecting the worker.

The Local Tagger cannot proceed until the protected worker removes their identified red lock from the lock box.

Remote tagging is good for only, one shift. If the work is incomplete and continues into another shift, then the remote tagging process must be restarted.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

The Local Tagger performs verification after all workers have removed their identified personal protection locks from the lock box. This must be performed before the lock box is unlocked.

FC: 6.4.2 LOCAL TAGGER ACCESSES REMOTE TAGGING FORM WITHIN LOCK BOX

The purpose of this step is to access the remote tagging form within the Lock Box.

The work is incomplete and a lock box is being used with remote tagging. No identified red locks are on the lock box.

The only lock left on the lock box is the blue project lock. This indicates that the lock box is no longer required. The lock box cannot remain in use beyond the current shift when remote tagging has been used.

The Local Tagger must access the remote tagging form within the lock box. They will use it while performing the next step (removing the project personal protection from the remote energy isolation device).

Since the lock box is being removed, the Local Tagger will:

- Remove the blue project lock from the lock box.
 - The blue project lock and its key are to be stored in their normal storage location.
- Remove the Lock Box Form, strike an x across the form and hand it in to the Supervisor.
 - The form will not be reused.
 - The forms used in the Supervisor's area of responsibility must be kept on file by that Supervisor.
 - These forms must be maintained on file for a minimum of six months. Where lock boxes are used infrequently (i.e., once or twice a month), the last 10 forms, at minimum, must be maintained on file by the Supervisor.
- Remove remote tagging form from within the lock box.
 - The remote tagging form will be used in the next step.
- Return the lock box to its normal storage location.

FC: 6.4.3 LOCAL TAGGER INSTRUCTS REMOTE TAGGER TO INSTALL THE STATUS TAG(S) ON THE ENERGY ISOLATION DEVICE(S)

The purpose of this step is to maintain the zero-energy state until it is safe and practical to re-energize.

The Local Tagger has personal protection on the remote energy-isolating device(s) and will be removing it. There may be equipment hazards that are related to the incomplete work.

The Local Tagger must secure the equipment in the de-energized state by using status tags to warn isolation equipment operators.

Isolation equipment operators will not operate energy isolation devices that are status-tagged.

Additionally, persons in charge of the equipment can use the information on the status tag to make decisions about their equipment.

The Local Tagger will instruct the Remote Tagger to install the status tag on the energy-isolating device(s).

The Remote Tagger will perform the status-tagging on behalf of the Local Tagger.

One Status Tag will be affixed for each energy-isolating device that the Remote Tagger has locked and tagged on behalf of the Local Tagger.

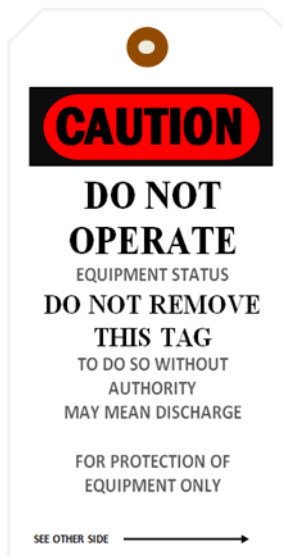
The Remote Tagger will fill in the status tag, using the Local Tagger's name and affix it to the energy isolating device.

Status tags must be installed before the personal protection is removed.

EXAMPLE: Status Tag



FRONT



BACK

FC: 6.4.4 LOCAL TAGGER AUTHORIZES REMOTE TAGGER TO REMOVE LOCAL TAGGER'S PERSONAL PROTECTION

The purpose of this step is to remove the Local Tagger's Personal Protection.

The Local Tagger has the Remote Tagging Form that will be used during the communication with the Remote Tagger for the removal of the Local Tagger's personal protection.

The Local Tagger will contact the Remote Tagger and confirm the information on the remote tagging forms.

The Local Tagger will confirm with the Remote Tagger that the required Status Tag(s) on the energy isolating device(s) has/have been installed.

The Local Tagger will then instruct the Remote Tagger to remove the Local Tagger's red personal protection lock and tag as listed on the remote tagging forms.

The Remote Tagger removes the lock from each energy isolating device that is listed on the remote tagging form.

Personal Protection Tags will be ripped in half and discarded into the garbage once removed from its application.

This step is performed when the personal protection is no longer required and Status Tags have been installed as required.

FC: 6.4.5 REMOTE TAGGER WILL REPORT THE EQUIPMENT STATUS TO LOCAL TAGGER

The purpose of this step is to ensure the Remote Tagger has performed their remote tagging duties.

On a job that requires remote tagging, the Remote Tagger must advise the Local Tagger of every action that they have performed on behalf of the Local Tagger.

The Remote Tagger will inform the Local Tagger of each specific energy-isolating device that they have unlocked on behalf of the Local Tagger. Additionally, they will inform the Local Tagger of any energy isolating device that they have operated and whether the device has been left in the isolated or de-isolated position.

The communication must cover every energy-isolating device that has been listed on the remote tagging form. This reduces the potential for confusion and ensures that all energy sources are handled in a consistent manner.

The Remote Tagger is accountable for initiating the communication.

The Local Tagger is accountable for the topics covered in the communication:

- What remote energy isolating devices have been unlocked on their behalf
- What remote energy isolating devices have been operated
- The status of the energy isolating devices: Have they been left in the isolated or de-isolated position.

This step is performed after the Remote Tagger has unlocked the energy isolating device(s) and performed any required de-isolation.

FC: 6.4.6 LOCAL TAGGER WILL COMMUNICATE CONDITION OF EQUIPMENT TO PERSON IN CHARGE OF EQUIPMENT

The purpose of this step is to communicate with the person in charge of the equipment after work has stopped.

The person in charge of the equipment or process must be aware of incomplete and completed work. They must be aware that equipment has been de-isolated or remains isolated. They must coordinate the equipment re-commissioning with other work and production schedules.

Some of the things that the person in charge is concerned about when work is complete:

- Starting the equipment may cause a production upset.
- Starting the equipment may affect the safety of other work in the area.
- Other work in the area may need to be completed before starting the equipment.
- Accounting for people during an emergency situation.

Some of the things that the person in charge is concerned about when work is incomplete:

- What work is remaining
- When the equipment will be ready for re-commissioning
- Extra work that may be required based on what was discovered during the work
- Production delays if the equipment cannot be de-isolated in a timely manner

The Local Tagger is accountable for performing this step.

The communication should clarify:

- The scope of the work performed. What work is remaining? Extra work that may be required based on what was discovered during the work.
- The state of the energy isolation devices.
- If the equipment is ready for service. If not, an estimate of when it will be ready for service.
- Any commissioning requirements that they are aware of.

The person in charge of the equipment is expected to use this information when they consider continuing repairs or starting the equipment.

The Local and Remote Taggers will dispose of the Remote Tagging Forms. The forms are not to be reused. In some instances, this step is documented by signing off burning, confined space or other work permits.



7.0 APPENDICES

APPENDIX A: Revision Notes

Appendix A: Revision Notes

Revision notes describe what was changed, and if applicable, why it was changed, and the plan to implement the change, including whether changes are retroactive. The revision notes are a summary of the changes and may not necessarily be a complete list. A risk code is entered each revision and if applicable, the revision notes will describe how risk was addressed for the revision

Risk Code:	Risk Category
A	The revision is a minor change and/or introduces no risk.
B	Risk has been addressed for this revision by the reviewer and approver. Low risk or no new hazards identified.
C	For this revision, a risk management tool has been used to address risk and minimize hazards. This risk assessment has been document and is available through Maintenance Engineering.

Rev	Revision Notes
5	July 25, 2019 ownership of ZES Program transitioned to Ontario Operations Safety, Central Services. Risk Code A – minor change and introduces no risk. Changes include: Header of program documentation and reference number changes for example: MPROC-60000 now SPI-ZES-60000. Location of documents and forms on Websites remain the same. FORMS have no change other than “reference numbers” to the documents where applicable.
4	Revision of Section 2 - Application to clarify locking and tagging requirements for different voltages and involvement levels required of Electrical Department and Power Department. Risk Code for this revision is A – The revision introduces no risk.
3	Ontario Operations Zero Energy State Locking & Tagging Program, Section 6 Procedures, 6.6 Flowchart 6 and its related CPQQRT <ol style="list-style-type: none"> 1. Formatted content into a maintenance standard “procedure” document: <i>MPROC-60006 Remote Tagging, Removing Personal Protection</i>. The reason for reformat: <ul style="list-style-type: none"> • To update the format to meet the minimum requirements of documents maintained in the recently established Maintenance Standard Document Management System • To maintain the procedure on the Maintenance Standards Website for easy access for internal and external reference. 2. In procedure document, Step 6.4.2 clarifies the retention of lock box forms: <ul style="list-style-type: none"> ○ The forms used in the Supervisor’s area of responsibility must be kept on file by that Supervisor. These forms must be maintained on file for a minimum of six months. Where lock boxes are used infrequently (i.e., once or twice a month), the last 10 forms, at minimum, must be maintained on file by the Supervisor. 3. Flowchart #6 – updated to clearly display each of the steps required for each of the four scenarios individually rather than streamed together – like steps for each of the processes are now stacked one on top of the other to better visual what is the same and what is different in each of the 4 options. Content otherwise not modified. <ul style="list-style-type: none"> • 6.1 Work is Complete Lock Box in Use • 6.2 Work is Complete No Lock Box in Use • 6.3 Work is Incomplete No Lock Box in Use • 6.4 Work is Incomplete Lock Box in Use
2	March 31, 2009 Ontario Operations Zero Energy State Locking & Tagging Program Ontario Division changed its organizational structure. ZES Program document updated: “Section 7 – Accountabilities” to reflect the new organization structure
1	June 15, 2008 Implemented the Ontario Operations Zero Energy State Locking and Tagging Program