



OSHA REGIONAL INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL- 04-00-016.9 | **EFFECTIVE DATE:** October 1, 2019

SUBJECT: Region Wide Local Emphasis Program – Cranes in Construction

ABSTRACT

- Purpose:** This instruction renews a Region-Wide Local Emphasis Program (RW-LEP) for scheduling and conducting inspections in the construction industry to address the hazards associated with crane operations.
- Scope:** This instruction applies to all Federal (OSHA) Area Offices in Region I.
- References:**
- CPL 04-00-002, Procedures for Approval of Local Emphasis Programs (LEPs), November 13, 2018.
 - CPL 02-00-163, Field Operations Manual (FOM), September 13, 2019 or successor guidance.
 - CPL 02-00-51 Enforcement Exemptions and Limitations under the Appropriation Act, May 28, 1998, (including annually updated Appendix A) or successor guidance.
 - U.S. Department of Labor Strategic Plan – 2018-2022.
- Cancellations:** OSHA Regional Notice CPL- 04-00-016.8, Local Emphasis Program – Cranes in Construction, October 1, 2018.
- State Impact:** All 21(d) State Consultation Programs throughout Region I will be informed of the Regional Local Emphasis Program and will be invited to participate in any continuing outreach activities.
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By and Under the Authority of

Galen Blanton
Regional Administrator

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Executive Summary

This instruction is a renewal of the OSHA Regional Instruction CPL- 04-00-016.7, October 1, 2018 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 at workplaces in Region I, New England.

Significant Changes

The LEP review process changed from a one-year program, reviewed annually before renewal (by Regional Notice) to a five-year program (by Regional Instruction), reviewed at the mid-point and completion of the LEP.

Table of Contents

I.	Purpose.	1
II.	Scope.	1
III.	References.....	1
IV.	Action.	2
V.	Effective Date.....	2
VI.	Expiration.....	2
VII.	Background and Program Description.	2
VIII.	Program Procedures.....	3
IX.	Recording in OIS.	4
X.	Outreach and Compliance Assistance.	4
XI.	Safety and Health Considerations for CSHOs.	4
XII.	Evaluation.	5

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.

This emphasis program consists primarily of two elements. The first element of this program is compliance assistance, which was performed by the Region I Area Offices to raise employer and employee awareness regarding the hazards associated with cranes and the applicable OSHA safety regulations. The State 21(d) Consultation Programs participated in the outreach and compliance assistance phases of this LEP.

The second element is an enforcement targeting initiative that will allow the Region I 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.

This directive applies to all Federal Occupational Safety and Health Administration (OSHA) Area Offices in Region I.

III. References.

- A. OSHA Instruction CPL 04-00-002, Procedures for Approval of Local Emphasis Programs (LEPs), November 13, 2018.
- B. OSHA Instruction CPL 02-00-163, Field Operations Manual (FOM) or successor guidance, September 13, 2019 or successor guidance.
- C. OSHA Instruction CPL 02-00-51 Enforcement Exemptions and Limitations under the Appropriation Act, May 28, 1998, (including annually updated Appendix A) or successor guidance.
- D. OSHA Instruction CPL-02-01-057, Compliance Directive for the Cranes and Derricks in Construction Standard, October 17, 2014.
- E. OSHA Instruction CPL-02-00-155, Compliance Directive for Inspection Scheduling for Construction, September 6, 2013.
- F. 29 CFR 1926 Subpart-CC Cranes in Construction.
- G. U.S. Department of Labor Strategic Plan – 2018 – 2022.

IV. Action.

The Region I Area Directors shall ensure that compliance officers are familiar with the contents of this instruction and that the inspection procedures described by this directive are followed.

V. Effective Date. October 1, 2019.

VI. Expiration. Unless extended by the Regional Administrator, this regional emphasis program will expire on September 30, 2024.

VII. Background and Program Description.

As a result of the continued significant increase in heavy construction activity in and around Region I, 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.

From 2011 to 2015, the Census of Fatal Occupational Injuries (CFOI) reported 220 total crane-related deaths, an average of 44 per year over this 5-year period. Men accounted for 217 of the 220 fatal injuries involving cranes. White, non-Hispanic workers accounted for 74 percent of fatal injuries involving cranes, while 14 percent involved Hispanic and Latino workers.

Just over half of all fatal crane injuries involved the worker being struck by an object or equipment. More than three-fifths of these cases (69 of 112) involved the worker being struck by a falling object or equipment; in 60 of these cases, the worker was struck by an object falling from a crane. Transportation incidents and falls to a lower level each made up 14 percent of the remaining fatal injuries involving cranes.

From 2011 to 2015, 42 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 2011–15 were to workers in transportation and material moving occupations. Over half of these workers were crane operators. Another 30 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 22 percent of cases. One-quarter of all fatal crane injuries occurred at a construction site (except road construction). Twenty-four percent occurred at a factory or plant, while another 8 percent

occurred at a road construction site.

In addition, OSHA's investigation of several recent accidents in the Region I area offices has identified a potential problem in the operation, operator training and maintenance of cranes.

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.

Throughout FY19, crane in construction accidents continue to occur within Region 1. They include, but not limited to: crane tip overs, struck-by hazards from the crane swing radius area, lack of inspection. Rigging and signal operations, and the striking of overhead energized lines. These accidents have resulted in fatalities, permanent disabling injuries and other injuries along with significant property damage.

VIII. Program Procedures.

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

- A. The Region I 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.

IX. Recording in OIS.

- A. Programmed inspections under this LEP will be coded "CRANE" in the blank space of the State/Local Inspection Programs Field of the OIS equivalent OSHA-1. CSHO self-referrals are to be recorded as programmed inspections.
- B. Any unprogrammed inspection or other programmed inspection where cranes are inspected as a portion of the inspection will also be coded "CRANE" in the blank space of the State/Local Inspection Programs Field of the OIS equivalent OSHA-1 in order to track the full extent of crane inspection activity.

X. Outreach and Compliance Assistance.

Compliance assistance activities will continue for the purpose of informing interested parties of the existence, purpose and objectives of this regional emphasis program, as well as to foster programs of frequent and thorough inspection of cranes. In addition, the State 21(d) Consultation Programs will be encouraged to participate in outreach and compliance assistance under this LEP.

XI. 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, hard hats, 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 hardhats and high visibility reflective clothing/vest will be clearly labeled "OSHA".

XII. 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, 2022. 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 LEP-related compliance assistance presentations conducted, the dates they were done, and the number of attendees at each compliance assistance session;
- Abatement measures implemented;
- Number of hazards abated; and
- Number of employees removed from a hazard.