Standard Operating Procedure (SOP): Safety Checks and Lockout/Tagout Procedures

This SOP details **safety checks and lockout/tagout procedures** essential for preventing accidental equipment startup during maintenance and repair. It covers the identification of energy sources, proper shutdown and isolation techniques, application of lockout/tagout devices, verification of energy isolation, safe release of stored energy, and communication protocols among workers. The objective is to ensure a safe working environment by minimizing risks associated with hazardous equipment and electrical systems, thereby protecting personnel from potential injuries or fatalities.

1. Scope

This procedure applies to all employees, contractors, and maintenance personnel performing service, maintenance, or repair work on equipment with hazardous energy sources.

2. Responsibilities

- **Authorized Employees:** Perform lockout/tagout procedures and verify energy isolation.
- **Affected Employees:** Be aware of lockout/tagout operations that may affect their work area.
- **Supervisors:** Ensure compliance with the procedure and provide necessary training.

3. Required Materials & Equipment

- Lockout hasps/padlocks
- Tagout devices/labels
- Test instruments (e.g., voltage testers)
- PPE (Personal Protective Equipment)

4. Procedure Steps

1. **Preparation**
    - Identify all sources of hazardous energy (electrical, mechanical, hydraulic, pneumatic, chemical, thermal, etc.).
    - Review equipment schematics or energy control procedures, if applicable.
2. **Notification**
    - Inform all affected employees of impending shutdown and lockout/tagout activities.
3. **Shutdown Equipment**
    - Follow standard shutdown procedures for the specific equipment.
4. **Isolation of Energy Sources**
    - Physically disconnect or isolate all identified energy sources.
5. **Application of Lockout/Tagout Devices**
    - Place lockout and tagout devices on each energy-isolating device.
    - Ensure devices are securely attached and clearly labeled.
6. **Release of Stored Energy**
    - Safely release or restrain any stored energy (e.g., discharge capacitors, bleed off pressure).
7. **Verification of Isolation**
    - Test the equipment to confirm all energy sources are effectively isolated and de-energized.
    - Attempt to operate the start controls to verify that the equipment cannot be activated.
8. **Maintenance/Repair**

- Complete the required service or repair work while lockout/tagout is in effect.

9. **Restoring Equipment to Service**
    - Ensure all tools and personnel are clear of the area.
    - Remove lockout/tagout devices (only by the person who applied them).
    - Notify all affected employees that equipment is being returned to service.
    - Restore energy and startup the equipment following standard procedures.

5. Communication Protocol

- Clearly communicate lockout/tagout activities to all team members.
- Use signage or barriers to inform others about active lockout/tagout operations.
- Maintain written records/logs of lockout/tagout actions.

6. Training

- All authorized and affected employees must receive training on lockout/tagout procedures and hazards.
- Periodic refresher training should be conducted to ensure ongoing compliance.

7. Documentation

Activity	Responsible Person	Date	Remarks
Lockout/Tagout Initiated			
Verification of Isolation			
Release of Equipment			

8. Review & Audit

- Regularly review and update this SOP to reflect changes in equipment, procedures, or regulations.
- Document audits and corrective actions taken to address any non-compliance.

9. References

- OSHA 29 CFR 1910.147 - The Control of Hazardous Energy (Lockout/Tagout)
- Company Lockout/Tagout Policy
- Manufacturer's Equipment Manuals