Defending Crane Manufacturers

New OSHA Standards Improve Position from the Start

By Carl A. Schaerf and Harris Neal Feldman

Manufacturers will find it easier to demonstrate that increased responsibility for safety should fall to those who can control it.

The Occupational Safety and Health Administration's (OSHA) proposed new crane standards, strongly supported on Capitol Hill, should be added to the arsenal of litigators who defend crane manufacturers when the standards become published, final regulations within a matter of months. Crane manufacturers should welcome the 1,100+ pages of proposed crane standards, a major overhaul of decades-old regulations largely based on a long-antiquated version of the American National Standards Institute's B-30.5 standard, which detail new requirements in operator training, inspection, and evaluation of surrounding conditions. While news reports of serious construction accidents and related safety concerns have popped up nationwide lately, anyone who defends product manufacturers understands that "engineering" product safety has its limits. At base, safety requires substantial effort from those who use, maintain and train, meaning employers. Nevertheless, following virtually each and every crane accident, a manufacturer faces expensive litigation to defend itself against a product liability claim. The new OSHA crane standards will help manufacturers to demonstrate that others are better positioned to ensure safety. In addition, the new standards appropriately place increased responsibility for safety with employers and general contractors, who can control sites where cranes are operated.

These new OSHA crane standards have not arisen in a vacuum. OSHA solicited input from a vast range of companies with interests in them. Those interests were:

- Crane and derrick manufacturers, suppliers, and distributors
- Companies that repair and maintain cranes and derricks
- Crane and derrick leasing companies
- Owners of cranes and derricks
- Construction companies that use cranes and derricks
- General contractors
- Labor organizations representing construction employees who operate cranes and derricks
- Labor organizations representing con-

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struction employees who work in conjunction with cranes and derricks
- Owners of electric power distribution lines
- Civil, structural and architectural engineering firms and engineering consultants involved with the use of cranes and derricks in construction
- Training organizations
- Crane and derrick operator testing organizations
- Insurance and safety organizations and public interest groups
- Trade associations
- Government entities involved in construction safety and in construction operations involving cranes and derricks

During the comment period and hearing phase, businesses and industries raised issues regarding the proposed standards, such as the types of equipment covered, the requirements of operator certification, whether a particular industry should be exempted from these standards, and whether and to what extent grandfathering will occur. The comment and public hearing period is complete, and OSHA will now evaluate the full record and write a preamble to the final crane regulations. This is a lengthy, complex process that will most likely end sometime in 2010. Over the next several months, OSHA's Directorate of Construction staff will draft changes to the standards based on these comments and explore the economic impact of the proposed standards. After all of this is complete, the crane standards, along with the preamble, will be published in the Federal Register. They are expected to take effect within 90 days to one year of publication.

This article outlines major points of the revised crane standards that will cover the estimated 96,000 cranes in use per year in the United States, focusing on those that lend themselves to new or improved crane product liability defenses in wrongful death or person injury suits. The standards fall into three categories: (1) preventive; (2) operational; and (3) environmental.

Preventive Standards

While the revised crane standards all seek to prevent injury and death, each of the following sections involve pre-operational actions that OSHA expects will reduce injuries and fatalities in the construction industry: uniform inspections, training requirements, safety devices, maintenance and repair worker qualifications, and equipment modifications.

Uniform Inspections

Recognizing inspections as key to injury prevention, the revised crane standards seek to impose uniform inspection schedules with limited equipment-specific inspection requirements. OSHA structured this section of the new standards "so that the inspection requirements would be triggered by activity (*e.g.*, equipment modification, repair/adjustment, assembly, severe service or equipment not in regular use) and the passage of time (*e.g.*, shift, monthly and annual/comprehensive)." An initial inspection of new equipment is not required because "manufacturers' quality control and inspection practices are generally effective in ensuring that new equipment does not have deficiencies that constitute safety hazards." Also, if a manufacturer proscribes a more frequent or more comprehensive inspection, then the manufacturer's inspection requirements must be followed in recognition of the manufacturer's expertise regarding its equipment. Finally, wire rope must be inspected with the same frequency as the other crane components—a critical change, as anyone who has litigated a wire rope failure case can attest.

Training Requirements

Section 1430 of the revised OSHA crane standards collects and cross-references the various subsections addressing training issues: power line safety, 1926.1408(g); swing radius hazards, 1926.1424(a)(2) and 1926.1437(c)(2)(ii); crush/pinch points, 1926.1430(e); tag-out, 1926.1430(f); qualified persons, 1926.1403(d); refresher training, 1926.1430(g)(2); signal person training and retraining, 1926.1430(b) and 1926.1428(b); operator training during the trainee/apprentice, phase-in, and qualification/certification periods, 1926.1427(f)(2)(i), 1926.1427(k), and 1926.1430(c)(1); operator training for boom hoist testing and emergency procedures, 1926.1430(c)(2)(i–ii); and operator training for capacities of 2,000 pounds or less, 1926.1441(e).

Safety Devices

The following crane safety devices "are so essential and integral to safe equipment operation that [OSHA will now require them to be used because] there is no acceptable alternative to having them in proper working order":

- Crane Level Indicators: "level equipment is a key factor in ensuring crane and derrick safety."
- Boom Stops (except for derricks and hydraulic booms): "restrict the boom from moving above a certain maximum angle and toppling over backwards."
- Jib Stops (except for derricks): "perform the same function for jibs as boom stops perform for booms."
- Foot Pedal Brake Locks (except for portal cranes and floating cranes): "Such locks are needed to prevent the unintentional disengagement of a foot pedal brake, which could lead to unintended equipment movement and consequent injuries and fatalities. Due to the physical effort needed to keep the pedal engaged, this is particularly important where the brake is applied for long periods of time."
- Integral Holding Devices/Check Valves: for hydraulic outrigger jacks "to prevent the outrigger jack from collapsing in the event of a hydraulic failure."
- Rail Clamps and Rail Stops (all equipment on rails except for portal cranes): restrict the equipment from "lifting off" or "moving past a specific point" of the rails.

The revised crane standards prohibit operation of the equipment if any of the above safety devices are not in "proper working order."

Maintenance and Repair Worker Qualifications

OSHA sought to place restrictions on equipment operations during maintenance or repair and to ensure that maintenance and repair workers are qualified to perform their work. OSHA's qualification standard for maintenance workers is not as strict as its requirements for crane operators. Instead, recognizing the comprehensive, on-the-job experience of maintenance and repair workers, these workers need only be a "qualified person," defined as "a person who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, successfully demonstrated the abil-

ity to solve/resolve problems relating to the work, the subject matter, or the project."

Equipment Modifications

OSHA decided to retain the requirement that an employer seek written approval for crane modifications from the crane's manufacturer, but also addressed situations in which a manufacturer does not respond to a request to approve a modification or involving cranes for which a manufacturer is no longer in existence. If a manufacturer declines to review or fails to respond within 30 days, the proposed regulations permit the employer to proceed with the modification provided that a registered professional engineer approves the modification, specifies "the equipment configurations to which that approval applies," and modifies "load charts, procedures, instruction manuals and instruction plates/tags/decals as necessary to accord with the modification/addition," which effectively shifts much of the potential liability to the engineer and employer. If a manufacturer has gone out of business and does not have a successor entity, the same requirements apply.

This section also "prohibit[s] modifications or additions which affect the capacity or safe operation of the equipment where the manufacturer, after a review of the technical safety merits of the proposed modification/addition, rejects the proposal and explains the reasons for the rejection in a written response." OSHA then provides the employer with the "opportunity to modify the proposal to address the manufacturer's objections."

Operational Standards

Operator Qualification and Certification

Finding that human error is a significant cause of fatal crane accidents and that existing OSHA crane operation training standards that do not require testing verified by a third party have resulted in inconsistent degrees of operator knowledge, OSHA will in the future mandate formal certification and qualification of crane operators. Employers will have four options to ensure that crane operators reach the required skill level: (1) certification by an accredited, third-party testing organization; (2) qualification by an audited employer program; (3) qualification through the U.S. military; and (4) qualification through a governmental licensing authority. Experienced crane operators will *not* be grandfathered.

Manufacturer Procedures

The term "manufacturer procedures" includes "all recommendations by the manufacturer regardless of the format of those recommendations." As discussed above, the new standards "would require employers to comply with the manufacturer procedures applicable to the operational functions of all equipment covered by" this standard as another acknowledgement that "the manufacturer has a high degree of expertise with respect to the capabilities and limitations of the equipment that it has designed and built."

As a common-sense, catch-all, OSHA mandated that "operators refrain from engaging in any practice that would divert" attention from the crane, for example, by engaging in personal cell phone use.

Environmental Standards

Ground Conditions

In an effort to reduce crane tip over incidents, OSHA's new standards place a high level of responsibility on the "controlling entity," defined in Section 1926.1401 as "a prime contractor, general contractor, construction manager or any other legal entity which has the overall responsibility for the construction of the project—its planning, quality and completion." The new standards prohibit the controlling entity from assembling or using crane equipment "unless ground conditions are firm, drained (except for marches/wetlands), and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met." These standards shift the responsibility to the controlling entity rather than leaving it to the judgment of the crane operator.

Weather Conditions

Because "wind velocity and weather must be considered so that crane stability and capacity are not compromised," the new standards require that the crane assembly or disassembly supervisor determine the maximum wind and other weather conditions, such as ice formation, for safe crane operations under the circumstances.

Power Lines

To reduce the number of fatalities resulting from electrical contact with power lines, the standards provide a variety of employer options for assembly, disassembly, travel, and operation of cranes near power lines—for example, de-energizing and grounding power lines; taking encroachment measures—for instance, a dedicated spotter or proximity alarm; or maintaining minimum clearance distances depending on the circumstances. Additional requirements exist depending on the option or options chosen.

Manufacturers' Defenses Improve

The new standards better position manufacturers defensively from the start in litigation. Indeed, some suits may never commence, due to the new standards, and in those that do, a plaintiff may not name the manufacturer as a defendant. More likely, however, plaintiffs will name general contractors, as well as maintenance companies, as codefendants based on alleged violations of the above-referenced OSHA crane standards. In states such as New York, with its construction workplace "labor law," these suits are common, and the "labor law" case has historically been an easy case for plaintiffs' counsel to prosecute. If a plaintiff's counsel does not pick up on the nuances of the new standards, it will fall to manufacturer's counsel to name the appropriate parties either as third-party defendants or direct defendants. Presumably, with experience, the plaintiffs' bar will pick up on the "new," or newly highlighted, avenues for recovery outlined in the new standards.

In the discovery phase, defense counsel may use well-targeted interrogatories, notices to produce, and requests for admissions to obtain key information and documents about mandated inspections and training, as well as the use or misuse of safety devices. Defense counsel may serve third-party subpoenas to elicit worker qualifications and to verify mandatory training. Because most of the new standards place express responsibility for safety measures on the general contractor or employer, a case against these entities will become streamlined. In addition, organized recordkeeping by crane manufacturers will assist counsel in proving possible deviations from manufacturer procedures

or failures to obtain manufacturer approval prior to modification of equipment.

While summary judgment may still remain a challenge to defendant manufacturers, the detail in these new regulations raises the issue of whether this may expand opportunities for a preemption argument. *See*, *e.g.*, *Gonzalez v. Ideal Tile Importing Co., Inc.*, 877 A.2d 1247, 184 N.J. 415 (N.J. 2005). *Gonzalez* involved a plaintiff who was seriously injured when he was struck by a forklift operated by a coworker. The plaintiff, through an expert, advocated that warning devices other than a horn should have been incorporated into the design of the forklift. OSHA adopts and incorporates the American National Standards Institute (ANSI) forklift standard. As the Supreme Court of New Jersey concluded:

> As can be seen, the ANSI standards, do not merely set a mandatory minimum for forklift safety devices, but regulate the universe of warning devices, concluding that the inclusion of warning devices other than an operator-controlled horn, may tend to create more dangers than they prevent and, thus, should depend upon the conditions in which the forklift is used, as determined by the owner/user. Plaintiff urges application of a product liability standard regarding "other" warning devices that, by being more rigorous, attempts not to supplement, but to supplant, OSHA's more discretionary regulation. In short, the result of ANSI's expertise in this area—which OSHA co-opted—was its conclusion that the "other" warning devices, which plaintiff alleges were required to render the forklift safe, actually may tend to create additional dangers in the workplace.

Id. at 1253.

In sum, the court found "conflict preemption" existed because compliance with the proposals of the plaintiff's expert would have violated OSHA. Indeed, preemption applied even though, as anyone who litigates in this field has argued, OSHA applies solely to employers, not to manufacturers. Put bluntly, a product that workers cannot use is hardly a feasible, alternative design.

Finally, in defending a crane manufacturer, having the ability to cite employer violations of these preventive, operational, and environmental crane standards should prove great assets at trial. If OSHA calls a safety device "essential," that has greater meaning than if a witness says so. When an employer does not comply with mandatory operator training, the manufacturer may now point to the OSHA regulations. If a general contractor alters a crane without consulting the manufacturer, the manufacturer now has a built-in defense.

A skilled defense attorney for a crane manufacturer can make very effective use of the new standards. These standards serve the salutary purpose of placing responsibility for accident prevention squarely where it belongs, primarily on employers and contractors, not on manufacturers. FD