# Energy Source Survey Checklist

Lockout/Tagout Energy Control Documentation per OSHA 29 CFR 1910.147

This survey identifies all energy sources associated with equipment or machinery that must be controlled during servicing and maintenance activities. Complete this survey before developing machine-specific lockout/tagout procedures. All energy sources must be identified, documented, and verified to ensure employee safety during maintenance operations.

| Equipment / Machine Information | | | |
|---|---|---|---|
| **Equipment Name:** | | **Equipment ID/Tag:** | |
| **Location/Area:** | | **Department:** | |
| **Manufacturer:** | | **Model/Serial No:** | |
| **Survey Conducted By:** | | **Date:** | |
| **Job Title/Role:** | | **Survey Revision:** | |

| Section 1: Electrical Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Main power disconnect (voltage: _____) | ☐ | ☐ | |
| Secondary power supplies | ☐ | ☐ | |
| Control circuit power | ☐ | ☐ | |
| Emergency/backup power systems | ☐ | ☐ | |
| Batteries or capacitors | ☐ | ☐ | |
| Static electricity sources | ☐ | ☐ | |
| Photovoltaic/solar connections | ☐ | ☐ | |
| Generator connections | ☐ | ☐ | |

| Section 2: Mechanical Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Rotating equipment (motors, shafts, fans) | ☐ | ☐ | |
| Reciprocating components (pistons, rams) | ☐ | ☐ | |
| Gears, pulleys, and belt drives | ☐ | ☐ | |
| Flywheels and rotating mass | ☐ | ☐ | |
| Springs (tension, compression, torsion) | ☐ | ☐ | |
| Counterweights and suspended loads | ☐ | ☐ | |
| Conveyors and material handling | ☐ | ☐ | |
| Clutches and brakes | ☐ | ☐ | |

| Section 3: Hydraulic Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Hydraulic pumps and power units | ☐ | ☐ | |
| Hydraulic cylinders and actuators | ☐ | ☐ | |
| Accumulators (pressure vessels) | ☐ | ☐ | |
| Hydraulic lines and hoses | ☐ | ☐ | |
| Control valves | ☐ | ☐ | |
| Hydraulic motors | ☐ | ☐ | |
| Pressure relief devices | ☐ | ☐ | |
| Hydraulic reservoirs | ☐ | ☐ | |

| Section 4: Pneumatic Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Compressed air supply lines | ☐ | ☐ | |
| Air compressors | ☐ | ☐ | |
| Pneumatic cylinders and actuators | ☐ | ☐ | |
| Air receivers and tanks | ☐ | ☐ | |
| Pneumatic tools and equipment | ☐ | ☐ | |
| Vacuum systems | ☐ | ☐ | |
| Blowdown valves | ☐ | ☐ | |
| Pressure regulators | ☐ | ☐ | |

| Section 5: Thermal Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Steam lines and systems | ☐ | ☐ | |
| Hot water systems | ☐ | ☐ | |
| Heating elements and furnaces | ☐ | ☐ | |
| Cryogenic systems | ☐ | ☐ | |
| Refrigeration systems | ☐ | ☐ | |
| Heat exchangers | ☐ | ☐ | |
| Exothermic chemical reactions | ☐ | ☐ | |
| Friction-generated heat sources | ☐ | ☐ | |

| Section 6: Chemical Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Process chemicals and reactants | ☐ | ☐ | |
| Flammable liquids and gases | ☐ | ☐ | |
| Corrosive materials | ☐ | ☐ | |
| Toxic substances | ☐ | ☐ | |
| Oxidizers | ☐ | ☐ | |
| Reactive chemicals | ☐ | ☐ | |
| Chemical feed systems | ☐ | ☐ | |
| Catalyst systems | ☐ | ☐ | |

| Section 7: Stored/Potential Energy | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Elevated components or loads | ☐ | ☐ | |
| Compressed springs | ☐ | ☐ | |
| Pressurized vessels or lines | ☐ | ☐ | |
| Tensioned cables or chains | ☐ | ☐ | |
| Suspended materials | ☐ | ☐ | |
| Charged capacitors | ☐ | ☐ | |
| Potential falling objects | ☐ | ☐ | |
| Residual system pressure | ☐ | ☐ | |

| Section 8: Other Energy Sources | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| Radiation sources (ionizing/non-ionizing) | ☐ | ☐ | |
| Laser systems | ☐ | ☐ | |
| Microwave/RF energy | ☐ | ☐ | |
| Magnetic fields | ☐ | ☐ | |
| Water under pressure | ☐ | ☐ | |
| Gravity-fed systems | ☐ | ☐ | |
| Sound/ultrasonic energy | ☐ | ☐ | |
| Other: _____ | ☐ | ☐ | |

| Section 9: Verification Requirements | Present | N/A | Location / Isolation Point / Notes |
|---|---|---|---|
| All energy sources identified and documented | ☐ | ☐ | |
| Isolation points clearly marked/labeled | ☐ | ☐ | |
| Lockout devices compatible with isolation points | ☐ | ☐ | |
| Verification method established for each source | ☐ | ☐ | |
| Sequence of lockout/tagout determined | ☐ | ☐ | |
| Release sequence documented | ☐ | ☐ | |
| Affected employees identified and notified | ☐ | ☐ | |
| Authorized employees trained on procedures | ☐ | ☐ | |

## Energy Source Detail Documentation

Document each identified energy source with specific isolation information for lockout/tagout procedures.

| # | Energy Type | Source Description | Isolation Device | Location | Lockout Method |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |

### Special Procedures / Additional Notes

| Survey Certification | | | |
|---|---|---|---|
| **Surveyor Signature:** | | **Date:** | |
| **Supervisor Review:** | | **Date:** | |
| **Safety Manager Approval:** | | **Date:** | |
| **Periodic Review Required:** | ☐ Yes ☐ No | **Review Frequency:** | |

### Regulatory References

**OSHA 29 CFR 1910.147** - The Control of Hazardous Energy (Lockout/Tagout)
**OSHA 29 CFR 1910.333** - Selection and Use of Work Practices (Electrical)
**ANSI/ASSE Z244.1** - Control of Hazardous Energy
**NFPA 70E** - Standard for Electrical Safety in the Workplace

**WARNING: Failure to properly identify and control all energy sources can result in serious injury or death. This survey must be completed by qualified personnel and reviewed whenever equipment is modified, relocated, or when new energy sources are introduced.**

*This energy source survey checklist is provided as a general guide for identifying hazardous energy sources in compliance with OSHA 29 CFR 1910.147. Users should customize this survey based on their specific equipment, operations, and applicable regulations. First Underwriters Insurance Brokers recommends conducting energy source surveys for all equipment requiring lockout/tagout procedures and reviewing surveys annually or when equipment modifications occur. Retain completed surveys as part of your lockout/tagout program documentation.*