



MNOSHA Instruction **STD 5-1.5A**

August 9, 2017

Reissued in accessible format: June 9, 2021

Subject: Enforcement Guidelines for Pneumatically Powered Tools.

Purpose:

To establish policy and provide clarification to ensure uniform procedures are followed when inspecting and citing pneumatic power tools.

Scope:

This instruction applies MNOSHA-wide.

Cancellations:

This instruction supersedes MNOSHA Instruction STD 5-1.5, dated May 21, 2012.

References:

- A. **1910.242(a)** requires employers to be responsible for the safe condition of hand and portable power tools and equipment used by employees, including those which may be furnished by employees.
- B. **Minn. Rules 5205.0850** requires all pneumatically driven nailers, staplers, and other fastening equipment to be provided with a safety device on the muzzle which is designed to prevent the tool from ejecting fasteners unless the muzzle is in contact with the work surface.
- C. **1926.302(b)(3)** requires all pneumatically driven nailers, staplers, and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi at the tool to have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface.

- D. **Letter of Interpretation, Federal OSHA, dated August 8, 1986.** “The safe use of portable, compressed-air-actuated, fastener driving tools (staple guns)”, states that only safeguarded pneumatic tools are acceptable to OSHA where hazardous employee exposures are substantiated.
- E. **Letter of Interpretation, Federal OSHA, dated March 25, 1985.** “Applicability of 1910.212(a)(3)(ii) to Portable Pneumatic Powered fastener Tools”, states that only safeguarded pneumatic tools are acceptable to OSHA where hazardous employee exposures are substantiated.
- F. **Letter of Interpretation, Federal OSHA, dated April 8, 1983.** “Use of Light Duty Pneumatic Tackers (staplers) without Pressure Release Levers”, states that light duty pneumatically actuated tools requiring less than 100 PSI for proper operation do not need a safety release lever if the following is met:
1. A pressure regulator or other means is provided to assure that the tool operating air pressure does not exceed 100 PSI or the manufacturer's recommendation, whichever is lower.
 2. The staples or fasteners are "light duty" type and do not exceed #18 gauge, 0.040 inch (AWG B & S) as specified by the tool manufacturers.
Note This Letter of Interpretation uses a different wire gauge standard than ANSI SNT-101-2015.
 3. The operator and other persons in the area, within range of a flying staple (approximately 20 feet) are wearing personal protective eye equipment (safety glasses).
- G. **ANSI SNT-101-2015** applies to tools manufactured after April 7, 2017. It categorizes tools as light-duty tools, heavy duty staplers or coil nailers based on the fasteners they are designed to use, not the air pressure they require. Light duty tools are not required by this ANSI standard to have a safety device on the muzzle if the fasteners used by the tool are 1 inch or shorter and made from wire with a cross sectional area less than 18 ASWG (0.0475" diameter) or are staples with a nominal thickness less than 0.038" and nominal width less than 0.050". Light duty tools are not exempt from any other portion of ANSI SNT-101-2015.

ANSI SNT-101-2015 does not allow for the use of hazardous power sources with pneumatic power tools. ANSI SNT-101-2015 lists the following as hazardous power sources:

1. Reactive gases including, but not limited to, oxygen and combustible gases.
 2. Pressure sources that can deliver in excess of 1.5 times the maximum air pressure of the tool or 200 psig, whichever is greater, if a regulator fails.
- H. **Letter of Interpretation, Federal OSHA, dated May 14, 1979** “Pneumatically operated staplers”, states that where point of operation hazards exist, 1910.212 would apply to safety devices for pneumatically operated tools at less than 100 psi in general industry.

Definitions:

- A. ASWG – American Steel Wire Gauge. The wire diameter for 18 ASWG is 0.0475 inches.
- B. AWG B & S – American Wire Gauge Brown and Sharp wire gauge is used for all metals but iron and steel. The wire diameter for 18 AWG B & S is 0.0403 inches.

Action:

- A. Determine the size of the fasteners used in the pneumatic tool. ANSI SNT-101-2015 does not provide any exemption for tools operating at less than 100 psi, but does provide an exemption for light-duty tools. If a tool uses fasteners longer than 1 inch or \geq 18 ASWG (0.0475" diameter), it must have a safety device on the muzzle. Cite Minn. Rules 5205.0850 for lack of device.
- B. Ensure that pneumatic tools do not use any hazardous power sources such as oxygen or combustible gases, and that air pressure does not exceed 1.5 times the maximum air pressure or 200 PSIG, whichever is greater. Cite 1910.242(a) if a hazardous power source is used or if safe operating pressures are not maintained.
- C. Cite Minn. Rules 5205.0850 for pneumatically driven nailers, staplers, and other fastening equipment provided with automatic fastener feeds that do not have a safety device on the muzzle. If the tool uses fasteners that are 1 inch or shorter and have a cross sectional area less than 18 ASWG (0.0475" diameter), or staples with a nominal thickness less than 0.038" and nominal width less than 0.050", the tool is classified as light-duty by ANSI. ANSI SNT-101-2015 does not require light duty tools to have a safety device on the muzzle.
- D. Cite 1910.242(a) for failure to correct any deficiencies which affect the safe operating condition of the fastening device.
- E. If the employee operating the pneumatic tool is not wearing or provided with eye protection and is exposed to flying debris OSHI should refer to STD 1-6.6 for guidance on PPE citations.
- F. In addition, the OSHI should also note the following information about the pneumatic power tool in their inspection report:
 - 1. Manufacturer's or distributor's identity;
 - 2. Model number;

3. Serial number or date code;
4. Maximum air pressure.

James Krueger, Director MNOSHA Compliance
For the MNOSHA Management Team

Distribution: OSHA Compliance and WSC Director

NOTICE: Minnesota OSHA Directives are used exclusively by MNOSHA personnel to assist in the administration of the OSHA program and in the proper interpretation and application of occupational safety and health statutes, regulations, and standards. They are not legally binding declarations and they are subject to revision or deletion at any time without notice.