



YUKON ENERGY CORPORATION Lockout & Tag Out (LOTO) Program



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**A MESSAGE FROM YUKON ENERGY
(Lockout/Tag Out)**

Yukon Energy Corporation (YEC) recognizes that preventing the unexpected start up or release of stored energy from equipment during maintenance is a key step in protecting all workers from injury. Complying with appropriate lockout/tag out work standards, procedures and work methods will help minimize those risks and allow employees to work safely.

This Program is designed to complement and support other Yukon Energy safety standards.

All YEC workers must understand the proper procedures for energy control as outlined in this LOTO Program in conjunction with the applicable Yukon Occupational Health and Safety Regulations.

Your continued commitment to safe work practices will help to ensure both employee safety and the efficient operation of the power system.

1.0 Scope

The purpose of the **Yukon Energy Lockout and Tag Out (LOTO) Program** is to ensure that machines or equipment are isolated from all potentially hazardous energy and locked out or tagged out before workers perform any services or maintenance work.

This LOTO Program does not apply to Guarantees of Isolation (GOI), Hold Off permits, and Test and Operate permits as defined in the YEC Power System Work Standards.

2.0 Definitions

2.1 From Yukon OH&S Regulations – Part 3

Personal Safety Lock – A lock provided by the employer for a worker to use for personal lockout protection such that each lock, when applied, is operable only by a key in the worker's possession.

2.2 From CSA Z460-13 (2018); Control of hazardous energy – Lockout and other methods

Energy-Isolating Device - A device that physically prevents the transmission, or release, of an energy source to machinery or equipment; 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; a line valve; a block; and other devices used to block or isolate energy.

Note: Push-button selector switches and other control-type devices are not energy-isolating devices.

Lockout – Placement of a lockout device on an energy-isolating device in accordance with an established procedure.

Lockout Device – a mechanical means of locking that uses an individually keyed lock to secure an energy-isolating device in a position that prevents energization of a machine, equipment, or a process.

2.3 Other definitions

Competent Person – a person who possesses the knowledge, skills, training, and experience to enable him or her to perform an assigned duty, within the context of this Program.

Group Locks - are *keyed-alike locks* for use in a *Group Lockout Procedure* (usually for equipment isolation).

Tag out - The use of tags on control points, usually in conjunction with locks, to increase the visibility and awareness that equipment is not to be energized or activated until such devices are removed.

Worker – a person employed by or under the day-to-day control of Yukon Energy Corporation.

3.0 Training Required

- Attend YEC LOTO training (this program)
- Proper use and understanding of YEC tagging SWP(s):
 - SWP-013; Lock Out – Self Protection Tag
 - SWP-037; Equipment Attention Tag
- Proper use and understanding of YEC WAP procedures and forms
- Proper use and understanding of YEC JSA/Tailboards
- Proper use and understanding of other applicable YEC safety programs.

4.0 Guidelines

- 4.1 When performing maintenance, repairs, service, and adjustment; or when access to equipment and machines is required, the energy sources must be isolated by application of the LOTO system (in conjunction with the WAP process) as the **primary** means of protection.
(See Section 9.0 – Sequence of Lockout, and Section 11.0 – Restoring Equipment to Service).
- 4.2 YEC will supply YEC employees with personal safety locks as required.
- 4.3 All personal safety locks must be clearly marked so the worker who applied it can be easily identified.
- 4.4 Contractors are required to supply and use their own personal safety locks. Contractors that do not have Personal Safety Locks can ‘sign out’ YEC contractor locks from the YEC Health and Safety department.
- 4.5 Only the worker who applied a personal safety lock may remove it.
- 4.6 Group locks must only be removed under the direction of the permit holder.
- 4.7 Under certain circumstances removal of a lock by a Supervisor/Leadhand may be carried out but only in accordance with the procedure described in:
 - Appendix A – 3rd Party Removal of Locks; and
 - Appendix B – Lock Removal Form.
- 4.8 Personal safety locks owners are responsible for maintaining possession and security of their own personal safety lock keys.
- 4.9 All workers are required remove their personal safety lock from a lockout situation at the end of their involvement in the job/task.
- 4.10 A specific Isolation Record should be developed for each unit.
- 4.11 All locks applied must be accompanied by a tag. (See section 10.0; Self Protection Tags)

5.0 Equipment Isolation Permits

- 5.1 Permission from the System Control Center (SCC) Operator-In-Charge (OIC) is required to isolate any equipment at YEC.
- 5.2 An isolation permit must be completed and reviewed by the competent worker initiating the Lockout process, and reviewed with all affected workers as required.

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- 5.3 All workers involved in the equipment lockout are required to review and sign-on their understanding of the isolation sequences and limitations of the work to be completed on the permit.
- 5.4 The isolation permit must be readily available, at or near the location of the lockout or the applicable group lockout box.
- 5.5 All workers are required to complete and sign-off their original entry on the *Equipment Isolation Record* after removing their locks and tags from equipment or lock box.
- 5.6 No worker will 'sign on' to an isolation permit without the knowledge of the permit holder, or their designate.

6.0 Multi-Lockout Hasps

- 6.1 If more than one worker is required to work on a piece of equipment, each worker is required to place their lock(s) on the energy isolating device(s).
- 6.2 When an energy-isolating device cannot accept multiple locks, the first Company worker is responsible for placing a multi- lock hasp at the LOTO site. The other workers must add their own personal safety lock to the multi- lock hasp(s).
- 6.3 All consequent workers and contractors must place their locks on the multi-lockout hasp(s).
- 6.4 Removal of a multi-lockout hasp must not occur until all personal safety locks have been removed. The hasp must only be removed by the last Company worker to remove their lock or the holder of the group lockout keys.

7.0 Group Lockout

Also see Yukon OH&S Regulations; Part 3 – Lockout; s. 3.01 – Definitions.

- 7.1 Where three (3) or more workers are working on equipment that must be locked out, or when more than four (4) energy-isolating devices require isolation, a Group Lock Box will be used.

See Appendix C – Lockout equipment.

- 7.2 Two competent YEC workers will initiate the lockout by applying the YEC group locks (and tags) to the machinery or equipment.

All keys for the group locks used must be placed inside the group lockout box.

Notes –

- 1. The same two YEC workers will apply locks and tags for all required isolation points.
- 2. One of the YEC workers is typically the permit holder.

- 7.3 The permit holder will place a multi-lock hasp and a personal safety lock on the group lockout box (typically on the box latch).

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- 7.4 The second competent YEC worker will also apply a personal safety lock on the multi-lockout hasp.
- 7.5 All subsequent workers must place their personal safety lock on the group lockout box.
- 7.6 Personal safety locks must not be applied without the permit holder's permission.
- 7.7 The group lock box should be placed/stored in a location known to all workers and not be relocated without permission from the permit holder.

8.0 Contractor Lockout Process

- 8.1 Contractors are required to provide their own personal safety locks. Yukon Energy will not provide locks for contractors.
- 8.2 Contractors must be notified of the equipment isolation process and LOTO procedures before beginning work on any YEC equipment.
- 8.3 It is the responsibility of the Project Manager, Supervisor, or Person-in-Charge (PIC) to coordinate with the contractors to assure that proper procedures are employed.
- 8.4 A Tailboard/JSA that includes the equipment isolation process and LOTO procedures must be reviewed with any contractor performing work on YEC equipment.
- 8.5 Contractors refusing to follow the YEC LOTO Program must not be permitted to work on the affected equipment.

9.0 Sequence of Lockout

The permit holder must:

- 9.1 Request SCC to remove the unit from service, shut it down and issue a reference number for *Equipment Isolation Record*;
- 9.2 Complete the applicable unit *Equipment Isolation Record* and review with all affected workers and contractors as required;
- 9.3 Ensure all workers and contractors understand their roles, all energy sources to be isolated, the scope of work and its limitations;
- 9.4 Deactivate the energy-isolating device(s) so that the equipment is isolated from the energy source(s).
- 9.5 Apply personal safety locks or group locks to the equipment to lockout the energy-isolating device(s).
- 9.6 Attach *Self-Protection Tags* to each lock, with the permit number and date of application clearly shown.
- 9.7 Post the *Equipment Isolation Record* in the vicinity of the equipment and communicate its location to all affected workers.

10.0 Self-Protection Tags (See SWP-013; Lock Out – Self Protection Tag)

- 10.1 Self-Protection Tag(s) must be securely fastened to all isolation points that safety locks are applied.
- 10.2 Isolation points that cannot have locks applied must have Self-Protection Tags securely fastened.
- 10.3 Isolation points that are identified by tag only, shall be considered 'locked out'.

11.0 Restoring Equipment To Service

11.1 The permit holder is required to:

- Verify that all locks and tags applied for the isolation have been removed.
- Check the equipment, and the immediate area around the equipment, to ensure that nonessential items have been removed and that the equipment components are operationally intact.
- Check the work area to ensure all employees are safely positioned or removed from the area.
- Notify SCC that the servicing or maintenance is completed and the machine or equipment is ready to use and they are surrendering the permit.

12.0 Resources

- Yukon Occupational Health and Safety Regulations - Part 3.
- CSA Z460; Control of hazardous energy – Lockout and other methods

Appendix A - 3rd Party Removal of Locks and Tags

Also see Yukon OH&S Regulations; Part 3 – Lockout; s. 3.09 – Removal of Locks.

A.1 Removal of a Personal Safety Lock by anyone other than the worker that applied it may only be performed under the direction of a YEC Leadhand, Supervisor, Manager, or Director, who is subject to certain limitations, with no exceptions.

A.2 The lock or tag removal process shall be document the process as per **Appendix B – Lock/Tag Removal Form**.

A.3 The ‘3rd party’ shall *FIRST* exhaust all avenues of contacting the ‘Lock Owner’ for permission before initiating a 3rd Party Lock Removal.

NOTE - Every reasonable effort must be made to contact worker to have them remove the lock/tag.

A.4 If the ‘3rd party’ contacts the “Lock Owner”, they shall:

A.4.1 Ask the worker to return to the site and remove the lock(s)/tag(s); or

A.4.2 Receive permission to remove the lock(s)/tag(s).

A.5 If the Supervisor/Leadhand, or designate is unable to contact the “Lock Owner”, the department Director (or designate) shall be contacted to notify them of the intent to remove lock(s)/tag(s).

A.6 Prior to initiating the 3rd Party Lock Removal Procedure:

A.6.1 The Supervisor/Leadhand, or designate shall perform a *thorough inspection* of the pertinent piece of machinery or equipment isolated by the Lock(s)/Tag(s) to ensure no worker shall be impacted by the removal and subsequent start-up of the equipment.

A.6.2 The inspection *shall include* all identified Confined Spaces and any other accessible areas associated with the specified machinery or equipment to ensure no person has a potential exposure.

A.7 On verification of *all personnel being clear* of the Locked-Out machinery or equipment, the Supervisor/Leadhand shall remove the Lock.

A.8 All YEC workers required to use LOTO shall be trained in the YEC 3rd Party Lock Removal procedure.

Appendix B – Lock Removal Form (Sample only)



YUKON ENERGY LOCK/TAG REMOVAL FORM

Date: Permit #:
Equipment:
Lock location:
Lock/Tag Owner:

NOTE: Every reasonable effort must be made to contact the lock owner and have them remove the lock/tag.

Confirm lock owner has left site. Time:
If lock owner is off site:
Home? Yes No Time:
Other YEC site? Yes No Time:
If yes, where?
Vacation/Leave Yes No Time:
Other (describe below) Yes No Time:

Was contact made with the lock owner? Yes No Time:

IF NO - Notify departmental Director (or designate) to inform of lock/tag removal. THIS IS MANDATORY.

NOTE: Entire work area must be thoroughly inspected to ensure ALL lock owners are clear and equipment is ready for service.

Work area inspected by: Time:
Comments:

Is it safe to remove the lock/tag Yes No
Lock removed by: Time:
Witnessed by: Time:

Table with 3 columns: Authorizing signatures (Print Name and Initial), Date, Time. Rows include Lock Owners Supv., Department Director (or designate), and H&S Dept.

Return completed form to H&S Department within 48 hours of lock/tag removal.

Appendix C – Lockout Equipment
Multi-lock hasp -



Group lock box -



(Typically allows up to 13 locks to be applied – more if hasps are used).