

Idaho National Laboratory

HAND AND PORTABLE POWER TOOLS	Identifier: RD-2015
	Revision: 2
	Effective Date: 12/19/2012

Subcontractors	Program Requirements Document	eCR Number: 609266
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INL Subcontractor Requirements

Entire Document Changed

1. PURPOSE

This document establishes requirements for the maintenance and safe use of hand and portable power tools. This document highlights requirement referenced in the Source Documents section, as well as Contractor requirements. Any applicable regulatory or Contractor requirements must be followed, with the most stringent requirement being met.

2. APPLICABILITY

This document applies to all subcontractors working at the INL who use hand tools and portable power tools, as specified in their contract with Contractor. Stricter requirements may be imposed by subcontractors upon their employees or subtier contractors. The requirements of this document must be followed by subcontractors; however, the means of implementation may vary as determined by the subcontractor.

3. REQUIREMENTS

3.1 Hand and portable power tools shall meet the requirements of the manufacturer and the requirements of 29 CFR 1926 Subpart I “Tools-Hand and Power.” Additional requirements specific to hand and portable power tool are specified below.

3.2 Training

3.2.1 All workers who use portable power tools shall be trained on the proper use of all tools they are likely to use.

3.2.2 A record of the training shall be retained by the subcontractor.

3.2.3 A card signed by the trainer shall be provided to the operator and shall be in the operator's possession whenever a powder-actuated tool is used.

3.3 Tool Use

3.3.1 Portable power tools shall meet the standards listed in Table 1.

Table 1. Standards for portable power tools.

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Table 1. (continued).

Tool Type or Condition	Standard
All	equipped with type of power control switch supplied by manufacturer
Operated by electric power	approved by Underwriters Laboratories, Inc. (UL) or by an equivalent, recognized testing agency
used outdoors, at construction or service work sites, or in wet or damp areas	grounded via the case, double insulated, or cordless double-insulated or protected by GFCIs rated to trip at 5 (+1) milliamp
saber, scroll, and jig saws with nonstandard blade holders	may have blades with shanks that are non-uniform in width, provided that the narrowest portion of the blade shank is an integral part in mounting the blade
Pneumatic tools	tools secured to the hose or whip by a positive means that prevents the tool from becoming accidentally disconnected
impact (percussion) tools	safety clips or retainers securely installed and maintained to prevent attachments from being accidentally expelled
hoses exceeding 1/2-inch inside diameter	equipped with a safety device at the supply source or branch line to reduce pressure in the event of hose failure
Abrasive blast cleaning nozzles	equipped with (1) an operating valve that must be held open manually and (2) a support mounting the nozzle when not in use
nailers, staplers, and other fastening tools	equipped with a safety device on the muzzle to prevent fastener ejection until the muzzle is pressed firmly against the work surface
powder-actuated tools	certified by the manufacturer as meeting American National Standards Institute (ANSI) standard A10.3-1985 requirements
Electrically operated hand tools that use 125 volts	must have a GFCI when used with temporary system. See NEC 305-6(a). All 125-volt receptacles shall be GFCI protected.

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3.4 Electric Tools

3.4.1 Electric tools and equipment that are cord and plug connected shall be inspected as follows.

Condition	Criteria
Damage	Flexible cords and cables shall not have worn, frayed, or damaged areas which present an electrical hazard to employees. There shall be no breaks, damage, or cracks exposing live parts.
Strain relief	Strain relief shall be maintained to prevent pull from being directly transmitted to joints or terminals.
Terminations	Terminations shall have no stray strands or loose terminals.
Missing blades, etc.	There shall be no missing or bent blades, pins, or contacts.
Missing cover plates	There shall be no missing cover plates.
Marking	Marking, identification, or instructions for special configurations shall be securely attached and in legible condition.

3.4.2 Before operating tools, employees shall inspect them for damage; any tool that is damaged or defective shall be tagged "out of service" or removed from the INL.

3.5 Chain Saws

3.5.1 Chain saws shall have tip guards and chain brakes to minimize exposure to the moving saw chain during kickback.

3.5.2 Chain saw blade guards may be removed only if the use of the guard would create one or both of the following conditions:

- 3.5.2.1 prevent an employee from performing the particular work assignment
- 3.5.2.2 offer a more serious hazard than that associated with an unguarded chain saw blade.

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3.6 Manual T-Post Driver Used to install T-posts and Electrical Grounding Rods

- 3.6.1 Manual T-post drivers shall only be used in a limited application at the INL. (Limited applications include installation of T-post to support rope and signage to delineate Construction or service work boundary areas).

When using Manual T-post drivers the following shall be considered:

- 3.6.1.1 Limit the installation depth, most soil types at the INL would only require T-posts pounded to a depth of approximately eight inches to support a rope and signs. (If the soil is softer, driving the post deeper will give it more stability).
- 3.6.1.2 Using lighter gauge T-posts requires less effort and will drive easier than a heavier gauge T-post.
- 3.6.1.3 The use of a surveyor's spike would provide a pilot hole for the post in compacted hard to drive soil.
- 3.6.1.4 Investigate the possibility of alternate style post that will serve the same purpose and drive easier into the soil encountered at the INL.
- 3.6.2 All JSA's that require installing T-posts will require the hazard section and the mitigation section to be filled in addressing the respective hazard and mitigation.
- 3.6.3 When installing a significant amount of T-posts a mechanical method to drive the posts is required.
- 3.6.4 When ground rods are driven a mechanical method to drive the rod is required.

DEFINITIONS

For definitions of terms used throughout the INL Subcontractor Requirements manual, refer to LST-359.

4. REFERENCES

4.1 Source Documents

- 29 CFR 1910, Subpart P, Hand and Portable Powered Tools and Other Hand-held Equipment
- 29 CFR 1926, Subpart I, Tools - Hand and Power

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NFPA 70E, Electrical Safety Requirements for Employee Workplaces

4.2 Related Requirements

The following documents may also contain requirements that apply to this activity:

RD-2001, Personal Protective Equipment

RD-2011, Electrical Safety

RD-2109, Respiratory Protection

RD-2110, Confined Spaces