SAFE JOB PROCEDURE – LOCK OUT TAG OUT

PURPOSE:

To protect workers from injuries associated with machinery and human maintenance work conflicts through proper planning, precautions, controls and training.

The employer is responsible for providing information, instruction and supervision to workers on proper lockout procedures for each piece of equipment they will be operating. Employers, supervisors and workers must adhere to the following lockout principles:

#	STEP	PRECAUTIONS
1	**Preparation** • Complete a Project Hazard Assessment before any work on site commences. • Determine which switches, valves, or other energy isolating devices apply to the equipment being locked out. • Notify all workers affected by the lockout that a lockout is required and the reason for the lockout.	• More than one energy source (electrical, mechanical, hydraulic, pneumatic, chemical, thermal, gravitational) may be involved. • Ensure that workers know which energy sources may need to be controlled. • Workers should check with a supervisor or other knowledgeable person if in doubt about which energy sources may need to be controlled. • Where lockout is complex, a written sequence in checklist form may need to be prepared for equipment access, lockout/tagout, clearance, release and start-up.
2	Equipment should be shut down by normal means by turning of switches and closing valves etc.	
3	Equipment should be isolated from energy sources by disconnecting or blocking the sources of energy.	
4	Lockout and tag the energy isolating devices by padlock or some other locking device that the worker has control over as well as a tag indicating that the equipment has been shut down. For some equipment it may be necessary to construct attachments to which locks can be applied. An example is a common hasp to cover an operating button. Tags must be attached to the energy isolating device(s) and to the normal operating control in such a manner as to prevent operation during the lockout.	• Lock out and tag the energy-isolating device with an assigned, individual lock. A worker will not be protected unless they use their own padlock. • If more than one worker is working on the same piece of equipment at the same time, each one should lock out the equipment, by placing a personal lock and tag on a group lockout device when they begin work, and should remove those devices when they stop working on the machine or equipment. • Locks and tags should clearly show the name of the person who applied the device, the date, and the reason for the lockout. This identifies who is servicing the machinery or

		equipment. In a multiple lockout/tagout situation, it will also identify any worker(s) who may not have finished working. • Locks and tags must be durable enough to withstand the environment in which they are to be used and be substantial enough to prevent removal without the use of excessive force. Information on the locks and tags should remain legible. Tags must be substantial enough to prevent accidental or inadvertent removal.
5	Verify that all energy sources have been isolated by attempting to cycle the equipment prior to working on it.	• After ensuring that no workers can be injured, operate the push button or other normal controls to verify that all energy sources have been disconnected and the equipment will not operate. • If there is a possibility of re-accumulation of stored energy, such as an increase in pressure to a hazardous level, isolation of the equipment must be periodically verified until the maintenance or repair is completed, or until the possibility of such accumulation no longer exists. • Return operating controls to neutral position after the test. A check of system activation (e.g. use of voltmeter for electrical circuits) should be performed to ensure isolation. • The equipment is now locked out.
6	When work is completed, release equipment from lockout.	• Before locks and tags are removed and energy is restored to the machine or equipment, inspect the work area to ensure that non-essential items have been removed and that machine or equipment components are operationally intact. • Ensure workers are a safe distance from any potential hazard. • Each lock and tag should be removed from each energy-isolating device by the worker who applied the lock and tag. • Notify affected workers that locks and tags have been removed.
7	Test equipment.	

LOCK OUT TAG OUT INTERRUPTION:

If a machine is locked and tagged out and there is a need for testing or re-positioning, follow these steps:

#	STEP
1	Clear the equipment of tools and materials.
2	Ensure workers are a safe distance from any potential hazard.
3	Remove locks and tags according to established procedure.
4	Proceed with test.
5	De-energize all systems and re-lock and re-tag the controls before resuming work.

MACHINE OR EQUIPMENT SHUTDOWN AND ISOLATION:

#	PRECAUTIONS
1	If the equipment is operating, shut it down by the normal stopping procedure (i.e. depress stop button, open toggle switch). Only workers knowledgeable in the operation of the specific equipment should perform shutdown or re-start procedures.
2	Use a disconnect switch, circuit breaker, manually operated valve, blind flange, or other device to ensure that power or energy cannot flow to a piece of machinery or equipment. Check that all energy sources are disconnected or isolated from the equipment.
3	Electrical disconnect switches should never be pulled while under load, because of the possibility of arcing or even explosion.
4	Stored energy, such as that in capacitors, springs, elevated machine parts, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc., must also be released, disconnected, or restrained by methods such as grounding, repositioning, blocking or bleeding-down.
5	Pulling fuses is not a substitute for locking out. A pulled fuse is no guarantee the circuit is dead. Even if a circuit is dead, another person could inadvertently replace the fuse.
6	Equipment that operates intermittently, such as a pump, blower, fan or compressor may seem harmless when it is not running. Do not assume that because equipment is not operating at a point in time that it will remain off for the duration of any work to be performed on it.

RECOMMENDATIONS FOR SERVICEING FARM EQUIPMENT:

#	PRECAUTIONS
1	Disengage the power and stop the machine before servicing.
2	Do not clean, unplug, lubricate, adjust or repair any machine while it is running, unless it is specifically recommended in the service or owner's manual.
3	Lock out the ignition and put a warning sign over the ignition that tells everyone that you are working on the machine.
4	Engage safety locks if the hydraulic cylinders are so equipped.

RECOMMENDATIONS FOR HYDRAULIC SYSTEMS:

#	PRECAUTIONS
1	Workers should always follow instructions in the operator's manual for servicing hydraulic systems. Where appropriate, a properly qualified and certified mechanic should perform repairs and maintenance
2	Shut off the engine that powers the hydraulic pump.
3	Lower implement to the ground or onto a solid support.
4	Move the hydraulic lever back and forth several times to relieve pressure. When applicable, blanking devices should be used.