International Union of Operating Engineers
AFFILIATED WITH THE AMERICAN FEDERATION OF LABOR AND CONGRESS OF INDUSTRIAL ORGANIZATIONS

November 28, 2012

Director James G. Maddux
Directorate of Construction
Occupational Safety and Health Administration
U.S. Department of Labor
200 Constitution Avenue, N.W., Room N-3468
Washington, DC 20210

Re: Crane Operator Certification - Capacity and Type

Dear Director Maddux:

The International Union of Operating Engineers ("IUOE") submits this letter to urge OSHA to issue a direct final rule to correct the "capacity and type" language in 1926.1427(b)(1)(ii)(B) and 1926.1427(b)(2) of the Final Rule on the Cranes and Derricks Standard so that it is clear that an operator who is certified on a type of crane may operate all cranes of that type regardless of capacity.[1]

In the interim, OSHA should rescind its answer to question 4 in OSHA's *Small Entity Compliance Guide for Final Rule for Cranes and Derricks in Construction*, which states, among other things, that "an operator is qualified to operate a particular piece of equipment if the operator is certified for that type and capacity of equipment or for higher-capacity equipment of that type. For example, an operator certified for a 100-ton hydraulic crane may operate a 50-ton hydraulic crane but not a 200-ton hydraulic crane."

As discussed below, OSHA's current interpretation of 1427(b)(1)(ii)(B) and 1427(b)(2), which would require separate certification(s) for higher capacities of the same crane type (1) is not supported by **any** evidence in the record that such a requirement would reduce the number of crane accidents or otherwise improve safety; and (2) fails to effectuate the intent of the Cranes and Derricks Negotiated Rulemaking Advisory Committee ("C-DAC").

INTRODUCTION

The IUOE has been a leader in promoting stringent crane operator certification and licensure standards at the national, state, and local levels, and would not urge any interpretation that would jeopardize the health and safety of crane operators, other employees working in the vicinity of crane operators, or the

[1] On August 17, 2012, OSHA issued a direct final rule, "Cranes and Derricks in Construction: Demolition and Underground Construction," to clarify that the "prior standard continues to apply to demolition and underground construction work." 77 *Fed.Reg.* 49722 (Aug. 17, 2012).

general public. However, in light of the fact that the risk of operator error resulting in an accident will not be reduced by a requirement that operators obtain separate certification(s) for higher capacities of the same crane type, the IUOE opposes such a requirement. Indeed, lifts with high capacity cranes result in relatively few accidents because such lifts are typically performed in accordance with an engineered site plan for ground support, rigging, and lifts. As AmQuip's (a major crane rental company) representative Frank Bardonaro testified, "in his experience the majority of accidents that his customers experienced when they rented cranes but provided their own operators occurred with cranes rated 35 tons or less." 75 *Fed.Reg.* at 48016.

The IUOE's ardent promotion of crane operator certification is demonstrated by its advocacy for closure of loopholes that would have enabled employers to avoid the certification requirement and for rejection of exemption requests from various sectors of the construction industry. The IUOE was successful in advocating for inclusion of the word "maximum manufacturer-" before "rated hoisting/lifting capacity of 2,000 pounds or less" in Paragraph 1427(a)(3) to "avoid suggesting that the exception might apply to larger equipment when it is configured to have a rated capacity of 2,000 pounds or less." 75 *Fed.Reg.* at 48015. In the preamble to the Final Rule, OSHA relied on the testimony of IUOE witness Anthony Lusi in rejecting requests for exemptions from the certification requirement for lower capacity cranes. *Id.* at 48016.

SUMMARY OF THE IUOE's POSITION

OSHA should issue a direct final rule to clarify that an operator who is certified on a type of crane may operate all cranes of that type regardless of capacity for the following reasons, as well as other reasons set forth in this memorandum:

- The only testimony in the record regarding this issue demonstrates that separate certification for different capacities of the same crane type was unavailable at the time of the hearing in March 2009 and is unnecessary. [2] Since there is no evidence in the record that such a requirement will have any additional safety benefit beyond that already achieved through certification by type, OSHA has not satisfied its obligation under 29 U.S.C. 652(8) to establish that separate certification for different capacities of the same crane type substantially reduces or eliminates a significant risk of material harm.

- This regulatory language "based on" in 1427(b)(1)(ii)(B) is ambiguous. If "based on" capacity and type is interpreted to mean "based in part on" then a certificate would be adequate if the testing

[2] *See* March 19, 2009 testimony (Tr. 282-283) of Graham Brent, Executive Director of the National Commission or the Certification of Crane Operators ("NCCCO") and the March 17, 2009 testimony (Tr. 210-211) of Ron Havlick, Executive Director of the Operating Engineers Certification Program ("OECP").

organization includes testing on an operator's knowledge of capacity in its written or practical test.

- In light of the ambiguity of the language in 1427(b)(1)(ii)(B), OSHA should consider C-DAC's intent. C-DAC's intent was to model the certification standard on ANSI/ASME B30.5, which does not recommend separate certification for different capacities of the same crane type.

- C-DAC understood that practical testing on higher capacity crane is cost prohibitive and that it is not feasible to simulate the functions that a high capacity crane can perform, such as lifting loads that can only be hoisted with a high capacity crane or testing on various configurations.

- C-DAC understood that the capacity of a crane has no relevance to the practical tests administered by testing organizations. Practical tests do not assess an operator's ability to operate cranes at various capacities; rather, the chief objective of a practical test is to assess the crane operator's ability to control the crane by testing eye-hand coordination and motor skills. The practical test accomplishes this objective by an assessment of the operator's ability to lower a hook into a barrel without knocking the barrel over and to bring the hook with a load through a course within a specified time frame.

- OSHA's current interpretation is inconsistent with its recognition in formal voluntary agreements that the certificates issued by accredited testing organizations meet the requirements of the ANSI/ASME B30.5 Standard.

- In assessing the costs of certification, OSHA considered only certification for different types of crane, not certification for different capacities of the same crane types, and thus, OSHA has failed to satisfy its obligation under 29 U.S.C. 652(8) to determine whether the standard, as now interpreted, is "economically and technologically feasible" and "uses the most cost effective protective measures."

- OSHA should not read 1427(b)(1)(ii)(B) and 1427(b)(2) as a delegation of the determination of the number of certifications required for different capacities of crane to private testing organizations, which lack expertise in the development of safety standards and are motivated by expansion of market share. Such delegation is inconsistent with OSHA's efforts to provide clarity as to the types of cranes for which separate certifications are required.

- OSHA did not seek commentary on whether it should require separate certification(s) for higher capacities of the same crane type and it specifically stated that separate certification would not be required for operation of a lower capacity crane if an operator was certified on a higher capacity crane.

- The "Certification Criteria" in 1427(j) state that operators must be testified on the safe operation of a "specific type of equipment," and do not mention testing on different capacities of the same crane type.

- OSHA did not cite the need for development of separate certification tests for different capacities of the same crane types as a reason for the four-year phase-in period.

Alternatively, if OSHA declines to issue a direct final rule to correct its obvious error, OSHA can still give effect to C-DAC's use of "capacity" in 1427(b)(1)(ii)(B) and 1427(b)(2), by interpreting these paragraphs as meaning that a testing organization would need to take capacity into account in issuing the certifications, but that operation of a higher capacity crane itself would not necessitate the issuance of a separate certification.

ARGUMENT

I. SINCE THE LANGUAGE IN PARAGRAPH 1427(b)(1)(ii)(B) IS AMBIGUOUS, OSHA SHOULD LOOK TO C-DAC's INTENT AND THE REGULATORY HISTORY IN IMPLEMENTING THE RULE

OSHA's use of the words "based on" in 1427(b)(1)(ii)(B), which states that nationally accredited testing organizations must administer written and practical tests that "provide different levels of certification based on equipment capacity and type," is ambiguous. Indeed, the words "based on" are imprecise and can mean either "based in part on" or "based solely on." *See e.g., Sierra Club v. Environmental Protection Agency*, 356 F.3d 296, 305-306 (D.C. Cir. 2004)("There is no question that the phrase 'based on' is ambiguous.") *See also, United States ex rel. Kreindler & Kreindler v. United Tech. Corp.*, 985 F.2d 1148, 1158 (2d Cir. 1993) (holding that "based upon" in the False Claims Act does not mean based "solely" upon); *McDaniel v. Chevron Corp.*, 203 F.3d 1099, 1111 (9th Cir. 2000) (noting that, in the context of various statutes, courts have held that the phrase "'based on' is synonymous with 'arising from' and ordinarily refers to a 'starting point' or a 'foundation'").

If the words "based on" mean "based in part on," then the written and practical testing could provide "different levels of certification based in part on equipment capacity and type." Such a reading would mean that a testing organization would need to take capacity into account in issuing the certifications, but that operation of a higher capacity itself would not necessitate the issuance of

a separate certification. As discussed in Section II.E below, written tests, particularly the required load chart calculations, do require testing on different capacities of cranes with various loads.

Additionally, OSHA's use of the word "levels" of certification in 1427(b)(1)(ii)(B) creates further ambiguity since all "levels" of certification are the same. OSHA specifically rejected creation of a "low risk" certification. As OSHA stated (75 *Fed.Reg.* at 48019):

> First, even if such operations [low risk] could be effectively identified, the possibility of unforeseen events occurring during such a lift requires that the operator have sufficient ability to handle such complications.
>
> Second, as noted above, apart from the suggestion regarding certain railroad operations, no commenter offered a means of setting the parameters for defining this concept.

OSHA recognized that the levels of certification are the same in rejecting the proposition that "certification should not be required to operate cranes that are typically used for repetitive, predictable, intermittent, or light use." 75 *Fed.Reg.* at 48019. OSHA opined that "such uses are likely to involve many if not all of the same hazards present in other situations" and that "similar concerns apply to the concept of 'low risk' operations." *Id.* An operator certified on a hydraulic crane is certified to operate hydraulic cranes without limitation as to function and an operator certified to operate a boom truck is certified to operate a boom truck without limitation as to function.

In light of the obvious ambiguity in the regulatory language, OSHA should consider the intent of C-DAC and other evidence in the regulatory history. As discussed in Section IV below, the preamble and the regulatory text demonstrate the intent by C-DAC to model the certification standard on ANSI/ASME B30.5 and to describe the certification that was available at the time that the Consensus Document was written, not to impose a requirement of separate certification(s) for different capacities of the same crane type. The Committee of 23 crane experts, including IUOE representatives Stephen Brown and Emmett Russell,[3] recognized that it is infeasible for a practical test to simulate the functions that can be performed with higher capacity cranes since it would be cost prohibitive to rent, to transport (hauling a disassembled crane), and to assemble/disassemble a higher capacity crane at the test site. Higher capacity cranes may take a week or more to assemble. In actual fact, testing organizations, which do not own the cranes used to administer practical tests, use lower capacity cranes to administer practical tests since they are far cheaper to rent, do not

[3] Emmett Russell is the IUOE's now retired Director of Safety & Health, and Stephen Brown is Director of Construction Training.

require disassembling to transport, and can be made ready for testing within a fraction of the time required to assemble/erect a higher capacity crane.

Additionally, it is not feasible to simulate the functions that a high capacity crane can perform, such as lifting loads that can only be hoisted with a high capacity crane or testing on various configurations. Indeed, following the repair of higher capacity cranes, a crane rental company or contractor will test the crane (not the crane operator) with massive membranes filled with water weight at a cost of about $80,000. The infeasibility of simulating similar circumstances to conduct certification testing is obvious.

Despite the absurdity of separate certification(s) for higher capacities of the same crane type, OSHA appears (based on its comments at stakeholder meetings) to believe that, in light of the inclusion of the word "capacity" in C-DAC's proposed 1427(b)(1)(ii)(B) and the incorporation of "capacity" into 1427(b)(1)(ii)(B) and 1427(b)(2) of the Final Rule, that it is compelled to require written and practical testing for capacity and type and to require separate certification for different capacities of the same crane type. However, it is a well-established canon of statutory and regulatory construction that statutes and regulations are to be interpreted in a manner that avoids absurd results and that it is preferable to treat certain words as "surplusage" than to give effect to each and every word in a regulation if giving effect to certain words would create a result that is contrary to the clear intent of the drafters. *Chickasaw Nation v. U.S.*, 534 U.S. 84, 94 (2001)("The canon requiring a court to give effect to each word 'if possible' is sometimes offset by the canon that permits a court to reject words 'as surplusage' if 'inadvertently inserted or if repugnant to the rest of the statute ...'") An interpretation that "based on" means "based in part on" avoids an absurd result.

II. OSHA's INTERPRETATION IS INCONSISTENT WITH ITS FORMAL RECOGNITION IN VOLUNTARY AGREEMENTS OF TESTING ORGANIZATIONS THAT DO NOT ISSUE CERTIFICATES FOR DIFFERENT CAPACITIES OF THE SAME CRANE TYPE

OSHA's current requirement that testing organizations issue separate certifications for different capacities of the same crane type is contrary to OSHA's formal recognition of accredited testing organizations, including the Operating Engineers Certification Program, in individual memorandums of understanding, prior to or during the Rulemaking. The October 21, 2008 Voluntary Agreement between the Occupational Safety and Health Administration and the Operating Engineers Certification Program, which was executed 11 days after the issuance of the Proposed Rule, states that:

> The purpose of this agreement is to provide a non-regulatory means of recognizing a program that validates the competency and certifies the qualification of crane operators. OECP has developed a validated

certification program which meets the requirements of applicable ANSI/ASME B30 Standards (American National Standards Institute/American Society of Mechanical Engineers).

***

Compliance Safety and Health Officers, when performing inspections or accident investigations will recognize OECP certification as verification of crane operator qualifications.

By formally recognizing the OECP and other testing organizations, OSHA effectively endorsed the certificates issued at the time of recognition since the only function of a testing organization is to administer tests and to issue certificates to operators who earn a passing grade on those tests. However, at the time of recognition by OSHA, the OECP did not (and still does not) test or issue certificates for different capacities of the same crane type. If the certificates are now deemed to be inadequate, then OSHA's interpretation is inconsistent with its prior recognition of the organization.

III. THERE IS NO SUPPORT IN THE RECORD FOR A REQUIREMENT OF SEPARATE CERTIFICATION FOR DIFFERENT CAPACITIES OF THE SAME CRANE TYPE

A. The Only Relevant Testimony at the Hearing is That Certification for Different Capacities of the Same Crane Type Was Unavailable and Unnecessary

A review of the record in this Rulemaking, including the C-DAC report, comments, and testimony at the hearing conducted in March 2009, demonstrates that there is no evidence in the record to establish that certification for different capacities of the same crane type is necessary to improve safety. Crane capacity was a key topic at the hearing and in public commentary concerning certification, but the focus of both the opponents and proponents of certification was on the safety implications of exemption of low capacity cranes and cranes used in certain industries (*e.g.*, residential housing, signage, etc.), not on whether OSHA should impose the additional requirement of separate certification(s) for different capacities of the same crane type. The commenters that opposed mandatory third party verification for low capacity cranes would clearly have opposed additional and far more costly certification requirements for different capacities of the same type of crane. [4]

The only evidence in the record demonstrates that at the time of the hearing neither of the two testing organizations referenced in the proposed rule – the Operating Engineers Certification Program and the National Commission for

[4] The participants would obviously have commented on the unavailability of certification by capacity and type since many commenters testified about the unavailability of auditors to perform the auditing functions required by the employer qualification option. 75 *Fed.Reg.* at 48020.

the Certification of Crane Operators – administered separate written or practical tests for the different capacities of the same crane type. 73 *Fed.Reg.* at 59812. Indeed, following the March 17, 2009 testimony of OECP Executive Director Ron Havlick, the OSHA panel asked "What are the different capacities that you certify on, in terms of the different equipment that you provide certifications for?" Tr. at 210-211. Mr. Havlick responded that "we don't go by capacity. Again, it's just boom truck, lattice boom, telescopic boom for mobile cranes, and then tower." *Id.*

Furthermore, following NCCCO Executive Director Graham Brent's March 19, 2009 testimony, the OSHA panel asked "How difficult would it be for you to test different makes and models of cranes versus types of cranes?" Tr. at 280. In response, Mr. Brent not only discussed the fact that it is not "the business" of a certification body to provide model-specific certifications, but added without any inquiry from OSHA that there is no reason to certify operators for different levels of capacities of crane (Tr. at 282-283):

> But in our view there is no reason to test somebody in the swing cab category at 50 tons and then again at 100 tons and then again at 300 tons or then even again at 1,000 tons. What that does though is speak to the employer's responsibility to take a CCO certified operator and determine whether or not on that particular 50 ton or that particular 100 ton crane, which the operator may not be familiar with, is qualified to operate the crane.

The OSHA panel failed to further pursue separate certification for different capacities with Mr. Brent, but changed the subject to certification for different types of crane. The OSHA panel asked Mr. Brent whether the NCCCO provided separate certifications for "locomotive cranes, floating cranes, multipurpose machines, derricks or dedicated pile drivers," and the NCCCO Executive Director responded that the NCCCO did not have separate certification testing for "those types of equipment." Tr. at 283. The OSHA panel did not inquire about separate certifications based upon capacity, but rather focused upon type in asking, "How difficult would it be to develop those sorts of programs if a requirement for that **type** of certification was promulgated?" *Id* (emphasis added).

In issuing the Final Rule, OSHA clearly understood that separate certification(s) for different capacities were not available, because OSHA stated in the newly added language in Paragraph 1427(b)(2) what the standard would be if no accredited agency offered certification on that basis (emphasis added):

> (2) An operator will be deemed qualified to operate a particular piece of equipment if the operator is certified under paragraph (b) of this section for that type and capacity of equipment or for higher-capacity equipment of that type. **If no accredited testing agency offers certification examinations for a particular type and/or capacity of equipment, an**

operator will be deemed qualified to operate that equipment if the operator has been certified for the type/capacity that is most similar to that equipment and for which a certification examination is available. The operator's certificate must state the type/capacity of equipment for which the operator is certified.

Despite its awareness that separate certification(s) for different capacities were not offered by the NCCCO or the OECP and that NCCCO's view was that there was "no reason" to offer such certifications, OSHA did not investigate whether separate certification for different capacities would improve safety. If OSHA had developed a record at the hearing, it would have learned that practical tests assess an operator's control over the crane, not his or her ability to operate cranes at various capacities, and that separate certification(s) for different capacities is unnecessary.

B. OSHA Should Not Read Paragraph 1427(b)(2) as an Effective Delegation to Testing Organizations of the Determination of the Number and Nature of the Certifications for Different Capacities That Would Be Required

OSHA should avoid a reading of Paragraph 1427(b)(2) that would constitute an effective delegation to testing organizations the establishment of a standard for the number and nature of certifications for different capacities of crane that a crane operator would need to obtain by November 2014. For the reasons set forth below, such a delegation would be inconsistent with OSHA's effort to provide guidance in the regulation on the types of cranes for which separate certifications would be required and would permit testing organizations, which lack expertise in the development of safety standards, to establish standards for the number and nature of certifications for different capacities with no parameters.

1. By Relying Upon ANSI/ASME as a Standard, OSHA Has Provided Guidance as to "Types" of Certifications Required

OSHA's current interpretation of the certification standards conflates capacity and types even though the record demonstrates that only separate certifications for different types of crane is required. In summarizing the Small Business Regulatory Enforcement Fairness Act Panel's ("SBREFA") recommendations and OSHA's responses, OSHA stated in the preamble to the Final Rule that SBREFA Panel sought clarification as to "capacity and type" even though the clarification sought was actually for "type" (75 *Fed.Reg.* at 47917):[5]

> The Panel recommends soliciting public comment on whether the phrase ''equipment capacity and type'' in proposed § 1926.1427(b)(1)(ii)(B) needs clarification, suggestions on how to accomplish this, and whether the

[5] *See also* 73 *Fed.Reg.* at 59811.

> categories represented in Figures 1 through 10 contained in ANSI B30.5–2000 (i.e., commercial truckmounted crane—telescoping boom; commercial truck-mounted crane—non-telescoping boom; crawler crane; crawler crane—telescoping boom; locomotive crane; wheel-mounted crane (multiple control station); wheel-mounted crane—telescoping boom (multiple control station); wheel-mounted crane (single control station); wheelmounted crane—telescoping boom (single control station)) should be used.

In summarizing its response, OSHA stated that it received public comments on the issue raised by the SBREFA Panel, and that it provided guidance on "type" in the "final preamble discussion" of 1427(b)(1)(ii)(B). *Id.* OSHA further stated that in the preamble there is an explanation that the Agency "added a definition of 'type' in response to public comment," and that it "references ANSI crane categories to illustrate the meaning of 'type' in this standard." *Id.*

In its discussion of Paragraph 1427(b)(1)(ii)(B) in the preamble to the Final Rule, OSHA states that it has provided guidance as to the word "type" (*Id.* at 48018):

> OSHA has added a definition of the word ''type'' to § 1926.1401 of the final rule. Examples of many of the various types of cranes currently in use are described in the ANSI B30 series (see, for example, ASME B30.5–2004 for mobile cranes and ASME B30.3–2004 for construction tower cranes). For example, in this context, truck-mounted telescoping boom cranes, truck-mounted non-telescoping boom cranes, and crawler cranes are three different ''types,'' since the specific bodies of knowledge and skills needed for the safe operation of each category is different (although they are not completely distinct—the knowledge and skill sets overlap to some degree).

2. Paragraph 1427(b)(2) Should Not be Read as a Regulation With No Parameters

In light of OSHA's effort to provide parameters in Paragraph 1427(b)(1)(ii)(B) as to the types of cranes for which separate certifications are required, Paragraph (b)(2) should not be read as an effective delegation to testing organization of the determination of the number and nature of tests needed to improve safety and minimize crane accidents to accredited testing organizations without any parameters, *i.e.*, without any guidance from OSHA as to how many separate certifications should be issued for different capacities of the same crane type. The language "If no accredited testing agency offers certification

examinations for a particular type and/or capacity of equipment..." should not be read as an invitation to testing organizations to develop a safety standard. Such a reading of the "regulatory" language would leave it to the discretion of however many testing organizations obtain accreditation from a national recognized accrediting agency to independently develop the standard to which employers and individual operators must adhere.

The lack of parameters for a requirement of separate certifications "based on" different capacities should be read as a lack of intent to require separate certification(s) for different capacities of the same crane type. While OSHA has left many other important aspects of certification, such as the costs of certification testing and the basis for decertification of operators, to the discretion of testing organizations or government licensing agencies as the case may be, matters so delegated have not been incorporated into the regulatory language or OSHA guidance as requirements. Delegation of an essential part of the standard – the number of certifications required for different capacities of the same crane type - to testing organizations would be a regulation without an actual standard. Testing organizations do not purport to have expertise in the development of safety standards; rather, their expertise is limited to the development of tests that assess the skills of crane operators.

3. The Lack of Uniformity on Testing and Certification Offered by Testing Organizations Demonstrates That There is No Industry Standard

The lack of uniformity on the types of certifications offered by accredited testing organizations further demonstrates that OSHA cannot let individual testing organizations establish the parameters for required certifications. The National Center for Construction Education and Research, for example, offers no certifications for tower cranes but offers the 13 separate certifications for mobile cranes. The OECP, by contrast, offers a tower crane certification, as well as certifications for boom truck crane, telescopic boom crane, lattice boom crane, and overhead crane.[6] However, the fact that one or more testing organization competing for market share decides to offer a certification, particularly when the number and nature of the certifications offered by each of the four accredited testing organizations are not the same, is not a standard.

OSHA's current interpretation in its *Small Entity Compliance Guide* delegates the development of safety standards to entities which not only lack expertise, but as recognized by OSHA, are motivated by market share. *See* 75 *Fed.Reg.* at 48025. The Crane Institute of America has already demonstrated that if there is a market for a product – and OSHA's guidance has created such a market - there will be one or more testing organization willing to develop a develop as many tests as it can profitably sustain. The Crane Institute of

[6] With the exception of locomotive crane, OECP's practical tests encompass all the crane types included in ANSI/ASCME B30.5.

America's website (http://www.craneinstitute.com) advertises that it offers the following certification for various capacities of mobile cranes with a telescoping boom:

Telescoping Boom up to 21 tons
Telescoping Boom 21 to 75 tons
Telescoping Boom over 75 tons

There is no evidence in the record to support that safety will be enhanced if the separate certifications offered by the Crane Institute of America become the industry standard. Furthermore, the parameters developed by the Crane Institute of America do not encompass testing on very high capacity cranes, such as 200-ton or 300-ton cranes.

While the Crane Institute of America may be able to expand market share by taking advantage of OSHA's misguided interpretation of Paragraphs 1427(b)(1)(ii)(B) and 1427(b)(2), OSHA should not permit private market forces to dictate the number of certifications required, because any certifications beyond those necessary for safety reasons impose artificial costs upon employers and operators who must absorb additional fees for each certification. Individual operators will not only bear substantial costs, but will have also greater difficulty finding work if they are certified for the type of cranes owned by a prospective employer but not at a sufficiently high capacity.

C. The Preamble to the Proposed Rule Failed to Seek Public Commentary on Separate Certification(s) for Different Capacities of the Same Crane Type

1. The Proposed Rule States That Separate Certification Would Not be Needed

In issuing the Proposed Rule, OSHA stated that the proposed requirement that "different levels of certification be provided, based on varying equipment capacities and types" is "designed to ensure that the extent of knowledge and skill required is commensurate with the type and capacity of equipment the employee operates." 73 *Fed.Reg.* at 59811. OSHA then proceeded to provide two examples of its opinion on what an operator would **not need to know** about a particular type or capacity of crane to operate another type or capacity of crane (*Id.*):

> For example, an employee who only operates a hydraulic truck crane would not need to also have the additional knowledge and skills necessary to operate a lattice boom crawler crane. Similarly, an employee who operates only a 22 ton capacity hydraulic truck crane **would not need** to also have the additional knowledge and skills necessary to operate a 300 ton hydraulic truck crane.

OSHA then stated that "certification on a more complex and/or higher capacity piece of equipment would typically qualify an operator to operate less

complex/lower capacity equipment of the same type. For example, an operator certified for a 300 ton hydraulic truck crane would **not need a separate certification** to operate a 22 ton hydraulic truck crane." *Id.*

In issuing the Final Rule, OSHA relied on the fact that it received no comments concerning its opinion that a separate certification would not be needed for a lower capacity crane when the operator was certified on a higher capacity of the same crane type (75 *Fed.Reg.* at 48018):

> None of the commenters opposed allowing operators certified to operate at a given capacity from also operating lower-capacity cranes of the same type.

OSHA's reasoning is flawed because an obvious reason that OSHA received no commentary concerning the necessity or lack thereof for certification on a lower capacity crane when an operator is already certified on a higher capacity crane is that OSHA did not indicate that separate certification(s) for different capacities of the same crane type would be required. In fact, OSHA specifically stated, as part of an example, that separate certification would not be needed to operate a 22-ton hydraulic crane if an operator was certified for a 300-ton hydraulic crane but did not state or even imply that an operator certified on a 22-ton hydraulic crane would need to obtain separate certification(s) certification to operate a 300-ton crane.

The question that OSHA should have considered in issuing the Final Rule was whether there was any commentary in favor of a requirement that an operator obtain a separate certification(s) on a higher capacity crane(s) if the operator has already been certified on a lower capacity crane. The absence of commentary on this question can be viewed in two ways. Either the participants in the Rulemaking did not understand the Proposed Rule to propose separate certifications for higher capacities of the same crane type, or no commenter supported certifications for higher capacities of the same crane type. In either case, there is no evidence in the record in support of separate certification for a higher capacity crane when an operator is already certified on a lower capacity crane of the same crane type.

OSHA and the participants who testified at the hearing in support of certification – including two testing organizations, the IUOE, rental companies, C-DAC member and insurance company representative William Smith and numerous others - were obviously speaking at cross purposes because the clear testimony from supporters of certification at the hearing was that the same dangers are present regardless of capacity; that low capacity cranes should not be exempted from the certification standard; and that control of cranes with greater **boom length** presents the most difficult challenges. AmQuip representative Bardonaro testified that he was "aware of accidents on residential construction sites [with low capacity cranes] that resulted from operating on unsuitable ground, not setting the outriggers properly, and lifting too heavy a load for the crane's

configuration, deficiencies that he attributed to operators who did not appreciate the hazards involved." 75 *Fed.Reg.* at 48016. Mr. Bardonaro further stated that a "50-ton rated boom truck today has almost 200 feet of reach capacity, reach. There are 300-ton hydraulic cranes that don't have that much reach in their hydraulic squirting boom." March 20, 2009 hearing, Tr. at 67.

2. An Administrative Agency's Opinion is Not Evidence

In promulgating the Final Rule, OSHA did not rely on record evidence in support of different levels of certification based on equipment capacity; rather, OSHA relied upon its own statements quoted above in the Proposed Rule. An administrative agency's opinion, particularly without citation to any study or research in support of the opinion, is not record evidence. *See e.g. Natural Resources Defense Council v. Environmental Protection Agency*, 571 F.3d 1245, 1257 (D.C. Cir. 2009)("However, the EPA's cited support for this proposition is the statement from the preamble to the proposed rule stating the EPA 'believes' participation would 'achieve more emissions reductions in the nonattainment area than would application of RACT' to all sources in the area. Proposed Rule, 68 *Fed.Reg.* at 32,839/2. That statement is unsupported by any record evidence and it does not appear in the preamble to the final rule.")

3. Lack of Commentary is Not Evidence When No Commentary is Sought

In promulgating the Proposed Rule, OSHA did not seek public commentary on whether to impose a requirement of separate certification for different capacities of the same crane type. OSHA did, however, seek public commentary on a wide range of issues related to crane certification and took the public commentary into account in issuing the Final Rule on those topics.

OSHA specifically asked, for example, in the Proposed Rule for comments on whether certification based on a specific model of crane is necessary. In this regard, OSHA raised the question of whether the definition of "type" was sufficiently clear since a requirement of model-specific certification would be "unnecessarily restrictive." 73 *Fed.Reg.* at 59811. Based upon the record evidence obtained in response to OSHA's solicitation of commentary, OSHA properly concluded in promulgating the Final Rule that "certification on a specific model would be more restrictive than is necessary, and OSHA sees no benefit from providing for such a certification. OSHA has therefore retained the requirement that certification is based on the 'type' of crane." 75 *Fed. Reg.* at 48018.

Model-specific certification is only one example of OSHA's solicitation of public commentary on certification. Other examples includes requests for commentary on administration of written and practical tests by accredited educational institutions (73 *Fed.Reg.* at 59812); "expanding the levels of certification so as to allow an operator to be certified on a specific brand's model

of crane" (*Id.* at 59811 and 59817); and on whether employers should be permitted to use manuals that have been re-written to accommodate the literacy level of operators. *Id.* at 59817.

In light of OSHA's failure to solicit commentary on whether certification for different capacities of the same crane type was necessary to improve safety, the absence of commentary is not evidence and cannot justify OSHA's current interpretation, which amounts to a gross expansion of the certification requirement. *See GAF Corporation v. Occupational Safety and Health Review Commission*, 561 F.2d 913 (DC Cir. 1977)("The requirement of submission of a proposed rule for comment does not automatically generate a new opportunity for comment merely because the rule promulgated by the agency differs from the rule it proposed, partly at least in response to submissions.")

D. OSHA's Costs Analysis Estimated the Costs of Certification for Different Crane Types, Not the Costs of Separate Certifications for Different Capacities of the Same Crane Type

In analyzing costs based upon a gross misreading of the record, OSHA has failed to satisfy its obligation to "analyze the costs, benefits, and other consequences and impacts, including small business impacts, of their rules" and has failed to establish that the certification based on capacity is "reasonably necessary" within the meaning of 29 U.S.C. 652(8). A safety standard is reasonably necessary or appropriate within the meaning of 29 U.S.C. 652(8) if it "substantially reduces or eliminates a significant risk of material harm in the workplace; is economically and technologically feasible; uses the most cost effective protective measures; is consistent with or is a justified departure from prior Agency action; is supported by substantial evidence; and is better able to effectuate the Act's purposes than any relevant national consensus standard." 75 *Fed.Reg.* at 48078, *citing UAW* v. *OSHA*, 37 F.3d 665, 668 (DC Cir. 1994).

There is no evidence in the record that separate certification for different capacities of the same type of crane is "reasonably necessary" within the meaning of 29 U.S.C. 652(8). As discussed below, OSHA considered only certification for different types of crane, not certification for different capacities of the same crane types, and thus, OSHA failed to determine whether the standard, as now interpreted, was both "economically and technologically feasible" and "uses the most cost effective protective measures." Furthermore, since there is no evidence in the record that the requirement will have any additional safety benefit beyond that already achieved through certification by type, OSHA has not satisfied its obligation to establish that separate certification for different capacities substantially reduces or eliminates a significant risk of material harm. Indeed, the evidence on which OSHA relied in determining that third party verification is reasonably necessary, including "C–DAC's collective experience operator error plays a role in a significant percentage of fatal and other serious crane accidents,"[7]

[7] *See* 75 *Fed.Reg.* at 48013 .

established that the greatest risks were present regardless of whether the cranes were high or low capacity. The risk that was cited most frequently at the hearing – contact with power lines - is present for cranes of all capacities given the height of power lines relative to boom length.

The need for correction of OSHA's clear error in reading the record is amply demonstrated by OSHA's analysis of the costs of certification, including the number of operators who would need to be certified in compliance with the requirements in Paragraph 1427. The fact that the cost analysis in the Final Rule takes into account solely the costs of certification for crane types is demonstrated by OSHA's estimate in 2010 that the "baseline of current compliance" was 60 percent. 75 *Fed.Reg.* at 48096-48097. However, contrary to this gross underestimate of the number of crane operators who would need to be certified, if, as stated in 1427(b)(2), the "operator's certificate must state the type/capacity of equipment for which the operator is certified," the baseline of the current compliance in 2010 would have been zero since, under OSHA's current view, all crane operators would need to obtain a new certificate by November 2014. Moreover, in assessing the costs of certification, OSHA observed that "Operators frequently choose to be certified on several different types of equipment." *Id.* at 48096 (emphasis added). In light of OSHA's explicit reference to certification of different types of crane, OSHA's silence on the issue of certification for different capacities of the same crane type in analyzing costs indicates a failure to consider such costs to the industry as a whole and to individual crane operators.

Furthermore, the testimony upon which OSHA relied in concluding that in "imposing the operator qualification and certification costs on the employer will not be overly burdensome to the employer," does not support that conclusion. OSHA misunderstood the testimony of insurance company representative William Smith, for example, even though OSHA cited his testimony regarding the costs of certification twice in the preamble to the Final Rule (75 *Fed.Reg.* at 48017):[8]

> An insurance company representative and former crane operator stated that the cost of certification was modest when compared to the costs of accidents. This witness stated that his company believes that employers who certify their operators have fewer accidents and that, as a result, his firm offers company it insures a ten percent discount if they have their operators certified.

As the enclosed letter of Mr. Smith states, he knew of no employer with a workforce that is certified on different capacities of the same crane type and was basing the "modest" cost estimates of certifications for crane type alone with practical testing on low capacity cranes. *Id.*

---

[8] *See also* 75 *Fed.Reg.* at 48012.

The testimony and written comments of NCCCO Executive Director Graham Brent further demonstrate that costs estimates were based upon certification for type only. According to the NCCCO, the cost of initial certification is "negligible", about 2.25 cents per hour per employee over the period of certification.[9] In light of Mr. Brent's testimony that the NCCCO did not offer separate certification for different capacities of the same crane type, the NCCCO's estimate of the costs of certification was necessarily based on the costs of certification by type only. NCCCO does not own cranes and presumably the vast majority of the sponsors at the 2,000 locations at which the NCCCO administers tests would not own high capacity cranes. The costs of leasing higher capacity cranes to use in administering practical tests would be prohibitive.

Individual operators – particularly unemployed operators – will be forced to absorb far higher costs if one certification per crane type is not sufficient to meet federal standards. Imposition of greatly increased costs on workers in an industry characterized by high turnover and seasonal employment, is contrary to OSHA's stated intent to lessen the burdens imposed upon individual workers in adding 1427(a)(4) to the Final Rule: "Whenever operator certification or qualification is required under 1926.1427, the employer must provide the qualification or certification at no cost to operators who are employed by the employer on November 8, 2010."

By basing its estimates of the costs of certification for certification by type only, OSHA committed clear error, and effectively failed to take costs into account at all. *See Greater Boston Television Corp. v. F.C.C.*, 444 F.2d 841, 851 (DC Cir. 1970), *cert. denied*, 403 U.S. 923, 91 S.Ct. 2229, 29 L.Ed.2d 701 (1971) ("NCPA notes correctly that OSHA's cost estimate omits the cost of providing follow-up examinations every six months to workers who manifest symptoms of respiratory problems. As hypersensitive workers are a major reason for requiring medical surveillance, it was clear error for OSHA to have ignored these costs.")

E. C-DAC's List of Certification Criteria in 1427(j) Does Not Include Separate Written or Practical Testing or Certification for Different Capacities of the Same Crane Type

1. The "Certification Criteria" Are Modeled After ANSI/ASME B30

In devising the "certification criteria" in 1427(j), C-DAC intended to use the ANSI/ASME B30.5 Standards as its model. The B30.5 standards include "Qualifications for Operators" in 5-3.1.2, which state that operators "shall be required to successfully meet the qualifications for the **specific type** of crane" and do not recommend separate certification(s) for higher capacities of the same crane type. Emphasis added. In addressing capacity, ASME standards state that (5-3.1.2(b)(4)):

[9] *See* January 22, 2009 comments of the NCCCO.

(4) satisfactory completion of a combination written and verbal test on load/capacity chart usage that covers a selection of the configurations (the crane may be equipped to handle) for the crane type for which qualification is being sought.

2. The "Certification Criteria" Refer to Testing on "Specific Type" of Crane Only

In setting forth the criteria on which certifications must be based, Paragraph 1427(j), "Certification Criteria," does not state that certifications must be "by capacity and type." Indeed, with regard to the written test, 1427(j)(1)(i) states that the test must ensure that "the individual know the information necessary for safe operation of the **specific type of equipment** the individual will operate." (Emphasis added.) Paragraph 1427(j)(1)(i)(D) states that "Technical knowledge similar to the subject matter criteria listed in Appendix C of this subpart applicable to the **specific type** of equipment the individual will operate." Likewise, 1427(j)(2) states that the practical test must determine that the "individual has the skills necessary for the safe operation of the equipment" without any reference to separate tests for higher capacity cranes.

Furthermore, in describing the "Written Examination: Technical Knowledge Criteria" set forth in Appendix C, OSHA states that the Committee recognized that a "degree of flexibility should be accorded in terms of what specific subject should be included" since a "subject relevant only to an extensible boom crane would not need to be covered for a certification for a traditional lattice boom crane." 73 *Fed.Reg.* at 59818. Thus, while the Committee recognized that the subject matter of a written test might vary based on crane type, the Committee did not state that different written testing might be necessary for different capacities of crane.

3. Both the Regulatory Text and the Preambles Make Clear That Knowledge of Capacity is Tested Through the Written Examination Only

In discussing the "Certification Criteria," OSHA's references to knowledge of capacity focus exclusively on the written examination criteria in 1427(j)(1)(i)(B), such as written testing on the use a load chart (73 *Fed.Reg.* at 59817):

> Proposed paragraph (j)(1)(i)(B) was included to ensure that operators would be able to use load capacity information on a variety of configurations of the capacity and type of equipment. Such information is typically contained in load charts and manuals. This would ensure that the operator would be able to accurately determine, independently, the capacity of the equipment in each situation that he/she might encounter. The Committee believed that this ability

is critical to helping prevent injuries and fatalities caused by overloading the equipment.

Paragraph 1427(j)(1)(i)(B) states that the written examination must test the "Use of, and the ability to calculate (manually or with a calculator), load/capacity information on a variety of configurations of the equipment."

4. Appendix C Further Clarifies That Knowledge of Capacity is Tested Through the Written Examination Only

Appendix C to Subpart CC of Part 1926 further supports the fact that the C-DAC and OSHA intended that testing on differences in capacity would be included in the written testing, and not on the practical test. Appendix C is divided into four broad subject matters: "General technical information," "Site Information," "Operations," and "Use of Load Charts." There are criteria within each of these broad categories that are specifically designed to test an operator's knowledge of crane capacity. The following criteria are clearly designed to test knowledge of capacity: "Capacity and when multi-part rope is needed"; [10] "How to calculate net capacity for every possible configuration of the equipment using the manufacturer's load chart"[11] and "The difference between structural capacity and capacity limited by stability."[12]

F. *OSHA Did Not Cite the Need for Development of Separate Certification Tests for Different Capacities of the Same Crane Types as a Reason for the Four-Year Phase-in Period*

In its discussion of the need for a four-year phase-in period, OSHA did not include as reasons the necessity for the development of tests on additional types of equipment and/or the development of separate certifications for different capacities for the same crane types. 75 *Fed. Reg.* at 48027. The primary reasons cited by OSHA were that the phase-in period would ensure a reasonable amount of time to ensure that (*Id.*):

- Certification services will be sufficient to meet demand;
- Operators who need additional training to pass qualification/certification tests could complete that training;
- Accredited testing organizing could develop tests in language other than English to accommodate crane operators for whom English is not there first language; and
- State and local government entities could develop licensing if they so choose.

---

[10] (a)(2)(ii)

[11] (a)(13)

[12] (d)(3)(iii)

In light of the testimony of the Executive Directors of the OECP and the NCCCO that neither testing organization tested on different capacities, OSHA's omission of the need to develop testing/certification on different capacities further demonstrates the lack of record support for the requirement.

G. Employer Qualification Does Not Require Separate Certification(s) for Different Capacities of the Same Crane Type

Because of the requirement to certify "by capacity and type" only appears in Paragraph 1427(b)(2), this requirement would only apply to **certification** that is provided by "accredited testing organizations." Paragraph 1427(c) - *Option (2): Qualification by an audited employer program* - does not include "capacity and type" language in setting forth the standard for employer qualification of its own workers.

IV. C-DAC DID NOT INTEND TO REQUIRE THE DEVELOPMENT OF DIFFERENT TESTS FOR THE PURPOSE OF ISSUING SEPARATE CERTIFICATIONS FOR DIFFERENT CAPACITIES OF THE SAME TYPE OF CRANE

A. Crane Industry Experts Understand That The Industry Cannot Absorb the Administering Practical Testing on High Capacity Cranes

Crane industry experts understand that it is both infeasible and unnecessary to administer practical tests to operators on the functions that a higher capacity crane can perform. As noted above, it would be cost prohibitive to rent, to transport (hauling a disassembled crane), and to assemble/disassemble a higher capacity crane at a test site.

While it is true that the C-DAC document uses the words "capacity and type" in Paragraph 1427(b)(1)(ii)(B) to describe the "written and practical" tests administered by testing organizations, the Committee clearly did not intend that accredited testing organizations be required to develop different written and practical tests for the purpose of issuing separate certification for different capacities of the same crane type. As discussed above, C-DAC intended to use the ANSI/ASME B30.5 Standards as its model, and the B30.5 standards do not recommend separate certification for different capacities of the same crane type.

B. C-DAC Did Not Recommend That OSHA Seek Public Commentary on Separate Certification Based on Different Capacities

The C-DAC's intention not to require separate certification for different capacities of the same crane types is further demonstrated by the fact that the Committee did not recommend that OSHA seek public commentary on the issue of separate certification for different capacities. In view of the wide range of topics on which C-DAC recommended the need or value of public commentary, it is illogical to assume that C-DAC would not have sought commentary on a

requirement that so radically departed from the practices of accredited testing organizations.

C. C-DAC Recommendations Regarding the Phase- in Period Demonstrate That C-DAC Did Not Intend to Recommend Separate Certifications for Different Capacities of the Same Types of Crane

The fact that C-DAC did not intend to require separate certifications based upon capacity within each type of crane is further supported by its rationale for the necessity of a phase-in period. In recommending a phase-in period, the C-DAC considered the fact that "there [were] two testing organizations that have been accredited by a nationally recognized accrediting organization to certify crane operators." 73 *Fed.Reg.* at 59812. The C-DAC's view was that the recommended phase-in period would provide "sufficient time for the market to respond to an increased demand for certification services." *Id.* C-DAC did not state that a phase-in period was needed so that additional tests and certifications could be developed for different capacities of the same crane type.

CONCLUSION

Based on the foregoing, the IUOE submits that OSHA should a direct final rule to correct the "capacity and type" language in 1427(b)(1)(ii)(B) and 1926.1427(b)(2) of the Final Rule so that it is clear that an operator who is certified on a type of crane may operate all cranes of that type regardless of capacity. Alternatively, if OSHA declines to issue a direct final rule, it should interpret these paragraphs as meaning that a testing organization would need to take capacity into account in issuing the certifications, but that operation of a higher capacity crane itself would not necessitate the issuance of a separate certification.

The IUOE appreciates OSHA's consideration of the matters raised in this letter.

Respectfully submitted,

James T. Callahan
General President

Stephen Brown
Director of Training and Member of C-DAC

cc: Elizabeth Nadeau, IUOE Co-General Counsel

NBIS™

November 28, 2012

Mr. Jim Maddux
Directorate of Construction
U.S. Department of Labor
200 Constitution Avenue, N.W., Room N-3468
Washington, DC 20210

Dear Director Maddux:

I am writing this letter in support of the International Union of Operating Engineer's (IUOE) request that OSHA issue a direct final rule to correct the "capacity and type" language in 1926.1427(b)(1)(ii)(B) and 1926.1427(b)(2) of the Final Rule on the Cranes and Derricks Standard so that it is clear that an operator who is certified on a type of crane may operate all cranes of that type regardless of capacity.

In addition to working as a crane operator for about ten years and serving as a member of the Cranes and Derricks Negotiated Rulemaking Advisory Committee (C-DAC), my background in crane safety includes the holding the following positions: IUOE Director of Safety & Training; Assistant to the Directorate of Construction at OSHA; Corporate Safety/Labor Relations Manager for Maxim Crane; and my current position as Executive Vice President for Nations Builders Insurance.

I have reviewed the IUOE's letter and agree with the statements that C-DAC did not intend to require separate certification(s) for the operation of higher capacity crane when an operator is already certified on a lower capacity crane of the same type; that administration of practical tests on high capacity cranes would be cost prohibitive and is unnecessary to promote safety; and that practical tests do not, in any event, test on the functions that higher capacity cranes are capable of performing. I also agree with the IUOE's statement that OSHA misunderstood my testimony concerning the costs of certification. In stating that the costs of certification for employers were "modest" relative to the costs of accidents, I was speaking of certification based on types of crane, not the costs of separate certifications for different capacities of the same crane type or practical testing on high capacity cranes. I know of no employer with a workforce that is certified on different capacities of the same crane types.

I also urge OSHA to immediately rescind its answer to question 4 in OSHA's *Small Entity Compliance Guide for Final Rule for Crane and Derricks in Construction*.

Thank you for the opportunity to comment upon these important issues.

Sincerely,

William J. Smith

William Smith
Executive Vice President