

HIOSH DIRECTIVE

DIRECTIVE NO.: CPL 03-00-027	EFFECTIVE DATE: March 1, 2026
SUBJECT: National Emphasis Program on Amputations in Manufacturing Industries	

Purpose: This Instruction provides policies and procedures for the continued implementation of a National Emphasis Program (NEP) to identify and reduce or eliminate amputation hazards in manufacturing industries.

Scope: HIOSH-wide

References: Directive references adopted by HIOSH can be found at <https://labor.hawaii.gov/hiosh/guidelines/directives/>

Cancellations: This Instruction cancels CPL 03-00-022, National Emphasis Program on Amputations in Manufacturing Industries, March 15, 2021

State Impact: This directive applies solely to HIOSH service/operating locations. Notice of Intent and Equivalency required by the Federal Occupational Safety and Health Administration (OSHA). State Plan documentation of targeting systems is required if not current.

Action Offices: HIOSH

Originating Office: HIOSH Administration and Technical Support Branch

Contact: HIOSH Administration and Technical Support Branch
830 Punchbowl St #425.,
Honolulu, HI 96813

By and Under the Authority of

HIOSH Administrator

This CPL is adopted by HIOSH in its entirety.

Any such references within this instruction not applicable to HIOSH are indicated by ~~strike through~~ for deleted material and new material is [bracketed].

Clarifications:

For the purposes of this OSHA Program Directive adopted by HIOSH, the following terms are defined:

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

- **5(a)(1) of the OSH Act:** HIOSH's equivalent general duty standard is §12-60-2(a)(3), Hawaii Administrative Rules (HAR) for general industry and agriculture; §12-110-2(a)(3) for construction.
- **11(b) of the OSH Act:** §396-4(d)(7) of the Hawaii Revised Statutes (HRS).
- **11(c) of the OSH Act:** §396-8(e) of the HRS.
- **29 CFR §1904:** As incorporated and amended in sections §12-52.1, HAR.
- **29 CFR §1910:** As incorporated and amended in section §12-60, HAR.
- **29 CFR §1926:** As incorporated and amended in section §12-110, HAR.
- **29 CFR §1928:** As incorporated and amended in section §12-208, HAR.
- **Area Director(s)/Regional Administrator(s) (AD/RA):** HIOSH Administrator or designated representative.
- **CPL 02-00-164, Field Operations Manual (FOM):** HIOSH's most current CPL 02-00-164 FOM.
- **Compliance Officer(s) (CO/COs)/Compliance Safety and Health Officer(s) (CSHO/CSHOS):** Environmental Health Specialist(s) (EHS/EHS') and Occupational Safety & Health Compliance Officer(s) (OSHCO/OSHCOS).
- **Occupational Safety and Health Act of 1970 (Act)/OSH Act of 1970:** §396 HRS, Hawaii Occupational Safety and Health Laws.
- **Occupational Safety and Health Administration/OSHA (Including Regional and Area Office):**
Hawaii Occupational Safety & Health (HIOSH) Enforcement/
Compliance and Consultation & Training sections,
located at 830 Punchbowl St, Rm. 425,
Honolulu, Hawaii 96813.
- **OSHA On-Site Consultation:**
HIOSH Consultation and Training Branch, (808) 586-9100
<https://labor.hawaii.gov/hiosh/home/for-employers/consultation/>
- **Solicitor of Labor/Regional Solicitor (RS):** Deputy Attorney General.
- **Review Commission:** Hawaii Labor Relations Board (HLRB).



OSHA INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 03-00-027

SUBJECT: National Emphasis Program on Amputations in Manufacturing Industries

DIRECTORATE: Directorate of Enforcement Programs

SIGNATURE DATE: 5/29/2025

EFFECTIVE DATE: 6/27/2025

ABSTRACT

- Purpose:** This Instruction describes policies and procedures for the continued implementation of a National Emphasis Program (NEP) to identify and reduce or eliminate amputation hazards in manufacturing industries.
- Scope:** Occupational Safety and Health Administration-wide (OSHA-wide).
- References:** See Section III for references.
- Cancellations:** This Instruction supersedes OSHA Instruction CPL 03-00-022, National Emphasis Program on Amputations in Manufacturing Industries, December 10, 2019.
- State Impact:** Notice of Intent and Adoption required. See Section VI.
- Action Offices:** OSHA National, Regional, and Area Offices, On-Site Consultation Programs, and State Plans.
- Originating Office:** Directorate of Enforcement Programs, Office of General Industry and Agricultural Enforcement.
- Contact:** Directorate of Enforcement Programs
Office of General Industry and Agricultural Enforcement
200 Constitution Avenue, NW, N3119
Washington, DC 20210
(202) 693-1850

By and Under the Authority of

Amanda Wood Laihow,
Acting Assistant Secretary

Executive Summary

This Instruction provides updated guidance for the OSHA National, Regional, and Area Offices, On-Site Consultation Programs, and State Plans for continued implementation of the NEP on Amputations in Manufacturing Industries (Amputations NEP), which aims to identify and reduce or eliminate amputation hazards in manufacturing industries. OSHA’s enforcement history shows that employees are often injured when machinery or equipment is not properly guarded or safely maintained, or when hazardous energy is not controlled. This NEP targets industrial and manufacturing workplaces having machinery and equipment that can potentially cause amputations.

Significant Changes

This update includes the following changes:

- Provides that any establishment that had an inspection that was initiated under this NEP in the previous 24 months, with no reported amputations within those 24 months, may be deleted from the programmed inspection list.
- Provides that unprogrammed inspections may be expanded to an Amputations NEP inspection only if the NAICS code is listed in Appendix B of this NEP.
- Provides that any establishment that has 10 or fewer employees and that has their primary NAICS code listed on the “Low-Hazard Industry Table” of the Appropriations Act Directive should not be inspected under this NEP.
- Revises the OSHA Information Systems (OIS) coding instructions in Section XII for all OSHA amputation inspections.
- Revises the industry targeting methodology in Appendix A – Amputations Targeting Methodology.
- Updates Appendix B – Covered NAICS Codes, to reflect the revisions to Appendix A as well as data from 2019-2023.

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I. Purpose.

This Instruction describes policies and procedures for the continued implementation of OSHA's Amputations NEP to identify and reduce or eliminate amputation hazards in the manufacturing industries.

II. Scope.

This Instruction applies OSHA-wide.

III. References.

- A. Final Rule on [Occupational Injury and Illness Recording and Reporting Requirements – NAICS Update and Reporting Revisions](#).
- B. [Recording and Reporting Occupational Injuries and Illnesses, 29 CFR Part 1904](#).
- C. The Control of Hazardous Energy (Lockout/Tagout), [29 CFR 1910.147](#).
- D. Machinery and Machine Guarding, [29 CFR Part 1910, Subpart O](#).
- E. Hand and Portable Powered Tools & Other Hand-Held Equipment, [29 CFR Part 1910, Subpart P](#).
- F. Field Operations Manual (FOM), [CPL-02-00-164](#), December 22, 2022.
- G. Scheduling System for Programmed Inspections, [CPL 02-00-025](#), January 4, 1995.
- H. Enforcement Exemptions and Limitations under the Annual Appropriations Act, [CPL 02-00-170](#), July 18, 2024, or successor guidance.
- I. The Control of Hazardous Energy – Enforcement Policy and Inspection Procedures, [CPL 02-00-147](#), February 11, 2008.
- J. Guidelines for Point of Operation Guarding of Power Press Brakes, [CPL 02-01-025](#), February 14, 1997.
- K. Slide-locks – Enforcement Policy, Inspection Procedures and Performance Guidance Criteria, [CPL 02-01-043](#), September 14, 2007.
- L. Procedures for the Approval of Local Emphasis Programs (LEPs), [CPL 04-00-002](#), November 13, 2018.
- M. [Machine Guarding eTool](#)

IV. Cancellations.

This Instruction supersedes CPL 03-00-022, National Emphasis Program on Amputations in Manufacturing Industries, December 10, 2019.

V. Action Offices.

A. Responsible Office.

Directorate of Enforcement Programs (DEP), Office of General Industry and Agriculture Enforcement.

B. Action Offices.

OSHA Regional Administrators, Area Directors, and National Office Directors must ensure that the policies and procedures set forth in this Instruction are understood and followed by OSHA staff. Regional Administrators also must ensure that Consultation Program Managers in their regions are informed of the requirements of this Instruction and encourage involvement of On-Site Consultation Programs in compliance assistance activities for workplace hazards

associated with amputations in manufacturing industries.

VI. Federal Program Change.

This Instruction describes a federal program change, updating OSHA’s NEP covering amputations in manufacturing industries. State Plans are required to have enforcement policies and procedures in place that are at least as effective as those in this instruction. State Plans have the option of adopting identical or different policies and procedures, but they must be at least as effective as those in this Instruction.

Within 60 days of the date of notification in the State Plan Application (SPA), State Plans must submit a notice of intent, indicating whether the State Plan will adopt or already has in place policies and procedures that are identical to or different but at least as effective as the federal program. State Plan adoption, either identical or different, should be accomplished within six months. If adopting the identical program, the State Plan must provide the date of adoption to OSHA, due within 60 days of adoption. If the State Plan adopts or maintains policies that differ from this Instruction, the State Plan must identify the differences and may either post its policy on its website and provide the link to OSHA or submit an electronic copy to OSHA with information on how the public may obtain a copy. This action must occur within 60 days of the date of adoption. OSHA will post summary information of the State Plan responses to this Instruction on its website at:

www.osha.gov/dcsp/osp/index.html.

VII. Expiration.

This instruction will terminate five years from the effective date.

VIII. Significant Changes.

- A. Provides that any establishment that had an inspection that was initiated under this NEP in the previous 24 months, with no reported amputations within those 24 months, may be deleted from the programmed inspection list.
- B. Provides that unprogrammed inspections may be expanded to an Amputations NEP inspection only if the NAICS code is listed in Appendix B of this NEP.
- C. Provides that any establishment that has 10 or fewer employees and that has their primary NAICS code listed on the “Low-Hazard Industry Table” of the Appropriations Act Directive should not be inspected under this NEP.
- D. Revises the OSHA Information Systems (OIS) coding instructions in Section XII for all OSHA amputation inspections.
- E. Revises the industry targeting methodology in Appendix A – Amputations Targeting Methodology.
- F. Updates Appendix B – Covered NAICS Codes, to reflect the revisions to Appendix A as well as data from 2019-2023.

IX. 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. OSHA's enforcement history shows that employees performing servicing and maintenance on machinery or equipment are often injured when no machine guarding is present and/or energy control procedures are not implemented and followed. OSHA workplace requirements provide measures for the safe operation, servicing, and/or maintenance of machinery and equipment, including machine guarding.

OSHA analyzed OSHA Information System (OIS) data involving calendar years 2019-2023 and Bureau of Labor Statistics (BLS) data for calendar years 2019-2022 to identify high-risk industries for targeting under this NEP. OIS data were limited to federal jurisdiction only. Appendix A – Amputations Targeting Methodology, provides the criteria used to select the NAICS codes for this NEP.

NOTE: BLS changed its methodology for publishing [Survey of Occupational Injuries and Illnesses \(SOII\) data](#). Starting with reference period 2021-2022, data are aggregated for two-year periods (rather than one) for case circumstances and worker demographics for cases involving days away from work and days of job transfer or restriction.

X. Inspection Scheduling.

A. List and Cycle Generation.

Directorate of Technical Support and Emergency Management, Office of Statistical Analysis (OSA) will provide each Area Office (AO) with access to software and a database that includes the establishments with the NAICS codes covered under this NEP (Appendix B). Only Federal OSHA and State Plans 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 AO's area of responsibility.

AOs have the discretion to add, based on local evidence, manufacturing establishments 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. These establishments must not have received an amputations NEP Inspection initiated within the previous 24 months, and they must be on the targeted NAICS list. The local evidence may be based on OIS incident data, employer-reported amputations, and/or workers' compensation data. Once establishments are added, the master list must be re-randomized by the AO prior to use.

B. Scheduling Inspections.

The AO must schedule inspections using one of the following methods:

1. If the AO intends to inspect the entire master list, then the inspections may be scheduled in any order that uses OSHA resources effectively. If the AO uses this method, it must account (through inspections and deletions) for covering the entire list. The AO cannot inspect establishments off a new list until the entire previous list is completed.
2. The AO may inspect the facilities in the random number order provided. If the AO uses this method, it does not need to complete the entire list. The AO may create cycles by choosing a set number of establishments from the establishment list sorted in random number order.

C. Deletions.

1. The AO shall delete establishments with 10 or fewer employees that have their primary NAICS code listed on the [“Low-Hazard Industry Table” of the Appropriations Act Directive](#) from the master list.
2. Based on local knowledge, AOs may also delete establishments that are not likely to have machinery and equipment that could cause amputations, and establishments known to be out of business, documenting the basis for such determinations.
3. Any establishment that had an inspection that was initiated under this NEP in the previous 24 months, with no reported amputations within those 24 months, may be deleted from the programmed inspection list.

D. Voluntary Protection Program (VPP) Sites.

This NEP exempts participating VPP worksites. VPP sites should be removed from OSHA’s programmed inspection lists of targeted sites, for the duration of their approved participation in the VPP. Worksites applying for VPP will be removed from the programmed inspection lists no more than 75 days before the commencement of their scheduled pre-approved onsite review, as stated in the [Voluntary Protection Programs Policies and Procedures Manual](#).

XI. Inspection Procedures.

A. Scope.

Inspections initiated under this NEP are programmed, planned, partial safety inspections that will be conducted in accordance with provisions of the [FOM, Chapter 3](#), Inspection Procedures. The scope of all inspections under this Amputations NEP is all locations and practices at the establishment concerning operation, servicing, maintenance, control of hazardous energy sources, and/or machine guarding of all machinery and equipment that can potentially present amputation hazards to workers. The inspection scope may be expanded where there is evidence (e.g., injuries or illnesses recorded in both OSHA forms 300 and 301, employee statement, or “plain view” observations) that violative conditions may be found in other areas of that establishment.

When possible, inspections conducted under this NEP should be combined with other programmed and unprogrammed inspections and the inspections conducted concurrently.

Unprogrammed inspections (examples: complaints, referrals, and FAT/CAT) addressing operations that involve potential exposures to amputation hazards may be expanded per the Area Director's discretion to an Amputations NEP inspection if the NAICS code is listed in Appendix B of this NEP and the establishment is not exempt under the Appropriations Act. Such inspections shall be handled in accordance with the procedures outlined in the [FOM, Chapter 9](#).

B. Opening Conference.

The Compliance Safety and Health Officer (CSHO) should verify the site's NAICS code and the number of employees at the establishment to ensure the employer is not exempt under the [Appropriations Act](#). The CSHO should also verify with the employer whether any machinery, equipment, and/or work processes that could result in amputations is present in the workplace. In addition, OSHA 300 logs, 300A summaries, and 301 incident reports for the current and previous three calendar years should be collected and reviewed during the opening conference to identify recorded injuries associated with amputation hazards. The CSHO should request relevant records such as, but not limited to, the energy control program and procedures, training records, and other documents related to the scope of the inspection.

The CSHO should not conduct an inspection if:

1. The NAICS code is not listed in Appendix B;
2. The NAICS code is listed in Appendix B, but the CSHO determines there is no machinery, equipment, or work process that presents amputation hazards to workers; or
3. The primary NAICS code is listed on the ["Low-Hazard Industry Table" of the Appropriations Act Directive](#) and the company has 10 or fewer employees.

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."

C. Walkaround.

While conducting an inspection, the CSHO should exercise professional judgment in areas where potential amputation hazards are present, paying particular attention to employee exposure to nip points, pinch points, shear points, cutting hazards, and other points of operation. The CSHO should consider and evaluate all employee exposures to amputation hazards 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 parts, scheduled/unscheduled maintenance and/or servicing, and

activities related to the control of hazardous energy. The CSHO should use employee interviews to identify and evaluate potential amputation hazards. The CSHO may also need to evaluate exposures during multiple work shifts and under multiple employers.

D. Training.

CSHOs who conduct inspections under this NEP should have training and/or knowledge of both general and specific machine guarding concepts and techniques as well as hazardous energy control (lockout/tagout) requirements, including [The Control of Hazardous Energy – Enforcement Policy and Inspection Procedures](#).

XII. Recording in OIS.

A. Programmed Planned Inspections under the Amputations NEP Only.

All inspections opened from the targeting list under this NEP will be coded under “Initiating Type” as “Programmed Planned” under the “Inspection Details” section. The CSHO shall go to the “Emphasis Program” section and select “AMPUTATE” under the “National Emphasis Program” menu. Then the CSHO shall select “AMPUTATE” under the “Primary Emphasis Program” menu. An inspection opened under the targeting list that is coded as “No Inspection” will also be coded pursuant to this paragraph, and the CSHO must include the reason for not conducting the inspection (e.g., Employer Exempted by Appropriation Act, Out of Business).

B. Unprogrammed Inspections Expanded under this Amputations NEP.

All unprogrammed inspections expanded to a full Amputations NEP inspection will be coded as “AMPUTATE” under the “Emphasis Program” section.

C. Other Emphasis Program Inspections with Amputations NEP Inspections.

Inspections conducted under another NEP, REP, or LEP that are expanded to an Amputations NEP inspection should be coded as “AMPUTATE” under the “Emphasis Program” section.

XIII. Outreach.

Each Regional Office (RO) and AO must implement a 90-day outreach program that supports the purpose of this NEP. Outreach should focus on industries that were not previously targeted by the 2019 Amputations NEP (these industry NAICS are noted in Appendix B of this directive). During this period and prior to the commencement of compliance inspections, compliance assistance outreach will occur for industries that were not previously targeted by the 2019 Amputations NEP. Letters and news releases to local and national news organizations and trade magazines can assist with disseminating information about the prevention of amputation hazards. Outreach programs with employers, professional associations, and local unions may include meetings, training, education, speeches, or other activities designed to involve labor and management in identifying and reducing or eliminating amputation hazards in the covered manufacturing industries. The Office of Communications will provide support

to the ROs and AOs, as necessary. ROs and AOs have the discretion to disseminate outreach materials to stakeholders, which may include employees, employers, professional associations, and local labor unions.

Appendix A

AMPUTATIONS TARGETING METHODOLOGY

Category 1

Selection Process for Industries with High OIS Inspection Numbers:

- 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.
- OSHA used OIS data covering calendar years 2019-2023 and identified NAICS codes within the two-digit NAICS codes (31-33) covering manufacturing that had 40 or more federal OSHA inspections with one or more violations of at least one of the standards identified above.
- The process yielded 66 five-digit NAICS codes.

Category 2

Selection Process for Industries with High BLS Amputation Numbers:

- OSHA used four years of BLS Data (calendar years 2019-2022) on the number of amputations.
- OSHA selected NAICS codes within the two-digit NAICS codes (31-33) covering manufacturing where the BLS data showed 50 or more amputations per year for calendar years 2019-2022.
- The process yielded 39 five-digit NAICS codes.

NOTE: BLS changed its methodology for publishing [Survey of Occupational Injuries and Illnesses \(SOII\) data](#). Starting with reference period 2021-2022, data are aggregated for two-year periods (rather than one) for case circumstances and worker demographics for cases involving days away from work and days of job transfer or restriction.

Category 3

Selection Process for Industries with High Employer Reported Amputation Numbers (OIS

Employer Reported Severe Injuries):

- OSHA used all employer-reported referrals in OIS with at least one amputation reported during calendar years 2019 -2023.
- OSHA selected NAICS codes within the two-digit NAICS codes (31-33) covering manufacturing where these referrals contained 25 or more reported amputations per year for calendar years 2019-2023.

- 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 78 five-digit NAICS codes.

Data Summation

There were 183 NAICS codes identified under categories 1-3, and many of the codes were identified in more than one category. Removing the duplicates resulted in 67 unique five-digit manufacturing NAICS codes that were identified under one or more of the three categories.

The processed data was expanded from 67 five-digit NAICS codes to the 178 six-digit NAICS codes that are within the identified 67 five-digit codes. The six-digit NAICS codes were then manually cross-referenced with each NAICS code's four-year average BLS incidence rate as well as four years (2019-2022) of OIS's "AMPUTATE" coded data. OSHA then removed 87 six-digit NAICS that did not appear to present a high risk of amputations based on a review of several factors, including:

- Each NAICS code's BLS incidence rates (OSHA generally removed NAICS codes with BLS incidence rates that were not significantly greater than the average BLS incidence rate for manufacturing as a whole);
- Each NAICS code's history of amputation-related injuries or violations (OSHA generally removed NAICS that did not have any amputation-related injuries or violations in the OIS data);
- The number of inspections coded "AMPUTATE" in each NAICS code for the period 2019 to 2023;
- The type of work performed in the industry; and
- The likely presence of machinery and equipment that could cause amputations.

Appendix B contains the resulting 91 six-digit NAICS codes that are covered under this Amputation NEP. The NAICS codes in Appendix B that were not included under the 2019 Amputations NEP are marked with asterisks. There are also some NAICS that were covered under the 2019 Amputations NEP but are no longer included in Appendix B.

**Appendix B
COVERED NAICS CODES**

NAICS CODES	ESTABLISHMENTS
311224*	Soybean and other oilseed processing
311313*	Beet sugar manufacturing
311314*	Cane sugar manufacturing
311412*	Frozen specialty food manufacturing
311421*	Fruit and vegetable canning
311511	Fluid milk 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
311812	Commercial bakeries
311813	Frozen cakes, pies, and other pastries manufacturing
311942*	Spice and extract manufacturing
311991	Perishable prepared food manufacturing
311999	All other miscellaneous food manufacturing
312111*	Soft drink manufacturing
312112*	Bottled water manufacturing
321113	Sawmills
321114	Wood preservation
321211*	Hardwood veneer and plywood manufacturing
321212	Softwood veneer and plywood manufacturing
321214	Truss manufacturing
321911	Wood window and door manufacturing
321912	Cut stock, resawing lumber, and planing
321918	Other millwork (including flooring)
321991*	Manufactured home (mobile home) manufacturing
321992*	Prefabricated wood building manufacturing
321999*	All other miscellaneous wood product 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 block and brick manufacturing
327991*	Cut stone and stone product manufacturing
331221	Rolled steel shape manufacturing

NAICS CODES	ESTABLISHMENTS
331314*	Secondary smelting and alloying of aluminum
331492*	Secondary smelting, refining, and alloying of nonferrous metal (except copper and aluminum)
331511*	Iron foundries
331512*	Steel investment foundries
331513*	Steel foundries (except investment)
331523*	Nonferrous metal die-casting foundries
331524*	Aluminum foundries (except die-casting)
332111	Iron and steel forging
332112	Nonferrous forging
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
332613*	Spring manufacturing
332618*	Other fabricated wire product manufacturing
332710	Machine Shops
332721	Precision turned product manufacturing
332722	Bolt, nut, screw, rivet, and washer manufacturing
332812*	Metal coating, engraving (except jewelry and silverware), and allied services to manufacturers
332813*	Electroplating, plating, polishing, anodizing, and coloring
332991	Ball and roller bearing manufacturing
332992	Small arms ammunition manufacturing
332996	Fabricated pipe and pipe fitting manufacturing
332999	All other miscellaneous fabricated metal product manufacturing
333111*	Farm machinery and equipment manufacturing
333241	Food product machinery manufacturing
333243	Sawmill, woodworking, and paper machinery manufacturing
333249	Other industrial machinery manufacturing
333414*	Heating equipment (except warm air furnaces) manufacturing
333511	Industrial mold manufacturing
333514	Special die and tool, die set, jig, and fixture manufacturing
333515	Cutting tool and machine tool accessory manufacturing
333517	Machine tool manufacturing
335932*	Noncurrent-carrying wiring device manufacturing
336111*	Automobile manufacturing
336112*	Light truck and utility vehicle manufacturing
336211	Motor vehicle body manufacturing
336212	Truck trailer manufacturing

NAICS CODES	ESTABLISHMENTS
336214	Travel trailer and camper manufacturing
336611*	Ship building and repairing
336612*	Boat building
337121*	Upholstered household furniture manufacturing
337127*	Institutional furniture 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

Note: NAICS with an asterisk (“*”) are targeted industries that were not included in the 2019 Amputations NEP.