

**OREGON OCCUPATIONAL SAFETY AND HEALTH DIVISION  
DEPARTMENT OF CONSUMER AND BUSINESS SERVICES**

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**PROGRAM DIRECTIVE**

**Program Directive:** A-280

**Issued:** February 4, 2011

**Revised:** June 1, 2020

- SUBJECT:** **National Emphasis Program (NEP) on Amputations**
- PURPOSE:** This directive describes policies and procedures for implementing a National Emphasis Program (NEP) to identify and reduce workplace machinery and equipment hazards which may cause amputations.
- SCOPE:** This directive applies to all of Oregon OSHA.
- REFERENCES:** (See Appendix D)
- ACTION:** The Statewide Safety Enforcement Manager and field enforcement managers must ensure that Oregon OSHA employees follow the procedures established in this directive when conducting programmed inspections.
- APPLICATION:** This directive applies to general industry workplaces with machinery or equipment likely to cause amputations. See Appendix C (not inclusive) for guidance on the types of machinery or equipment most often associated with amputations.
- BACKGROUND:** Primary causes of amputation are failure to properly apply machine guarding techniques or to adequately control hazardous energy during servicing and/or maintenance activities.
- Injuries involving machinery and/or equipment often result in death or permanent disability, as indicated by Oregon OSHA's inspection history.
- TARGETING/SITE SELECTION:** Inspections conducted under this NEP will be scheduled and conducted in workplaces where:
- There is machinery and/or equipment that cause (or are capable of causing) amputations, or
  - Amputations have occurred.

**Developing Inspection Lists:** Using the most recent available employer information, a master list of establishments will be developed using the identified NAICS codes in Appendix A of this directive.

The enforcement analysts can add to the master list of general industry establishments where amputation injuries or fatalities related to machinery and/or equipment have occurred based on Oregon data. Local evidence of amputations are based on OSHA Technical Information System (OTIS) accident data and, if available, workers' compensation data, OSHA 300 data, NIOSH data, and other reliable sources of information (e.g., reports of amputations from hospital admissions, emergency medical services, fire department, and police reports).

Based on local knowledge, field office managers may make the determination to DATA ERROR establishments that are not likely to have targeted machinery and/or equipment, or firms known to be out of business, documenting the basis for the determinations. Compliance safety and health officers (CSHOs) will proceed with the programmed inspection when it is determined that a new business is using the same plant and equipment of the previous business. Further, any establishment, other than those where amputations are known to have occurred, that had a comprehensive safety inspection in the previous 36 months, will be deleted from the list.

Once the master list with additions and deletions is completed, each establishment is randomized and given a RANK number. The Location Detail Reports will show if the employer is on any other fixed industry scheduling or emphasis list.

Inspections may then be scheduled from the emphasis list. Establishments on the list will be inspected in order, however, the field office manager(s) will ensure resources are efficiently used and may inspect out of order. Once a list has been run, all establishments in the list will be inspected before a new list is run, except for any carryovers that are allowed. (Run 1 or Run 2, etc.) A new list will be run at least annually.

**NATIONAL DATA  
SELECTION  
CRITERIA:**

The targeting methodology includes federal OIS violation data from the following standards: [1910.147](#), *The Control of Hazardous Energy (Lockout/Tagout)*; [1910.212](#), *General Requirements for all Machines*; [1910.213](#), *Woodworking Machinery*; [1910.217](#), *Mechanical Power Presses*; and [1910.219](#), *Mechanical Power-Transmission Apparatus*. These standards are combined with BLS amputation numbers and rates (See Appendix B).

## **INSPECTION PROCEDURES:**

Inspections initiated under this NEP will be programmed, planned inspections and will be scheduled and conducted in accordance with provisions of the Field Inspection Reference Manual (FIRM), except as noted below.

Once an inspection has been scheduled and assigned for the identified establishment, the CSHO will search the employer database for the employer's citation and fatality/accident history prior to the opening conference. This review is to determine if anything covered in this NEP (amputations or lockout tagout) has been covered in previous inspections. This information will be used to further indicate if that employer will be Data Errored or deleted from the list for that year.

At the opening conference, the CSHO will verify with the employer whether any machinery and/or equipment in Appendix C or any other machinery and equipment that could cause amputations is present. If any machinery and equipment associated with amputations are present in the workplace, the CSHO should exercise professional judgment in conducting an inspection of the machinery and/or equipment with particular attention to employee exposure to nip points, pinch points, shear points, cutting actions, and other point(s) of operation. The CSHO should consider and evaluate employee exposures during any of the following:

- Regular operation of the machine;
- Setup/threading/preparation for regular operation of the machine;
- Clearing jams or upset conditions;
- Making running adjustments while the machine is operating;
- Cleaning the machine;
- Oiling or greasing the machine or machine pans;
- Scheduled/unscheduled maintenance; and
- Locking out or tagging out.

Before proceeding with the inspection, review OSHA 300 log(s) to identify recorded amputations associated with machinery and equipment.

Inspections are scheduled beginning with the current fiscal year, and will continue until further notice or until all establishments on the list have been inspected.

### **Complaints and Referrals:**

Every complaint or referral for any operation where there is the potential for exposure must be handled following all policies and procedures set in place. If that employer is also on the regular scheduling list, a comprehensive inspection will be performed.

**TRAINING:** Because of the technical nature of some of these inspections, staff must have adequate training or experience with both general and specific machine guarding concepts and techniques and with hazardous energy control (lockout/tagout) program requirements. In situations that require specific expertise on guarding of specialized equipment, the CSHO or consultant will consult with their manager for guidance.

**RECORDING IN OTIS (Oregon OSHA's database for enforcement data):**

Use the following instructions for completing the appropriate inspection classification for inspections under this NEP.

- A. **Amputation Initiative Only Inspections.** The Inspection Forms must be marked as type "Programmed Planned" and the scope marked as Partial. The "NEP" value "AMPUTATE" must be recorded in under the Emphasis Tab.
- B. **Amputation Initiative Combined with Unprogrammed Inspections.** For all unprogrammed inspections conducted in conjunction with an amputations inspection, the Inspection Forms must be marked as type "Unprogrammed" and the scope marked as Partial with the appropriate Unprogrammed activity identified under the Related/Optional Tab. The "NEP" value "AMPUTATE" must be recorded under the Emphasis Tab.
- C. **Amputation Initiative Combined with NEP or LEP Inspections.** For all programmed inspections such as NEPs and LEPs conducted in conjunction with an amputations inspection, the Inspection Forms must be marked as type "Programmed Planned" and the scope marked as Partial. The "NEP" value "AMPUTATE" must be recorded under the Emphasis Tab. Code any other NEP or LEP with the appropriate codes.
- D. **Amputation Initiative Combined with Scheduling list Inspections.** For all programmed inspections conducted in conjunction with an amputations inspection, the Inspection Forms must be marked as type "Programmed Planned" and the scope marked as **Comprehensive**. The "NEP" value "AMPUTATE" must be recorded under the Emphasis Tab.

**REPORTING WORK-RELATED  
AMPUTATIONS, AVULSIONS,  
OR LOSS OF AN EYE:**

OAR 437-001-0704 has requirements for reporting work-related fatalities, hospitalizations, amputations, avulsions, or losses of an eye which went into effect on Jan. 1, 2016. **As part of this NEP**, if a report of amputation is received and the employer's classified activity is one of the identified NAICS codes, Oregon OSHA will conduct an inspection. There are two major changes to the former reporting requirements:

- A. First, whereas the former regulation applied to incidents which resulted in one or more fatalities, hospitalizations of three or more employees, or overnight hospitalization of one employee, the regulation is expanded to require the reporting of all work related fatalities, all work-related in patient hospitalizations of one or more employees, all work-related amputations or avulsions, and all work-related losses of an eye.
- B. Second, for any in-patient hospitalization, amputation, avulsion, or eye loss, employers must report the incident within 24 hours of learning about it. Fatalities must be reported within 8 hours of learning of the incident.

For reporting purposes:

- Report an amputation or avulsion only if it includes bone and/or cartilage loss.
- Report an amputation or avulsion only if it occurs within 24 hours of the incident that caused the amputation or avulsion (this also includes medical amputations).
- Report the loss of an eye only if it occurs within 24 hours of the incident that caused the loss

**EFFECTIVE**

**DATE:**

This directive is effective immediately and will remain in effect until cancelled or superseded.

**History:** Issued 2-4-2011 Revised 6-1-2020

- APPENDICES:**
- A – Covered NAICS Codes in this NEP**
  - B - Amputations Targeting Methodology**
  - C - Sources of Amputations: Machinery and Equipment**
  - D - References**

**APPENDIX A**  
**Covered NAICS Codes**

Note: The industry NAICS Codes are listed in ascending numerical order (not in the order of high OIS violations, high BLS amputation numbers or high amputation rates).

NAICS Code	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
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

NAICS Code	ESTABLISHMENTS
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
333514	Cutting Tool and Machine Tool Accessory Manufacturing
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



## APPENDIX B

### AMPUTATIONS TARGETING METHODOLOGY

#### **Selection Process for Industries with Significant Inspection Histories (High OIS<sup>1</sup> Inspection Numbers).**

##### **Category 1.**

1. Federal OSHA selected five standards (29 CFR §§ 1910.147, 1910.212, 1910.213, 1910.217, and 1910.219) that are generally recognized as being related to amputation hazards.
2. Federal OSHA used OIS data covering fiscal years 2015-2018 identified those industries with 40 or more federal OSHA inspections with one or more violations of the standards listed in #1 above.
3. The process yielded 90 five-digit NAICS codes.
4. Oregon OSHA may add or delete as needed.

#### **Selection Process for Industries with High BLS Rates:**

##### **Category 2.**

1. Federal 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.
2. Federal OSHA selected NAICS with BLS incidence rates of 7.5 or greater for amputations for any year.
3. Seven and a half is 2.5 times the average overall rate, for manufacturing, and incidence rate of 3.0 averaged over the four years of data.
4. The process yielded 21 five-digit NAICS codes.

#### **Selection Process for Industries with High BLS Amputation Numbers:**

##### **Category 3.**

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

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

##### **Category 4.**

1. Federal OSHA selected all employer-reported referrals with at least one amputation reported during calendar years 2015 and 2018.

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1 OIS – OSHA Information System (Federal OSHA)

2. Federal OSHA selected NAICS codes with reported amputations of 25 or more per year for calendar years 2015-2018.
3. 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.
4. 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:

1. High OIS Inspection Numbers with High BLS Amputation Rates and High BLS Amputation Numbers (Categories 1, 2, and 3) – eight five-digit NAICS codes.
2. 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.
3. 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.
4. 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 A represents the 75 six-digit NAICS codes covered under this Amputation NEP.

**APPENDIX C**  
(To be used for guidance/not inclusive)

<b>2018 (Table R-25*) Combined Amputation Sources</b>
<b>Sources of Amputations: Machinery and Equipment</b>
Agricultural, garden machinery, bailers
Automobile lifts and hoists
Benders, Rollers and Shapers
Cranes (unspecified)
Construction, Logging, and Mining Machinery
Conveyors – Belt, Chain, and Auger Screw Conveyors
Heating, cooling, and cleaning machinery and appliances
Drills – Stationary
Extruding Machinery
Food and Beverage Processing
Grinders, Abraders, and Meat Grinders
Material and personnel handling machinery
Metal, woodworking, and special material machinery
Milling Machines
Mowing machinery
Mixers, Blenders, Whippers, Slicers, and Food Beverage Processing Equipment
Packing, Wrapping, Bundling Machinery
Press Brakes (All Types)
Presses (Mechanical, Hydraulic, and Pneumatic)
Printing Presses
Sawing Machinery - (Band, Table, Radial Arm Saws)
Shears (All Types)

**\*Bureau of Labor Statistics (BLS) Table R25. Number of nonfatal occupational injuries and illnesses involving days away from work by source of injury or illness and selected natures of injury or illness, private industry, 2018**

## APPENDIX D

### REFERENCES

- A. Oregon OSHA Standards, Division 2, Subdivision J, General Environmental Controls, [1910.147](#), The Control of Hazardous Energy (Lockout/Tagout); [Subdivision O](#), Machinery and Machine Guarding; and [Subdivision P](#), Hand and Portable Powered Tools & Other Hand-Held Equipment
- B. Oregon OSHA Publication 4755, [Foundation of a Safe Workplace](#)
- C. Oregon OSHA Program Directive A-244, [Inspection Criteria: Scheduling Lists for Safety and Health Inspections](#)
- D. Oregon OSHA Program Directive A-156, [Control of Hazardous Energy "Lockout/Tagout"](#)
- E. Oregon OSHA Field Inspection Reference Manual (FIRM)
- F. CPL 03-00-022, National Emphasis Program on Amputations (effective date 12/10/19)  
  
Web topic pages: Machine Guarding and Control of Hazardous Energy  
<http://www.osha.gov/SLTC/machineguarding/index.html>  
<https://osha.oregon.gov/Pages/topics/machine-guarding.aspx>  
<http://www.osha.gov/SLTC/controlhazardousenergy/index.html>  
<https://osha.oregon.gov/Pages/topics/control-of-hazardous-energy.aspx>
- G. Bureau of Labor Statistics (BLS), Table R1. Number of Nonfatal Occupational Injuries and Illnesses Involving Days Away From Work by Industry and Selected Natures of Injury or Illness, (Calendar year 2018) [https://www.bls.gov/web/osh/cd\\_r1.htm](https://www.bls.gov/web/osh/cd_r1.htm)
- H. Bureau of Labor Statistics (BLS), Table R5. Incidence Rates for Nonfatal Occupational Injuries and Illnesses by Involving Days Away From Work per 10,000 Full-Time Workers by Industry and Selected Natures of Injury or Illness, (Calendar year 2018) [https://www.bls.gov/iif/oshwc/osh/case/cd\\_r5\\_2018.htm](https://www.bls.gov/iif/oshwc/osh/case/cd_r5_2018.htm)
- I. Bureau of Labor Statistics (BLS), Table R25. Number of Nonfatal Occupational Injuries and Illnesses Involving Days Away From Work by Source of Injury or Illness and Selected Natures of Injury or Illness, (Calendar year 2018) [https://www.bls.gov/web/osh/cd\\_r25.htm](https://www.bls.gov/web/osh/cd_r25.htm)
- J. Executive Office of the President, North American Industry Classification System, United States, 2017.