U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

**DIRECTIVE NUMBER:** BOS-CPL-04-00-028

**SUBJECT:** Regional Local Emphasis Program Cranes in Construction

**REGION:** Boston (BOS)

**SIGNATURE DATE:** 09/30/2024 **EFFECTIVE DATE:** 10/01/2024

### **ABSTRACT**

**Purpose:** This instruction renews the Regional Local Emphasis Program (LEP) for cranes

in construction. This ongoing LEP continues to address the hazards associated

with crane operations by scheduling and conducting inspections in the

construction industry.

**Scope:** This instruction applies to Federal OSHA, Boston Region jurisdiction.

**References:** OSHA Instruction CPL 04-00-002, Procedures for Approval of Local Emphasis

Programs (LEPs), 11/13/2018.

OSHA Instruction CPL 02-00-163, Field Operations Manual (FOM) or successor

guidance, 04/14/2020.

OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under

the Appropriations Act, 07/18/2024, (including annually updated Appendix A).

Title 29, Code of Federal Regulations, Part 1926

Cancellations: OSHA Regional Instruction CPL-04-00-016.8, Local Emphasis Program – Cranes

in Construction, October 1, 2019.

**State Impact:** No Impact

**Action Offices:** Federal OSHA Boston Region, Area and District Offices

**Originating Office:** Boston Regional Office.

**Contact:** Assistant Regional Administrator Enforcement

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By and Under the Authority of

Jeffrey A. Erskine Acting Regional Administrator

# **Executive Summary**

This instruction renews the OSHA Regional Instruction LEP for cranes in construction for five years. It was originally issued in 2013 and continues to provide instruction for scheduling and conducting inspections in the construction industry to address the hazards associated with crane operations at construction worksites in Boston Region, New England.

**Significant Changes** 

None

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# I. Purpose.

This instruction renews a region-wide local emphasis program (RW-LEP) for the purpose of scheduling and conducting inspections in the construction industry to address the hazards associated with crane operations, and to ensure that employers whose employees operate cranes establish adequate programs for conducting thorough inspections of cranes in accordance with applicable regulations.

The intent of this local emphasis program is two-fold: to provide outreach to affected employers in construction and raise awareness of OSHA crane regulations and safe operating conditions, and to target, schedule and inspect cranes on construction sites which are usually only inspected as a result of unprogrammed activity such as accidents or complaints.

The second element is an enforcement targeting initiative that will allow the Area Offices to focus inspection resources on a hazard rarely targeted by programmed construction inspection programs (e.g., CPL-02-00-155 Compliance Directive for Inspection Scheduling for Construction).

## II. Scope.

Federal OSHA Boston Region Area and District Office jurisdictions.

# III. Action.

The Area Director will ensure area office staff are familiar with the contents of this instruction and follow guidelines and procedures described.

- IV. Effective Date. October 1, 2024.
- V. Expiration. This instruction expires September 30, 2029.

# VI. Cancellation:

OSHA Regional Instruction CPL- 04-00-016.8, Local Emphasis Program – Cranes in Construction, October 1, 2019.

#### VII. References.

- A. OSHA Instruction CPL 04-00-002, Procedures for Approval of Local Emphasis Programs (LEPs), November 13, 2018.
- B. OSHA Instruction CPL 02-00-164, Field Operations Manual (FOM), April 4, 2020, or successor guidance.
- C. OSHA Instruction CPL 02-00-155, Inspection Targeting for Construction, September 6, 2013.

- D. OSHA Instruction CPL 02-00-170, Enforcement Exemptions and Limitations under the Appropriation Act, July 18, 2024, (including Appendix A or annual replacement) or successor guidance.
- E. OSHA Instruction CPL-02-01-057, Compliance Directive for the Cranes and Derricks in Construction Standard, October 17, 2014.
- F. <u>U.S. Department of Labor's Strategic Plan, FY 2022-2026, to promote safe jobs and fair</u> workplaces for all Americans to improve workplace safety and health.
- G. OSHA's Cranes and Derricks webpage <u>Cranes & Derricks in Construction Overview</u> Occupational Safety and Health Administration (osha.gov)
- H. Bureau of Labor Statistics, Injury, Illnesses and Fatalities, <u>Fact Sheet Fatal Occupational Injuries Involving Cranes</u>, <u>May 2019</u> (retrieved September 2024)

### VIII. <u>Background and Program Description.</u>

As a result of the continued significant increase in heavy construction activity in and around the Boston Region, there has been a corresponding increase in the use of cranes. Among the serious hazards that workers are potentially exposed to are: loads being passed over or near work areas, crane collapse or loss of load as a result of crane overloading or component failure, contact with overhead energized power lines, struck-by hazards in the swing radius and cranes that tip over due to their use on unstable soil or lack of proper ground support.

The following statistics were compiled from BLS Fact Sheet Fatal Occupational Injuries involving Cranes, May 2019 (retrieved September 2024).

From 2011 to 2017, the Census of Fatal Occupational Injuries (CFOI) reported 297 total crane-related deaths, an average of 42 per year over this 7-year period. Men accounted for 293 of the 297 fatal injuries involving cranes. White, non-Hispanic workers accounted for 72 percent of fatal injuries involving cranes, while 15 percent involved Hispanic and Latino workers.

Just over half of all fatal crane injuries involved the worker being struck by an object or equipment. About three-fifths of these cases (91 of 154) involved the worker being struck by a *falling* object or equipment; in 79 of these cases, the worker was struck by an object falling from or put in motion by a crane. Transportation incidents and falls to a lower level each made up about 13 and 14 percent of the remaining fatal injuries involving cranes, respectively.

From 2011 to 2017, 43 percent of fatal work injuries involving cranes took place in the private construction industry. Specialty trade contractors and heavy and civil engineering construction had the most fatal injuries involving cranes in private construction. The manufacturing industry accounted for another 24 percent of crane deaths.

One-third of all worker deaths involving cranes in 2011–17 were to workers in transportation and material moving occupations. Over half of these workers were crane operators. Another 31 percent of worker deaths involving cranes occurred to workers in construction and extraction occupations.

The worker was operating a crane at the time of the fatal injury in 22 percent of cases. The worker was engaged in construction, assembling, and dismantling activities in another 23 percent of cases. Just over one-quarter of all fatal crane injuries (27%) occurred at a construction site (except road construction). Twenty-four percent occurred at a factory or plant, another 8 percent occurred at a road construction site, and 6 percent occurred at a dockyard.

Accident investigations throughout the Boston Region continue to find safety lapses in the operation, operator training and maintenance of cranes. They include, but not limited to crane tip overs, struck-by hazards from the crane swing radius area, lack of inspection, rigging and signal operation deficiencies, and the striking of overhead energized lines. These accidents have resulted in fatalities, permanent disabling injuries and other injuries along with significant property damage.

Thorough inspections of cranes in accordance with applicable regulations are the first line of defense against crane collapse or component failure during use. OSHA standards require employers to designate a competent person to conduct inspections prior to and during the use of cranes, and monthly. A thorough annual inspection of hoisting machinery is also required. Rigging equipment, including wire rope, chains and slings, and other lifting accessories must be inspected prior to use on each shift and as often as necessary during use to assure safe operating condition. As the high level of construction activity increases the demand for crane use, it is important to emphasize the need for accident prevention through thorough inspections of cranes in accordance with applicable regulations.

### IX. Program Procedures.

The selection of sites for inspection and the conduct of inspections shall adhere to the following:

- A. The Area Directors will identify teams of experienced Compliance Officers designated to conduct activities and inspections under this LEP. Only CSHOs who have received training on conducting crane inspections will conduct inspections under this program.
- B. Throughout the duration of this program, designated CSHOs, during the course of their routine travel, shall observe cranes at construction jobsites, either in use or available for use, and identify these jobsites for scheduling for an inspection. Compliance Officers shall attempt to contact the area office either to obtain supervisory authorization to begin an immediate inspection; or, in cases where the CSHO is unable to begin an immediate inspection, to notify the area office of the CSHO's observations. Supervisory approval to start the inspection will normally be granted to the CSHO provided that this inspection activity does not conflict with higher priority inspection activity, and provided that the CSHO has the necessary expertise and equipment to conduct the inspection.

- C. The scope of the inspections performed under this LEP will be limited to a review of crane inspection records, a physical inspection of the crane and rigging, employee interviews with respect to the crane, operator qualification, proximity overhead energized power lines, ground conditions to support the crane and its load and inspection of the operation of the crane. The CSHO will give particular attention to the thoroughness of crane inspections, whether these inspections are/were conducted in accordance with applicable regulations, and the specific inspection protocol for identifying and repairing critical defects. Any expansion of the scope of the inspection will be done strictly in accordance with guidelines in the Field Operations Manual (FOM).
- D. Once a construction site with a crane is identified through a sighting during routine travel, the designated CSHO will determine the inspection history of the site. Employers who are inspected under this LEP will not be selected for re-inspection at the same site under the LEP for three months following the last day of the previous inspection.
- E. In addition, during all programmed and unprogrammed construction inspections, if a crane is found to be in use or available for use on the jobsite, the inspection will include an inspection of the crane consistent with the guidelines of this LEP. Again, these crane inspections will be performed only by the personnel designated under this program. In some cases, a CSHO referral may be appropriate under the guidelines of the current FOM to ensure that cranes are inspected by a designated Compliance Officer.
- F. This LEP will not affect the selection of inspections under existing OSHA programmed and unprogrammed activities.

# X. Safety and Health Considerations for CSHOs.

Inspections under this LEP are to be conducted by CSHOs who have received the necessary training on the hazards most likely to be encountered regarding Work Zone activities. Designated CSHOs will be provided with and use appropriate personal protective equipment (PPE), which will be worn by CSHOs during on-site inspections. PPE shall include, as a minimum, safety glasses, head protection, safety shoes or boots with impact protection, high visibility vests (class II), and fall protective equipment, where applicable. In addition, auxiliary amber safety lights shall be used in all vehicles while entering the work zones and any other area deemed necessary. The head protection and high visibility reflective clothing/vest will be clearly labeled "OSHA".

### XI. Recording in OIS.

A. This LEP covers cranes in construction. The NAICS Sector code for Construction is 23XXXX. Inspections coded for this LEP cover construction worksites. Current instructions for completing OIS forms shall be applied when recording inspections under this LEP. The OIS inspection form, investigation form, unprogrammed activities form shall be marked "CRANE" under the Local Emphasis Program dropdown menu under the Emphasis Program section as appropriate.

- B. Programmed inspections under this LEP will be coded "CRANE" under the Local Emphasis Program dropdown menu under the Emphasis Program section. CSHO self-referrals are to be recorded as programmed inspections.
- C. Any unprogrammed inspection or other programmed inspection, where cranes in construction are inspected as a portion of the inspection, will also be coded "CRANE" under the Local Emphasis Program dropdown menu under the Emphasis Program section in order to track the full extent of construction crane inspection activity.

# XII. Outreach and Compliance Assistance.

- A. Initial Outreach: This LEP was first issued on October 1, 2013, a period of initial outreach for the 2024 renewal is unnecessary.
- B. Ongoing Outreach: Each area office will develop annual goals for outreach on cranes in construction and if the office has a compliance assistance specialist will include these goals in their compliance assistance plan. Area offices will consider the Agency's Management Plan when determining target audiences for this outreach. Each area office will conduct one or more outreach sessions on cranes in construction per year.
- C. The 21(d) Consultations programs in affected states have been participating in outreach initiatives associated with this LEP since the effective date and will do so going forward if appropriate.
- D. Boston Region Whistleblower Protection Program will conduct at least one outreach activity with a primary focus of Section 11(c) of the OSH Act rights annually.

### XIII. Evaluation.

The Regional Office will complete a program report at the midpoint and completion of the LEP. The midpoint assessment will take place no later than September 30, 2027. The midpoint and final program report will include quantitative and qualitative measures, including recommendations regarding the continuation of this LEP. In addition to activity and impact measures, the report will include the following:

- Number of employees and/or establishments impacted by outreach activities.
- Outreach metrics on the Regional Emphasis Program.
- Abatement measures implemented
- Number of establishments and/or operations visited under the program.
- Number of inspections where citations were issued.
- Number of inspections where no citations were issued.
- Number of interventions conducted.
- Number of hazards abated; and
- Number of employees removed from a hazard.