State of Alaska
Department of Labor and Workforce Development
Division of Labor Standards and Safety

AKOSH Program Directive 16-05

Date: March 25, 2016

To: Ron Anderson, Acting Chief of Enforcement
Krystyna Markiewicz, Chief of Consultation and Training

From: Grey Mitchell, Director

Subject: **AKOSH National Emphasis Program Adoption Amputations**

Purpose:
This directive describes policies and procedures for implementing OSHA's National Emphasis Program (NEP) to identify and reduce workplace machinery and equipment hazards which are likely to cause amputations.

Scope:
This instruction applies to all components of AKOSH.

References:
CPL 03-00-019, National Emphasis Program on Amputations (effective 8/13/15)
AKOSH PD 10-11, AKOSH Emphasis Program on Amputations (effective 8/6/10 – see http://labor.alaska.gov/lss/forms/PD-10-11_P_and_P_Rev_of_National_Emphasis_Program_on_Amputations.pdf)

Action:
This directive takes effect immediately and replaces AKOSH PD 10-11. The AKOSH Enforcement and Consultation and Training section managers must ensure that compliance officers and consultants follow procedures established in this directive when conducting programmed enforcement inspections or assisting employers during consultation visits.

Application:
This directive applies to general industry workplaces with machinery or equipment likely to cause amputations. (See appendix A for guidance on the types of machinery or equipment associated with amputation hazards).

Background:
Amputation hazards are primarily caused by failure to properly apply machine guarding techniques or to adequately control hazardous energy during servicing/maintenance activities. AKOSH's inspection experience over the last few decades indicates that these hazards occur in many workplaces, but are focused on sites which involve employee use, maintenance or repair of heavy equipment, machinery and sharpened tools in processing or manufacturing operations.

Targeting/Site Selection:
Using the most recent available employer information, a master list of establishments will be developed using the identified NAICS codes in Appendix B of this directive. The NAICS codes are established based on federal OSHA violation data from the following standards: 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*; 29 CFR 1910.212, *General Requirements for all Machines*; 29 CFR 1910.213, *Woodworking Machinery*; 29 CFR 1910.217, *Mechanical Power Presses*; and, 29 CFR 1910.219, *Mechanical Power-Transmission Apparatus*. These standards were combined with Bureau of Labor Statistics data to identify industries with high amputation incidence rates. (See Appendix C). The federal OSHA industry targeting methodology is attached as Appendix D.

AKOSH may add to the master list of general industry establishments where amputation injuries or fatalities related to machinery and/or equipment have occurred based on incident data reported to AKOSH and/or maintained by the Alaska Division of Worker's Compensation. Local evidence of amputations are based on Integrated Management Information System (IMIS) 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). In addition to the NAICS targeted codes established by federal OSHA, AKOSH will target the seafood processing industry (NAICS 311711 and 311712) and oil and gas extraction and support industries (NAICS 211111, 211112 and 213112). (See Appendix C). Based on local knowledge, AKOSH may remove 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 enforcement safety inspection in the previous 24 months, will be deleted from the list. Prior to finalization, the target list will be reviewed by the AKOSH Chief of Consultation for removal of any sites that are covered by a Consultation and Training exclusion from programmed/planned enforcement inspections. Once a target list has been

established, all establishments on the list will be inspected before a new target list is established. A new list will be run at least annually.

The master list will be separated into lists within one day's driving distance (60 miles) from Anchorage, Juneau and Fairbanks where regional offices are located. These regional lists will be randomized and sites will be assigned to CSHOs for inspection activity by the Chief of Enforcement. Areas outside of driving distance will be placed on lists by location and those lists will be randomized for assignment by the Chief of Enforcement based on AKOSH travel schedules. Once target lists have been established, establishments will be selected for inspection based on their order on the randomized list and considerations for travel efficiencies to areas outside regional zones.

The lists will be generated at least annually near the beginning of the calendar year and any establishments that have been inspected under this NEP within the previous 12 months will be removed from the lists.

Inspection Procedures:
Inspections initiated under this NEP will be scheduled and conducted in accordance with provisions of the AKOSH Field Operations Manual (FOM), except as noted below. Once an inspection has been internally 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. Advance notice of the inspection shall not be provided to the employer. This review is to determine if anything covered in this NEP (amputations or lockout tagout) has been covered in previous inspections or if the employer received a comprehensive enforcement inspection in the last 24 months. This information will be used to determine if the employer will be removed 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 D 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, the CSHO will 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 worksite where there is the potential for amputation exposure must be handled following all policies and procedures set in place. If that employer is also on the high hazard targeting list, a comprehensive inspection will be performed.

Travel:
Inspection sites that require overnight travel will be planned and coordinated with other inspection activity, such as for complaint or accident investigations or other programmed planned inspections, whenever possible to maximize efficiency.

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.

Relationship to other programs:
Unprogrammed Inspections. If an unprogrammed (e.g., complaint, fatality and referral) inspection coincides with an inspection under this emphasis program, the two inspections may be conducted concurrently or separately at the discretion of the Chief of AKOSH Enforcement.

Other Emphasis Programs. If an establishment scheduled for inspection under the amputation emphasis program is also scheduled for inspection under another emphasis program, the inspections may be conducted concurrently. Proper emphasis codes must be entered in OIS. Where more than one emphasis inspection is combined, the scope of the inspection should be limited to issues associated with the emphasis programs along with any plain sight machinery or equipment likely to cause amputations.

Consultation Inspections. Consultations accomplished in support of this directive should input the following fields on the OIS Request, Visit and Compliance Assistance Activity forms:

Field Name	Input
National Emphasis	Amputate

Reporting Recording and Tracking:
Inspections must be marked as "Programmed Planned" as the initiating type and "AMPUTATE" needs to be selected in the "National Emphasis Program" field in OIS. In addition, "AMPUTATE" must be selected as the "Primary Emphasis Program."

If a formal complaint alleges the presence of amputation hazards, select "AMPUTATE" as the "National Emphasis Program" on the "Program Info" tab in OIS.

In the case of a fatality or catastrophe, select "AMPUTATE" as the "National Emphasis Program on the "Program Info" tab in OIS.

In the case of a referral, select "AMPUTATE" as the "National Emphasis Program on the "Program Info" tab in OIS.

If the DUNS number of an inspected establishment is known, it must be recorded in the appropriate field on the Establishment Detail Screen. Select "Search Establishment" to locate the screen from the OIS Navigation menu on the Home Page.

Pending Legislation:
AKOSH currently has legislation pending to adjust reporting requirements to include accidents that result in an amputation or loss of eye. These incidents along with fatalities and hospitalizations of one or more workers must be reported within 8 hours of learning of the incident.

Clarifications: For the purpose of all OSHA Program Directive(s) adopted by AKOSH, the following terms are defined:

Where U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) refers to the following positions or locations; in Alaska their equivalent will be:

Area Director = Chief of Alaska Occupational Safety and Health (AKOSH) Enforcement section

Area Office = Labor Standards and Safety Division, AKOSH office located at 1251 Muldoon road, Suite 109, Anchorage, Alaska

Assistant Area Director = Chief of Alaska Occupational Safety and Health (AKOSH) Enforcement section

Assistant Secretary = Commissioner, Alaska Department of Labor and Workforce Development

Deputy Assistant Secretary = Deputy Commissioner, Alaska Department of Labor and Workforce Development

National Office = Commissioner's Office, Alaska Department of Labor and Workforce Development

OSHA = Alaska Occupational Safety and Health (AKOSH) Enforcement/ Compliance and Consultation & Training sections, located at 1251 Muldoon Road, Suite 109, Anchorage, Alaska

Occupational Safety and Health Review Commission (OSHRC) = Alaska Occupational Safety and Health Review Board (AKOSHRB)

Regional Administrator = Director, Labor Standards and Safety, Alaska Department of Labor and Workforce Development

Regional Office = Alaska Department of Labor and Workforce Development, Labor Standards and Safety, Director's Office, 1111 W. 8th Street, Suite 304, Juneau, Alaska

RSOL = Department of Law

SST (Site Specific Targeting) = High Hazard Targeting System (HHT)

Secretary = Commissioner, Alaska Department of Labor and Workforce Development

cc: Galen Blanton, Acting Regional Administrator, OSHA, Region X
Scott Ketcham, Acting Deputy Regional Administrator, OSHA, Region X
Dave Baker, Assistant Regional Administrator of Cooperative and State Programs, OSHA, Region X
Abby Lopez, State Programs Manager, OSHA, Region X
Rick Benedict, Program Analyst, OSHA Anchorage Area Office
Scott Ketcham, Area Director Anchorage, OSHA, Region X
Joe Thomas, Deputy Commissioner, State of Alaska, DOL&WD
Krystyna Markiewicz, Chief, Consultation & Training, DOL&WD, AKOSH
Keith Bailey, Chief, Enforcement, DOL&WD, AKOSH
Ron Anderson, Asst. Chief, Enforcement, DOL&WD, AKOSH
Yana Rekoun, Project Assistant, DOL&WD, AKOSH
Diane Larocque, Admin. Officer, DOL&WD, LS&S
Shannon Devon, Regulations Specialist II, DOL&WD, LS&S

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

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 BL5.1B- 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. ANSI/CEMA 404- Unit Handling Conveyors - Chain Driven Live Roller Conveyors
42. ANSI/CEMA 405- Packaging Handling Conveyors - Slant Conveyors

Appendix B

This appendix is a list of selected NAICS codes that have high IMIS violations coupled with high BLS **amputation** numbers or high IMIS violations coupled with high BLS **amputation** rates.
Note: The industry NAICS Codes are listed in ascending numerical order (not in the order of high IMIS violations, high BLS **amputation** numbers or high **amputation** rates).

NAICS Title
211111 Crude Petroleum and Natural Gas Extraction
211112 Natural Gas Liquid Extraction
311411 Frozen Fruit, Juice, and Vegetable Manufacturing
311412 Frozen Specialty Food Manufacturing
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
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
322213 Setup Paperboard Box Manufacturing
322214 Fiber Can, Tube, Drum, and Similar Products Manufacturing
322215 Nonfolding Sanitary Food Container Manufacturing
322219 Other Paperboard Container Manufacturing
322221 Coated and Laminated Packaging Paper Manufacturing
322220 Paper Bag and Coated and Treated Paper Manufacturing
322222 Coated and Laminated Paper Manufacturing
322223 Coated Paper Bag and Pouch Manufacturing
322224 Uncoated Paper and Multiwall Bag Manufacturing
322225 Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses

322226 Surface-Coated Paperboard Manufacturing
323110 Commercial Lithographic Printing
323111 Commercial Gravure Printing
323112 Commercial Flexographic Printing
323114 Quick Printing
323115 Digital Printing
323116 Manifold Business Forms Printing
323118 Blankbook, Looseleaf Binders, and Devices Manufacturing
323119 Other Commercial Printing
323113 Commercial Screen Printing
323117 Books Printing
326111 Plastics Bag and Pouch Manufacturing
326112 Plastics Packaging Film and Sheet (including Laminated) Manufacturing
326113 Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing
326150 Urethane and Other Foam Product (except Polystyrene) Manufacturing
326160 Plastics Bottle Manufacturing
327320 Ready-Mix Concrete Manufacturing
327390 Other Concrete Product 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)
332111 Iron and Steel Forging
332112 Nonferrous Forging
332114 Custom Roll Forming
332117 Powder Metallurgy Part Manufacturing
332115 Crown and Closure Manufacturing
332119 Metal Crown, Closure, and Other Metal Stamping (except Automotive)
332116 Metal Stamping
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
332991 Ball and Roller Bearing Manufacturing
332992 Small Arms Ammunition Manufacturing
332993 Ammunition (except Small Arms) Manufacturing
332994 Small Arms Manufacturing
332994 Small Arms, Ordnance, and Ordnance Accessories Manufacturing
332995 Other Ordnance and Accessories Manufacturing
332996 Fabricated Pipe and Pipe Fitting Manufacturing
332996 Fabricated Pipe and Pipe Fitting Manufacturing
332997 Industrial Pattern Manufacturing

332999 All Other Miscellaneous Fabricated Metal Product Manufacturing
332998 Enameled Iron and Metal Sanitary Ware Manufacturing
333111 Farm Machinery and Equipment Manufacturing
333112 Lawn and Garden Tractor and Home Lawn and Garden Equipment 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
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
334518 Watch, Clock, and Part Manufacturing
334519 Other Measuring and Controlling Device 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
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

Appendix C

(To be used for guidance/not inclusive)
***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 —**
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
Packing, 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)

Appendix D

AMPUTATIONS TARGETING METHODOLOGY
NATIONAL DATA:
Selection Process for Industries with Significant Inspection Histories (High IMIS 1
Numbers and OIS 2 Numbers).
Category 1.
1. Federal OSHA selected five standards (29 CFR 1910.147, .212, .213, .217, and .219) that are generally recognized as being related to **amputation** hazards.
2. Federal OSHA IMIS and OIS 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. Federal OSHA limited the range to the NAICS Sector 31-33, Manufacturing. This range encompasses all manufacturing operations and addresses **amputation** issues.
4. Alaska Occupational Safety and Health may add or delete as needed.

Selection Process for Industries with High BLS Rates:
Category 2.
1. Federal 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 10,000 full-time workers.
2. Federal OSHA limited the range to the NAICS Sector 31-33, Manufacturing.
3. Federal OSHA selected NAICS with BLS incidence rates of 10.0 or greater for amputations for any year.
BLS Data Selection Process for Industries with High BLS Numbers:
Category 3.
1. Federal OSHA used the most recent five years of BLS Data (Calendar year 2009, 2010, 2011, 2012 and 2013) on the number of amputations.
2. Federal OSHA limited the range to the NAICS Sector 31-33, Manufacturing.
3. Federal OSHA selected NAICS with BLS numbers of 50 or more amputations per year.
4. Federal OSHA then selected the industries that had high IMIS/OIS violations coupled with high BLS rates or high IMIS/OIS violations coupled with high BLS numbers. Based on the above data, the NAICS codes listed in Appendix B comprise AKOSH's list of industries that will be a part of the National Emphasis Program for Amputations.