

U.S. Department of Labor
Occupational Safety and Health Administration

Cranes and Derricks Negotiated Rulemaking Advisory Committee

Meeting Summary - May 4 - 7, 2004

Agenda Review

C-DAC members reviewed and accepted the May meeting agenda.

Review and Approve March 3-5 Meeting Summary

C-DAC members reviewed the March 3-5 draft meeting summary and made two editorial changes. It was approved as final and will be available through the OSHA docket.

Review of Draft Regulatory Text

The Committee reviewed and revised draft regulatory text in an effort to reach tentative agreements on each section of the standard. Tentative agreements will be reviewed at the end of the negotiated rulemaking process or if changes need to be made as a result of decisions on related sections. Issues for which draft regulatory text was fully reviewed, but no agreement reached, were tabled and will be reviewed again at a later meeting.

C-DAC members reached tentative agreements on the following sections:

- §1400 Scope¹
- §1414 Safety Devices
- §1415 Inspections
- §1425 Hoisting Personnel
- §1426 Qualifications of Maintenance & Repair Workers
- §1427 Machine Guarding
- §1428 Ground Conditions
- §1429 Work Area Control (access/egress)

The following issues were discussed and will be revisited at a future meeting: §14XX Operational Aids, §1422 Operator Qualifications, §1424 Fall Protection, and §1430 Power Line Safety.

¹ The Committee will review §1400(d) Limited requirements after discussing the remaining draft regulatory text sections.

§14XX Operational Aids: Operational aids will be mandatory, but will not require an immediate end to crane operations upon failure if certain conditions are met. C-DAC members discussed the temporary measures necessary to continue crane operations in case of operational aid failure and required repair times. Key aids discussed included: anti two-blocking device, boom hoist limiting device, boom length indicator if the equipment has a telescopic boom, crane level indicator, and capacity/load weight devices. Noting that some operational aids were more critical than others to safe crane operations, CDAC members discussed creating a two-tier repair schedule (either 30 or 7 days). The Committee also discussed excusing failure to meet the 7-day limit provided documented evidence reflects a good faith effort to comply.

Anti two-blocking device: C-DAC members considered requiring anti two-blocking devices on telescopic boom cranes and lattice boom cranes manufactured after February 28, 1992. The Committee discussed whether to require an automatic device on lattice boom cranes manufactured one year after the effective date of these regulations. Members also discussed a 30-day repair period for this device on lattice boom cranes and a 7-day repair period for this device on telescopic boom cranes.

Boom hoist limiting device: C-DAC members discussed the importance of replacing this device quickly. Members considered marking the cable and limiting boom radius as temporary measures for continuing operations, and repair or proof of replacement part ordered within 7 days of device failure.

Boom length indicator if the equipment has a telescopic boom: C-DAC members considered defining "boom length indicator" to include painted marks on the boom. As a temporary alternative, the Committee discussed knowing the angle and radius to calculate the length, or measuring the length of the boom.

Crane level indicator: C-DAC members discussed the importance of cranes being level when in operation. This can be measured with an external level or a properly working crane level indicator. C-DAC discussed clearly marking malfunctioning devices.

Rated capacity/load weighing devices: The Committee is considering requiring the use of one of these devices as an operational aid on equipment manufactured on or after March 29, 2003, with a rated capacity of 6,000 pounds or more. As a temporary alternative, the Committee is considering the requirement that an operator be provided with the accurate load weight from a reliable source.

Future mandate for operational aids: Committee members discussed requiring several devices as required operational aids on equipment manufactured after January 1, 2008.

Those devices are outrigger position sensor/monitors (on equipment with outriggers), drum rotation indicators and counterweight sensors.

Reliance on operator aids: Committee members proposed adding a provision prohibiting sole reliance on operator aids, out of concern for the hazards posed by operator aid failure.

§1422 Operator Qualifications: C-DAC members discussed issues related to operator qualifications, including certifying entities and certification criteria.

Certification criteria: The Committee discussed including an example of the core technical knowledge required of a crane operator in a non-mandatory appendix.

Test standards: The Committee considered requiring written tests to be valid, reliable, and meet national testing standards.

Certifying entities: The key issue was who may certify operators and whether certifying entities would have to be accredited by an accreditation organization, such as the American National Standards Institute (ANSI) or the National Commission for Certifying Agencies (NCCA). The Committee discussed allowing accredited testing organizations, state and local governments, and employers to certify crane operators.

State and local government: C-DAC members considered whether to allow state and local government crane licenses to be equivalent to certification of crane operators. Some thought that state and local governments licensing programs that meet the testing criteria of the standard should not also need to be accredited by an outside organization. Others were concerned that not requiring outside accreditation would leave room for licensing of unqualified operators. The possibility of "grandfathering" existing state or local government licensing programs was also discussed.

Employer-based: C-DAC members considered two key questions: Should employers be allowed to certify their own employees, and, if so, should certifying employers be required to be accredited? Most committee members stated that employers should be able to certify their own employees, but there was clear disagreement over whether employers must be accredited to do so. The large majority of members felt that accreditation is critical for ensuring that employers do not certify unqualified operators, and that their training and testing programs are separate. Others felt the accreditation requirement is too great a burden to place on small businesses and may cause some employers to hire uncertified crane operators.

Audits vs. accreditation: The Committee discussed allowing employers to undergo an annual audit of their testing program in place of getting accredited. As described, the auditor would assess the employer's test relative to OSHA's standard and look at some of those employees who were previously tested. Some members were concerned that auditors could be misled while others questioned whether the audits would be sufficiently rigorous. Some members indicated that if the audit was sufficiently rigorous, it would be the same as certification; if it was less rigorous, there would be little point in doing it.

Accredited independent testing organizations: The Committee agreed that organizations that were accredited by an accrediting organization and met the testing criteria could certify operators.

Transferability: In discussing certifying entities, C-DAC members stated that certification by an accredited independent testing organization would be valid at any job site and considered whether certification by an employer would only be valid for work with that employer.

§1424 Fall Protection: C-DAC members discussed issues related to fall protection, including the use of guardrails on boom walkways, cab access/egress, and threshold height requirements.

Boom walkway guardrails: After discussing the snag hazards posed by guardrails on boom walkways and the fall hazards related to removing and reinstalling temporary guardrails, the Committee moved to prohibit temporary boom walkway guardrails that increase worker exposure to safety hazards as well as those guardrails on booms supported by pendant ropes or bars that create a snag hazard.

Operator cab access and egress: The Committee discussed how to provide means of exiting the operator's cab when it rotates away from the usual access point. C-DAC members considered requiring safe access at three points: at operator's work station and at the front and rear positions of the crane.

Threshold height requirement: The key issues discussed were the height at which fall protection would be required and how to accommodate situations in which an employee is walking along the boom or moving from one point to another. Concerns were raised about snagging hazards when using fall protection while moving along the boom. C-DAC members discussed requiring fall protection at 15 feet and above when at a workstation or climbing a boom that is not horizontal and 30 feet and above when employees are moving along a horizontal boom to or from one workstation to another. The rationale provided for requiring fall protection at a height of 15 feet or greater for

employees at their work station was that such employees often are performing multiple tasks.

§1430 Power line safety: C-DAC members discussed issues related to power line safety during assembly/disassembly near power lines. Topics discussed included requirements for controlling entities, mandated safety devices, and storing materials under power lines.

Assembly/disassembly near power lines: C-DAC members discussed the power line safety requirements that might be applied where power lines were within 20 feet of the assembly area or where any part of the crane, load line or load could get within the minimum approach distances specified in Table A during assembly/disassembly. After discussing whether to require a spotter for such situations, C-DAC members included a spotter in a list of safety measures, one of which would be required. C-DAC members discussed excluding insulating links from that list. The Committee also noted that assembly/disassembly within 20 feet of power lines confirmed to be de-energized and grounded, would not be subject to the list of safety requirements.

Crane operations near power lines: C-DAC members discussed the following issues concerning crane operations near power lines:

Controlling entity's responsibility: The Committee discussed whether to require controlling entities to make an attempt to have the lines de-energized and if the lines remain energized, to mark lines 20 feet and 10 feet from any power lines near or on the construction site. Concerns were raised about the burden this would place on controlling entities, especially on large sites where the crane will only operate in one part of the site.

Required safety devices: In regards to required safety devices when any part of the crane, load line or load could get within 20 feet of power lines, C-DAC members decided to include insulating links as a menu option, among other measures, rather than as a required safety device. The Committee discussed requiring a minimum of two safety measures from the menu of items.

Storing material under power lines: After discussing instances in which materials could only be stored under power lines, C-DAC members moved to allow the storage of materials but prohibit any part of the crane, load line or load to be below an energized power line. The Committee will continue to discuss how to address situations where work under power lines is necessary.

Crane Operator Physical Qualifications Panel

Tressi Cordaro of the Directorate of Construction, OSHA, explained the procedural and substantive aspects of substance abuse testing requirements under Department of Transportation (DOT) regulations, including pre-employment and post-accident testing, and required responses to positive tests. Dr. Don Wright, Director, Office of Occupational Medicine, Directorate of Science, Technology, and Medicine, OSHA, presented on the relatively high rate of substance abuse among construction workers and the probability of workplace substance abuse. He also presented on the need for physical testing requirements for conditions and illnesses that could pose a workplace hazard.

Public Comment

William Shuzman, Steel Institute of New York, described the City of New York's crane operator licensing program and asked that the committee allow state and local governments that meet the testing criteria to certify crane operators.

James Conway, International Union of Operating Engineers, Local 14-14B, described the City of New York's crane operator licensing application and testing process, emphasizing its accessibility to a wide range of applicants. He also stated that accidents involving licensed crane operators are reported to the New York City Commissioner of Buildings.

Robert Iulo, Assistant Commissioner, and Michael Carbone of New York City Department of Buildings, read a letter from Patricia Lancaster, NYC Commissioner of Buildings, and described the NYC's crane operator licensing program, which requires applicants to pass a written test that is prepared by professional psychometricians and a practical test.

Thomas Auringer, Super Structure Cranes Rental, Inc., stated a preference for the NCCCO Certification process and recommended that a New York City crane operator license should include NCCCO Certification.

Richard Voorhees, Weeks Marine, Inc., stated that specialized equipment manufacturers should be considered separately from "crane builders." He also cautioned the Committee on the use of non-mandatory appendices, given that they could be used in court proceedings to show lack of due diligence. He expressed his preference for employer certification of its crane operators.

John O'Donovan, Gilbane, asked the Committee to not to assign responsibility to "controlling contractors" in the standard due to the many situations in which no one group controls the construction site and the complexity of contractual arrangements.

Dr. Anthony Mitchell, International Assessment Institute, explained the elements of a certification process, stated that licensure is given by government entities and certification is given by non-governmental entities, and defined validity and reliability of tests. He stated that the cost of developing a test can range from between \$50,000-\$500,000, depending in part on whether subject-matter experts volunteer their time.

Howard Pebley, McAllen Construction, Inc., spoke against a "one-size-fits-all" testing approach and recommended testing that is appropriate to the type of crane being used and that does address non-English speakers.

Randy Rogers, Williams Brothers Construction, spoke against a national certification requirement and supported instead minimum testing requirements and mandatory drug testing. He also noted that crane operators with low math and reading skills might still be competent operators and further requested that the Committee consider the needs of Hispanic workers.

Dean Bernac, J.D. Abrams, spoke in favor of mandatory drug testing and asked the committee to allow employers to certify their operators.

Timothy Robinson, Northrop Grumman, described his company's training and testing program and spoke in favor of allowing employers to certify their operators.

Dave Anthony, National Association of Tower Erectors, described the use of boatswain chairs during the erection of communication towers and expressed interest in participating in the work group on boatswain's chairs.

Palmer Hickman, National Joint Apprenticeship & Training Committee, recommended that the Committee require verification of power line de-energization before each shift as well as documented confirmation of power line voltage.

Hugh Pratt, Crane Power Line Safety Organization, explained that organization's goals, which include providing safe products, reducing risk and damage, and providing data on crane power line contacts. He also offered a series of visual representations of power line safety requirements under discussion by the Committee.

Logistics

Meeting Dates and Locations: The next C-DAC meeting will be held Tuesday - Friday, June 1-4 in Phoenix. The meeting will begin each day at 8:30 am and end at 5:00 pm, except for Tuesday, June 1, which will begin at 1pm. The meeting will be held at the offices of the National Association of Home Builders of Central Arizona, 3200 E Camelback Rd, Suite 180, Phoenix AZ. The final C-DAC meeting is scheduled for July 7-9 in Washington, DC.

Next Steps

Documents: The approved March 3-5 meeting summary will be distributed as final. The facilitators will draft the meeting summary for this meeting and distribute it prior to the June meeting.

Cranes on barges work group: will review draft regulatory text for the cranes on barges section of the standard, if available prior to the meeting.

Boatswain Chair Work Group: will hold a conference call to discuss requirements for boatswain chairs to be included in the standard.

Requirements for ≤2000 lbs, pile drivers, overhead and gantry cranes Work Group: will hold a conference call to identify the limited requirements of the standard that will apply to such equipment.

Transit near power lines Work Group: will hold a conference call to review existing ANSI language for transit near power lines.

C-DAC Attendance - May 4-7, 2004

Present:

Stephen Brown, International Union of Operating Engineers
Michael Brunet, Manitowoc Cranes, Inc., Crane Manufacturers (AEM/CIMA)
Joseph Collins, Zachry Construction Corporation, American Road and Transportation Builders (ARTBA)
Noah Connell, U.S. Department of Labor/OSHA
Peter Juhren, Morrow Equipment Company, L.L.C.
Bernie McGrew, Link-Belt Construction Equipment Co
Frank Migliaccio, International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers
Brian Murphy, Sundt Construction, Associated General Contractors (AGC)
George R. "Chip" Pocock, C.P. Buckner Steel Erection, Steel Erectors Association of America
David Ritchie, The St. Paul Companies, Training and Testing
Emmett Russell, International Union of Operating Engineers
William Smith, Maxim Crane Works
Craig Steele, Schuck & Sons Construction Company, Inc., National Association of Home Builders (NAHB)
Darlaine Taylor, Century Steel Erectors, Co., Association of Union Constructors
Wallace Vega, III, Entergy Corporation, Inc.
William J. "Doc" Weaver, National Electrical Contractors Association, Inc.
Robert Weiss, Cranes Inc. and A.J. McNulty & Company, Inc., Allied Building Metal Industries
Doug Williams, Buckner Heavylift Cranes, Specialized Carriers and Rigging Association
Stephen Wiltshire, Turner Construction Company, Associated Builders and Contractors
Charles Yorio, Acordia
Susan Podziba, Facilitator, Susan Podziba & Associates
Alexis Gensberg, Facilitator, Susan Podziba & Associates

Absent:

Stephen P. Charman, Viacom Outdoor, Inc., Outdoor Advertising Association of America (OAAA)
Larry Means, Wire Rope Technical Board, ASME
Dale Shoemaker, Carpenters International Training Center