

Crane Certification FAQs

The following are common FAQs explaining what you need to know in order to be in compliance with the new OSHA crane certification requirement.

General Questions

What is the new OSHA crane certification requirement?

On Sept. 26, 2014, OSHA published a final rule that extended the deadline for crane operator certification in the cranes standard at 29 CFR 1926.1427 for three years, to Nov. 10, 2017. As of that date, your crane operators must be certified or you will be in violation of the OSHA rule and subject to fines.

Will all crane operators need to be certified nationwide?

Operators of cranes above a 2,000-pound capacity when used in construction will need to be either certified by an accredited crane operator testing organization or qualified through an audited employer program (1926.1427(a)).

Where in the rule can I find this information?

Section 1926.1427 of the new rule describes crane operator certification/qualification requirements. Option 1, which is anticipated to be the most commonly used, requires operators to be certified by a nationally accredited crane operator testing organization that tests operators through written and practical testing and provides levels of certification based on equipment capacity or type and capacity.

Where can I find the final rule for cranes and derricks in construction?

The cranes standard can be accessed from osha.gov. The preamble to the final rule can also be found on OSHA's website under "Federal Register Notices" for Aug. 9, 2010, or on the Federal Register website (federalregister.gov) under Vol. 75, page 47,906.

When was the cranes standard last updated, prior to 2010?

The cranes standard (29 CFR 1926.550) was published in 1971. It was amended in 1988 to address the use of personnel platforms (29 CFR 1926.550(g)) and in 1993 to ensure "all employees shall be kept clear of loads about to be lifted and of suspended loads." (29 CFR 1926.550(a)(19))

How can I contact OSHA if I have questions about the final rule?

For compliance assistance regarding application of the final rule, you can contact by mail: Directorate of Construction, Room N3468, OSHA, U.S. Department of Labor, 200 Constitution Ave., NW, Washington, DC 20210; phone: (202) 693-2020, or fax: (202) 693-1689.

What standard currently applies to the use of cranes and derricks in construction?

Subpart CC of 29 CFR Part 1926 (1926.1400), "Cranes and Derricks in Construction" (cranes standard), applies to cranes and derricks when used in construction activities. Section 1926.1400, "Scope," describes the types of equipment that are included in the cranes standard and excludes certain types of equipment and cranes engaged in certain types of activities.

How does OSHA define a crane in the new rule?

The cranes standard defines cranes as "power-operated equipment that, when used in construction, can hoist, lower, and horizontally move a suspended load." (1926.1400) Cranes covered by the rule, when used in construction applications, include mobile cranes, boom trucks, articulating (knuckleboom) cranes, crawler cranes, tower cranes, floating cranes, cranes on barges and locomotive cranes.

Are any lifting devices excluded?

OSHA has excluded many lifting devices, among them: excavators, backhoes (even when used to lift suspended loads), concrete pumps, aerial lifts, tow trucks, digger derricks, gantry systems and forklifts. However, in some circumstances, many of these normally excluded from the new rules can be included when used for certain specialized tasks. For more information, please consult OSHA 1926.1400(c).

Do I need to be a certified crane operator if I operate only at the precast plant?

No. Crane operators who work only at the precast plant do not have to be certified. They do need to be “qualified,” however, and documentation of training should be on file. A crane operator who leaves the plant to deliver or place materials must be certified, however – even if the operator is only making a delivery.

If I am not certified, can I still operate cranes?

After Nov.10, 2017, those operators who are not certified must meet OSHA's definition of an “operator in training.” This includes having received sufficient training from your employer to operate the crane safely and being continuously monitored by an “operator’s trainer.” There are also restrictions on the types of lifts an operator in training can make (1926.1427(f)).

Twenty-eight states and territories have their own OSHA-approved safety and health plans. Are those states required to adopt the cranes standard?

Yes. Twenty-two states or territories currently operate their own OSHA-approved state plans (covering private and public sector employees), and five additional states and one territory (Connecticut, Illinois, Maine, New Jersey, New York and the Virgin Islands) operate plans that cover public sector employees only. The OSHA-approved state-run safety and health plans must be “at least as effective as” the federal OSHA program. Most state plans adopt standards identical to federal standards. However, state plans have the option of promulgating more stringent standards or standards covering hazards not addressed by federal OSHA standards.

What must employers do before the operator certification requirements go into effect to ensure competency of their operators?

Employers must ensure that equipment operators are competent through training and experience to operate the equipment safely (see 29 CFR 1926.1427(k)(2)). If an employee assigned to operate a crane does not have the required knowledge or ability to operate the equipment safely, the employer must train that employee before allowing him or her to operate the equipment and must evaluate the operator to confirm that he/she understands the information provided in the training (see 29 CFR 1926.1427(k)(2) training requirement).

Does OSHA require operators to be certified under existing state, county, or city licensing programs?

The answer depends on whether the licensing criteria meets the minimum requirements (“federal floor”) in 29 CFR 1926.1427(e) (2) and (j). If a state or local jurisdiction has a licensing program that meets the federal floor, OSHA requires the employer to ensure that all operators operating within that jurisdiction are licensed by that state or local jurisdiction, unless they are qualified by the U.S. Military (see 1926.1427(a)(1)). This requirement went into effect November 2010. Note, however, that the crane standard’s operator certification requirements do not supersede state or local licensing laws. If the licensing program does not meet the federal floor, OSHA does not require operators to be licensed in accordance with that program, although the operator may still be subject to action by the state or local authority for failure to comply with its requirements.

Does the cranes standard apply to installation of a burial vault?

No. OSHA does not consider the placement of a burial vault in the grave a form of construction. Excavation would be considered a construction activity and require a certified operator, but the placement of the vault into the grave would not.

Does the cranes standard apply to hoisting of tanks and precast components or structural members into an excavation?

Yes. In contrast to the placement of burial vaults, the hoisting of tanks and precast components and structural members (such as sewer pipes and utility vaults) into an excavation would be considered a construction activity because those components are positioned by a crane as part of a larger operation, system, or structure, and those objects are then connected to other structures, systems or foundations.

When is construction is using a forklift required to comply with the cranes standard?

Equipment that is designed to function as both a crane and a forklift would be considered multi-purpose equipment and covered by the cranes standard when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load. However, OSHA intends to propose amendments to the cranes standard which will clarify that forklifts are excluded from coverage by the cranes standard unless they are equipped with a boom/job and a hoist and used like a crane.

I deliver materials to a construction site using a crane. At the site, I use the crane on the boom truck to move the materials from the flatbed onto the ground. Must I comply with the cranes standard?

Yes. OSHA's current language states: "If you are delivering precast concrete members or panels to a project site, whether you are staging the products, installing the products or simply placing them on-site in no particular order; the cranes standard requirements for certified crane operators still applies."

I deliver materials to a construction site using a flatbed truck equipped with an articulating crane. At the site, I use the crane to move the materials from the flatbed onto the structure being erected. Must I comply with the cranes standard?

The use of articulating/knuckle-boom cranes to deliver materials onto a structure is also covered by the cranes standard when delivering materials such as steel joists, beams, columns, steel decking, or components of systems engineered metal buildings, precast concrete members or panels, roof trusses, prefabricated building sections such as but not limited to, floor panels, wall panels, roof panels, or roof structures or materials similar to these.

Do I have to be tested in English?

OSHA permits tests to be administered in any language the operator understands, but there are conditions. The certification card must note the language used on the test, and all the materials that are required to be on the crane (operators manual) must be in the same language as the test (1926.1427(h)(2)).

Does OSHA specify what the written and practical crane operator test must include?

Yes. OSHA lists the information necessary for the safe operation of the type of crane to be operated for the written test, and it outlines which skills the practical exams must test (1926.1427(j)).

I operate a crane with a maximum lifting capacity of 10 tons, but I never pick up loads larger than 1,500 lb. Do I need to be certified?

The exclusion for cranes of 2,000 pounds and below refers to the maximum manufacturer-rated capacity. Even if you lift higher loads, it is the crane's maximum-rated capacity that must be 2,000 pounds or less for you to be exempt from the requirements of 1926.147. Employers are still responsible for training their operators on the safe operation of the type of equipment the operator will be using (1926.1441(e)).

My operators received their certification. Is there a re-certification requirement?

Yes. A re-certification exam is required after five years of the issued date.

How does the OSHA regulation impact local regulations?

Some states and cities have enacted more stringent crane certification requirements for operators in their jurisdiction. National Precast Concrete Association (NPCA) recommends you check with your state and local officials to verify what regulations may apply to your crane operators.

Who would be cited in the event a compliance officer came across a non-certified, non-qualified operator? Is it the employer and/or the operator?

Dean McKenzie, OSHA director of Construction, said that “without specific facts on which these decisions are always made, I can only speculate. OSHA does not generally have the authority over individuals or the self-employed, and only has authority over employers (with employees). If an unqualified operator was found on a site, OSHA could only issue citations to the operator’s employer and possibly (under the multi-employer doctrine) the controlling entity.”

Who owns the certification?

The employee (operator) owns the certification once he/she becomes certified. If that employee leaves, the certification travels with the employee.

Testing Questions

Which organizations are accredited crane operator testing agencies?

There are several accredited organizations that can certify crane operators. It is important to note that OSHA requires certification bodies to be ANSI and/or NCCA accredited.

- Crane Institute Certification (CIC): cicert.com
- National Commission for the Certification of Crane Operators: nccco.org
- National Center for Construction Education and Research: nccer.org

Does it matter which testing agency I go through for my certification?

All of the above crane operator testing organizations are accredited and issue crane certifications accepted by OSHA. You can pick the organization that is the best fit for your needs.

Is training required for certification?

There is not a specific training requirement tied to the OSHA certification regulation. The regulation states that an operator must be certified and qualified. Certification and qualification of the operator’s skill are the verification of his/her ability to safely and knowledgeably operate a crane. While there is not a required training class as part of the certification and qualification process, NPCA strongly recommends operators take a training course in preparation for the certification exam. The pass rate for crane operators taking the certification exams increases substantially after completion of a preparatory training course.

Where can I find training courses to prepare for the certification exam?

Each of the accredited certification organizations listed above have relationships with trainers that deliver prep courses to help you get ready to take the certification exam. Visit a certification organization’s website and click on “training” to find courses and instructors in your area.

What is the difference between “certified” and “qualified”?

A “certified” crane operator has successfully passed a stringent written and practical exam. A “qualified” crane operator has extensive knowledge, training and experience in safely operating a crane and has demonstrated the ability to resolve problems related to proper crane operation but has not passed the exam.

Has NPCA developed a precast specific boom truck certification exam?

Yes. In collaboration with the Crane Institute Certification (cicert.com), NPCA has developed a precast- specific operator certification exam: the Under 21-ton Precast Concrete Delivery Truck Crane Certification.

What boom trucks does the new Precast Concrete Delivery Truck Crane Certification exam cover?

- Telescoping boom cranes (fixed or rotating)
- Rail/trolley trucks
- Boom trucks with a rated capacity under 21 tons
- Boom length of 36 feet, +/- 5 feet

What if I operate a boom truck that is over 21 tons and/or has more than 36 feet of boom, +/- 5 feet?

If you operate a boom truck that is 21 tons and over and/or has more than 36 feet +/-5 feet of boom, you will need to be tested on a different certification exam other than the new Precast Concrete Delivery Truck Crane Certification exam. There are currently established tests available for larger boom trucks. You will need to contact one of the accredited crane operator testing agencies for more details on what is available.

Does the new Precast Concrete Delivery Truck Crane Certification exam cover articulating cranes (knuckleboom cranes)?

No. Articulating cranes (knuckleboom cranes) are covered under a separate certification exam; one that is already in existence and available to the industry.

Will NPCA be providing any training?

NPCA will be hosting four webinars on Understanding Delivery Crane Load Charts in 2017. Each webinar is four hours. Dates of the webinars are March 14, June 13, August 15 and October 15. NPCA will also host this as a live program at the 2017 Precast Show. Additional updates will be provided on the NPCA website and through email newsletters.

Will NPCA be hosting regional training and certification events?

Yes, please visit precast.org/npca-crane-courses/ to find dates and locations for NPCA-hosted training. We also encourage you to explore other training and testing opportunities with vendors in your local area.

CIC Information for the Under 21-ton Precast Concrete Delivery Crane Certification

What is involved with becoming a certified mobile crane operator?

In order to earn an accredited CIC crane operator certification, candidates must take and pass a written exam and a practical exam. The written exam will consist of a general knowledge portion and a supplemental exam section for each type of certification the candidate wishes to achieve. The practical exam is a demonstration of the candidate's skills operating the crane. At CIC, one practical exam can qualify an operator for several types of certification, as long as the corresponding written exams supplements are passed.

What information does the general Knowledge exam include?

The general knowledge exam includes information that applies to all/most crane types.

The topics covered under site evaluation and crane setup:

- Roles and responsibilities of all persons involved with the lift
- Factors that impact the lift such as tail swing, load path and clearances

- Impact of various weather conditions
- How to deal with unstable ground and setup on soft surfaces
- Hazards such as overhead obstructions, power lines and underground utilities
- ASME standards and OSHA regulations
- Requirements of crane setup such as radius, clearances, crane dimensions and load dimensions
- Crane setup procedures such as use of outriggers, lifting on rubber and leveling the crane
- Site requirements for blocking

The topics covered under Technical Information:

- Crane inspection procedures
- Crane components, including:
 - o Engine, air, electrical and hydraulic systems
 - o Chassis and running gear components
 - o Outriggers and counterweights
 - o Boom components
 - o Hoisting systems
 - o Operating controls
 - o Operational aids
- Basic load rigging procedures
- Knowledge of sling and hardware capacity
- Impact of deformities in slings and hardware

Topics Covered Under Load Charts

- Using and interpreting capacity charts
- Arithmetic skills without the use of calculators
- Determining lifting capacity, including;
 - o Configuration of crane mounting
 - o Areas of operation for different types of mobile cranes
 - o Boom length and boom angle
 - o Load radius
 - o Gross capacity and net capacity
 - o Capacity deductions
 - o Parts of line
- Conditions that reduce capacities

Topics Covered Under Crane Operation

- How to enter and exit the cab of the crane safely
- Procedures for setup and usage of operational aids hand signals or voice signals used to direct crane operator
- Handling loads out of operator's sight (operating in the blind)
- How to handle loads submerged in water
- How to move loads from an elevated position
- Heavy lift operations
- Hoisting procedures and personnel hoisting equipment
- Procedures for securing the crane under standard or emergency conditions