POLICY

E & B Oilfield Services, Inc. has implemented this Control of Hazardous Energy (COHE) Program and Lockout/Tagout (LOTO) procedures to ensure that employees are properly trained, aware of hazards associated with Lockout/Tagout, and correctly informed of procedures, policies, and practices to prevent or, if possible, eliminate these hazards. This program covers the servicing and maintenance of machines and equipment in which the unexpected energizing or starting of the machines or equipment, or the release of stored energy, could cause injury to employees.

REFERENCES

- § 1910.147 – The control of hazardous energy (lockout/tagout)

ROLES AND RESPONSIBILITIES

Danny Abegglen is the supervisor responsible for ensuring the following training, engineering controls, work practices, and safety procedures are enforced. Danny Abegglen must ensure that employees, sub-contractors comply with the LOTO program and all client requirements. The performance of lockout/tagout procedures at E & B Oilfield Services, Inc. will be inspected/evaluated at least annually by Danny Abegglen for compliance with company policy. Inspections will be documented and date, equipment, and employee(s) reviewed will be recorded.

All Employees

Failure to comply with proper lockout/tagout procedures is grounds for disciplinary action. Any unauthorized removal of warning tags or lockout devices will be grounds for immediate termination of employment.

OSHA has defined three different categories of employees, depending upon their exposure to hazardous energy

- Authorized Employees
- Affected Employees
- Other Employees

Authorized Employees

An authorized employee is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on those machines or equipment. An affected employee becomes an authorized employee when that employee’s duties include performing servicing or maintenance covered under this section.

- Affected employees will be notified by Danny Abegglen or the authorized employee of the application and removal of lockout devices or tagout devices. Notification will be given before the controls are applied, and after they are removed from the machine or equipment
- Locking out the appropriate equipment
- Identifying the lockout
- Verifying the lockout
- Maintaining the key to their lock in their possession
- Checking the work area and replacing guards or reactivating safety devices as appropriate, before removing the lockout
- Removing their lock when the job is complete
- Following the requirements of this standard when either preparing equipment for maintenance or actually performing maintenance activities
- Signing and dating tags

Affected Employees

Affected employees are those who operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed. Affected employees may assist when testing the equipment de-energized.

Other Employees

Other employees (those whose work activities are or may be in an area where energy control procedures may be utilized) may not attempt to restart or reenergize machines or equipment that are locked out or tagged

TRAINING

Danny Abegglen will provide training to ensure the purpose and function of the Lockout / Tagout Program are understood by employees. The training program will ensure that employees acquire the knowledge and skills needed to safely apply, use, and remove energy controls. Each authorized employee will receive training in how to recognize 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. Affected and other employees will be trained on these topics:

- An overview of the applicable LOTO regulations
- Hazards associated with stored energy
- Recognition of lockout devices
- Purpose of the energy control program
- LOTO procedures

Training will be documented using sign-in sheets that include the topics covered, and the dates and times of training sessions.

All affected / authorized employees will retrain in, and review, lockout-tagout procedures whenever there is a change in machines, assignments, equipment, or processes that presents a new hazard, or when there is a change in the energy control procedures. This retraining will be completed and documented on an ongoing basis by employees' area supervisor.

Employees must also receive additional training and demonstrate understanding if inspection or conditions show that the employees are not following established procedures or that safety has been compromised.

When tagout systems are used, employees will also be trained in the following limitations of tags.

- 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
- When a tag is attached to an energy isolating means, it is not to be removed without permission of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated
- Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective
- Tags and their means of attachment must be made of materials that will withstand the environmental conditions encountered in the workplace
- Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use

Retraining

Changes of job assignments, changes in materials used, or any non-routine tasks involving energy control procedures will require notification and/or retraining of effected employees. Danny Abegglen will inform or retrain employees of any new or additional hazards, detail methods of energy control necessary for the job. Notifications and retraining will be documented with the name of employee, date, description of action taken, and verification by Danny Abegglen.

THE SOURCES OF STORED ENERGY THAT REQUIRE LOCKOUT ARE:

- Electrical: service panels, outlets, transformers, motors, capacitors
- Mechanical: spring-loaded equipment, tensioning devices
- Hydraulic: rams, oil-powered equipment
- Pneumatic: compressed-air equipment
- Kinetic / Gravity: counterweights, flywheels
- Fluids / Steam: heating pipes, steam lines

PROTECTIVE MATERIALS AND HARDWARE

Locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware will be provided by the employer for isolating, securing or blocking of machines or equipment from energy sources.

Lockout devices and tagout devices will be singularly identified; will be the only devices(s) used for controlling energy; will not be used for other purposes; and will meet the following requirements:

Durable

- Lockout and tagout devices will be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected
- Tagout devices will be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible
- Tags will not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored

Standardized

Lockout and tagout devices will be standardized within the facility in at least one of the following criteria: color; shape; or size, and additionally, in the case of tagout devices, print and format will be standardized.

Substantial

- Lockout devices. Lockout devices will be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools
- Tagout devices. Tagout devices, including and their means of attachment, will be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means will be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie

Identifiable

Lockout devices and tagout devices will indicate the identity of the employee applying the device(s).

Tagout devices will warn against hazardous conditions if the machine or equipment is energized and will include a legend such as the following: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate.

SAFE PRACTICES

This policy applies to the control of hazardous energy during servicing and / or normal maintenance of machines and equipment if:

- An employee is required to remove or bypass a guard or other safety device
- An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is being performed at or upon the point of operation, or when an associated danger zone exists during a machine's operating cycle

EXCEPTION: Minor tool changes and adjustments that take place during normal production operations are not covered by the OSHA Standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

The policy does not apply to:

- Work on cord-and-plug-connected electrical equipment when the employee performing the service or maintenance controls energizing by unplugging the equipment from the energy source
- Hot tap operations involving transmission systems for substances such as gas, steam, water, or petroleum, when they are performed on pressurized pipelines. However, it must be demonstrated that the continuity of service is essential, shut off of the system is impractical, and special equipment is used which provides effective protection

When a machine can be unplugged and there is no residual stored energy, a LOTO procedure need not be used. In that case, use a DO NOT OPERATE tag to warn employees that the equipment is out of order.

- If an energy source can be locked out, this method will be utilized. A "Lockout Device" utilizes a lock, either key or combination, to hold an energy isolating device in a safe position
- If an energy source cannot be locked out, a tagout system will be utilized. A "Tagout Device" is a warning tag (weather and chemical resistant) standardized in size, color, with wording warning of hazardous energy such as: (Do Not Start) (Do Not Open) (Do Not Close) (Do Not Energize) (Do Not Operate)
- Lockout/Tagout devices will be clearly marked to indicate the identity of the employee applying the device
- Lockout or tagout will be performed only by the authorized employees who are performing the servicing or maintenance
- Affected employees will be notified by Danny Abegglen or authorized employee of the application and removal of lockout devices or tagout devices. Notification will be given before the controls are applied, and after they are removed from the machine or equipment

Established E & B Oilfield Services, Inc. procedures for energy control and the application of lockout or tagout devices covers the following elements and actions and will be done in the following sequence:

Sequence of Lockout

1. The authorized employee will notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.
2. The authorized employee will identify the type and magnitude of the energy that the machine or equipment uses, will understand the hazards of each energy source and will know the methods to control the energy.
3. When the electrical disconnect is attached (or adjacent) to the equipment, the motor stop button will be depressed and the disconnect handle placed in the “Off” position. The disconnect handle should be operated while standing to one side of the disconnect, rather than in front of the switch. This is a safety precaution in case the parts in the switch explode. The authorized employee should attach his / her lock to the handle of the disconnect and remove the key.
4. If a switch or disconnect cannot be locked out for any reason, an electrician must remove the fuses before any work is started.
5. Stored or residual energy such as that in capacitors, springs, rotating flywheels and hydraulic systems, and in air / gas, steam or water pressure lines must be dissipated or restrained by methods such as grounding, repositioning, blocking or venting. If the accumulation of stored energy is possible, isolation must be verified continuously until servicing or maintenance is completed.
6. Equipment using hydraulic pressure will be locked out by placing the hydraulic pump motor electrical disconnect switch in the “Off” position, applying a lock to the disconnect and bleeding off residual pressure in the piping system if the energy could potentially endanger personnel.
7. The authorized employee will ensure that the equipment is completely disconnected from all energy source(s) by operating the push button or other normal operating controls or by otherwise testing to make certain the machine / equipment will not operate.
8. Return operating control(s) to neutral or “Off” position after verifying the isolation of the equipment.
9. The machine is now locked out and service or repairs can safely begin.
10. If there are any doubts about the above procedure, the authorized employee will contact his / her supervisor before proceeding.

Procedures Involving More than One Person (Group Lockout)

In the preceding steps, if more than one individual is required to lock the energy-isolating device(s), they will utilize a procedure which affords the employees a level of protection equivalent to that provided by implementing a personal lockout or tagout device. When an energy-isolating device cannot accept multiple locks, a multiple lockout or tagout device (hasp) may be used.

There will be authorized employees responsible for a set number of employees protected by a single lock under the authorized employee’s responsibility.

Restoring Equipment to Service

When servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the authorized person will take the following steps:

1. Visually inspect the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
2. Visually inspect the work area to ensure that all employees have been safety positioned or removed from the area.
3. Verify that the controls are in neutral.
4. Remove the lockout device(s) and re-energize the machine or equipment.

Note: Some forms of blocking may require the machine to be re-energized before they can be safely removed.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready to use.

Procedures for Removing Abandoned Locks

If a safety lock has been left in place by an employee who has left the building, it will be removed only by according to the following procedures.

Before the lock is removed:

- A thorough inspection of the equipment will be made by the supervisor responsible for the area
- Danny Abegglen will confirm that the authorized employee who applied the lockout device is not at the facility
- Danny Abegglen will remove the lock, once he / she has determined that starting up the equipment will not endanger other personnel
- Danny Abegglen will make all reasonable efforts to contact the authorized employee to inform him / her that his / her lockout or tagout device has been removed
- Danny Abegglen will ensure that the authorized employee has knowledge of this release before he / she resumes work at the facility
- Each time it is necessary to remove / cut a safety lock, a written report will be prepared by the person authorized to remove the lock and a copy will be sent to the E & B Oilfield Services, Inc. and contractor (if applicable) leadership
- In situations where lockout or tagout devices must be temporarily removed and the machine or equipment energized to test or position, the following procedures will be followed:

1. Clear the machine or equipment of tools and materials.
2. Remove employees from the machine or equipment area.
3. Remove the lockout or tagout devices as specified.
4. Energize and proceed with testing or positioning.
5. De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.

This procedure will be verified and documented by personnel performing it.

- Whenever outside servicing personnel are to be engaged in operations requiring lockout or tagout procedures, Danny Abegglen and the outside employer will inform each other of their respective lockout or tagout procedures
- Danny Abegglen will ensure that employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program
- When servicing and/or maintenance is performed by a crew, craft, department, or other group, they will utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. Group lockout or tagout devices will be used with the following specific requirements:
    - Primary responsibility is vested in Danny Abegglen for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock)
    - Provision for Danny Abegglen to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment
    - When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to Danny Abegglen to coordinate affected work forces and ensure continuity of protection
    - Each authorized employee will affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and will remove those devices when he or she stops working on the machine or equipment being serviced or maintained
- During shift or personnel changes, procedures will be utilized to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy. Documentation will be maintained as to personnel, equipment, and particular Lockout/Tagout procedures involved in a specific ongoing operation.
- Lockout procedures are to be utilized over tagout procedures, where possible.
- Locks and tags used for lockout or tagout procedures will be clearly marked with identification of the employee applying the device.

General Safety Considerations

Full employee protection must be used when a tagout device is used on an energy isolating device which is capable of being locked out. The tagout device will be attached at the same location that the lockout device would have been attached, and the employer will demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.

When testing or positioning machines, equipment or components in situations in which lockout or tagout devices must be temporarily removed, the following sequence of actions will be followed: clear the machine or equipment of tools and materials, remove employees from the machine or equipment area, remove the lockout or tagout devices, energize and proceed with testing or positioning, de-energize all systems and reapply energy control measures.

Whenever outside servicing personnel are to be engaged in activities requiring LOTO, the on-site company and the outside employer will inform each other of their respective lockout or tagout procedures. The on-site employer will ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

The Lockout /Tagout procedures for E & B Oilfield Services, Inc. are administered by Danny Abegglen, and will be those described in the following sections.

SPECIFIC ENERGY CONTROL PROCEDURE (PAGE 1 OF 2)

Procedure Number				Date	
Completed By					
Machine(s) or equipment utilizing this procedure					
Number of locks required					
Other lockout devices required					
PROCEDURES FOR CONTROLLING HAZARDOUS ENERGY					
1. Sources of Hazardous Energy					
☐	Electrical	☐	Natural Gas	☐	Springs
☐	Hydraulic	☐	Gravity	☐	Steam
☐	Chemical	☐	Pneumatic	☐	Thermal
☐	Other				
2. Notify affected employees that the machine is about to be shut down and locked out.					
☐	Special Instructions				
3. Shut down the machine using normal stopping procedures.					
☐	Special Instructions				
4. Isolate all energy sources listed above.					
☐	Special Instructions				

SPECIFIC ENERGY CONTROL PROCEDURE (PAGE 2 OF 2)

5. a. Apply locks to all isolating devices installed in Step Four.					
☐	Special Instructions				
5. b. If a tag is used in lieu of a lock when an energy-isolating device is incapable of locking out a piece of equipment, the following additional safety precaution will be taken:					
☐	Special Instructions				
6. Block or dissipate all stored energy in rams, flywheels, springs, pneumatic or hydraulic systems, etc.					
☐	Special Instructions				
7. Verify that the machine is locked out by testing the machine operating controls. RETURN ALL CONTROLS TO THE “NEUTRAL” OR “OFF” POSITION AFTER TESTING.					
☐	Special Instructions				

LOCKOUT PROCEDURE AUDIT/INSPECTION

Employee Auditing/Inspecting		Date	
Task/Equipment Description			

	YES	NO
1. Is there a written lockout procedure for this machine or piece of equipment?	☐	☐
2. Is individual familiar with lockout procedures for specific piece of equipment?	☐	☐
3. Has individual performing lockout been trained?	☐	☐
4. Has machine or equipment been shut down?	☐	☐
5. Has machine or equipment been isolated?	☐	☐
6. Has individual placed lockout devices? (lockout and tag)	☐	☐
7. Has individual released all stored energy or placed a positive mechanical device in place to prevent accidental release?	☐	☐
8. Has individual tested the machine or equipment to verify effectiveness of the lockout device?	☐	☐
9. Upon removal of lockout device, has individual communicated to appropriate personnel that machine/equipment is back in service?	☐	☐
10. Procedure followed?	☐	☐

Recommendations/Corrective Action	
Audited/Inspected By	
Employee Signature	

PURPOSE

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It will be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

COMPLIANCE WITH THIS PROGRAM

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance will not attempt to start, energize, or use that machine or equipment. Type of compliance enforcement to be taken for violation of the above:

SEQUENCE OF LOCKOUT

1. Notify all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

Affected employees and how to notify:

Name(s)	
Job Title(s)	

2. The authorized employee will refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, will understand the hazards of the energy, and will know the methods to control the energy.

Type(s) and magnitude(s) of energy, its hazards and the methods to control the energy.

3. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open switch, close valve, etc.).

Machine(s) or Equipment operating controls:

Type(s)	Location(s)

4. Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

Type(s) and location(s) of energy isolating devices.

5. Lock out the energy isolating device(s) with assigned individual lock

(Locks will be labeled with individuals name and number).

Lock #		Assigned To	
Lock #		Assigned To	
Lock #		Assigned To	
Lock #		Assigned To	

6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.

Type(s) of stored energy - methods to dissipate or restrain.

7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

Method of verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

RESTORING EQUIPMENT TO SERVICE

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps will be taken:

1. Check the machine or equipment and the immediate area around the machine or equipment to ensure that non-essential items have been removed and that the machine or equipment components are operationally intact.

2. Check the work area to ensure that all employees have been safely positioned or removed from the area.

3. Verify that the controls are in neutral.

4. Remove the lockout devices and reenergize the machine or equipment.

5. Note: The removal of some forms of blocking may require re-energization of the machine before safe removal.

6. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**