

Mobile Crane Operations

Most of us are now aware that the crane regulation in Construction was updated in 2010 and many needed changes were made from the original 1971 regulation, which was based on a 40-year-old standard. The new regulation is designed to prevent most common cause of fatalities; electrocution, struck-by hazards during assembly/disassembly, collapse and overturn. It also clarifies host employer responsibilities and the elements of crane operator certification.

Mobile cranes are defined as equipment that can hoist, lower and move horizontally a suspended load. There are certain pieces of equipment that are exempt from having to meet standard requirements as long as the equipment is used in the manner in which it was designed.

Qualified or Certified?

There have been several conversations about what constitutes Construction activities as opposed to General Industry (GI) activities, especially when it comes to applying the crane regulations to crane operations. **An operator certification is required for crane operations in Construction environments and tasks, meaning that a person has satisfactorily completed both knowledge and skills tests.** This two-part test is conducted and confirmed by an independent testing organization and is an official confirmation that the operator is familiar with lifting principles, the forces acting on the crane, jobsite set up and safe operation of the equipment. The operator will then be issued credentials from the testing organization. The criteria for certified mobile crane operators can be found in Appendix C in OSHA's crane regulation (Subpart CC of 1926) and in ASME B30.5. Assessment material for qualified crane operators can be found in the appropriate ASME B30 standards and equipment Manufacturer's specifications. Training citations issued by OSHA would be completely dependent on the activities performed at the time of the inspection. General Industry activities, the citation would be a General Duty (88.4 Code of Iowa) with the ASME B30 and/or the manufacturer's manual as the supporting standards; Construction activities, the citation would be under the Crane regulations, 1926.1400.

At the present time, there is **no General Industry regulation that requires crane operators to be "certified"** in order to operate a mobile crane, **however they must be a "qualified" operator.** This "qualification" designation means that the employer has determined, by conducting an assessment or evaluation, that the employee is familiar with the equipment and the user's manual, the way that the equipment is approved to be used and ways that it is not to be used, the operator can conduct the daily visual inspection and has no disability that would prohibit safe operation of the equipment. Whereas conducting an assessment of a person's **qualifications** of safe and knowledgeable operation of equipment **can be subjective**, a **certification is objective.**

General Industry or Construction? 1910 or 1926?

Keep in mind that the **activity or scope of a project determines which standard applies**. Think of the jobsite and materials. If your activity is simply to maintain the value of building, equipment or surroundings, the GI standards governs the work. **If the activity is to add value or to upgrade equipment, or a jobsite, the Construction standards applies**. Consider this statement taken from a letter of interpretation from federal OSHA to address an inquiry from an employer about the definition of construction: <https://www.osha.gov/laws-regs/standardinterpretations/2003-11-18> *“Construction work is not limited to new construction, but can include the repair of existing facilities or the replacement of structures and their components. For example, the replacement of one utility pole with a new, identical pole would be maintenance; however, if it were replaced with an improved pole or equipment, it would be considered construction.”* In this example, the maintenance activity is GI work and would require the operator to be crane **“qualified”**. **Construction activity under the electric and telecommunications exemption would require crane “qualified”**. **Any Construction activity outside the exemption would require crane “certification”**.

To add to OSHA’s examples: unloading materials from a truck into an end user’s warehouse (fixed setting), or the material yard of the warehouse (fixed setting), or metal at a scrap yard (fixed setting), would be each be GI activities and the crane operator would have to be **“qualified”**. The same crane unloading materials from a truck to the staging area of a construction site (*construction setting*) or of a building addition (*construction setting*) or at the location of an upgrade of a bridge or culvert (*construction setting*) would require that the operator be **“certified”**. A leaky roof with shingles could also fall under separate regulations; fixing the leaking area by replacing the shingles would be GI work while replacing the whole roof or even simply the leaking area with new or different material (like rubber membrane) would be considered construction work.

Neither the word ‘construction’ nor ‘contractor’ needs to be in your business name for those standards to apply to *your activities*. *As a municipality, county or utility you are certainly performing activities that fall under the construction regulations. You may even be considered a contractor if you provide materials or labor to perform a service or do a job under a contract. Under the OSH Act, at a minimum, you are required to provide your employees a safe place to work and to comply with the OSHA regulations. That safety responsibility doesn’t end with your employees; when you hire contractors to perform work the same responsibility continues. To say “we hire a contractor to perform that work” does not absolve you of your legal obligations to that contractor and their employees.**

*Most states that are under Federal OSHA authority are not legally bound by the regulations but that does not include their contractors or even if they have a fatality. Contact your local OSHA office to verify coverage. Note: Iowa is an OSHA Plan state and municipalities and counties are bound by the regulations.

**OSHA’s Multi-Employer Citation Policy, CPL 02-00-124. The policy categorizes employers into four groups--Controlling, Creating, Exposing, and Correcting--and outlines the safety responsibilities of these employer types. It is also important to understand that multi-employer liabilities arise in both regulatory and civil lawsuits, and that any contractor meeting the definition of a Creating, Exposing, Correcting, or Controlling Employer also may be subject to a lawsuit for injuries to a worker.

Consider Federal OSHA’s 8/11/1994 memorandum to Regional Administrators “In other instances, where an activity cannot be easily classified as construction or maintenance even

when measured against all of the above factors, the activity should be classified so as to allow application of the more protective 1910 or 1926 standard, depending on the hazard. In such cases the citation should be issued in the alternative with the emphasis on the more protective standard.”

OSHA provides help to determine the applicability of the construction regulations to a specific task or project. <https://www.osha.gov/SLTC/etools/construction/>

The construction crane regulation exempts several types of equipment but only when used under specific conditions. For example, a mechanic's truck with a hoisting device that is rated to lift over 2,000 pounds, commonly known as boom trucks, are exempt from the operator's certification requirements **only when using the vehicle in activities related to equipment maintenance and repair**, like replacing the snow plow blades or mounting salt spreaders on trucks. But when setting a post, installing/upgrading a culvert, Construction activities then **“certification” is required.**

Here are some examples of construction activities that are outside the exemption:

- The replacement of one utility pole with a new, identical pole would be maintenance or general industry; however, if it were replaced with an improved pole (switching from wood to laminate or steel pole) or equipment, it would be considered construction activity.
- Unloading materials from a truck into an end user's warehouse would be general industry but unloading the same materials to a staging area where a building addition is taking place is considered construction activity.
- Replacing a motor at wastewater treatment plant with one of the same HP and the same NEMA design, is maintenance, but a motor with a different HP or NEMA design is an upgrade and considered construction activity.
- A leaky roof with shingles could also fall under separate regulations; fixing the leaking area by replacing the shingles would be a general industry activity while replacing the whole roof or even simply the leaking area with new or different material (like rubber membrane) would be considered a construction activity.
- Replacing or repairing a stop sign, replacing or repairing a culvert or a section of damaged guardrail are all considered construction work activities. OSHA also considers work zone sites to be construction sites.
- A steel beam in a building has deteriorated and is to be replaced by a new, but identical beam, the project would be considered a construction repair rather than maintenance because of the replacement project's scale and complexity. (11/18/2003 Letter of Interpretation)
- All suppliers who furnish any supplies or materials, if the work involved is performed on or near a construction site, or if the supplier fabricates the goods or materials specifically for the construction project, and the work can be said to be a construction activity. [29 CFR 1926.13(c)]

Exemptions:

Digger Derricks were originally exempt from the certified crane operator regulations only when they were placing or removing material from a utility pole conducted under 1910.268 (telecommunications), 1910.269 (power generation, transmission or distribution) or Subpart V (construction's power generation, transmission or distribution regulation).

This **exemption was revised and amended** on June 28, 2013 and now states "1926.1400(c)(4) *Digger Derricks when used for augering holes for poles carrying electric or telecommunication lines, placing and removing the poles, and for handling associated materials for installation on, or removal from, the poles, or when used for any other work subject to subpart V of this part. To be eligible for this exclusion, digger-derrick use in work subject to subpart V of this part must comply with all of the provisions of that regulation. For example, in order for the exemption to apply, this following regulation must be implemented "(Subpart V) 1926.959(a)(2) Inspection before use. The critical safety components of mechanical elevating and rotating equipment shall receive a thorough visual inspection before use on each shift."*

Subpart V of 1926 covers the construction of electric power transmission and distribution lines and equipment. As used in this subpart, the term "construction" includes the erection of new electric transmission and distribution lines and equipment, and the alteration, conversion, and improvement of existing electric transmission and distribution lines and equipment.

In addition, **digger derricks used in telecommunication work are exempted from the requirements of the crane standard provided that the following requirements are met: (1)** the digger derricks are used for augering holes for poles, placing or removing the poles, or handling associated materials, and **(2)** the employer must comply with all 1910.268 telecommunication work requirements. Following the example given for the Subpart V exemption previously mentioned, the regulation 1910.268(j)(1)(i) states "*The employer shall ensure that visual inspections are made of the equipment by a competent person each day the equipment is to be used to ascertain that it is in good condition.*" When the employer demonstrates that it is utilizing the exemption in Subpart CC, but is not complying with the separate requirements in 1926 subpart O, which is applicable to all motorized vehicles in construction, then OSHA will cite the employer under subpart O. 1926 Subpart O, Motor Vehicles and Mechanized Equipment, is the overall vehicle safety standard that requires vehicles to be serviced and maintained according to manufacturer's instructions.

Telecommunications work is defined as "1910.268(s)(40) "the furnishing of a capability to signal or communicate at a distance by means such as telephone, telegraph, police and fire alarm, community antenna television, or similar system, using wire, conventional cable, coaxial cable, wave guides, microwave transmission, or other similar means."

Many site supervisors are saying 'I don't care what OSHA says about you being exempt. If you are coming on my jobsite I want you to be a certified operator. If you're not, don't come on my site.' Consequently, many insurance companies feel the same way – they are requiring the employers that they cover, to certify their operators. They are taking that approach to protect themselves and their operators, not just to satisfy OSHA. A responsible crane operator is aware of safety factors like load capacity, safe rigging practices, overhead safety hazards, communication and

hand signals; hazards found in construction or general industry. The certification process is simply a proactive risk management practice. Making the decision to certify operators just makes sense.

If you have any questions about cranes or crane operations, please feel free to call Margret Meade at 515.210.6617 (cell) or 515.289-5229 (direct dial) or email at mmeade@iamu.org