



CELCOM TIMUR (SABAH) SDN. BHD.

SAFE WORK PROCEDURES	
Lock Out and tag Out (LOTO)	
DOCUMENT NO. : CTSSB-OSHMP/SWP-16	

COMPILED BY

REVIEWED BY:

APPROVED BY:

REVISION : 0
NAME:	ZAITON YUNUS Manager - Human Resources & Administration	YUSRI AB RAHMAN Chief Technical Officer (CTO)	FADHLI ABDUL HAMID Chief Executive Director (CEO)
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1.0 GOVERNING POLICY

This procedure is made under the CTSSB's Occupational Safety and Health Policy.

2.0 PURPOSE

This procedure establishes the minimum requirements for lockout of energy sources that could cause injury to personnel.

3.0 SCOPE

This procedure shall apply to all CTSSB's employees and other interested parties at all CTSSB's premises and associated work areas.

4.0 REFERENCES

- i. OSH Act 1994
- ii. FMA 1967
- iii. OHSAS 18001:2007
- iv. DOSH Guidelines – “ Hazard Identification, Risk Assessment and Risk Control’
- v. CTSSB's Safe Work Procedure : Hazard Identification, Risk Assessment and Risk Control: **CTSSB-OSHMP/SWP -01**
- vi. CTSSB's Safe Work Procedure : Workplace Inspection for OSH Compliance: **CTSSB-OSHMP/SWP -02**
- vii. CTSSB's Safe Work Procedure : Accident Reporting and Investigation: **CTSSB-OSHMP/SWP -04**

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5.0 RESPONSIBILITY, AUTHORITY AND ACCOUNTABILITY

i. Manager of Human Resources and Administration

- Responsible for the overall implementation of this procedure including its periodic review.

ii. Head of Department (HOD) / Officer in-charge (OIC)

- The HOD / OIC are fully responsible for ensuring the implementation of this procedure and transmittal of the safety information to their subordinate.
- HOD / OIC or designated person shall ensure the implementation of this safe work procedure by instruct or train the new employee or contractor at any workplace under their control.
- Conduct workplace inspections to ensure all the CTSSB's employees and other interested parties at all CTSSB's premises and associated work areas that identified have potential high risk shall implement this Permit to Work System.
- To ensure the records of Permit to Work record are properly kept and easy to retrieve.

iii. Permit Holder (including Contractor)

- Responsible in assisting the project In-charge in providing advice and support in the implementation of the working at height procedure.
- Shall inspect and ensure the work area is safe prior signing the permit and conduct pre-start briefing to the workers involved with the task.
- Ensure those who will be performing the work are aware of the working at height procedure and the required equipment is in place before work can be allowed to commence.
- Shall be responsible for overseeing the work and ensuring that once the work is completed, thorough housekeeping is conducted and the area is safe to resume normal work operations.
- Shall ensure that, upon completion of work permits are appropriately closed, signed, filed and copies submitted to relevant parties.

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iv. All Employees (Including Contractor)

- To comply with this procedures at all time while at workplace owned or under the control of the CTSSB.
- To follow with instructions and/or to give full cooperation to the management or any officer this has been given an authority in order to ensure the implementation of this procedure.
- Each employee shall be held responsible for performing all work in a safe manner so that injuries to that person and to others will be avoided.
- An employee shall notify his employer or supervisor before attempting any work which, in the employee's opinion, appears hazardous above and beyond normal operating conditions.
- An employee shall report all injuries to his employer or supervisor without delay, regardless of the nature of the injury.
- Good housekeeping of all work areas and equipment shall be practiced.

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6.0 TERMS AND DEFINITIONS

- i. **Isolation Tag**
 - The tag used to hang on the equipment to inform others that the energy of that particular equipment has been isolated.

- ii. **Personal Danger Tag**
 - This tag is used to inform others that there is / are personnel working on the isolated equipment.

- iii. **Isolation Lock**
 - locking device used to ensure that the equipment cannot be accidentally energised.

- iv. **Hazardous Energy:**
 - Electrical, pneumatic, hydraulic, radiation, stored (springs and batteries), potential (by virtue of position), heat (hot water, steam, surfaces).

- v. **Hazardous Substance:**
 - Solids, gases, vapors, liquids, dust with the potential to cause injury or illness such as toxic, corrosive or flammable.

- vi. **Electrical Work:**
 - Working on electrical power supply / distribution equipment like Power Distribution Boards, Transformers, Motor Control Panels, electrical supply cables, circuit breakers, etc comes under this category.

- vii. **Servicing and/or Maintenance:**
 - Workplace tasks or activities such as constructing, installing, setting up, adjusting, inspecting, modifying, repairing, trouble shooting, and maintaining and/or servicing machines or equipment. These activities include any related work where the employee may be exposed to the unexpected energisation or start-up of the equipment, machine, or process line or release of hazardous energy.

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7.0 DETAILS PROCEDURE

i. General Requirements

- All maintenance personnel are issued a suitable lock (or locks). The lock has the individual worker's name and other identification on it. Each worker has the only key to the lock.
- The worker checks to be sure that no one is operating the machinery BEFORE turning off the power. The machine operator is informed before the power is turned off. Sudden loss of power could cause an accident.
- Steam, air, and hydraulic lines should be bled, drained, and cleaned out. There should be no pressure in these lines or in reservoir tanks.
- Any mechanism under load or pressure, such as springs, should be released and blocked.
- Each person who will be working on the machinery should put a lock on the machine's lockout device(s). Each lock must remain on the machine until the work is completed.
- Only the worker who placed the lock should remove his/her lock.
- All energy sources which could activate the machine must be locked out.
- The main valve or main electrical disconnect must be tested to be sure that the power to the machine is off.
- Electrical circuits must be checked by qualified persons with proper and calibrated electrical testing equipment. An electrical failure could energize the equipment, even if the switch is in the off position. Stored energy in electrical capacitors should be safely discharged.
- CAUTION: Return disconnects and operating controls to the off position after each test.
- Attach accident prevention tags which give the reason for placing the tag, the name of the person placing the tag, how he/she may be contacted, and the date and time the tag was placed. No one removes the lock without proper authority.

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ii. Preparation for Lockout

- Employees authorized to perform lockout shall be certain as to which switch, valve, or other energy isolating devices apply to the equipment being locked out.
- More than one energy source (electrical, mechanical, or others) may be involved.
- Any questionable identification of sources shall be cleared by the employees with their supervisors.
- Before lockout commences, job authorization should be obtained.

iii. Sequence of Lockout Procedure

- Notify all affected employees that a lockout is required and the reason therefore.
- If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).
- Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, other) is disconnected or isolated from the equipment. Stored energy, such as that in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down.
- Lockout energy isolating devices with an assigned individual lock.
- After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral position after the test.
- The equipment is now locked out.
- Restoring Equipment to Service
- When the job is complete and equipment is ready for testing or normal service, check the equipment area to see that no one is exposed.
- When equipment is clear, remove all locks. The energy isolating devices may be operated to restore energy to equipment.

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iv. Procedure Involving More Than One Person

- In the preceding steps, if more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s).
- The person in-charge or a supervisor, with the knowledge of the crew of the team, may lock out equipment for the whole crew of the team.
- The person in-charge or a supervisor may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew of the team when it is safe to work on the equipment.
- The person in-charge or a supervisor shall not remove a crew lock until it has been verified that all individuals are clear.

v. Rules for Using Lockout Procedure

- All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel.
- Do not attempt to operate any switch, valve, or other energy isolating device bearing a lock.

vi. Locks, Blocks, & Accident Prevention Tags

- **Locks**
 - a. Each worker must have his/her own lock and the only key to that lock.
 - b. The lock should be substantial and durable, and should have the name of the employee on it. In addition, locks can be colour-coded to indicate different shifts or types of crafts.
 - c. When more than one worker is servicing a piece of equipment that must be locked out, a lockout adaptor can be used which allows all the workers to place their locks on the disconnecting means. After the work is completed, each worker removes his/her lock and the machine is then returned to service.
- **Tags**
 - a. **DO NOT USE TAGS ALONE.** Use tags or signs in addition to locks.
 - b. Tags must state the:
 - reason for the lockout.
 - name of the employee who is working on the equipment and how that person may be reached.
 - date and time the tag was put in place.

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c. Tagout devices shall be capable of enduring at least 50 pounds of pull, and a non-reusable type.

- **Blocks**

- a. Suitable blocks are another important safety device for making a piece of equipment safe to be repaired or serviced. Blocks must be placed under raised dies, lifts, or any equipment that might inadvertently move by sliding, falling or rolling.
- b. Blocks, special brackets, or special stands such as those commonly used under raised vehicles, must be available and always used. Another form of blocking is the placement of a blind. A blind is a disk of metal placed in a pipe to ensure that no air, steam, or other substance will pass through that point if the system is accidentally activated.
- c. Before installing blinds or blocks, bleed down steam, air, or hydraulic lines to get rid of any pressure. Coiled springs, spring-loaded devices, or suspended loads must also be released so that their stored energy will not result in inadvertent movement.

vii. **Methods of Locking Out Controls**

There are many different ways to lock out a piece of equipment. Commonly, the main disconnect switch has one opening where a lock can be placed.

- If more than one employee works on the equipment, a lockout adaptor suitable for the installation of several locks must be used, enabling all workers to lock out the machine with their individual locks.
- If the switches are in a metal box, the box itself must be locked out.
- If a fuse was removed in order to de-energize the equipment, the fuse box must be locked.
- If the controls are in a metal-covered box, a common hasp can be welded or riveted to the door, along with a lock staple. Then the switch can be "opened" and the door closed and padlocked.
- Fuse boxes can also be locked in this way.

- Machines activated by compressed air or steam will have valves that control movement. These valves will need not only to be locked out, but also bled to release any back pressure.

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8.0 RECORD OF AMENDMENT

Version No	Approval Date	Approved by	Amendment

9.0 APPENDICES

- i. Standard Form
 - Nil
- ii. Guideline
 - Nil