

OSHA Webinar - Amputation –  
March 26, 2020 1-3 PM

# OSHA's National Emphasis Program on Amputations in Manufacturing



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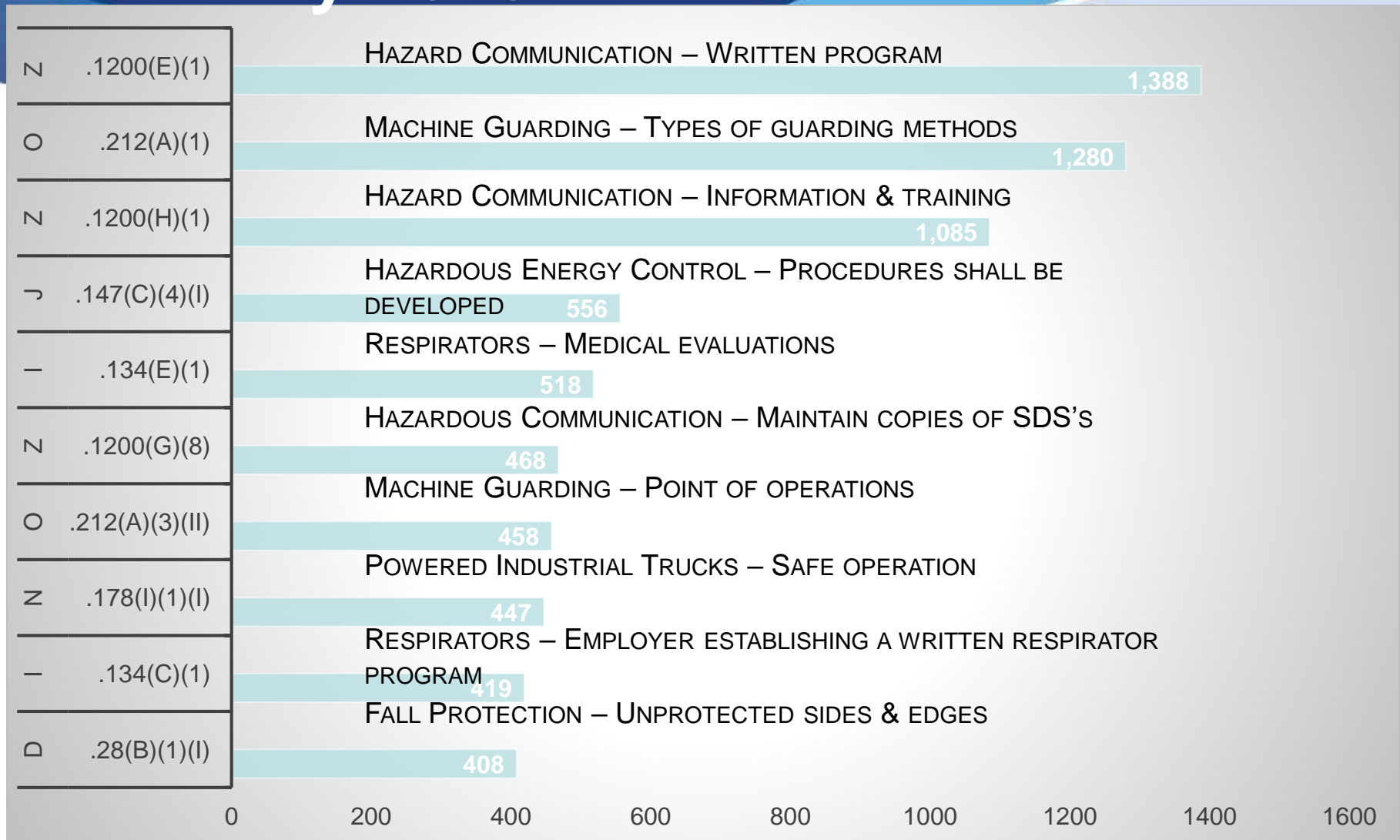
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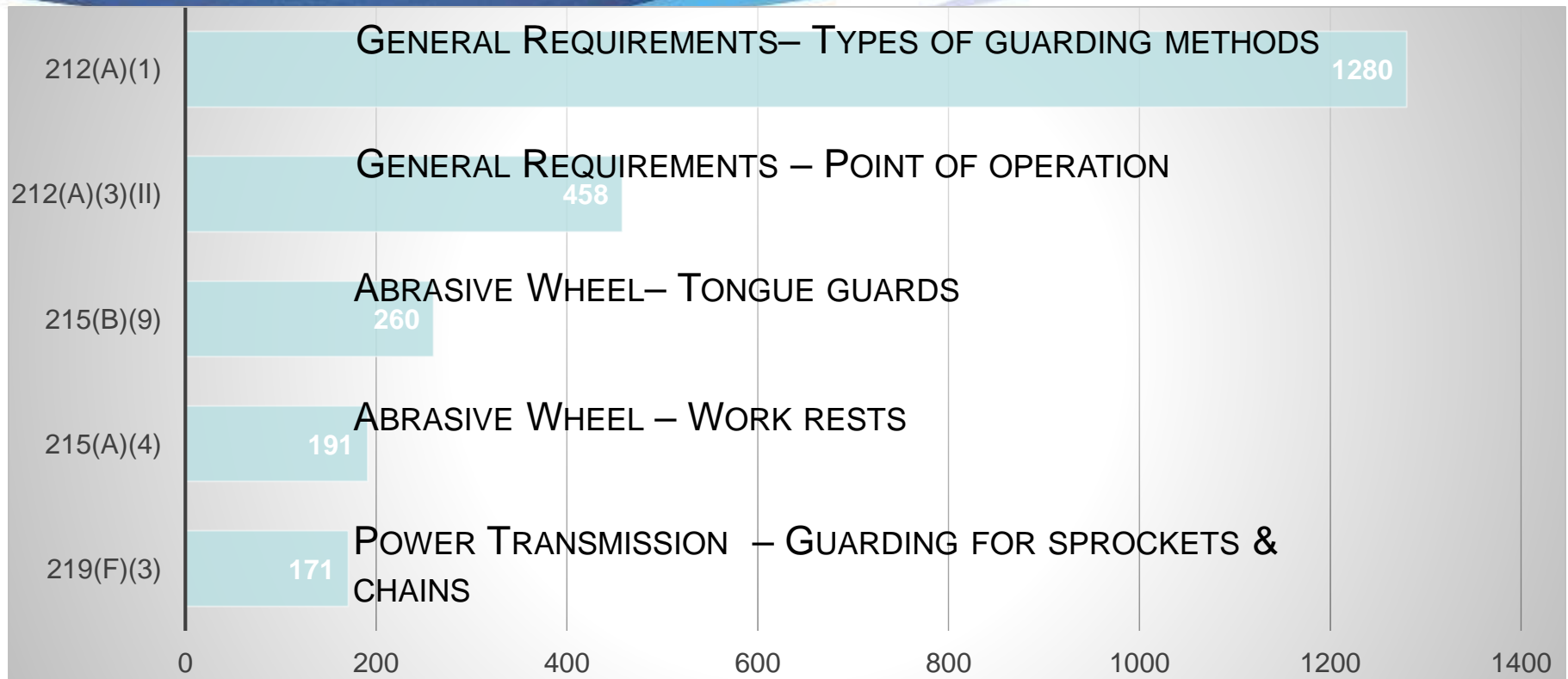
# National Emphasis Program (NEP) Purpose

- NEPs focus OSHA's enforcement activities and do not create any new obligations for employers
- Continues OSHA's NEP to identify and reduce or eliminate amputation hazards in manufacturing industries
- Employees are often injured when machinery/equipment is not properly guarded or maintained
- This NEP targets industrial and manufacturing workplaces with machinery/equipment that can potentially cause amputations

# Most Frequently Cited Serious Violations in General Industry 2019



# Machinery & Machine Guarding [1910.211 – .219]



# Updated National Emphasis Program on Amputations in Manufacturing Industries

- It replaces the previous NEP, released in August 2015, which had expired on September 30, 2019.
- The new NEP will expire on December 10, 2024.

# Updated National Emphasis Program on Amputations in Manufacturing Industries

- The enforcement process is unchanged
- Inspectors will go about conducting an inspection in the same way as done previously.
- However, Voluntary Protection Programs (VPP) status will no longer exempt an employer's worksite from an NEP inspection.

# Significant Changes from 2015 NEP

The old NEP selected manufacturing industries using three criteria.

1. **Significant inspection histories** (40 or more federal inspections in the past 8 years),
2. **High BLS rates** (10.0 or greater incident rate for amputations in any given year)
3. **High BLS numbers** (50 or more amputations per year)

# The new NEP tweaks two of the old three criteria and adds a fourth.

1. Significant inspection histories now means 40 or more federal inspections in the **past 4 years**, not 8 years.
2. High BLS rates now means a **7.5 of greater incident rate** for amputations in a given year, not 10.0.
3. High BLS numbers (50 or more amputations per year)
4. Manufacturing industries that reported 25 or more amputations to federal OSHA in a calendar year from 2015–2018.



# Who is Covered?

- **Companies in industries in NAICS codes listed in Appendix B**
- **OSHA will not conduct inspections at establishments with 10 or fewer employees**

# National Emphasis Program On Amputations in Manufacturing Industries

- Ultimately, even employers in NAICS code industries no longer included in the new NEP may want to keep in mind that businesses can have more than one NAICS code any may still be covered by the new NEP.
- Ready-mix concrete manufacturers, for example, may be off the new NEP, but if they have any concrete brick, block, or pipe manufacturing operations, they are back on the NEP under a different industry code.

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

## Covered Industries: Appendix B

\* New in 2019 NEP



# Covered Industries: Appendix B (cont'd)

\* New in 2019 NEP

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

## Covered Industries: Appendix B (cont'd)

\* New in 2019 NEP

# Site Selection



- The OSHA National Office will provide each Area Office with software and a database that includes the establishments in covered NAICS codes.
- A master list will be generated using the Establishment Targeting List-Generation System.

# Site Selection

- Based on local evidence, Area Offices may add manufacturing establishments (regardless of NAICS codes) to the master list where amputation injuries or fatalities have occurred in the five years preceding Dec. 10, 2019.
- Area Offices must delete establishments with 10 or fewer employers from the master list.
- Based on local knowledge, Area Offices may also delete establishments not likely to have targeted machinery and equipment



# Inspection Procedures: Opening Conference



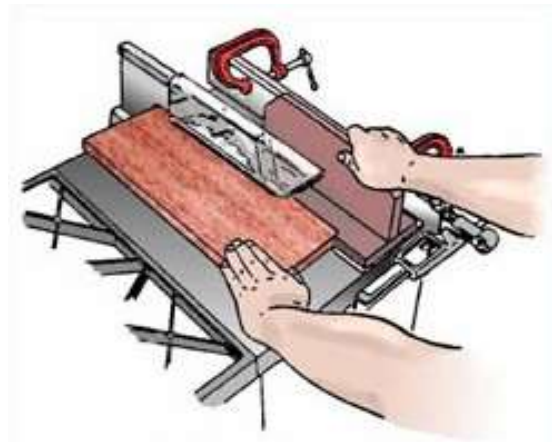
- CSHO verifies NAICS code of site, number of employees, and whether any machinery or equipment that could cause amputations is present.
- CSHO reviews OSHA 300 logs and 301 incident reports for current and previous 3 years.
- CSHO will conduct inspection unless the site NAICS code is not listed in Appendix B, the CSHO determines there are no amputation hazards, or there are 10 or fewer employees



# Inspection Procedures: Walkaround

If machinery or equipment associated with amputations is present, CSHO will pay particular attention to employee exposure to:

- nip points
- pinch points
- shear points
- cutting action
- other points of operation



# Exposure During Tasks:

- 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 of the machine;
- Oiling or greasing of the machine or machine pans;
- Scheduled/unscheduled maintenance; and
- Locking out or tagging out.

# Why Task Related?

- Consider Guarded by Location
- May have Substantial Guard but to unjam, clear, service or maintain, the guard is removed.
- If Guards need to be removed, Why?:
  - Modifying or Increasing Guards
  - Relocating Grease Points or Service Point
  - Retraining

# Conveyors – Inrunning Nip Points



Amputation Occurred –  
Now guarded on the  
Under Side



**May Consider  
Guarded by Location  
for Daily Operation**

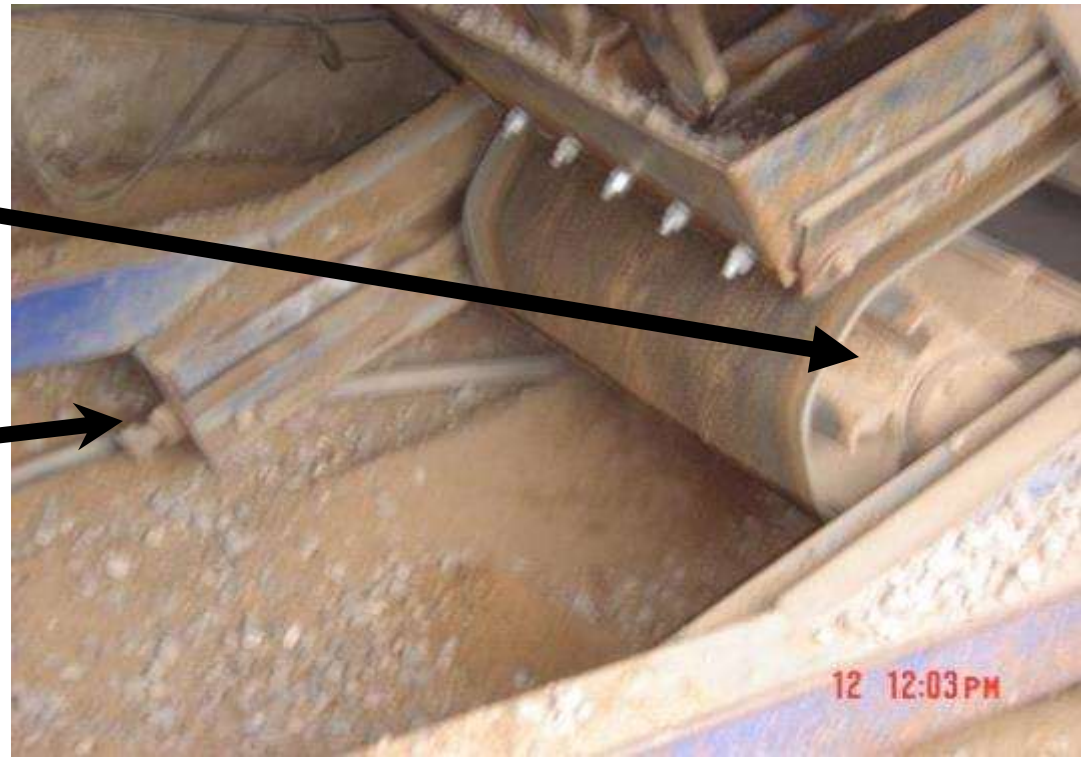


# Maintenance Task

- Tracking the Belt of a Tail Pulley: “On the Fly”
- If guarded, guard is *typically* removed:

Unguarded  
Fluted Conveyor

Adjustment Nut





# Augers and Palletizers



Head or Top Rotates or  
Swings Automatically

# Power Transmission 1910.219



Maintenance Workers Exposed to  
Auxiliary Equipment – Roof Tops



Improved B&P Guard AFTER amputation



# General Machine vs. Point of Operation vs. Mechanical Power Transmission

- **Machine guarding. 1910.212(a)(1)** 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. Examples of guarding methods are-barrier guards, two-hand tripping devices, electronic safety devices, etc.
- **1910.212(a)(3)(i)** Point of operation is the area on a machine where work is actually performed upon the material being processed. **1910.211(a)(1)** "**Point of operations**" means that point at which cutting, shaping, boring, or forming is accomplished upon the stock.
- **1910.219 Power transmission apparatus:** all components of the mechanical system that transmit energy to the part of the machine performing the work. These components include flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.

# Amputations Resources

## OSHA Resources:

Safety and Health Topics Page: [Machine Guarding](#)

eTool: [Machine Guarding](#)

Booklet: [Safeguarding Equipment and Protecting Workers from Amputations](#), OSHA Publication 3170 (2007)

### ■ Fact Sheets:

- [Amputations](#) (2012)
- [Preventing Cuts and Amputations from Food Slicers and Meat Grinders](#) (2015)

QuickCard: [Amputations](#) (English and Spanish) (2015)

### Safety and Health Information Bulletins:

- [Hazards Associated with Hand-Feeding Bar Straightening Machines](#) (2004)
- [Hazards Associated with the "Unintended \(Double\) Cycling" of Mechanical Power Presses](#) (2010)
- [Hazards of Operating Unguarded Stone Cutters and Splitters in Landscaping and Other Worksites](#) (2013)
- [Potential Hazards Associated with the Use of Replacement Materials for Machine Guarding](#) (2000)

# Reporting Amputations to OSHA

**All employers must notify OSHA when an employee is killed on the job or suffers a work-related hospitalization, **amputation**, or loss of an eye (29 CFR 1904.29)**

OSHA defines “amputation” as the traumatic loss of a limb or other external body part. Amputations include a part, such as a limb or appendage, that has been severed, cut off, amputated (either completely or partially); fingertip amputations with or without bone loss; medical amputations resulting from irreparable damage; amputations of body parts that have since been reattached. Amputations do not include avulsions, enucleations, degloving, scalpings, severed ears, or broken or chipped teeth.

# How to Report Fatalities and Severe Injuries

- During business hours, call the nearest OSHA office
- Or call the OSHA 24-hour hotline 1-800-321-6742 (OSHA)
- Or report online at [osha.gov/report](https://www.osha.gov/report)



# Compliance Assistance

## OSHA helping employers

- Work out of OSHA's Area Offices
- Provide general information about OSHA's standards and compliance assistance resources
- Available for seminars, workshops, and speaking events



# OSHA Compliance Assistance Resources

- Machine Guarding eTool and Topics Page
- Booklet: Safeguarding Equipment and Protecting Workers from Amputation (Pub. 3170)
- Amputations QuickCard
- Fact Sheets
- Safety and Health Information Bulletins





# New Compliance Assistance Resources

Occupational Safety and Health Administration

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## New Compliance Assistance Products

The following are some of OSHA's recently issued or updated compliance assistance products. Many publications with an OSHA publication number can be downloaded or ordered from the [OSHA Publication](#) page. They can also be ordered by telephone from the OSHA Publications Office at (202) 693-1888 or (800) 321-OSHA (6742).

- [Booklets and Guidance Documents](#)
- [Cards](#)
- [Fact Sheets](#)
- [Frequently Asked Questions](#)
- [Posters](#)
- [Safety and Health Information Bulletins](#)
- [Stickers](#)
- [Training Resources](#)
- [Videos](#)
- [Web Pages](#)

-  [Quarterly New Resources Reports](#)
-  [New Products Archive](#)



Videos: [Controlling Silica Dust in Construction Table 1 Tasks](#)

Video: [Protecting Workers From Silica Hazards in the Workplace](#)

[Sample Silica Training Presentation for Construction \(PPTX\)](#)

**Safety and Health Programs**

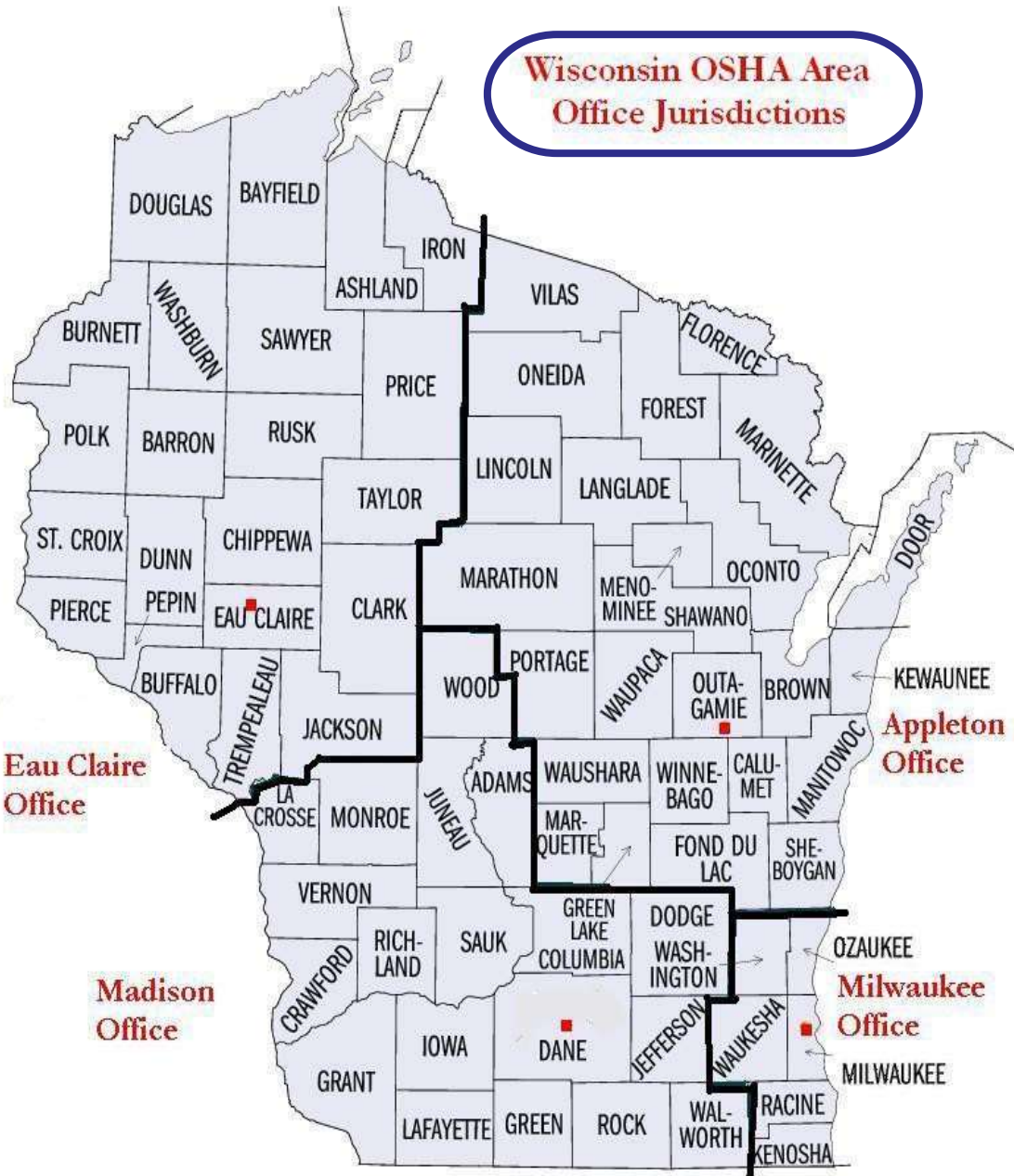
 **Silica**

**Confined Spaces**

**Temporary Workers**

[www.osha.gov/employers](http://www.osha.gov/employers) (See Quick Links on top right)

## Wisconsin OSHA Area Office Jurisdictions



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