



# RULE-MAKING ORDER

## CR-103 (June 2004) (Implements RCW 34.05.360)

Agency: Department of Labor and Industries

- Permanent Rule
- Emergency Rule

**Effective date of rule:**

**Permanent Rules**

- 31 days after filing.
- Other (specify) WAC 296-155-531 through 296-155-53112 - January 1, 2009, All Other WAC's will be effective January 1, 2010

**Effective date of rule:**

**Emergency Rules**

- Immediately upon filing.
- Later (specify) \_\_\_\_\_

**Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?**

- Yes
  - No
- If Yes, explain:

**Purpose:** The legislature passed Chapter 27, Laws of 2007 (Engrossed Substitute House Bill 2171) in response to a catastrophic tower crane accident that happened in Bellevue in November 2006. The department conducted two sets of statewide stakeholder meetings to gather input from the industry for use in developing draft rules. The first phase of this rule is for the construction crane certification program and operator qualifications, as outlined in RCW 49.17.400 through 440. The statute requires the department to establish by rule a crane certification program for cranes used in the construction industry, to establish requirements to become an accredited crane certifier, and to establish requirements that must be met to be considered a qualified crane operator. Five public hearings were held in the late summer of 2008. See attachment (1).

**Citation of existing rules affected by this order:**

Repealed: 0  
Amended: 0  
Suspended: 0

**Statutory authority for adoption:** RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060

**Other authority :** RCW 49.17.400, 49.17.410, 49.17.420, 49.17.430 and 49.17.440.

**PERMANENT RULE ONLY (Including Expedited Rule Making)**

Adopted under notice filed as WSR 08-15-161 on July 23, 2008.

Describe any changes other than editing from proposed to adopted version. See Attachment (2)

If a preliminary cost-benefit analysis was prepared under RCW 34.05.328, a final cost-benefit analysis is available by contacting:

Name: Cindy Ireland phone (360) 902-5522  
Address: Department of Labor and Industries fax (360) 902-5619  
Post Office 44620 e-mail [mooc235@lni.wa.gov](mailto:mooc235@lni.wa.gov)  
Olympia, Washington 98504-4620

**EMERGENCY RULE ONLY**

Under RCW 34.05.350 the agency for good cause finds:

- That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
- That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

**Date adopted:**

November 4, 2008

**NAME (TYPE OR PRINT)**

Judy Schurke

**SIGNATURE**

**TITLE**

Director

**CODE REVISER USE ONLY**

OFFICE OF THE CODE REVISER  
STATE OF WASHINGTON  
FILED

**DATE: November 04, 2008**

**TIME: 11:11 AM**

**WSR 08-22-080**

(COMPLETE REVERSE SIDE)

**Note: If any category is left blank, it will be calculated as zero.  
No descriptive text.**

**Count by whole WAC sections only, from the WAC number through the history note.  
A section may be counted in more than one category.**

**The number of sections adopted in order to comply with:**

<b>Federal statute:</b>	New	_____	Amended	_____	Repealed	_____
<b>Federal rules or standards:</b>	New	_____	Amended	_____	Repealed	_____
<b>Recently enacted state statutes:</b>	New	23	Amended	_____	Repealed	_____

**The number of sections adopted at the request of a nongovernmental entity:**

New	_____	Amended	_____	Repealed	_____
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**The number of sections adopted in the agency's own initiative:**

New	23	Amended	_____	Repealed	_____
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**The number of sections adopted in order to clarify, streamline, or reform agency procedures:**

New	23	Amended	_____	Repealed	_____
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**The number of sections adopted using:**

<b>Negotiated rule making:</b>	New	23	Amended	_____	Repealed	_____
<b>Pilot rule making:</b>	New	_____	Amended	_____	Repealed	_____
<b>Other alternative rule making:</b>	New	_____	Amended	_____	Repealed	_____

**Purpose:**

**WAC 296-155-529 Crane Certifier Accreditation and Crane Certification.**

- This section is only a title. No requirements are located in this section.

**WAC 296-155-52900 Scope.**

- Added language to this section relating to what this part covers. This section also includes specific exemptions to the rule.

**WAC 296-155-52902 Definitions.**

- This section contains applicable definitions relating to cranes. They are:  
Accredited crane certifier, apprentice operator or trainee, articulating boom crane, audible signal, bogie, boom (equipment other than tower crane), boom (tower cranes), boom angle indicator, boom hoist limiting device, boom length indicator, boom stop, boom suspension systems, certified crane inspector, climbing, counterjib (counterweight jib), counterweight, crane, crane/derrick type, crane operator, crawler crane, critical lift, crossover points, dedicated pile-driver, derrick, directly under the load, dismantling, drum rotation indicator, electrical contact, equipment, equipment criteria, fall protection equipment, flange points, floating cranes/derricks, free rated load test, hoist, hoisting, jib, land crane/derrick, load, load moment (or rated capacity) indicator, load moment (or rated capacity) limiter, locomotive crane, load sustaining/bearing parts, luffing boom, luffing jib limiting device, mobile cranes, multiple lift rigging, nationally recognized accrediting agency, nonstandard tower crane base, occasional or routine maintenance and repair work, operational aid, operational controls, operator, overhead and gantry cranes, pendants, powerhouse, power lines, qualified crane operator, qualified person, rated capacity, rated capacity indicator, rated capacity limiter, RPE, RPSE, running wire rope, safety devices, safety or health standard, taglines, tower crane, travel bogie (tower cranes), two blocking.

**WAC 296-155-531 Crane Certifier Accreditation Process**

- This section is only a title. No requirements are located in this section.

**WAC 296-155-53100 Accreditation of Certifiers of Cranes and Derricks - Requirements.**

- This section requires that any person engaging in the testing, examination or inspection for the certification of a crane, used in lifting at a construction site must apply for and obtain a certificate of accreditation from the department.
- This section requires that any person authorized by the department to certify maritime cranes prior to the effective date of this rule may continue to perform services under this regulation until January 1, 2012.
- This section requires that crane certifiers accredited by any other state or governmental entity may be authorized to inspect cranes in Washington State provided the certifier submits an application and resume along with the certificate of accreditation from that state or governmental entity, and the types of cranes they are authorized to inspect.
- This section requires that no person that has modified, altered, or repaired a crane which affected a load sustaining member of the crane may conduct the certifying inspection and proof load testing of that particular crane within the same certification period.

**WAC 296-155-53102 Accreditation - Application Form and Applicant Qualifications.**

- This section requires a person to submit an application to the department along with successfully completing a written examination in order to become accredited to certify cranes.
- This section requires that an applicant must meet specific criteria in order to be accredited.
- This section requires that all applicants must demonstrate at least five years of crane related experience, of which two years must be actual crane inspection activities.

**WAC 296-155-53104 Issuance of Accreditation.**

- This section requires that the department may impose restrictions on the scope and use of the accreditation, such as limiting it to specific types of cranes based on the qualifications of the applicant.
- This section requires that the department must deny issuance of an accreditation if the applicant does not satisfy the requirements of this proposed rule.

**WAC 296-155-53106 Accreditation Application - Processing Time.**

- This section requires that within forty-five calendar days of receipt of a completed application for an accreditation the department must inform the applicant in writing that it is either complete and accepted for filing or that it is deficient and what specific information or documentation is required to complete the application and will inform the applicant if the applicant is eligible to take the written examination.
- This section requires that within seventy-five calendar days from the date of completion of the written examinations the department must inform the applicant in writing of its decision regarding the issuance of the certificate of accreditation.

**WAC 296-155-53108 Duration and Renewal of an Accreditation.**

- This section requires that the accreditation will be valid for three years. Also, that crane certifiers must complete forty hours of crane related training every three years.
- This section requires that the application for renewal must be filed with the department not less than sixty days prior to expiration of the accredited crane certifier's certification.
- This section requires that an applicant is considered active if he/she has certified at least twenty-one cranes during their accreditation period.
- This section requires that at a minimum, all applicants for renewal must successfully complete the written examinations every six years.

**WAC 296-155-53110 Revocation or Suspension of an Accreditation.**

- This section requires that the department may suspend or revoke a certificate of accreditation if criteria listed in this section have been identified.
- This section requires that before any certificate can be suspended or revoked, the certificate holder must be given written notice of the department's intention. The notice must specify the reasons for the department action and must give the certificate holder the opportunity to attend a hearing before the department.
- This section requires that a hearing will be held at the department's headquarters office or at such other location as may be designated by the assistant director and must be presided over an authorized representative of the assistant director.

- This section requires that a final suspension or revocation decision may be appealed to the superior court for the state of Washington in either the county in which the certificate holder resides or in Thurston County within thirty days after the suspension or revocation order is entered.
- This section requires that the filing of an appeal must not stay the suspension or revocation, and such action must remain in effect until such time as the applicant presents proof that the specified written conditions required by the department are met or until otherwise ordered after resolution of the appeal.

**WAC 296-155-53112 Monitoring of Accredited Crane Certifiers.**

- This section requires that the department must monitor accredited crane certifiers to ensure that these certifiers certify cranes in accordance with all applicable Washington State laws and regulations.

**WAC 296-155-53114 Issuance of Temporary and Annual Certificates of Operation.**

- This section requires that accredited crane certifiers must issue a temporary certificate of operation if upon inspection and load proof testing no deficiencies were found that would affect the safe operation of the crane.
- This section requires that the accredited crane certifier must submit inspection worksheets and proof of load testing to the department within ten working days from the completion of the inspection and proof load test.
- This section requires that the accredited crane certifier must notify the department within five working days if upon inspection the certifier identifies deficiencies that would affect the safe operation or load handling capabilities of the crane.
- This section requires that after the accredited crane certifier has verified that all deficiencies have been corrected and the crane has successfully passed a proof load test the accredited crane certifier will issue a temporary certificate of operation.
- This section requires that the accredited crane certifier must attach an identification sticker to each crane and crane component whether or not currently installed but that has been inspected and approved for use.
- This section requires that the accredited crane certifier must maintain complete and accurate records pertaining to each crane of all inspections, tests and other work performed as well as copies of all notices of crane safety deficiencies, verifications of correction of crane safety deficiencies, and crane certifications issued for the previous five years and provide these records to the department upon request.

**WAC 296-155-532 Crane Certification Requirements for Cranes.**

- This section is only a title. No requirements are located in this section.

**WAC 296-155-53200 General Inspection Criteria, Wire Rope Inspection and Removal Criteria, and Pre-Proof Load Test Requirements for all cranes.**

- This section contains requirements relating to general inspection criteria, wire rope inspection and removal criteria, and pre-proof load testing for all cranes.

**WAC 296-155-53202 Additional Inspection Criteria and Proof Load Testing – Mobile Cranes.**

- This section contains additional requirements for inspection criteria and proof load testing for mobile cranes.

**WAC 296-155-53204 Additional Inspection Criteria and Proof Load Testing – Articulating Boom Cranes.**

- This section contains additional requirements for inspection criteria and proof load testing for articulating boom cranes.

**WAC 296-155-53206 Additional Inspection Criteria and Proof Load Testing– Tower Cranes.**

- This section contains additional requirements for inspection criteria and proof load testing for tower cranes.

**WAC 296-155-53208 Additional Inspection Criteria and Proof Load Testing – Self-Erecting Tower Cranes.**

- This section contains additional requirements for inspection criteria and proof load testing for self-erecting tower cranes.

**WAC 296-155-53210 Additional Inspection Criteria and Proof Load Testing – Overhead and Bridge Cranes.**

- This section contains additional requirements for inspection criteria and proof load testing for overhead and bridge cranes.

**WAC 296-155-53212 Additional Inspection Criteria and Proof Load Testing – Derricks.**

- This section contains additional requirements for inspection criteria and proof load testing for derricks.

**WAC 296-155-53214 Crane De-Certification and Reinstatement.**

- This section requires that if any of the following occurs the crane certification becomes invalid:
  - Contact with an energized power line.
  - Any overload, other than proof load testing, or one that has been approved in writing in advance by the crane manufacturer or s registered professional engineer.
  - Any significant modification or significant repairs of a load sustaining/bearing part.
- This section requires that the owner or lessee must notify the crane certification section within twenty-four if any of the above occurs.
- This section requires that the certification can be re-instated only after affected components have been re-inspected by an accredited crane certifier.

**WAC 296-155-533 Crane Operator Qualifications and Certification.**

- This section is only a title. No requirements are located in this section.

**WAC 296-155-53300 Operator qualifications and certification.**

- This section contains requirements that the employer must ensure that prior to operating any crane covered under this chapter, the crane operator must meet the following criteria:

- Have a valid crane operator certificate, for the type of crane to be operated, issued by a crane operator testing organization accredited by a nationally recognized accrediting agency.
  - Have crane hours of experience as indicated in this rule.
  - Has passed a substance abuse test conducted by a recognized laboratory.
- This section contains requirements relating to a pre-qualification/certification training period.
- This section requires that employers must obtain documentation showing hours of crane operator experience and crane related experience separated out by crane type and capacity.
- This section requires that the employer can accept a declaration from the crane operator attesting to actual hours of crane operator experience and crane related experience. Hours documented prior to 2010 will count towards the hour requirements of actual crane operating experience and crane related experience.
- This section requires that beginning January 1, 2010, crane operator experience and crane related experience must be documented and separated out by crane type and capacity.

**Changes other than editing from proposed to adopted version**

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**Describe any changes other than editing from proposed to adopted version:**

As a result of written and oral comments received, the following sections are being changed as indicated below:

**CHANGES TO THE RULES (Proposed rule versus rule actually adopted):**

**WAC 296-155-52900 Scope.**

- In subsection (2), the department added an exemption that reads, “Cranes having a maximum rated capacity of one ton or less are exempt from this rule for the purposes of crane certification and operator certification.
- In subsection (2)(d), the department modified the language. The phrase “to be installed or removed from utility poles” was deleted. It now reads, “Service trucks with mobile lifting devices designed specifically for use in the power line and electric service industries or handling associated materials.”
- In subsection (2), the department added an exemption that conveyors would not have to follow this rule.
- In subsection (2), the department added an exemption relating to pump hoists that reads, “Pump hoists with booms that do not rotate”.
- Renumbered the paragraphs in subsection (2).

**WAC 296-155-52902 Definitions.**

- The department added a definition for “dedicated drilling rig”. It reads, “Dedicated drilling rig means a machine which creates boreholes and/or shafts in the ground”.
- The department deleted “crane level indicator” from the definition of “Safety devices”. It now reads, “Safety devices, examples of safety devices are, but are not limited to, the following: Horn, boom/jib or trolley stops, hydraulic holding device/check valve, rail clamps, rail stops, brakes, deadman control, or forced neutral return control, emergency stop switch, guards, handrails, audible and visual alarms, etc.”

**WAC 296-155-53108 Duration and renewal of an accreditation.**

- In subsection (2), the department added the word “inspected”. It now reads, “Application for renewal must be filed with the department not less than sixty days prior to expiration of the accredited crane certifier’s certification. A renewal may be obtained by filing a completed application for renewal meeting the requirements of WAC 296-155-53102 hereof providing the applicant has been actively inspecting cranes during their prior accreditation period. An applicant is considered active if he/she has certified/inspected at least twenty-one cranes during their accreditation period. If the applicant certified cranes in another state, then that applicant must provide documentation showing they were active during their accreditation period. An applicant who has not certified/inspected at least twenty-one cranes during the accreditation period may take the written exam to become recertified.”

**Changes other than editing from proposed to adopted version**

**WAC 296-155-53110 Revocation or suspension of an accreditation.**

- The department amended the language relating to appealing a revocation or suspension to the superior court. We modified the language to say “board of industrial insurance appeals” instead of “superior court”. The new language reads:  
 “A suspension or revocation order may be appealed to the board of industrial insurance appeals within fifteen working days after the suspension or revocation order is entered. The notice of appeal may be filed with the department or the board of industrial insurance appeals. The board of industrial insurance appeals shall hold the hearing in accordance with procedures established in RCW 49.17.140. Any party aggrieved by an order of the board of industrial insurance appeals may obtain superior court review in the manner provided in RCW 49.17.150.”

**WAC 296-155-53200 General inspection criteria, wire rope inspection and removal criteria, and pre-proof load test requirements for all cranes.**

- The department amended the wire rope inspection/removal criteria table in subsection (5). It now reads:

**Table 1 - Wire Rope Inspection/Removal Criteria**

(See also Figure 1 - Wire Rope)

Category of Cranes	Running Ropes* # of broken wires in		Rotation Resistant* # of broken wires in specified diameters		Standing Ropes* # of broken wires	
	1 rope lay	1 strand in 1 lay			In 1 lay beyond end connection	At end connection
Mobile	6	3	2 (in 6xd)	4 (in 30xd)	3	2
Articulating	6	3	Consult rope mfg.	Consult rope mfg.	3	2
Tower	12	4	2 (in 6xd)	4 (in 30xd)	3	3
Self-Erector	6	3	2 (in 6xd)	4 (in 30xd)	3	2
Overhead & Bridge	12	4	2 (in 6xd)	4 (in 30xd)	--	--
Derricks	6	3	Consult rope mfg.	Consult rope mfg.	3	2

- The department added a note after the wire rope inspection/removal criteria table, it reads, “xd means times the “diameter”.”
- The department added a new subsection (6), it reads,  
 “(6) Sheaves.  
 (a) Sheave grooves must be free from surface defects that could damage the rope. The cross-sectional radius at the bottom of the groove should be such as to form a

**Changes other than editing from proposed to adopted version**

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close fitting saddle for the size of rope used. The sides of the groove must be tapered outward and rounded at the rim to facilitate entrance of the rope into the groove. Flange rims must run true about the axis of rotation.

(b) Sheave guards must be in place to:

(i) Guide the rope back into the sheave groove, when using ropes that can be momentarily unloaded.

(ii) Prevent ropes from becoming fouled when the block is lying on the ground with loose ropes.

(c) Sheave bearings, except for permanently lubricated ones, must have a means of lubrication.

- The department renumbered the proposed subsection “(6)” to “(7)”.

**WAC 296-155-53202 Additional inspection criteria and proof load testing – Mobile cranes.**

- The department reworded the language in subsection (1)(hh) and deleted the word “unusable”. It now reads “Steps, ladders, handrails, and guards are in safe and usable condition.”
- The department fixed a typographical error in subsection (4)(a). The letter “s” was deleted from the word “load” and added to the word “test”. The paragraph now reads: “(4)(a) Proof load tests must be completed on all hoist lines. The test load must be at least one hundred percent but not to exceed one hundred and ten percent of rated capacity (i.e., for the crane’s configuration of reeving, boom length, etc.). The rated capacity must be the capacity shown on the posted load chart or as limited by other factors such as hook block capacity or wire rope line pull if the crane is not fully reeved. The test load includes the weight of (or deduction values for) the hook, block, slings, and auxiliary lifting devices (and for some cranes hoist wire rope not accounted for in load charts), and the combined weight deduction values must be subtracted from the nominal test load in order to determine the amount of test weights to be used. Follow original equipment manufacturer (OEM) load chart instructions for weight deduction values. Check accuracy of load indicators where installed. Test procedures for these cranes must follow OEM procedures and recommendations.”

**WAC 296-155-53204 Additional inspection criteria and proof load testing – Articulating boom cranes.**

- The department fixed a typographical error in subsection (2)(c). The letter “s” was deleted from the word “test”. It now reads: “(c) Hoist the test load to assure that the load is supported by the crane and held by the hoist brake(s)”.

**WAC 296-155-53210 Additional inspection criteria and proof load testing – Overhead and bridge cranes.**

- In subsection (1)(b), the words “mousing device” were replaced with “safety latch”. It now reads: “(b) Load hooks. Inspect for damage wear to hook nuts, safety latch and hook swivel. Check for deformation, cracks, excessive wear, or damage such as from chemicals or

**Changes other than editing from proposed to adopted version**

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heat. Inspect blocks for wear to sheaves, check plates, and pins. Check for loose pins, bolts and guards;”

**WAC 296-155-53300 Operator qualifications and certification.**

- The title of Table 1 was changed to “Crane Operator Experience for Cranes Used in the Construction Industry”.
- One of the headings in Table 1, was reworded from saying “Crane Type” to “The Five Categories of Cranes and their Types”.
- In Table 1, the department fixed a typographical error in the lattice boom crawler crane (LBC) cell. It was changed from “300 tons and above – 1000 hours” to “Under 300 tons – 500 hours”.
- The department added another type of mobile crane with fewer hours required. The type that was added was a mobile crane under five tons, the hours of actual experience is eight hours, and related experience is sixteen hours.
- In Table 1, the category of cranes was renumbered.
- In Table 1, articulating boom cranes were moved to it own separate category.
- In subsection (2)(d)(v), the words “excluding tower cranes and” were deleted. It now reads:  
“(2)(d)(v) Critical lifts, as defined in WAC 296-155-52902, can only be accomplished by the trainee/apprentice when the qualified crane operator determines that the trainee’s/apprentice’s skills are sufficient for this high-skill work”.
- In subsection (5), the word “signed” was added. It now reads,  
“For experience obtained prior to January 1, 2010, the employer may accept a signed declaration from the crane operator attesting to actual hours of crane operator experience and crane related experience separated out by crane type and capacity. Hours documented prior to 2010 will count towards the hour requirements of actual crane operating experience and crane related experience”.
- After subsection (5) a note was added. It reads:  
“**Note:** For experience obtained while working outside of the department’s jurisdiction, the employer may accept a signed declaration from the crane operator attesting to actual hours of crane operator experience and crane related experience separated out by crane type and capacity.”