



OSHA's New Crane Rule

The U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), established a new rule on crane safety in 2010. Effective November 8, Subpart CC, Cranes and Derricks in Construction, regulates the use of many types of lifting machines in construction work. OSHA estimates that 89 crane-related fatalities occur per year in construction work, and the new rule will make crane use safer.

OSHA began work to develop changes to the requirements for cranes and derricks in 1998, and in 2002, sought public input by announcing plans to use the Negotiated Rulemaking Act (NRA), to revise the cranes and derricks standard. A committee of 20 publicly nominated representatives was established, and after additional public comment, OSHA added three more members to represent industries and users who were not included in the original nominations. Those persons became the Cranes and Derricks Negotiated Rulemaking Advisory Committee ("C-DAC"). The C-DAC committee worked a year to reach consensus agreement on various issues and then presented recommended regulatory text for the proposed rule, to OSHA in July 2004. The "C-DAC Document" was then reviewed by OSHA's Advisory Committee for Construction Safety and Health, who supported the Document and recommended it as the basis for a proposed standard on October 12, 2006. OSHA then spent two years correcting typographical and technical errors and properly renumbering or rewording items that required clarification before publishing a proposed rule and requesting public comment on the proposal. In 2009, public comments were reviewed and public hearings were held until the final rule was released July 28, 2010, with an effective date of November 8, 2010.

Need and support for new crane regulations became emphasized by two highly publicized crane collapses in New York City, occurring in 2008, that left nine people dead and many others injured. After those fatalities, the effectiveness of increased safety was demonstrated, as new stricter safety and training rules are credited with reducing construction-related deaths from 19 in 2008, to 3 in 2009.¹ Additionally, a 2006 crane collapse in Bellevue, Washington, causing the death of one person provides a devastating story about Warren Yeakey, who had worked to turn his life around, only to go from crane operator to victim. http://www.seattlepi.com/jamieson/295890_robert14x.html Consequently, these cases demonstrated the need to improve crane safety.

The new rule replaced existing regulations of just over 3 pages long, 1926.550 Cranes and Derricks, with 43 pages that were published in the Federal Register on Monday, August 9, 2010. With the Preamble, which includes input from industry and users as well as OSHA's responses, Subpart CC is 1,075 pages, with more than one million letters and characters. While that's a significant jump in regulation, it is representative of the huge increase in the type and quantity of cranes found and used on construction sites during the same period. Additionally, there have been major changes in construction plans, complexity of designs, the lifts required, and the types, configurations and complexity of the lifting equipment. The old

¹ Anne Barnard, NY Times, March 28, 2010
http://www.nytimes.com/2010/03/29/nyregion/29crane.html?_r=1

regulation dated back to 1971, with only two minor amendments in 1988 and 1993. When first adopted in 1971, hydraulic cranes were rare, but with considerable technological advances, these are now prevalent, including the use of boom trucks, to deliver materials.

Under the new standard, there's a long list of examples of what equipment is covered, but it boils down to a simple functional description. Essentially, all equipment that can hoist, lower and horizontally move a suspended load is covered, but the regulation allows 17 exemptions of equipment not subject to the rule. Many are specific equipment exclusions such as excavators, backhoes and dedicated drilling rigs, or specific operations like tree trimming and removal. Some are limited exclusions, however, such as the one for Material Delivery, that excludes articulating/knuckleboom crane trucks, when performing certain functions only.

OSHA has long taken the view that an employer who delivers materials to a construction site is not engaged in "construction work," if that employer's work at the site is limited to simply placing/stacking the materials on the ground. Therefore, there is an explicit exclusion to this effect.

Material Delivery Exclusion

Building Material Dealers are exempt from the regulation, under either of two conditions:

- i. The material is delivered to the ground without placement in a particular sequence for hoisting.
- ii. Material boomed onto a structure (building) using a fork/cradle (no rigging) when the crane is equipped with a properly functioning automatic overload protection device, and
 - a. the boom is not used to hold, support or stabilize the material for a construction activity
 - b. the material is not a pre-fabricated component, such as trusses
 - c. the material is not a structural steel member.

The complete exclusion wording is as follows:

(17) Material Delivery

- (i) Articulating/knuckle-boom truck cranes that deliver material to a construction site when used to transfer materials from the truck crane to the ground, without arranging the materials in a particular sequence for hoisting.
- (ii) Articulating/knuckle-boom truck cranes that deliver material to a construction site when the crane is used to transfer building supply sheet goods or building supply packaged materials from the truck crane onto a structure, using a fork/cradle at the end of the boom, but only when the truck crane is equipped with a properly functioning automatic overload prevention device. Such sheet goods or packaged materials include, but are not limited to: Sheets of sheet rock, sheets of plywood, bags of cement, sheets or packages of roofing shingles, and rolls of roofing felt.
- (iii) This exclusion does not apply when:
 - (A) The articulating/knuckle-boom crane is used to hold, support or stabilize the material to facilitate a construction activity, such as holding material in place while it is attached to the structure;
 - (B) The material being handled by the articulating/knuckle-boom crane is a prefabricated component. Such prefabricated components include, but are not limited to: Precast concrete members or panels, roof trusses (wooden, cold-formed metal, steel, or other material), prefabricated building sections such as, but not limited to: Floor panels, wall panels, roof panels, roof structures, or similar items;
 - (C) The material being handled by the crane is a structural steel member (for example, steel joists, beams, columns, steel decking (bundled or unbundled) or a component of a systems-engineered metal building (as defined in 29 CFR 1926 subpart R).
 - (D) The activity is not specifically excluded under § 1400(c)(17)(i) and (ii).

Retailers and Construction Managers are highly advised to review this Material Delivery Exclusion that exempts most Building Material Dealers from the requirements of this regulation.

The overloading and subsequent collapse of cranes is one of the primary hazards this rule seeks to address. This hazard is addressed by equipping boom truck cranes with automatic overload prevention devices and is the reason OSHA permits this exemption. However, there are two exclusions that prevent

the use of this exemption: when facilitating a construction activity or delivering prefabricated components, the dealer must follow the entire rule if either of those cases applies.

One question that arises in this section is whether delivery of items like prefabricated trusses from the truck crane to the ground is exempt from the rule. That is, does subsection (iii) only preclude use of Exclusion (ii) directly above, or does it apply to both (i) and (ii)? Guidance provided in the Preamble, suggests that delivery to the ground is exempt, that transfer of prefabricated items is only prohibited onto a structure. To summarize, when a delivery vehicle is used solely to deliver building supply materials from a supplier to a construction site by placing/stacking the materials on the ground without arranging the materials in a particular sequence for hoisting, the equipment is not being used for a construction activity and is not subject to this rule.²

In summary, Building Material Dealers who deliver materials to the ground are excluded from the regulation. Booming of materials, onto a structure, may be exempted, by meeting specific criteria. The prime benefit of the exemption is that it relieves the dealer from extensive and costly requirements for Operator Certification. Certification requirements phase in over the next three years except where states have equivalent, existing operator certification laws, certifications are in effect there now,³.

Until the full certification and qualification requirements take effect, or if exempt, dealers must still ensure operators of boom trucks are capable of operating the equipment, have proper training, are operating safely and have been evaluated to confirm their understanding of the training. These obligations are present under existing training requirements and the general duty clause, even when exempt from the new regulation.

If you are not exempt, in addition to operator certification, there are regulations requiring qualified signal person(s) and qualified rigger(s) if there's any slings, cables or lifting below the forks.

Questions have also arisen, pertaining to the use of remote controls. OSHA has stated that a driver off-loading materials, utilizing remote control, does not violate the rule. If the operator uses the remote controls to position the articulating crane and lock it into position before off loading the materials, and does not simultaneously operate the controls and offload the materials, the operator would not be "actually engaged in operating the crane" at the same time as he is off-loading the crane. The operator would also not be considered to "leave the equipment unattended" so long as the operator has immediate access to the remote controls. See discussion of § 1926.1417(e).⁴

The new regulation provides valuable information, superior ideas, and best practices that safety-conscious operators can utilize in their operator training and safety programs. If you fall into that category, want additional loss control information, or will be doing operations that subject you to the rule, you can contact your local Acadia Loss Control Representative or jennifer.towne@acadia-ins.com for additional information on complying with OSHA's new crane regulation. Acadia Insurance recommends using new rule material as a basis for training all boom truck drivers, and is producing excerpts of the sections pertinent to Building Material Dealers.

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² **Federal Register** / Vol. 75, No. 152 / Monday, August 9, 2010 / Rules and Regulations, P. 47929

³ Massachusetts, Connecticut and New York, are 3 of the 18 states which currently have licensing requirements, but they may not necessarily meet the OSHA requirements for licensing by a government entity.

⁴ **Federal Register** / Vol. 75, No. 152 / Monday, August 9, 2010 / Rules and Regulations, P. 47989-90.

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