

IOSH Local Emphasis Program

IA/LEP 2 -

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 - Directive Number: **IA/LEP 2**
 - Subject: **Local Emphasis Program on Amputations**
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IOWA OSHA IA/LEP

Workforce Development Department

Iowa Occupational Safety and Health Administration

ABSTRACT

- Purpose:** To establish an inspection targeting system for implementing a Local Emphasis Program (LEP) to identify and to reduce workplace machinery and equipment hazards which are causing or likely to cause amputations.
- References:** OSHA Instruction CPL 04-00-001, (CPL 2-0.102A), November 11, 1999, Procedures for Approval of Local Emphasis Programs (LEPs)
- Cancellations:** Local Emphasis Program on Amputations IA/LEP 2, April 3, 2009
- Action Office:** State of Iowa
- Originating Office:** State of Iowa
- Contact:** (515) 281-8066

By and Under the Authority of

**Jens J. Nissen
IOSH Administrator**

TABLE OF CONTENTS

I.	PURPOSE.....	1
II.	SCOPE.....	1
III.	REFERENCES.....	1
IV.	CANCELLATIONS.....	2
V.	APPLICATION.....	2
VI.	BACKGROUND.....	2
VII.	PROGRAM PROCEDURES.....	2
VIII.	SCHEDULING AND RESOURCE ALLOCATION.....	8
IX.	CONSULTATION PROGRAMS.....	9
X.	PROGRAM EVALUATION.....	9
XI.	RELATIONSHIP TO OTHER PROGRAMS.....	9
XII.	RECORDING AND TRACKING.....	10
XIII.	APPENDICES.....	11
	APPENDIX A.....	A-1
	APPENDIX B.....	B-1
	APPENDIX C.....	C-1

- I. Purpose. This instruction describes policies and procedures for implementing a Local Emphasis Program (LEP) to identify and to reduce workplace machine and equipment hazards which are causing or likely to cause amputations.
- II. Scope. This Directive applies State-wide.
- III. References.
 - A. OSHA Instruction CPL 04-00-001 (CPL 2-0,102A), November 11, 1999, Procedures for Approval of Local Emphasis Programs (LEPs).
 - B. Iowa OSHA Standards 1910, Subpart J, General Environmental Controls, §1910.147, The Control of Hazardous Energy (Lockout/Tagout).
 - C. Iowa OSHA Standards 1910, Subpart O, Machinery and Machine Guarding.
 - D. Iowa OSHA Standards 1910, Subpart P, Hand and Portable Powered Tools & Other Hand-Held Equipment.
 - E. OSHA's Safety and Health Management Guidelines, 54 FR 3904, January 26, 1989.
 - F. OSHA Instruction CPL 02-00-025, January 4, 1995, Scheduling System for Programmed Inspections.
 - G. OSHA Instruction CPL 02-00-147, February 11, 2008, 29 CFR 1910.147, The Control of Hazardous Energy – Enforcement Policy and Inspection Procedures.
 - H. Iowa OSH Instruction IACPL 02-00-150, March 1, 2012, IOSH Field Operations Manual (FOM).
 - I. OSHA Publication 3157, A Guide for Protecting Workers from Woodworking Hazards.
 - J. OSHA Safety and Health Topics Web Page, Machine Guarding, <http://www.osha.gov/SLTC/machineguarding/index.html>
 - K. OSHA Safety and Health Topics Web Page, Control of Hazardous Energy, <http://www.osha.gov/SLTC/controlhazardousenergy/index.html>
 - L. OSHA Instruction CPL 02-00-051, Enforcement Exemptions and Limitations under the Appropriations Act, and Appendix A, January 30, 2015, or most recent version.
 - M. 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, 2009, 2010, 2011, 2012, and 2013.

- N. 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 2009, 2010, 2011, 2012, and 2013).
 - O. 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 2009, 2010, 2011, 2012 and 2013).
 - P. Executive Office of the President, Standard Industrial Classification Manual, 1987.
 - Q. Executive Office of the President, North American Industry Classification System, United States, 1997.
 - R. Executive Office of the President, North American Industry Classification System, United States, 2002.
 - S. Iowa Code, Chapter 88 Occupational Safety and Health Act.
- IV. Cancellations. Local Emphasis Program on Amputations IA/LEP 2, April 3, 2009.
- V. Application. This instruction applies to general industry workplaces identified pursuant to paragraph VII(B)(4), where **any** machinery and equipment that are likely to cause amputations are present (See Appendix D (not all inclusive) for guidance on the types of machinery and equipment most often associated with amputations).
- VI. Background. The failure to properly apply machine guarding techniques and the failure to adequately control associated energy hazards during servicing and/or maintenance activities are primary causes of amputations. Iowa OSHA has determined that its system for scheduling amputation investigations should be revised to better target industries with amputation hazards. Iowa OSHA has adopted Federal OSHA’s targeting methodology to identify additional industries to further reduce the number of amputations and fatalities.
- The operation of machinery and equipment can be extremely dangerous, and compliance with Iowa OSHA’s machine guarding and hazardous energy control standards needs to be improved. Injuries involving machinery and equipment often result in death or permanent disability, and Iowa OSHA’s inspection history indicates that employee exposures to unguarded or inadequately guarded machinery and equipment, together with associated hazardous energy employee exposures during servicing and maintenance activities, occur in many workplaces. Subparts J, O, and P of 1910 provide for safety measures that need to be used for the safe operation, servicing and maintenance of machinery and equipment. Machinery and equipment are covered by standards such as, but not limited to, §1910.147, §1910.212, §1910.213, §1910.217, and §1910.219.
- VII. Program Procedures. This LEP includes three major activities: outreach, targeting/site selection, and inspection procedures.

- A. Outreach. Iowa OSHA will continue to offer outreach programs that support the purpose of this LEP to identify and reduce workplace hazards associated with all types of machinery and equipment. Outreach programs with employers, professional associations, and local unions may include meetings, training, education, mailings, speeches or other activities designed to involve employee and management stakeholders in the identification and elimination of hazards associated with machinery. Employers with ten or fewer employees will be included in the outreach effort. Outreach materials may either be mailed directly, or made available upon request, to employers, professional associations, and local unions.
- B. Targeting/Site Selection. Inspections conducted under this LEP must be scheduled and conducted pursuant to the following priorities:
1. The intent of the LEP is to target workplaces with machinery and equipment that cause (or are capable of causing) amputations and workplaces where amputations have occurred, in order to reduce amputation injuries while maximizing Iowa OSHA's inspection resources. Section VII (B)(5) lists the target industries by NAICS code. Enforcement activities will be scheduled and conducted following the guidelines set forth in CPL 02-00-051, Enforcement Exemptions and Limitations under the Appropriations Act using the most recent listing of the North American Industry Classification System (NAICS) codes found in Appendix A of CPL 02-00-051.
 2. Employers with ten or fewer employees company-wide are not subject to programmed inspections per this Directive, but are to be included in the outreach effort. Employers with ten or fewer employees at all times during the previous 12 months company-wide are subject to a referral inspection as outlined below if the employer's NAICS code is not listed in Appendix A of CPL 02-00-051. Employers with greater than 10 employees company-wide at any time during the previous 12 months are subject to an inspection per this Directive.
 3. Inspections (Referral Inspections) will continue to be scheduled from daily data provided by Iowa's Workers Compensation Division (Amputation/Death Reports), incidents reported in accordance with the Occupational Injury and Illness Recording and Reporting requirements (1904.39), and reports from other reliable sources of information, e.g. reports of amputations from hospital admissions, emergency medical services, fire departments and police reports. If an employer/establishment experiences an amputation in the workplace and IOSHA conducts an inspection, the inspection will be limited to the machinery involved in the amputation unless the establishment falls within the NAICS codes identified in this Directive. If the establishment is within those NAICS codes, and the employer has had more than 10

employees company-wide at any time during the previous 12 months, then all equipment/machinery which pose an amputation hazard will be inspected pursuant to this Directive. If the employer has had ten or fewer employees company-wide at all times during the previous twelve months the inspection will be limited to the machinery involved in the amputation. If the establishment has undergone a comprehensive safety inspection or inspection of all equipment which pose an amputation hazard per this Directive within the previous three years, only the equipment involved in the amputation will be addressed. An investigation may not be conducted for the following reasons:

- a. Information received is a duplicate of previously received information.
 - b. Not enough information is received to determine if an amputation actually occurred or the information appears to be incorrectly coded and contact cannot be made with the employer or employee.
 - c. The length of time between the date of accident and receipt of the report is 5 months or greater.
 - d. The accident appears to be of a non-controllable (not covered by an Iowa OSHA standard) nature.
 - e. In accordance with the Occupational Injury and Illness Recording and Reporting requirements 1904.39(b)(11) the nature of injury does not involve an amputation.
 - f. The amputation occurred outside the State of Iowa.
 - g. The type of business involved is a farming operation with 10 or fewer employees at all times in the previous twelve months (see CPL 02-00-051 section X).
 - h. The employer has had 10 or fewer employees at all times in the previous twelve months and its NAICS code is included in Appendix A of CPL 02-00-051.
4. The Workforce Data and Business Development Bureau of Iowa Workforce Development will prepare a master list of establishments using the identified NAICS codes referenced at Section VII(B)(5) of this Directive.

Establishments on the master list are arranged alphabetically by company name. The list is then randomized and maintained by the Iowa Division of Labor Management Information section. Iowa OSHA will request from the Iowa Division of Labor Management Information section cycles of five to fifty employers from the random number table. Any establishment which had a comprehensive safety inspection or an inspection which involved all the equipment/machinery in accordance with this directive in the previous 36 months of generating the cycle will be deleted from the list.

Inspections may then be scheduled using the first cycle list. Establishments on the cycle list may be inspected in any order, so that resources are efficiently used. Once a cycle has begun, all establishments in the cycle will be inspected before a new cycle is begun, except for carryovers that will be allowed as provided in OSHA Instruction CPL 02-00-025 at paragraph B.1.b.(1)(e).

Based on local knowledge, establishments that are not likely to have the targeted machinery and equipment, or firms known to be out of business may be deleted, documenting the basis for such determinations. CSHOs will proceed with the programmed inspection where it has been determined that a new business is using the same plant and equipment of the previous business.

5. The following updated NAICS Codes were derived through a progression of evaluating data from primarily four factors:
 1. OSHA’s Integrated Management and Information System (IMIS)
 2. OSHA’s Information System (OIS)
 3. High Amputation rates from the Bureau of Labor and Statistics (BLS)
 4. High Amputation numbers from BLS

See Appendix C: Amputations Targeting Methodology for further explanation of the targeting methodology.

2012 NAICS	2012 Corresponding Index Entries
332710	Machine Shops
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
332311	Prefabricated Metal Building and Component Manufacturing
332312	Fabricated Structural Metal Manufacturing
332313	Plate Work Manufacturing
323111	Commercial Printing (except Screen and Books)
323113	Commercial Screen Printing
323117	Books Printing
332321	Metal Window and Door Manufacturing
332322	Sheet Metal Work Manufacturing
332323	Ornamental and Architectural Metal Work Manufacturing

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)
321113	Sawmills
321114	Wood Preservation
321911	Wood Window and Door Manufacturing
321912	Cut Stock, Resawing Lumber, and Planing
321918	Other Millwork (including Flooring)
321920	Wood Container and Pallet Manufacturing
311611	Animal (except Poultry) Slaughtering
311612	Meat Processed from Carcasses
311613	Rendering and Meat Byproduct Processing
311615	Poultry Processing
337110	Wood Kitchen Cabinet and Countertop Manufacturing
322211	Corrugated and Solid Fiber Box Manufacturing
322212	Folding Paperboard Box Manufacturing
322219	Other Paperboard Container Manufacturing
327390	Other Concrete Product Manufacturing
311811	Retail Bakeries
311812	Commercial Bakeries
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing
337121	Upholstered Household Furniture Manufacturing
337122	Nonupholstered Wood Household Furniture Manufacturing
337124	Metal Household Furniture Manufacturing
337125	Household Furniture (except Wood and Metal) Manufacturing
337127	Institutional Furniture Manufacturing
327320	Ready-Mix Concrete Manufacturing
311511	Fluid Milk Manufacturing
311512	Creamery Butter Manufacturing
311513	Cheese Manufacturing
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
326111	Plastics Bag and Pouch Manufacturing
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing

336211	Motor Vehicle Body Manufacturing
336212	Truck Trailer Manufacturing
336213	Motor Home Manufacturing
336214	Travel Trailer and Camper Manufacturing
322220	Paper Bag and Coated and Treated Paper Manufacturing
311991	Perishable Prepared Food Manufacturing
311999	All Other Miscellaneous Food Manufacturing
333111	Farm Machinery and Equipment Manufacturing
333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
311411	Frozen Fruit, Juice, and Vegetable Manufacturing
311412	Frozen Specialty Food Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
334514	Totalizing Fluid Meter and Counting Device Manufacturing
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
334519	Other Measuring and Controlling Device Manufacturing
333611	Turbine and Turbine Generator Set Units Manufacturing
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
333613	Mechanical Power Transmission Equipment Manufacturing
333618	Other Engine Equipment Manufacturing
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
326160	Plastics Bottle Manufacturing
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing

C. Inspection Procedures. Inspections initiated under this LEP will be scheduled and conducted in accordance with provisions of the FOM, except as noted below.

1. Once an inspection has been scheduled and assigned for the identified establishment, the Iowa OSHA case files and OSHA Public Inspection Data Web Page should be reviewed for the employer's citation and fatality/accident history prior to the opening conference.
2. At the opening conference, the CSHO will verify with the employer whether any of machinery and equipment in Appendix B or any other machinery and equipment that could cause amputations are present in the workplace. If any machinery and equipment associated with amputations are present in the workplace, the CSHO shall conduct an inspection of the machinery and equipment with particular attention to employee exposure to nip points, pinch points, shear points, cutting actions, and other point(s) of operation. The CSHO shall also 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 of the machine;
 - Oiling or greasing of the machine or machine pans;
 - Scheduled/unscheduled maintenance; and
 - Locking out or tagging out.
3. The CSHO shall review all relevant OSHA 300 logs at the establishment for amputations associated with machinery and equipment. The CSHO shall also evaluate the employer's safety and health programs in accordance with the FOM and any lockout/tagout program.
4. The IOSH Administrator, IOSH Public Service Managers, and CSHOs should ensure that the requirements for case development in Chapter 5 of the FOM (including significant cases) are being met.

VIII. Scheduling and Resource Allocation.

- A. Priority. Inspections initiated due to referrals, as described in VII.B.3. of this Directive have a higher priority than inspections conducted under other scheduled programmed inspections from regular targeting initiatives. When possible, inspections conducted under this LEP will be combined with other programmed and unprogrammed inspections. This LEP may be combined with other existing

initiatives, such as other Local Emphasis Programs which identify targets on a different basis.

- B. Voluntary Protection Program (VPP) Sites. Although this initiative will exempt participating worksites from programmed inspections, it will not exempt them from investigations of referrals as described in VII.B.3. of this Directive. Unless they choose otherwise, VPP sites will be removed from Iowa OSHA's programmed inspection lists of targeted sites, for the duration of approved participation in the VPP. The applicant worksite will be removed from the programmed inspection lists no more than 75 calendar days prior to the commencement of its scheduled pre-approved onsite review. The site will remain off those lists until official denial of the application; applicant withdrawal of its application; or, if the applicant is approved to the VPP, subsequent cessation of active participation in either of the programs.
- C. Iowa OSHA Strategic Partnership Programs (OSP). This initiative does not exempt Non-Construction worksites.

IX. Consultation Programs. The development and implementation of outreach programs for the LEPs may be a joint activity with Iowa OSHA Consultation & Education.

- A. Programmed inspection deferral will be conducted per the IOSH Field Operations Manual, IOSH Instruction IACPL 02-00-150, and IAC 875 Chapter 8. In addition, those employers who request an initial safety visit from the Iowa OSHA Consultation Program will be removed from the compliance scheduling list. It will not exempt them from investigations of referrals as described in VII.B.3. of this Directive. Priority will be given to those employers on the current enforcement cycle list and prioritized in accordance with the Consultation Policy and Procedure Manual (CPPM). Employers who withdraw their Iowa OSHA Consultation request will be returned to the amputation LEP list. Whenever a consultation request/visit is made in response to this LEP, the LEP code "AMPUTATE" must be recorded in the appropriate field on the Consultation request/visit forms. The CPPM and IAC 875 Chapter 8 will be followed when encountering employers who are actively seeking and/or have been approved as participants in the Safety and Health Achievement Recognition Program.

X. Program Evaluation. Evaluations will be conducted annually for the duration of the program to determine the effectiveness of this LEP.

XI. Relationship to Other Programs.

- A. Unprogrammed Inspections. If an unprogrammed (e.g., complaint, fatality or referral) inspection arises with respect to an establishment that is also scheduled to receive a programmed inspection under this LEP, the two inspections may be conducted either concurrently or separately. (See also XII.C.)
- B. Emphasis Programs. Some establishments may be selected for inspection under the Amputation Initiative and also under one or more other Iowa OSHA initiatives

(National Emphasis Program (NEP) or Local Emphasis Program (LEP)). Programs based upon particular hazards (such as silica or hexavalent chromium) or on particular industries (such as logging, scrap yards, or construction) can be run concurrently with the Amputation Initiative.

Whenever an establishment is scheduled for inspection on the Amputation Initiative and on the current cycle of an NEP/LEP plan, the inspections may be scheduled at the same time. CSHOs will apply all applicable OIS codes to the inspection. The employer's DUNS number must also be recorded for each inspection since it is important for tracking.

XII. Recording and Tracking.

- A. Amputation Initiative Inspections from the Targeting List. The inspection must be marked as “programmed planned.” In addition, the State Emphasis Program (SEP) and NEP values “AMPUTATE” must be recorded in OIS. These are also to be appropriately recorded as either comprehensive or partial inspections in the OSHA Information System (OIS).
- B. Amputation Unprogrammed Inspection Combined with an Amputation Initiative Inspection from the Targeting List. For all unprogrammed inspections conducted in conjunction with an Amputation inspection, OIS must be marked as “unprogrammed” with the appropriate unprogrammed activity identified. In addition, the NEP and SEP values “AMPUTATE” must be recorded in OIS.
- C. Amputation Initiative Inspections from the Targeting List Combined with Other NEP or LEP Inspections. For all programmed inspections such as NEPs and LEPs conducted in conjunction with an Amputations inspection, the inspection must be coded "programmed planned." In addition, the NEP and SEP values "AMPUTATE" must be recorded as well as other applicable values.
- D. Complaint Inspections. Whenever an OIS Complaint UPA is completed and the applicable complaint alleges the presence of amputation hazards, complete the OIS UPA in the usual manner, and record “AMPUTATE” in the NEP and SEP fields.
- E. Fatality and Catastrophe Inspections. Whenever an OIS Fat/Cat UPA is completed and the inspecting CSHO is able to identify at the site of the fatality/catastrophe the presence of amputation hazards, complete the OIS Fat/Cat UPA in the usual manner and record “AMPUTATE” in the NEP and SEP fields.
- F. Referral Inspections. Whenever an OIS referral UPA is completed and the applicable referral case has amputation hazards as one of the subjects, complete the OIS Referral UPA in the usual manner and record “AMPUTATE” in the NEP and SEP fields.

XIII. Appendices. The Appendices summarizing this LEP contain information developed to assist employers, employees, and compliance officers in the implementation, training and outreach requirements of this Program. Iowa OSHA may use its discretion in selecting whatever materials it deems appropriate for outreach purposes.

APPENDIX A

Related ANSI and ASME Standards

(This appendix is not an inclusive list of all ANSI and ASME standards that are associated with hazardous machinery and equipment.)

Iowa OSHA recognizes the value of national consensus standards in terms of useful guidance for employers and employees attempting to comply with specific Iowa OSHA standards.

Iowa OSHA's enforcement policy provides that a violation may be *de minimis* if an employer complies with a proposed standard or amendment or a consensus standard rather than with the standard in effect at the time of the inspection, and the employer's action clearly provides equal or greater employee protection. See Iowa OSHA Instruction IACPL 2.103, *Field Inspection Reference Manual*, Chapter III, Paragraph C(2)(g).

1. ANSI B11.1- Mechanical Power Presses
2. ANSI B11.2- Hydraulic Power Presses
3. ANSI B11.3- Power Press Brakes
4. ANSI B11.4- Shears
5. ANSI B11.5- Ironworkers
6. ANSI B11.6- Lathes
7. ANSI B11.7- Cold Headers and Cold Formers
8. ANSI B11.8- Drilling, Milling, and Boring Machines
9. ANSI B11.9- Grinding Machinery
10. ANSI B11.10- Metal Sawing Machines
11. ANSI B11.11- Gear Cutting Machines
12. ANSI B11.12- Roll-Forming and Roll-Bending Machines
13. ANSI B11.14- Coil-Slitting Machines
14. ANSI B11.15- Pipe, Tube, and Shape Bending Machines
15. ANSI B11.16- Metal Powder Compacting Presses
16. ANSI B11.17- Horizontal Hydraulic Extrusion Presses
17. ANSI B11.18- Machinery and Machine Systems for Processing Strip, Sheet, or Plate From Coiled Configuration
18. ANSI B11.19- Safeguarding When Referenced by the Other B11 Machine Tool Safety Standards
19. ANSI B5.37- External Cylindrical Grinding Machines (Centerless)
20. ANSI B5.42- External Cylindrical Grinding Machines (Universal)
21. ANSI B65.1- Printing Press Systems
22. ANSI B65.2- Safety Standard – Binding and Finishing Systems
23. ANSI B65.3- Safety Standard for Guillotine Paper Cutters
24. ANSI B7.1- Use, Care, and Protection of Abrasive Wheels
25. ANSI B151.5- Plastic Film and Sheet Winding Equipment
26. ANSI B151.20- Plastic Sheet Production Machinery
27. ANSI B155.1- Packaging Machinery and Packaging-Related Converting Machinery
28. ANSI B177.1- Three Roller Printing Ink Mills

29. ANSI O1.1- Woodworking Machinery
30. ANSI Z244.1- Control of Hazardous Energy - Lockout/Tagout and Alternative Methods
31. ASME B5.52M- Mechanical Power Presses, General Purpose Single Point
32. ASME B15.1- Mechanical Power Transmission Apparatus
33. ASME B15.1A- Addenda to B15.1
34. ASME B15.1B- Addenda to B15.1
35. ASME B20.1- Conveyors and Related Equipment, with Interpretations A and B
36. ASME B20.1A and B20.1B- Addenda to B20.1
37. ASME/CEMA 350- Screw Conveyors
38. ASME/CEMA 401- Unit Handling Conveyors - Roller Conveyors - Non-Powered
39. ASME/CEMA 402- Unit Handling Conveyors - Belt Conveyors
40. ASME/CEMA 403- Unit Handling Conveyors - Belt Driven Live Roller Conveyors
41. ASME/CEMA 404- Unit Handling Conveyors - Chain Driven Live Roller Conveyors
42. ASME/CEMA 405- Packaging Handling Conveyors - Slant Conveyors

APPENDIX B
(To be used for guidance/not all inclusive)

2012 (Table R-25*) Combined Amputation Sources
Sources of Amputations: Machinery and Equipment
Agricultural, Garden Machinery, Bailers
Aerial Lift Platforms
Benders, Rollers and Shapers
Cranes (unspecified)
Casting Machinery
Conveyors- Belt, Chain, Live Roller, and Auger Screw Conveyors
Heating and Cooking 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
Packaging, Wrapping, Bundling Machinery
Plastic Injection Molding 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, 2012**

APPENDIX C: AMPUTATIONS TARGETING METHODOLOGY

NATIONAL DATA:

Selection Process for Industries with Significant Inspection Histories (High IMIS Numbers and OIS Numbers).

Category 1.

1. OSHA selected five standards (29 CFR 1910.147, .212, .213, .217, and .219) that are generally recognized as being related to amputation hazards.
2. OSHA IMIS data covering fiscal years 2006-2014 identified those industries with 40 or more federal OSHA inspections with one or more violations of the standards listed in #1 above.
3. OSHA limited the range to the NAICS Sector 31-33, Manufacturing. This range encompasses all manufacturing operations and addresses amputation issues.
4. The process yielded 80 5-digit NAICS codes.

Selection Process for Industries with High BLS Rates:

Category 2.

1. OSHA used the most recent five years of BLS Data (Calendar year 2009, 2010, 2011, 2012, and 2013) on incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 100 full-time workers.
2. OSHA limited the range to the NAICS, Manufacturing sector 31-33.
3. OSHA selected NAICS with BLS incidence rates of 10.0 or greater for amputations for any year.
4. The process yielded 10 5-digit NAICS codes.

BLS Data Selection Process for Industries with High BLS Numbers:

Category 3.

1. OSHA used the most recent five years of BLS Data (Calendar year 2009, 2010, 2011, 2012, and 2013) on the number of amputations.
2. OSHA limited the range to the NAICS, Manufacturing sector 31-33.
3. OSHA selected NAICS with BLS numbers of 50 or more amputations per year.
4. The process yielded 26 5-digit NAICS codes.

The 80 6-digit NAICS codes that comprise the scope of this NEP have either High IMIS/OIS Numbers coupled with High BLS Amputation Rates or High IMIS/OIS Numbers coupled with High BLS Amputation Numbers. There are 14 6-digit NAICS codes with high inspection counts and high BLS rates (categories 1 and 2 above). There are 76 6-digit NAICS codes with high inspection counts and high BLS case counts (categories 1 and 3 above). After eliminating the overlap between the two groups, the final total is 80 6-digit NAICS codes.