

VOSH PROGRAM DIRECTIVE: 14-233-C**ISSUED:** May 15, 2024**Subject****National Emphasis Program on Amputations in Manufacturing Industries****Purpose**

This directive transmits to field personnel policies and procedures for implementing a National Emphasis Program (NEP) to identify and to reduce workplace machinery and equipment hazards which are causing or likely to cause amputations.

This Program Directive is an internal guideline, not a statutory or regulatory rule, and is intended to provide instructions to VOSH personnel regarding internal operation of the Virginia Occupational Safety and Health Program and is solely for the benefit of the program. This document is not subject to the Virginia Register Act or the Administrative Process Act; it does not have general application and is not being enforced as having the force of law.

Scope

This Directive applies VOSH-wide. This directive applies to all VOSH personnel.

References

CHANGE I: OSHA Instruction CPL 2-1.35 (March 26, 2002)

CHANGE II: OSHA Instruction CPL 03-00-003 (October 27, 2006)

CHANGE III: OSHA Instruction CPL 03-00-019 (August 13, 2015)

CHANGE IV: OSHA Instruction CPL-03-00-022 (December 10, 2019)

Consult as appropriate.

- A. Final Rule at [79 FR 56129-56188](#), Occupational Injury and Illness Recording and Reporting Requirements – NAICS Update and Reporting Revisions.
- B. [1904](#), Recording and Reporting Occupational Injuries and Illnesses.
- C. [1910, Subpart J](#), General Environmental Controls, § 1910.147, The Control of Hazardous Energy (Lockout/Tagout).
- D. [1910, Subpart O](#), Machinery and Machine Guarding.
- E. [Part 1910, Subpart P](#), Hand and Portable Powered Tools & Other Hand-Held Equipment.
- F. VOSH Field Operations Manual (FOM) (latest version).
- G. VOSH Directive 02-003 (latest version), VOSH Procedures to comply with OSHA Enforcement Exemptions and Limitations under the Federal Appropriations Act, OSHA Instruction CPL 02-00-051.
- H. VOSH Program Directive 02-211B, The Control of Hazardous Energy – Enforcement Policy and Inspection Procedures, May 1, 2008.
- I. VOSH Program Directive 02-228, Guidelines for Point of Operation Guarding of Power Press Brakes, September 15, 1998.
- J. VOSH Program Directive 02-235, Slide-locks – Enforcement Policy,

Inspection Procedures and Performance Guidance Criteria, December 15, 2007.

- K. VOSH Program Directive 02-110, VOSH Enforcement Policy for New Reporting Requirements under Va. Code §40.1-51.1.D and §16VAC25-85-1904, July 1, 2017.

Cancellation

CHANGE I: VOSH Program Directive 14-233 (April 1, 2003)

CHANGE II: VOSH Program Directive 14-233A (April 1, 2007)

CHANGE III: VOSH Program Directive 14-233B (February 1, 2016)

Effective Dates

CHANGE I: April 1, 2003

CHANGE II: April 1, 2007

CHANGE III: December 1, 2015

CHANGE IV: May 15, 2024

Expiration Date

Not Applicable

Action

Directors and Managers shall ensure that policies and procedures established in this Directive are uniformly enforced and field personnel understand and comply with the requirements included in this Directive.

Gary G. Pan

Commissioner

Distribution:

Commissioner of Labor and Industry

Assistant Commissioner

VOSH Directors and Managers

VOSH Compliance and Cooperative Programs Staffs

Division of Hearing and Legal Services

OSHA Region III and OSHA Norfolk Area Office

Executive Summary

This Directive provides updated guidance to the VOSH Headquarters, Regional, and Field Offices for continued implementation of its NEP to identify and reduce or eliminate amputation hazards in manufacturing industries. VOSH's enforcement history shows that employees are often injured when machinery or equipment is not properly guarded or maintained. This NEP targets industrial and manufacturing workplaces having machinery and equipment that can potentially cause amputations.

Significant Changes

This updated Directive has the following changes:

- Revises the coding requirements for all VOSH amputation inspections in the OSHA Information Systems (OIS);
- Revises the targeting methodology to include data from the amputation reporting requirement under 1904.39;
- Removes Appendix A – Machinery and Equipment from the previous NEP on amputations;
- Removes Appendix B – Related American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME) Standards from the previous NEP;
- Adds a new Appendix A – Amputations Targeting Methodology; and
- Adds a new Appendix B – Covered North American Industry Classification System (NAICS) Codes.
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I. Purpose.

This Directive describes policies and procedures for the continued implementation of VOSH's NEP to identify and reduce or eliminate workplace hazards associated with amputations in the manufacturing industries.

II. Background.

Operating machinery or equipment can be extremely dangerous when it is not properly guarded or maintained. Injuries involving machinery or equipment often result in death or permanent disability. VOSH's enforcement history shows that employees performing servicing and maintenance on machinery or equipment are often injured when no machine guarding is present. VOSH workplace requirements prescribe measures for the safe operation, servicing, and/or maintenance of machinery and equipment.

When identifying potential targeted industries under this NEP, OSHA analyzed OIS data involving calendar years 2015-2018 and Bureau of Labor Statistics (BLS) data for calendar years 2014-2017. OIS data were limited to federal jurisdiction only. Appendix A, Amputations Targeting Methodology, provides the criteria used in developing the NAICS codes for this NEP.

III. Inspection Scheduling.

- a. Scheduling/Site Selection. The OSHA Office of Statistical Analysis will provide each VOSH Regional (RO) and Field Office (FO) with access to software and a database that includes the establishments with the NAICS codes covered under this NEP (Appendix B). Only OSHA and State Plan states will have access to this information.

Establishment lists will be generated using the Establishment Targeting List-Generation System. The list generated will be the master list for this NEP and will include the covered NAICS codes for the RO/FO's area of responsibility.

- b. List and Cycle Generation. RO/FOs may add, based on local evidence, manufacturing establishments (regardless of the NAICS codes) to the master list where amputation injuries or fatalities related to machinery and equipment have occurred in the five years preceding the effective date of this Instruction. The local evidence may be based on OIS incident data, employer-reported amputations, and workers' compensation data. Once added, the master list must be re-randomized prior to use after establishments are added.
- c. Scheduling Inspections.

The RO/FO must schedule inspections as follows:

 - i. If the RO/FO intends to inspect the entire master list, then the inspections may be scheduled in any order. If the RO/FO uses this method, it must account (through inspections and deletions) for covering the entire list. The RO/FO cannot inspect off a new list until the entire previous list is completed.
 - ii. The RO/FO may create cycles by choosing a set number of establishments from the establishment list sorted in random number order.
- d. Deletions. The RO/FO shall delete establishments with 10 or fewer employees from the master list. Based on local knowledge, RO/FOs may delete establishments that are not likely to have targeted machinery and equipment, or establishments known to be out of business, documenting the basis for such determinations.

IV. Inspection Procedures.

- e. Scope. Inspections initiated under this NEP are programmed, planned inspections and will be conducted in accordance with provisions of the VOSH FOM.

When possible, inspections conducted under this NEP will be combined with other programmed and unprogrammed inspections. This NEP may be combined with other existing initiatives, such as SEPs or Site-Specific Targeting.

Complaints and referrals addressing operations that allege potential exposures to amputation hazards must be inspected under this NEP and handled in accordance with the procedures outlined in the VOSH FOM. This NEP provides information on operations likely to lead to employee exposure to amputation hazards. Complaints and referrals alleging potential exposures to amputation hazards that could result in injury must be handled by an inspection.

- f. Opening Conference. The Compliance Safety and Health Officer (CSHO) will verify the NAICS codes of the site and the number of employees employed by the employer.

The CSHO will also verify with the employer whether any machinery and/or equipment that could cause amputations is present in the workplace. In addition, OSHA 300 logs and 301 incident reports for the current and previous three calendar years will be reviewed during the opening conference in order to identify recorded amputations associated with machinery and/or equipment.

The CSHO shall conduct an inspection unless:

- i. The site NAICS code is not listed in Appendix B of this NEP and the CSHO determines that there are no amputation hazards, OR
- ii. There are 10 or fewer employees; except that inspections conducted under this NEP as a result of complaints or referrals may be conducted in accordance unless the establishment has a low-hazard NAICS (see VOSH Program Directive 02-003 (latest version)); and employer-reported amputations may be conducted regardless of the number of employees at the establishment (see VOSH Program Directive 02-003 (latest version)).

If the CSHO does not conduct an inspection, the CSHO must document the reason(s) for not inspecting, exit the establishment, and code in OIS as “No Inspection.”

- g. Walkaround. If any machinery or equipment associated with amputations is present in the workplace, the CSHO should exercise professional judgment in conducting an inspection, paying particular attention to employee exposure to nip points, pinch points, shear points, cutting actions, and other points of operation. The CSHO should consider and evaluate employee exposures during setup, regular operation of the machine, clearing jams or upset conditions, making adjustments while the machine is operating, cleaning of the machine, oiling or greasing of the machine or machine pans, scheduled/unscheduled maintenance, and locking out and/or tagging out.
- h. Training. Because of the technical nature of some of these inspections and/or machinery and equipment, CSHOs who conduct inspections under this NEP must have adequate training and/or knowledge of both general and specific machine guarding concepts and techniques and hazardous energy control (lockout/tagout) program requirements.

V. Recording in OIS.

- i. Programmed Inspections under the Amputations NEP Only. All inspections opened from the targeting list under this NEP will be coded as initiating type Programmed Planned, and “AMPUTATE” shall be selected as the Primary Emphasis Program. Inspections opened under the targeting list that are “No Inspection” will also be coded pursuant to this paragraph, with the reason for not conducting the inspection (e.g., number of employees less than 10).
- j. Unprogrammed Inspections Combined with Amputation NEP. All unprogrammed inspections that reveal amputation hazards will be coded as “AMPUTATE” under the Secondary Emphasis Program.
- k. Other Emphasis Program Inspections with Amputation NEP. Amputation hazards found while conducting inspections under other NEPs, REPs, and LEPs may be coded as “AMPUTATE” under the Secondary Emphasis Program.

NOTE: Any use of the code “AMPUTATE” in OIS to identify amputation hazards not covered under this NEP must be coded under the Secondary Emphasis Program.

Appendix A

AMPUTATIONS TARGETING METHODOLOGY

Category 1

Selection Process for Industries with High OIS Inspection Numbers:

- OSHA selected five standards (1910.147, 1910.212, 1910.213, 1910.217, and 1910.219) that are generally recognized as being related to amputation hazards.
- OSHA used OIS data covering calendar years 2015-2018 and identified those industries with 40 or more federal OSHA inspections with one or more violations of the selected standards.
- The process yielded 90 five-digit NAICS codes.

Category 2

Selection Process for Industries with High BLS Rates:

- OSHA used the four years of BLS Data (calendar years 2014-2017) on incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 full-time workers.
- OSHA selected NAICS codes with BLS incidence rates of 7.5 or greater for amputations for any year.
- Seven and a half is 2.5 times the average overall rate, for manufacturing, an incidence rate of 3.0 averaged over the four years of data.
- The process yielded 21 five-digit NAICS codes.

Category 3

Selection Process for Industries with High BLS Amputation Numbers:

- OSHA used the four years of BLS Data (calendar years 2014-2017) on the number of amputations.
- OSHA selected NAICS codes with BLS numbers of 50 or more amputations per year for calendar years 2014-2017.
- The process yielded 42 five-digit NAICS codes.

Category 4

Selection Process for Industries with High Employer Reported Amputation Numbers (OIS Employer Reported Severe Injuries):

- OSHA selected all employer-reported referrals with at least one amputation reported during calendar years 2015 and 2018.
- OSHA selected NAICS codes with reported amputations of 25 or more per year for calendar years 2015-2018.
- Twenty-five was used instead of 50 as the OIS data are federal plan only and therefore are representative of approximately half the BLS data.
- The process yielded 130 five-digit NAICS codes.

Data Summation

The NAICS codes that comprise the scope of this NEP meet one or more of the following criteria:

- High OIS Inspection Numbers with High BLS Amputation Rates and High BLS Amputation Numbers (Categories 1, 2, and 3) – eight five-digit NAICS codes.
- High OIS Inspection Numbers with High BLS Amputation Rates and High OIS Employer Reported Amputation Numbers (Categories 1, 2, and 4) – 11 five-digit NAICS codes.
- High OIS Inspection Numbers with High BLS Amputation Numbers and High OIS Employer Reported Amputation Numbers (Categories 1, 3, and 4) – 27 five-digit NAICS codes.
- High BLS Amputation Rates with High BLS Amputation Numbers and High OIS Employer Reported Amputation Numbers (Categories 2, 3, and 4) – nine five-digit NAICS codes.

After eliminating overlap between the criteria results, 27 five-digit NAICS codes remained.

- Eighty-one percent of the 27 five-digit NAICS codes are in manufacturing industries (31-33).
- After expanding the 27 five-digit manufacturing NAICS codes to six-digit NAICS codes, Appendix B represents the 75 six-digit NAICS codes covered under this Amputation NEP.

Appendix B
COVERED NAICS CODES

NAICS CODES	ESTABLISHMENTS
311511	Fluid Milk Manufacturing
311512	Creamery Butter Manufacturing
311513	Cheese Manufacturing
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
311611	Animal (except Poultry) Slaughtering
311612	Meat Processed from Carcasses
311613	Rendering and Meat Byproduct Processing
311615	Poultry Processing
311811	Retail Bakeries
311812	Commercial Bakeries
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing
311991	Perishable Prepared Food Manufacturing
311999	All Other Miscellaneous Food Manufacturing
321113	Sawmills
321114	Wood Preservation
321212	Softwood Veneer and Plywood Manufacturing
321213	Engineered Wood Member (except Truss) Manufacturing
321214	Truss Manufacturing
321219	Reconstituted Wood Product Manufacturing
321911	Wood Window and Door Manufacturing
321912	Cut Stock, Resawing Lumber, and Planing
321918	Other Millwork (including Flooring)
321920	Wood Container and Pallet Manufacturing
322211	Corrugated and Solid Fiber Box Manufacturing
322212	Folding Paperboard Box Manufacturing
322219	Other Paperboard Container Manufacturing
326121	Unlaminated Plastics Profile Shape Manufacturing
326122	Plastics Pipe and Pipe Fitting Manufacturing
326191	Plastics Plumbing Fixture Manufacturing
326199	All Other Plastics Product Manufacturing

NAICS CODES	ESTABLISHMENTS
327331	Concrete Brick and Block Manufacturing
327332	Concrete Pipe Manufacturing
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
331221	Rolled Steel Shape Manufacturing
331222	Steel Wire Drawing
332111	Iron and Steel Forging
332112	Nonferrous Forging
332114	Custom Roll Forming
332117	Powder Metallurgy Part Manufacturing
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)
332311	Prefabricated Metal Building and Component Manufacturing
332312	Fabricated Structural Metal Manufacturing
332313	Plate Work Manufacturing
332321	Metal Window and Door Manufacturing
332322	Sheet Metal Work Manufacturing
332323	Ornamental and Architectural Metal Work Manufacturing
332710	Machine Shops
332721	Precision Turned Product Manufacturing
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
332991	Ball and Roller Bearing Manufacturing
332992	Small Arms Ammunition Manufacturing
332993	Ammunition (except Small Arms) Manufacturing
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing
332996	Fabricated Pipe and Pipe Fitting Manufacturing
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
333120	Construction Machinery Manufacturing
333241	Food Product Machinery Manufacturing
333242	Semiconductor Machinery Manufacturing
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing
333244	Printing Machinery and Equipment Manufacturing
333249	Other Industrial Machinery Manufacturing
333511	Industrial Mold Manufacturing
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
333515	Cutting Tool and Machine Tool Accessory Manufacturing

NAICS CODES	ESTABLISHMENTS
333517	Machine Tool Manufacturing
333519	Rolling Mill and Other Metalworking Machinery Manufacturing
336211	Motor Vehicle Body Manufacturing
336212	Truck Trailer Manufacturing
336213	Motor Home Manufacturing
336214	Travel Trailer and Camper Manufacturing
337110	Wood Kitchen Cabinet and Countertop Manufacturing
337211	Wood Office Furniture Manufacturing
337212	Custom Architectural Woodwork and Millwork Manufacturing
337214	Office Furniture (except Wood) Manufacturing
337215	Showcase, Partition, Shelving, and Locker Manufacturing