

Subchapter 7. General Industry Safety Orders
Group 13. Cranes and Other Hoisting Equipment
Article 98. Operating Rules

New query

§5006.1. Mobile Crane and Tower Crane-Operator Qualifications and Certification.

(a) Qualifications. The employer shall only permit operators who have a valid certificate of competency (certificate) issued in accordance with this section by an Accredited Certifying Entity for the type of crane to be used to operate a crane covered by this section. Certificates shall be issued to operators who:

- (1) Pass a physical examination conducted by a physician which at a minimum shall include the examination criteria specified in the American Society of Mechanical Engineers (ASME) B30.5-2000 standard, Chapter 5-3.1.2(a)(1-5, 7, 8) or the U.S. Department of Transportation (US DOT) physical examination requirements contained in 49 CFR Sections 391.41 through 391.49.
- (2) Pass a substance abuse test. The level of testing shall be consistent with the standard practice for the industry where the crane is in use and this test shall be conducted by a recognized laboratory service;
- (3) Pass a written examination developed, validated, and administered in accordance with the Standards for Educational and Psychological Testing (Copyright 1999) published jointly by the Joint Committee of the American Educational Research Association, the American Psychological Association, and the National Council in Measurement in Education. The exam shall test knowledge and skills identified as necessary for safe crane operations and shall, at a minimum, include the following:
 - (A) operational characteristics and controls, including characteristic and performance questions appropriate to the crane type for which qualification is sought;
 - (B) emergency control skills, such as a response to fire, power line contact, loss of stability, or control malfunction;
 - (C) a demonstration of basic arithmetic skills necessary for crane operation and the ability to read and comprehend the crane manufacturer's operation and maintenance instruction materials, including load capacity information (load charts) for the crane for which certification is sought;
 - (D) knowledge of chapters 5-0 through 5-3 of The American Society of Mechanical Engineers (ASME) B30.5-2000 and B30.5a-2002 Addenda to the standard for mobile and locomotive cranes or chapters 4-0 through 4-3 of the ASME B30.4-1996 standard for portal, tower, and pedestal cranes or Chapter 3-3 of the ASME B 30.3-1996 standard for Construction Tower Cranes, depending on the type of crane(s) the operator intends to operate.
- (4) Pass a "hands-on" examination to demonstrate proficiency in operating the specific type of crane, which at a minimum shall include pre-start and post-start inspection, maneuvering skills, shutdown, and securing procedures.

(b) Certification. Certificates shall be valid for a maximum of five (5) years. An Accredited Certifying Entity shall issue the certificate of competency to operators who successfully demonstrate the

qualifications set forth in (a)(1)-(4) of this section.

(c) Accredited Certifying Entity. A certifying entity is any organization whose certification program is accredited by the National Commission for Certifying Agencies (NCCA).

(d) Re-certification. Crane operators shall re-certify every five (5) years and shall be required to meet all of the qualifications set forth in subsection (a). Operators with at least one-thousand (1,000) hours of documented experience operating the specific type of crane for which re-certification is sought as covered by this section during the immediately preceding certification period and who meet the physical examination, substance abuse, and written examination requirements set forth in subsections (a)(1), (a)(2) and (a)(3) of this section shall not be required to take the "hands-on" examination specified in subsection (a)(4) to re-certify.

(e) Trainees may be authorized to operate mobile or tower cranes provided they are under the direct supervision of an operator possessing a valid certificate of competency for the type of crane operated by the trainee.

The term direct supervision means the supervising operator is in the immediate area of the trainee and within visual sighting distance and able to effectively communicate with the trainee. When performing direct supervision, the supervising operator shall have no other duties other than to observe the operation of the crane by the trainee.

(f) Effective Date. The requirements of Section 5006.1 shall become effective on June 1, 2005.

EXCEPTIONS TO SECTION 5006.1:

(1) Mobile cranes having a boom length of less than 25 feet or a maximum rated load capacity of less than 15,000 pounds.

(2) Operators of electric line trucks as defined in Section 2700 of the Electrical Safety Orders, and regulated by Section 2940.7 of the High Voltage Electrical Safety Orders.

(3) Marine terminal operations regulated by Article 14 of these Orders.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section filed 7-3-2003; operative 8-2-2003 (Register 2003, No. 27).

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NOTE: This is new text for the Operator Qualifications and Modifications sections, based on discussions in previous meetings.
[Text in brackets] are questions, information or options.

14XX Operator Qualifications. The employer must ensure that, prior to operating any equipment included in 1400 (a) and (b), the operator meets the physical examination and certification requirements in this section.

(a) *Physical examination.*

(1) Operators must pass a physical examination that meets the criteria of the U.S. Department of Transportation for operators of _____ (49 CFR 391.41 through 391.49) at least [once every three years].

[Discuss substance abuse provision – incorporation of DOT 49 CFR 382.105 and Part 40 of _____]

[Should the physical be a separate requirement (as here) or a prerequisite for getting certification?]

(b) *Operator Certification.*

(1) Beginning [1 year after the effective date of this standard], until (and including) [4 years after the effective date of this standard], the operator must be certified by either the employer (in accordance with paragraph (d)), or by an accredited testing organization (in accordance with paragraph (e)).

(2) From [4 years after the effective date of this standard], the operator must be certified by an accredited testing organization (in accordance with paragraph (e)) once the operator's certification under paragraph (1) expires.

(3) Certifications under paragraph (d) are valid for no more than [three years]. Certifications under paragraph (e) are valid for no more than [five years].

(4) *Re-certification:* [different tests than for initial certification?].

*****NCCCO Comment:** *The practical exam could be waived if 1,000 hours crane-related experience during the preceding 5-year certification period can be documented. The written exam could be an abbreviated form of the full exam, but a written exam should still be taken to ensure currency of knowledge. Note: the tests should most certainly be "different" in that the written exam is not the same test as the candidate took 5 years earlier.*

(c) *Certification criteria.* Certification must be based, at a minimum, on the following:

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(1) A determination through a written test that:

*****NCCCCO Comment:** *"written test" should be required to be "valid and reliable" and meet the Standards for Educational and Psychological Testing (as referenced by the new crane operator licensing laws in California and New Jersey).*

(i) The individual knows the information necessary for safe operation of the specific equipment the individual will operate, including the following:

*****NCCCCO Comment:** *"specific equipment" should be clarified as "specific type of crane" along the lines of ASME B30.5 (as referenced by the new crane operator licensing law in New Jersey).*

(A) The controls and operational/performance characteristics.

(B) Use of, and the ability to calculate, load/capacity information on a variety of configurations of the equipment, including on configurations typically used by the employer.

(C) Procedures for responding to: loss of stability, control malfunction, power line contact, and fire.

(D) This Subpart, including applicable incorporated materials, and the applicable American Society of Mechanical Engineers (ASME) standard regarding the equipment.

(ii) The individual is able to read and locate relevant information in the equipment manual and materials referred to in paragraph (i).

*****NCCCCO Comment:** *No equipment manual or materials are referred to in para (i). Replace "in the equipment manual and materials referred to in paragraph (i)" with "for the safe operation of the specific type of crane."*

(2) A determination through a practical test that the individual has the skills necessary for safe operation of the equipment, including the following:

(i) Ability to recognize, from visual and audible observation, the items listed in section 14XX (pre-shift inspection).

(ii) Operational and maneuvering skills.

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(iii) Application of load chart information.

*****NCCCO Comment: Delete (iii). The ability to use load charts is more effectively tested in a valid and reliable written examination whose performance can be monitored through routine statistical item analysis.**

(iv) Application of safe shut-down and securing procedures.

(d) *Certification by the employer.*

(NOTE: From [date], operator certifications must be issued by an accredited testing organization).

(1) To certify an operator for the equipment, the employer must make the determinations specified in paragraph (c).

(2) *Use of another entity to administer tests.*

(i) Although the employer must make the determination as to whether to certify the operator for the equipment, the employer may use another entity to administer the tests in paragraphs (c) (1) and (2) if that entity is qualified to administer those tests.

*****NCCCO Comment: Strike "another entity" and replace with "an accredited testing organization".**

(ii) The employer must base its determination on whether to certify the individual, at a minimum, on:

(A) A review of the test records from the entity that administered the tests.

(B) Observation of the employee operating the equipment in test lifts prior to determining whether to certify the individual.

NCCCO Comment: What would an employer's determination add to the results of written and practical tests administered by an accredited testing organization?

(3) *Certification by another employer is not transferable.* The employer of the operator must make its own determination as to whether to certify the employee to operate the equipment, although it may use tests administered by another employer where the requirements of paragraph (d)(2) are met in assessing the operator.

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(5) *Revocation.* If the employer has reason to believe that the operator may not be qualified to operate the equipment, the employer must [immediately] revoke the certification. The operator must not be permitted to operate the equipment unless he/she is recertified.

****NCCCCO Comment: strike "unless he/she is recertified" and replace with "until he/she is recertified."*

(6) *Records.* The employer must retain the current test records for each operator it has certified throughout that operator's employment with the employer. This requirement applies irrespective of whether the employer or another entity administers the tests.

NOTE: After [4 years after effective date of the standard], employers will no longer be permitted to meet the certification requirement by certifying operators themselves; at that point, certification must be by an accredited testing organization.

(e) *Certification by an accredited testing organization.*

(1) For a testing organization to be considered accredited to certify operators under this Subpart, it must:

(i) Be accredited by a nationally recognized accrediting agency based on that agency's determination that industry recognized criteria for written testing materials, practical examinations, grading, facilities/equipment and personnel have been met.

****NCCCCO Comment: Add "the development, maintenance and administration of" before "written testing materials . . ."*

(ii) Administer written and practical tests that assess the operator applicant regarding, at a minimum, the knowledge and skills listed in (c)(1) and (2).

(2) For an operator to be considered certified by an accredited testing organization, the operator must have a current certification to operate the equipment from a testing organization that meets the requirements in paragraph (e)(1).

(3) Where the employer is an accredited testing organization, the operator must have a current certification to operate the equipment from an accredited testing organization other than the employer.

(4) If the employer has reason to believe that the operator may not be qualified, the employer must prohibit the employee from operating the equipment unless he/she is recertified.

****NCCCCO Comment: strike "unless he/she is recertified" and replace with "until he/she is recertified." Note: A certification issued by a testing organization can only be revoked by that organization.*

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(5) *Records*. Documentation verifying the operator's certification from an accredited testing organization must be available to the Secretary.

(f) *Licensing by state or local governments*. Nothing in this section shall preempt a state or local government from enforcing operator licensing requirements that are more stringent than the requirements in this section. [Note that we are still examining the legal viability of this paragraph].

Definitions

"Nationally recognized accrediting agency" is an organization that, due to its independence and expertise, is widely recognized as competent to accredit testing organizations.

****NCCCO Comment: "widely recognized" by who? There are only two organizations that are experts in this field: (i) the National Commission for Certifying Agencies (NCCA) which is directly referenced in the new California and New Jersey crane operator licensing regulations, as well as by the Department of Transportation in its substance abuse requirements; and (ii) the American National Standards Institute (ANSI) which assesses conformity with the ISO 17024 International Standard, Requirements for Bodies Operating Certification of Personnel. Unless OSHA, via this regulation, identifies the accrediting bodies authorized to accredit personnel certification organizations, there will be the potential for widespread abuse of the accreditation process, which would, in turn, undermine the entire crane operator certification process.*

Note: "Testing organizations" should be "personnel testing organizations." Organizations that test equipment (for example) may not be competent to test personnel. Similarly, the standards utilized by agencies that accredit organizations that certify products or equipment may not be appropriate to organizations that certify personnel.