



OSHA REGIONAL INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 04-00 (LEP 017) | **EFFECTIVE DATE:** October 1, 2018

SUBJECT: Emphasis Program for Grain Handling Facilities

REGIONAL IDENTIFIER: Region V

ABSTRACT

- Purpose:** This Instruction continues a Local Emphasis Program (LEP) for the programmed inspections of grain handling facilities (NAICS 311111, 311211, 311221, 311224, 424510, and 493130).
- References:**
- A) OSHA 29 CFR 1910.272, Grain Handling Facilities Standard
 - B) CPL 02-01-004, Inspection of Grain Handling Facilities, November 8, 1996.
 - C) CPL 02-00-025, Scheduling System for Programmed Inspections, January 4, 1995.
 - D) CPL 02-00-051, Enforcement Exemptions and Limitations under the Appropriations Act, May 28, 1998.
 - E) CPL 04-00-002, Procedures for Approval of Local Emphasis Programs (LEPs), November 13, 2018.
 - F) CPL 02-00-160, Field Operations Manual (FOM), August 2, 2016.
 - G) NIOSH Publication 95-109 "Safe Grain and Silage Handling", 1995.
- Cancellations:** This instruction cancels the Regional Emphasis Program for Grain Handling Facilities, CPL 04-00 (LEP 017), effective October 1, 2017.
- Expiration:** This instruction expires September 30, 2023.
- State Impact:** None
- Action Offices:** All Region V Area Offices
- Originating Offices:** Illinois Area Offices – Region V

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TABLE OF CONTENTS

<u>Abstract</u>	Cover Page
<u>Table of Contents</u>	2
I. <u>Purpose</u>	3
II. <u>Scope</u>	3
III. <u>Expiration</u>	3
IV. <u>References</u>	3
V. <u>Background</u>	4
VI. <u>Action</u>	4
VII. <u>Program Procedures</u>	4
VIII. <u>Inspection Procedures</u>	5
IX. <u>Recording and Tracking</u>	8
X. <u>Program Evaluation</u>	8
XI. <u>Outreach Activities</u>	8

- I. **Purpose.** The purpose of this Instruction is to continue a Local Emphasis Program (LEP) for the programmed inspections of grain handling facilities (North American Industry Classification System (NAICS) 311111, 311211, 311221, 311224, 424510, and 493130) in accordance with the provisions of OSHA Instruction CPL 04-00-001, Procedures for Approval of Local Emphasis Programs (LEPs).

Industry Description	NAICS (2012)	SIC (1987)
Dog and Cat Food Manufacturing	311111	2047
Flour Milling	311211	2041
Wet Corn Milling	311221	2046
Soybean Processing	311224	2075
Grain and Field Bean Merchant Wholesalers	424510	5153
Farm Product Warehousing and Storage	493130	4221

- II. **Scope.** The Instruction applies to grain handling facilities within the jurisdiction of all Region V Area OSHA Offices. Inspections will focus on the six major hazard areas of engulfment, falls, auger entanglement, struck by, combustible dust explosions and electrocution. Partial inspections shall be expanded if other serious hazards are observed.

- III. **Expiration.** This Instruction expires on September 30, 2023.

IV. **References.**

- A. OSHA Instruction CPL 04-00-002, November 13, 2018, Procedures for Approval of Local Emphasis Programs (LEPs)
- B. OSHA Instruction CPL 02-00-160, August 2, 2016, Field Operations Manual (FOM)
- C. OSHA Instruction CPL 02-00-111, November 27, 1995, Citation Policy for Paperwork and Written Program Requirement Violations
- D. OSHA Instruction CPL 02-00-051, May 28, 1998, Enforcement Exemptions and Limitations Under the Appropriations Act
- E. OSHA Instruction CPL 02-00-025, January 4, 1995, Scheduling System for Programmed Inspections
- F. OSHA Instruction TED 01-00-015, January 20, 1999, Occupational Safety and Health Administration Technical Manual

- G. OSHA 29 CFR 1910.272, Grain Handling Facilities Standard
- H. OSHA CPL 02-01-004, November 8, 1996, Inspection of Grain Handling Facilities
- I. NIOSH Booklet "Safe Grain & Silage Handling," October 1995

V. **Background.**

The hazards associated with grain handling facilities are well recognized. Employees are exposed to significant hazards such as falls, electrocution, engulfment, auger entanglement, struck by, and combustible dust explosions. A search of Region V's Fatality Database shows that from October 1, 2007 through April 1, 2018 there have been 28 fatalities investigated at grain handling facilities under NAICS of 311111, 311211, 311221, 311224, 424510, and 493130. These fatalities included 6 grain engulfment deaths, 6 deaths from falls from elevated surface, 5 explosion related deaths, 2 deaths from falls from ladders, 2 deaths related to being caught in running equipment or machinery, 2 deaths from exposure to toxic substances, 2 deaths from being caught between a moving and stationary object, 1 death from contact with hot objects/substances, 1 death from being struck by rotating equipment or machinery, and 1 electrocution.

A Local Emphasis Program is deemed appropriate for the following reasons:

1. Numerous serious hazards exist in facilities where grain is processed and transferred.
2. Inspections of grain handling facilities (NAICS 311111, 311211, 311221, 311224, 424510, and 493130) by the Illinois Area OSHA Offices between FY04-FY09 have identified serious safety and health hazards.
3. The Region V Area OSHA Offices have a substantial number of grain handling facilities within their jurisdiction which have not been inspected in the last 10 years or never had an OSHA inspection.
4. There is a need to change the culture at non-compliant grain handling facilities.

VI. **Action.** The Region V Area OSHA Offices shall use the LEP described herein as the basis for scheduling inspections to reduce occupational exposure in grain handling facilities.

VII. **Program Procedures.** Inspections conducted under the program shall be scheduled and conducted pursuant to the following criteria.

- A. Each Area OSHA Office covered by this LEP will compile a primary list of employers in the following NAICS Codes: 311111, 311211, 311221, 311224, 424510, and 493130 within their geographic jurisdiction.

Establishment sources may include:

- 1) The Dun & Bradstreet employer list;

- 2) Illinois, Wisconsin, and Ohio Department of Agriculture's Licensing Database;
 - 3) Commercial directories;
 - 4) Telephone listings;
 - 5) Local knowledge of establishments; and
 - 6) OSHA's IMIS/OIS systems.
- B. The establishment will be assigned a random number from the random number table provided in OSHA Instruction CPL 02-00-025, January 4, 1995, Scheduling System for Programmed Inspections, or some other form of randomization will be used to randomize the inspection list.
- C. Establishments with fewer than 10 employees **are** to be included. Compliance Officers (CSHOs) shall check enforcement exemptions and limitations per the most current version of OSHA Instruction CPL 02-00-051 Enforcement Exemptions and Limitations Under the Appropriations Act prior to opening the inspection. In addition, facilities must have at least a grain silo, grain bin, or grain handling bucket elevator (leg) on site.
- D. Cycles will be compiled. A cycle size of no more than 10 establishments will be used. Once a cycle is begun, it must be finished. Within a cycle, the establishments may be scheduled and inspected in any order that makes efficient use of available resources. All establishments in a cycle must have inspections assigned before any establishments in a new cycle may be inspected. Carry-overs will be allowed, as provided in OSHA Instruction CPL 02-00-025, paragraph B.1.b (1) (e).
- E. Each Area Office will be responsible for making appropriate deletions to the inspection list, such as establishments that are no longer in business, in accordance with CPL 02-00-025, or establishments that have received a comprehensive inspection covering the hazards addressed under this LEP within three years of the effective date of this LEP.
- F. When a work site with grain handling operations is noted during travel, the CSHO will notify the supervisor of the company name and address as well as any observations regarding the state and condition of the work site. If the site has not been inspected within the last two years, permission will be given to inspect the site. If the site has been inspected within the last two years, an inspection may be authorized only if an imminent danger situation appears to be present. (The date when an establishment is considered to have received a comprehensive safety inspection will be the opening conference date, not the closing conference date or the citation issuance date.)
- G. Complaint, referral, fatality, catastrophe and follow-up inspections will be handled according to the Field Operations Manual (FOM). Unprogrammed inspections of establishments identified in Paragraph VII. F. above will be expanded to include

the issues addressed by this program. An inspection scheduled under this LEP does not necessarily need to be inspected by the CSHO making the original observation.

VIII. **Inspection Procedures.**

- A. Inspections under this LEP will focus on the six major safety hazards at grain handling facilities: falls, electrocutions, engulfment, auger entanglements, struck by hazards and combustible dust fires and explosions.
- B. Establishments targeted under the Grain Handling LEP are Safety Programmed Inspections.
- C. All inspections under this LEP must address all aspects of any potential grain handling work and include a review of all related written documentation (i.e., lock-out/tag-out program, powered industrial vehicle operation program, grain bin entry program and procedures, housekeeping programs, fall protection programs, personal protective equipment assessments, confined space entry programs and procedures, machine guarding policies and practices, and electrical safety-related work practices).
- D. The CSHO shall establish that a grain handling operation is present in the facility. If a grain handling operation is active, the CSHO will conduct the inspection in accordance with the FOM.
- E. If the CSHO discovers that the scheduled establishment is not engaged in grain handling operations (through limited employee interviews and walk around), the inspection will be terminated and the scope of the inspection will be recorded in OIS as “No Inspection” in accordance with Section IX, Recording and Tracking, below.
- F. The CSHO may discover that outside contractors are also performing work activities at the grain handling facilities. There may be instances where the CSHO would incorporate the outside contractor into the scope of the inspection in accordance with the FOM.
- G. Establishments which have changed name, ownership, or management shall be evaluated. If the process is comparable and the establishment has NAICS of 311111, 311211, 311221, 311224, 424510, and 493130, then the CSHO shall proceed with the inspection.
- H. CSHO Protection
 - 1. Prior to conducting the inspection the Area Director shall ensure that the CSHO has the necessary safety and health expertise to evaluate potential grain hazards the CSHO may be exposed to during the inspection.
 - 2. The Area Director will also ensure the CSHOs have the necessary personal protective equipment to conduct the inspection, such as: head protection, eye

protection, hearing protection, foot protection, flame-resistant (FR) clothing or coveralls, etc.

Flame-resistant clothing shall be certified to meet the requirements of National Fire Protection Association's (NFPA) Standard 2112 "Standard on Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire." NFPA 2112 compliant garments bear labeling stating the following:

THIS GARMENT MEETS THE REQUIREMENTS FOR NFPA 2112, STANDARD ON FLAME-RESISTANT GARMENTS FOR THE PROTECTION OF INDUSTRIAL PERSONEL AGAINST FLASH FIRE. NFPA 2113 REQUIRES UPPER AND LOWER BODY PROTECTION.

It is recommended that flame-resistant clothing is worn in situations where combustible flash fire or explosion hazards may exist (i.e., indoor conveying, handling, and processing areas).

In addition to flame-resistant outer clothing, CSHOs conducting inspections at grain handling facilities shall wear natural fiber (e.g., cotton), non-spark producing clothing.

3. Where manlifts are present, CSHOs shall not utilize them to gain access to upper levels of the facility. CSHOs are to use alternative means to gain access, such as stairs or freight elevators in these situations.
4. CSHOs need to be familiar with the classification of hazardous (classified) locations for electrical installations, including the definitions for Class II, Division 1 and Class II, Division 2 locations. Electronic devices (i.e., cameras, media tablets, video recording devices, digital watches, car-key fobs, standard flashlights, etc.) shall not be utilized in locations where either of the following is determined:
 - 1) A location in which combustible dust is in the air under normal operating conditions in quantities sufficient to produce explosive or ignitable mixtures (Class II, Div 1.)
 - 2) A location where mechanical failure or abnormal operation of machinery or equipment might cause explosive or ignitable mixtures of combustible dust to be produced in the air (Class II, Div 1; Class II, Div 2.)
 - 3) A location where combustible dust accumulations are present and not airborne, but infrequent malfunctioning of handling or processing equipment could result of the suspension of a dust cloud in the air (Class II; Div 2.)

Under these conditions, CSHOs shall utilize alternative means of documenting hazardous conditions, such as sketching, written statements, detailed

measurements and notes, photographs from safe distances (non-hazardous or unclassified locations), etc.

Any electronic equipment used for health sampling (i.e., dosimeters, pumps, etc.) must be rated/approved for use in Class II hazardous (classified) locations.

Non-sparking tools, such scoops, pans, paint brushes, and rulers shall be used on these inspections when determined necessary for collecting or documenting evidence.

I. Relationship to Other Programs

1. Unprogrammed Inspections: Unprogrammed inspections will be conducted according to the FOM (CPL 02-00-160) or other guidance documents. If there is an occasion for an unprogrammed inspection with respect to an establishment that is also to receive a programmed inspection under this Grain Handling Facility LEP, the two inspections may be conducted concurrently.
2. Special Emphasis Programs: Some establishments may be selected for inspection under the Combustible Dust-National Emphasis Program (NEP) and also under one or more other initiatives, National Emphasis Programs (NEP) or Local Emphasis Programs (LEP). These inspections may run concurrently with the Grain Handling Facility LEP. All applicable OIS codes should be entered.

IX. **Recording and Tracking.** The OSHA Inspection Activity for all Grain Handling LEP inspections will be coded as follows:

A. Inspection Activity Coding:

1. Inspection Type – Program Planned
2. The Local Emphasis Program Field will be marked as Grain.
3. If there are no grain handling operations on site, the Inspection Activity shall be coded as “No Inspection.”
4. Optional Information shall be marked “ N-20-No Grain Handling.”

X. **Program Evaluation.**

- A. Follow-up inspections will be conducted for all cases which fall under the criteria outlined in the Region V Follow-Up Procedures Memorandum. During the follow-up visit, the CSHO shall verify the employer’s abatement documentation/verification by carefully evaluating any and all written programs developed, training on abated items, and equipment purchased to comply with the hazards identified during the initial inspection. Procedures for follow-up inspections will be in accordance with the Field Operations Manual (FOM) 02-00-160.

- B. Abatement documentation/verification will be submitted to or otherwise collected by the Area Office for all other violations of the OSHA regulations. The abatement information must be included in the case file in a timely manner. Whenever possible, case files are to be closed in the Fiscal Year in which the inspection was conducted to allow the data to be applied to the Agency's Strategic Goal accomplishments. In cases where implementation of engineering controls extends beyond the Fiscal Year in which the intervention was conducted, the case files will be closed as soon as possible.
 - C. The Naperville Area Office will prepare a written evaluation of this LEP in the format specified by OSHA Instruction CPL 04-00-001. Evaluations will be submitted annually for the previous Fiscal Year.
- XI. **Outreach Activities**. The LEP and the hazards associated with grain handling operations will be discussed during appropriate outreach activities including, but not limited to, OSHA speeches, training sessions and Area Office newsletters.

Note: The Director of the On-Site Safety and Health Consultation Program for each State will be notified of the FY19 Region V Grain Handling LEP.

Note: The Illinois Grain and Feed Association will be notified by the Peoria Area Office of the FY19 Region V Grain Handling LEP.

Note: The Wisconsin Agri-Service Association will be notified by Appleton Area Office of the FY19 Region V Grain Handling LEP.

Note: The Ohio Agri-Business Association will be notified by the Columbus Area Office of the FY19 Region V Grain Handling LEP.