LOCKOUT / TAGOUT PROGRAM

Developed in accordance with the OSHA Control of Hazardous Energy Standard, 29 CFR 1910.147

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Any employees who could be exposed to hazardous energy sources shall be instructed in the safety significance of the lockout or tagout procedure (LOTO). Employees authorized to perform LOTO shall receive training commensurate with their responsibilities and as per the OSHA requirements.

Each new or transferred "affected" employee and "other" employees who work operations are or may be in the area shall be instructed in the purpose and use of the lockout or tagout procedure.

Prior to lockout/tagout, the senior authorized individual will brief all affected employees in person. In the event of tagout system only, the authorized individual will also brief all other personnel potentially exposed to the hazard in person. The procedures noted in the LOCKOUT OR TAGOUT SYSTEM PROCEDURE will be followed.

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The "authorized" employee must locate and identify all isolatin

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- b. Locks and tags shall be singularly identified (i.e. name and date printed on lock and tag).
- c. Locks shall be affixed in a manner that will hold the energy isolating devices in a safe or off position.
- d. Tags shall be affixed in a manner that will clearly indicate that the operation or movement of the energy isolating device from the "safe" or "off" position is prohibited (e.g. DANGER – DO NOT OPERATE).
- e. Tags that cannot be affixed directly to the energy isolating device shall be located as dose as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
- f. All potentially hazardous stored or residual energy shall be relieved, disconnected, restrained or otherwise rendered safe. (If there is a possibility of re accumulation of stored energy to a hazardous level verification of isolation shall continue until the possibility of accumulation no long exists).
- 5. <u>kelease sto ed e e g :</u> Live or stored energy may still exist after equipment has been shut down. Ensure hydraulics, air, gas, steam pressure have been bled, stop blocks/gear stops are in place, elevated machine members are blocked, electrical circuits de energized, etc.
- 6. Test a d kesta t to te if Ze o E e g State: After ensuring that no personnel are exposed, as a check on having disconnected the energy sources, operate the push button, check gauges, use test equipment or other normal operating controls to make certain the equipment will not operate.

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In situations which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:

- a. Clear the machine or equipment of tools and materials.
- b. Remove employees from the machine or equipment area.
- c. Remove the lockout or tagout devices.
- d. Energize and proceed with testing or positioning.
- e. De energize all systems and reapply energy control measures.

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- 1. #lea up a di spe te uip e t. Ensure no tools or materials are left in or around the equipment and that the machine/equipment components are operationally intact.
- 2 #lea affe ted pe so el a a f o a ea. After the servicing and/or maintenance is complete and equipment is ready for normal operation, check the area around the machines or equipment to ensure that no one is exposed.
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2 If a supervisor is not available, the authorized employee in control of the equipment must notify one of

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A qualified person shall use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are de energized. The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed even though specific parts of the circuit have been de energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately before and immediately after this test.

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Pe it ke ui ed. Approval must be obtained from the <u>electricians' immediate supervisor</u> prior to any work on energized circuits. <u>The electricians' immediate supervisor</u> will verify that by de energizing circuits, it will create additional or increased hazards or it is infeasible due to equipment design or operational limitations.

VOTE: Working on energized parts requires a permit and the wearing of appropriate personal protective equipment. Skidmore's Arc Flash Program will ensure compliance with 29 CFR 1910.335.

Personnel protective equipment for electrical hazards shall meet, be used and maintained in accordance with ANSI J6.1 through J6.7.

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