

Complex Group Lockout Procedure and Permit

The following lock-out and permit sequence will be used to ensure that the machinery, equipment, or powered mobile equipment is stopped, isolated from all energy sources, and locked out before workers perform any service or maintenance. Procedures must be certified by a professional engineer.

1. **IDENTIFY OPERATOR IN CHARGE (OIC) AND QUALIFIED UTILITY EMPLOYEE IN CHARGE (QUEIC).** Where the OIC has been identified as responsible to carry out an action the QUEICs will be responsible to confirm the action has been completed and is effective for the work required.
2. **NOTIFICATION:** The OIC notifies the appropriate personnel when service or maintenance is required. The notice will inform the appropriate personnel that the equipment must be shut down and locked out to perform servicing or maintenance.
3. **HAZARD ASSESSMENT:** The OIC must investigate and identify the type and magnitude of energy supplied, understand the hazards of the energy, and know the procedures to control the energy.
4. **ISOLATE ENERGY SOURCE:** The OIC ensures all energy sources are identified and isolated using energy isolation devices before the activity begins. The energy isolation devices must prevent energy from reaching the machinery, equipment, or powered mobile equipment.
5. **LOCKOUT:** The OIC ensures all energy isolating device(s) are secured with group locks, key securing systems, and/or other control of hazardous energy equipment as required. Tags will be applied to all locks, tags must state the worker's name, the date the tag was applied, and must indicate that the equipment to which it was attached may not be operated until the tag is removed.
6. **DE-ENERGIZE:** Stored or residual energy (such as that in capacitors, springs, elevated machine components, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure) must be dissipated or restrained by a method such as grounding, repositioning, blocking, or bleeding down.
7. **BUMP TEST:** The OIC will verify the energy isolation by attempting to operate the machinery, equipment, or powered mobile equipment or by another testing to make certain it will not operate.
CAUTION: *Return operating control(s) to neutral or the "OFF" position after verifying isolation.*
8. **PERMIT:** The OIC will complete a lockout permit listing all equipment that has been locked out.
9. **ISOLATION VERIFICATION:** The QUEICs leading each working crew will review the lockout permit and isolation methods used to control hazardous energy with the OIC. The QUEIC must verify the effectiveness of the isolation via the methods listed in steps 6 & 7 as needed.
10. **UNDERSTAND:** All workers signing onto the lockout permit clearly understand the isolations/controls and the equipment that can be worked on. Workers can sign onto the lockout permit and lock onto lockable device using their PSL.
11. **RE-EVALUATE:** All workers involved shall continue to monitor and re-evaluate over the course of work if any hazards have been introduced over the duration of the job. Permit to be reissued when new hazardous energy sources are introduced. (i.e. new generator feed, new cable tie-in, etc.)
12. **COMPLETION OF WORK:** The QUEIC will ensure all crew workers have been accounted for and that the work has been finished. The QUEIC will report to the OIC that work is complete.
13. **RESTORING EQUIPMENT TO SERVICE:** The OIC checks the equipment and the immediate area around the equipment to ensure that non-essential items have been removed and that the equipment components are operationally intact. The OIC ensures all workers are accounted for (signed off permit) and have removed their personal locks from the group lockout device.

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14. **ENSURE ALL-CLEAR:** The OIC will ensure no other worker is endangered when the equipment is returned to service.
15. **FINAL CHECK:** The OIC will operate the machinery, equipment, or powered mobile equipment to confirm the repair or service has been completed and the machinery, equipment, or powered mobile equipment is operating as intended (or, utilize another testing method to confirm the repair or service was completed.)
16. **NOTIFICATION:** The OIC notifies the appropriate personnel when service or maintenance has been completed and the equipment is returned to service.

THIS SECTION IS LEFT INTENTIONALLY BLANK

Complex Group Lockout Permit - Guarantee of Isolation

Permit# _____

Part - 1a
Guarantor(s)

Description of work to be done: _____

Energy Isolating Devices

#	Field Name / Description / Location	#	Field Name / Description / Location
1		5	
2		6	
3		7	
4		8	

Isolated Equipment that is Approved for De-energized Work Tasks

#	Field Name / Description / Location	#	Field Name / Description / Location
1		3	
2		4	

Guarantor's Declaration

- I have isolated the supply of energy to the equipment listed on this form. I have tested for potential, dissipated any residual energy, installed temporary protective grounding if required, applied locks and tags & tested the locking method.

- Permit to be returned by: _____
Date (DD/MM/YY)
Time

Title:	Name (Please Print)	Signature:	Date: (DD/MM/YY)	Time:
OIC:				

- I have verified the effectiveness of the isolation and tested the locking method

Title:	Name (Please Print)	Signature:	Date: (DD/MM/YY)	Time:
QUEIC:				

Part - 1b
Guarantee Recipient(s)

- If any individual has to leave the work site, they must remove their personal safety lock & tag and sign part – 2a “Approval for Termination of Guarantee and Return of Energy” prior to leaving.
- Please ensure that your lock and tags have been installed prior to signing.

#	Name (Please Print)	Signature:	Date: (DD/MM/YY)	Time:
1				
2				
3				
4				
5				
6				
7				

- Please see part 2a on page 2 for details on Termination of Guarantee and return of energy requirements.

Termination of Guarantee

Part - 2a

Recipient approval for Termination of Guarantee and Return of Energy

Recipient's Declaration

- I have completed all modifications or maintenance on the equipment listed in part – 1a of the Guarantee of Isolation.
- Required Electrical Permits and Inspections have been approved. CSA field re-certifications have been acquired if equipment has been modified.
- All tools, testers, cleaning supplies and personal safety locks have been removed and accounted for.
- I have completed an overview of all work tasks with the “Qualified Utility Employee(s)” and have provided details of connections, replacements, modifications and final test results.
- I issue clearance for the termination of the guarantee of isolation and the return of energy to the equipment listed in part – 1a.

Note: All signatures from part - 1b must be re-signed before return of energy will be authorized.

#	Name (Please Print)	Signature:	Date: (DD/MM/YY)	Time:
1				
2				
3				
4				
5				
6				
7				

Part - 2b

Termination of Guarantee Completion

Return of Energy and Startup of Equipment listed in part 1a.

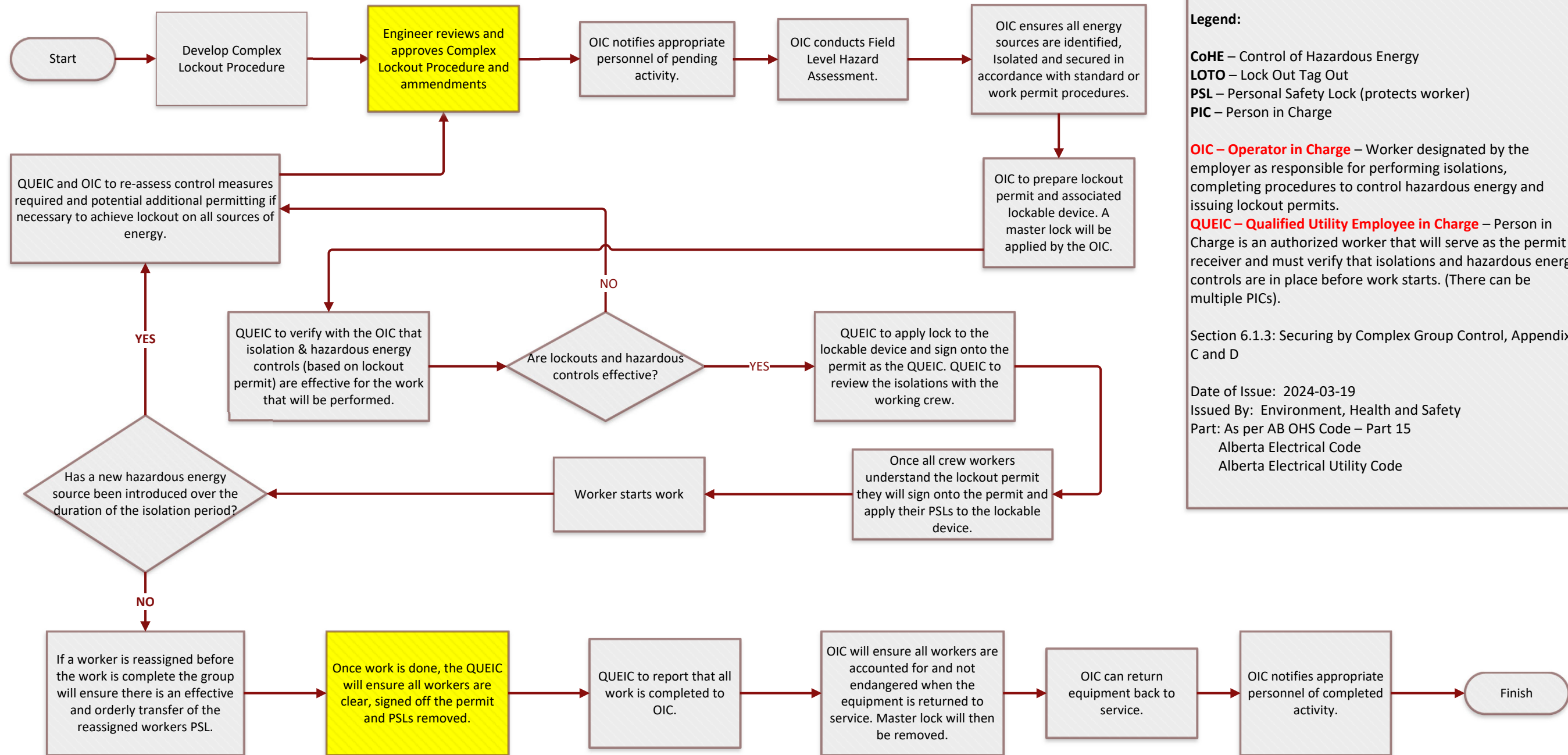
Energy Isolating Devices returned to normal configuration

#	Field Name / Description / Location	#	Field Name / Description / Location
1		5	
2		6	
3		7	
4		8	

Title:	Name (Please Print)	Signature:	Date: (DD/MM/YY)	Time:
QUE:				
QUEIC:				

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Locks and Tags to be used when machinery, equipment or powered mobile equipment is serviced, repaired, tested, adjusted or inspected.
 This process to be used when more than two workers are servicing, repairing, testing, adjusting or inspecting machinery, equipment or powered mobile equipment and controlling hazardous energy is required.
 This process will apply when more than two workers must apply locks and tags to control hazardous energy while performing their duties.
Procedures for complex lockout must be approved by a professional engineer.



Legend:

CoHE – Control of Hazardous Energy
LOTO – Lock Out Tag Out
PSL – Personal Safety Lock (protects worker)
PIC – Person in Charge

OIC – Operator in Charge – Worker designated by the employer as responsible for performing isolations, completing procedures to control hazardous energy and issuing lockout permits.

QUEIC – Qualified Utility Employee in Charge – Person in Charge is an authorized worker that will serve as the permit receiver and must verify that isolations and hazardous energy controls are in place before work starts. (There can be multiple PICs).

Section 6.1.3: Securing by Complex Group Control, Appendix C and D

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