DEPARTMENT OF LABOR AND INDUSTRY

MNOSHA Instruction **STD 1-12.25B**
January 14, 2026

SUBJECT: Shear Safeguarding

Purpose:

To clarify safeguarding requirements for shears of the type designed primarily for metal shearing.

Scope:

This policy applies MNOSHA-wide.

References:

1. General Industry Regulations & Standards, 29 CFR 1910.212 - General requirements for all machines
2. ANSI B11.4-2003 (R2020) - Safety Requirements for Shears
3. ANSI B11.19-2019 – Performance Requirements for Risk Reduction Measures: Safeguarding and other Means of Reducing Risk
4. Federal OSHA Instruction STD 01-12-025 formerly called STD 1-12.25A**,** dated 7/12/94
5. Occupational Safety and Health Standards, Minnesota Rule 5205.0870 Foot Actuated Machines

Cancellation:

This instruction cancels STD 1-12.25A Shear Safeguarding, dated May 11, 2016.

Background:

29 CFR 1910.212 covers general machine guarding and point of operation guarding but does not specifically cover the safeguarding of metal shears. This instruction looks at the specific requirements for shear guarding found in ANSI B11.4-2003 (R2020) and how to cite these hazards using the 1910 standards.

This policy applies to mechanical, hydraulic, or pneumatic powered shears designed primarily for metal shearing and operated manually, automatically, or semi-automatically. It also applies to shears designed for shearing other types of material and having the basic configuration as described. The machines covered include those constructed with a ram, bed, table, hold down(s) and housings, one fixed moveable, non-rotary blade for the shearing action, and a constant rake (angle of one blade in relation to the other) for any one shearing stroke. Included are shears of the following types:

- Squaring shears
- Crop shears
- Gap shears
- Plate shears
- Gate shears
- Pivot blade (swing beam) shears
- Slitting – non-rotary shears
- Cut-to-length shears
- Guillotine shears

Shears found in the stand-alone, manual; stand alone, automatic, and process line application are included. The stand-alone, manual shears may include initiation of a foot or hand control or feeding a sheet until it contacts a probe or other stroke initiating device. Right angle shears may have a knife arrangement which changes rake angle during the shearing cycle and are also included.

Shear types excluded from this policy are those which do not have one fixed and one moving non-rotary blade and do not utilize a constant rake for any one shearing stroke. The following types of shears are excluded from this policy:

- Slitting-rotary
- Nibblers
- Coil slitters
- Portable hand tools
- Rotary-blade slitters and shears
- Iron workers
- Angle, bar, beam, channel, and notching machines
- Alligator shears
- Rotary drum shears
- Manually powered shears (a.k.a. foot operated / jump shears as shown in ANSI B11.4-2003 (R2020) Annex B, Figure 5)
- Shears used in the scrap iron and steel industry covered under ANSI Z268.1-1982 - Metal Scrap Processing Equipment.

Action:

A. Overview of Significant Provisions of Subpart O – Machinery and Machine Guarding (with Related Standards)

1. 29 CFR 1910.212(a)(1) states: "One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks."

2. 29 CFR 1910.212(a)(3)(i) defines the point of operation, for this subparagraph, as "the area on a machine where work is actually performed upon the material being processed."

3. 29 CFR 1910.212(a)(3)(ii) states: "The point of operation of machines whose operation exposes an employee to injury, shall be guarded. The guarding device shall be in conformity with any appropriate standards therefore, or in the absence of applicable specific standards, shall be so designed and constructed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.".

4. **ANSI B11.4-2003 (R2020) - Safety Requirements for Shears** defines the point of operation for a shear as: "The location in the shear where material or a workpiece is positioned and work is performed." and shows the area in Annex B, Figures 1 through 5. This standard specifies requirements for fixed, interlocked, or adjustable point of operation guards as well as awareness barrier devices, and presence sensing devices. It allows the use of properly applied awareness barrier safeguarding on metal cutting shears for situations in which it is impossible to employ a fixed guard or point of operation device due to the diversity of operations on the shear.

   Note: The point-of-operation hazard for the shear defined here differs from the hazard existing at the hold-downs, which is covered by 29 CFR 1910.212(a)(3)(i).

5. Federal OSHA Instruction STD 01-12-025 formerly called STD 1-12.25A, dated 7/12/94, allows the use of point of operation awareness barriers, as specified in ANSI B11.4-1993, for safeguarding metal-cutting types of shears covered by this policy.

B. Inspection and Compliance Guidelines for Shear Safeguarding

1. Acceptable safeguarding for the point of operation at the blade and at the hold-downs of shears is that which prevents the operator from having any part of the body in the danger zone during the operating cycle, or otherwise meets the requirements of ANSI B11.4-2003 (R2020).

   The use of two-hand controls is recognized where both of the operator's hands are on the shear hand controls, with the hand controls located at such a distance from the point-of-operation such that hazardous motion stops before the operator can reach into the point-of-operation. Two-hand controls should be limited to shears with a part-revolution clutch, or hydraulic shears.

2. Guards or safeguarding devices must prevent access to the point of operation under the blade or the hold-downs both in front and behind the shear. Guards shall restrict entry of the hands or other body parts into the hazard area by preventing access over, under, around or through the guard. Maximum openings for fixed guards and awareness barrier safe openings are shown in Table A.1 and Figure A.1 of Annex A in ANSI B11.4-2003 (R2020) (see also Appendix A of this directive). The design and construction of guards is also included in ANSI B11.19 - Safeguarding and Machinery Risk Reduction.

3. Foot operated controls for operating the shear must be physically protected to prevent unintended operation.

4. If the shear contains multiple sources of energy (e.g., hydraulic, electric, pneumatic, and / or gravity) and employees perform blade changes (such as rotating a 4-sided blade) or other maintenance which exposes the employee to a hazard, the employer must address the control of hazardous energy and meet the requirements of **29 CFR 1910.147**.

C. Citation Guidelines for Shear Safeguarding

1. 29 CFR 1910.212(a)(3)(ii) shall be cited if only the point of operation at the blade presents a hazard to exposed employees.

   > **NOTE:** The hazard present at the hold-downs is covered under 29 CFR 1910.212(a)(1) and NOT under 29 CFR 1910.212(a)(3)(ii) because of the definition contained in 29 CFR 1910.212(a)(3)(i).

2. 29 CFR 1910.212(a)(1) shall be cited if the hold-downs, or the hazard at both the hold-downs and the blade, present a hazard to exposed employees.

3. A citation for 29 CFR 1910.212(a)(1) may be considered depending on the area surrounding the shear if employees are exposed to the hazard of moving parts behind the shear (such as an automatic back gauge) or moving parts of the shear while manually supporting materials being cut by the shear (hazards associated with point of operation, ingoing nip points, or rotating parts).

4. A citation for Minnesota Rule 5205.0870 shall be issued if the foot operated control for the shear (such as a foot treadle bar) is not guarded. Please reference MN OSHA STD 5-1.7: Foot-actuated Machines for additional information.

James Krueger, Director MNOSHA Compliance
For the MNOSHA Management Team

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Appendix A

Guarding And Awareness Barrier Safe Openings

The measurements below reproduce Table A.1 and Figure A.1 of Annex A from ANSI B11.4-2003 (R2020) as a reference for the maximum allowable openings for fixed guards and awareness barrier safe openings.

Known Distance to Hazard (inches)	Maximum Allowable Guard Gap (inches)
< 0.5	Not permitted
0.5 - 2.49	0.25
2.5 - 3.49	0.375
3.5 - 6.49	0.625
6.5 - 17.49	1.25
17.5 - 35.99	1.875
> 35.99	5.0

Measurements taken by CSHO shall be rounded up to the nearest 0.01 inches (e.g. 2.496 shall be rounded up to 2.50). Known distance refers to the distance between the bottom edge of the guard and fixed machine members to the nearest hazard. The various openings are such that no body part may be permitted to reach the hazard even though they may contact the bottom of the guard.

A guard extending from the minimum guard line toward the guard opening will create a wedging of the body part between the barrier and the permanent machine member, preventing movement of the body part toward the hazard.