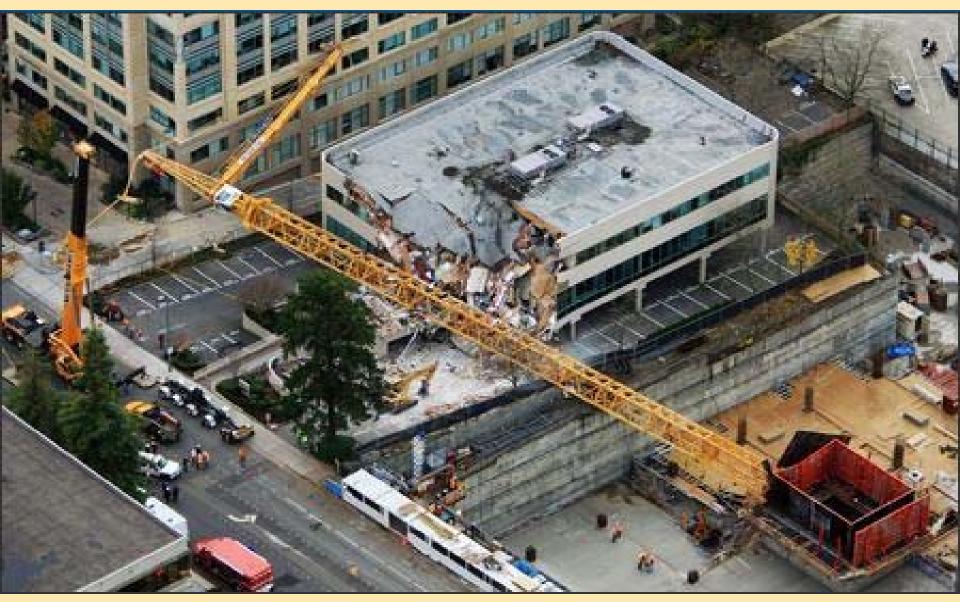


Washington State's New Construction Crane Rule (Phase 1)













The New Construction Crane Rule

- The rule is divided into two parts;
- The first part deals with Crane Certification and Crane Certifiers; Also included in this first part is Operator Qualifications
- The second part will have the requirements for the employer to follow regarding maintenance, inspection, and operation
- Rigging and Personnel Lifting will also be addressed



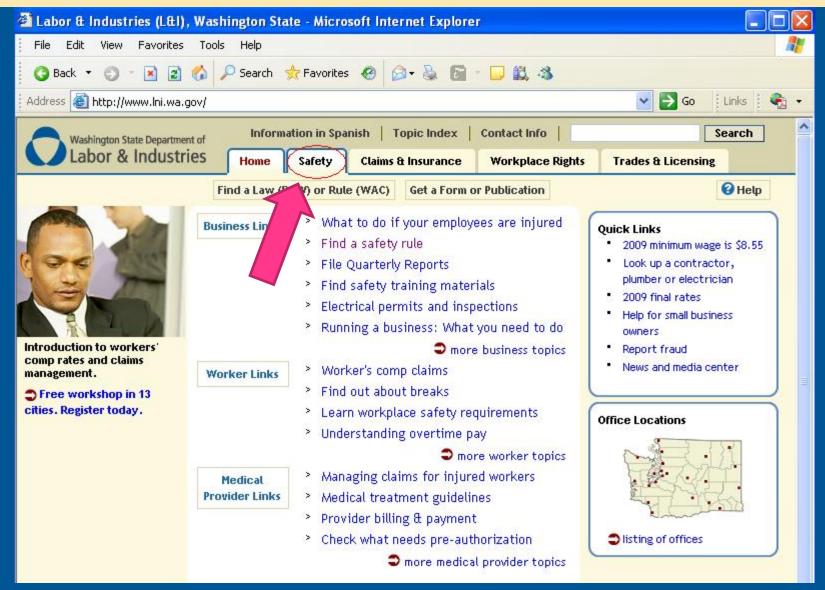


Crane Certification and Crane Certifier Accreditation

 Rule Effective Date and the Required Date is January 1st 2010

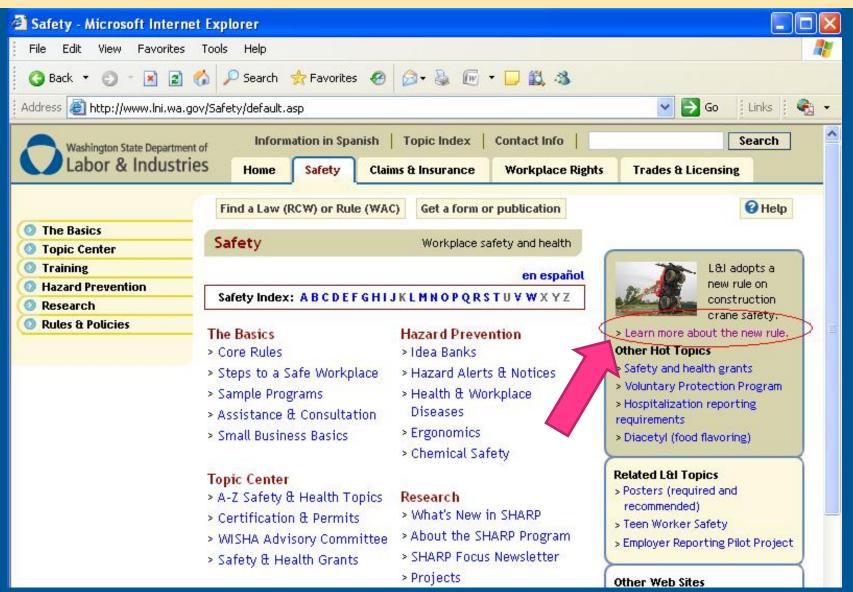
















Exemptions

- Cranes with a maximum lifting capacity of one ton (2000 lbs) or less
- Power shovels, excavators, backhoes
- Automotive wreckers & tow trucks
- Service trucks (digger derricks) specifically designed for power line work
- Mechanic's truck when used for equipment maintenance or repair work
- Drilling rigs



Exemptions (cont.)

- Tree trimming and tree removal work
- Service trucks with booms that rotate manually
- Machines with booms that are limited to up & down movement only and does not rotate
- Conveyors
- Pump hoists with booms that do not rotate
- Cranes used in manufacturing facilities or powerhouses while used in routine maintenance and repair work







- Current accredited Maritime Crane Certifiers and accredited certifiers from other states may apply for a provisional accreditation to certify constructions cranes until January 2012 (WAC 296-155-53100 (2)&(3))
- Afterwards they must meet the same requirements established by the new rule





A certifier cannot certify a crane that he/she has modified, altered, or repaired a load sustaining member on that crane within the same certification period (WAC 296-155-53100 (4))





- Application Process: (WAC 296-155-53102)
 - Submit application and resume addressing knowledge, training, experience with verifiable references;
 - Applicants must have knowledge of our Construction Safety Standard (WAC 296-155) and
 - Nationally recognized safety standards for cranes & derricks (such as ASME) for which applicant desires to be accredited for





- Applicants must have at least 5 years of crane/derrick experience – of which 2 years must be actual crane inspection activities;
- the other 3 years may include experience as crane operator, crane mechanic, crane foreman, crane operation supervisor, or rigging specialist (WAC 296-155-53102)



- Written examinations:
 - Applicants must pass a general examination and specialty examinations for the type of crane they are applying for (WAC 296-155-53102)
- Note: we are working with NCCCO in developing written exams for crane certifiers – the compliance officers that will be working for CHSO's in L&I's Crane Section will also have to pass these same exams. (Exams should be available by Summer 2009)





- Accreditation will be valid for 3 years
- Reexaminations must be completed every 6 years
- Certifiers must complete at least 40 hours of crane related training every 3 years
- Certifiers must be actively certifying cranes during their accreditation period in order to be renewed – at least 21 cranes/derricks during 3 year period (WAC 296-155-53108)





- L&I may suspend or revoke accreditation for such reasons as: (WAC 296-155-53110)
 - Performing certifications on cranes which he/she is not qualified to certify;
 - Obtained accreditation through fraudulent means;
 - Falsifies training documentation;
 - Gross negligence, gross incompetence, fraud in certification of a crane;





- Willful or deliberate disregard of occupational safety standards
- Failure to maintain records;
- Failure to report safety deficiencies affecting the safe operation of a crane



Crane Certification Requirements

- Cranes must be inspected, and load tested by a Crane Certifier annually and after any significant modification or significant repair of structural parts
- Tower Cranes must be inspected by Crane Certifier both prior to assembly and following erection – they must also be recertified after jumping (raising mast)





Crane Certification Requirements

- Before installation on a nonstandard Tower
 Crane Base, the engineering design of that base
 must be reviewed and accepted by a second
 independent Registered Professional Structural
 Engineer
- The Certifier must notify L&I and the crane owner if the crane does not meet safety standards
- All corrected deficiencies must be verified by an accredited certifier prior to certifying the crane





Crane Certification Requirements (WAC 296-155-532)

- Certifiers must review maintenance and inspection records
- Certifiers will be checking items outlined in the new crane rule
- Mobile Crane Proof Load Tests are required annually in the as configured condition
- No major component on a mobile crane may be used unless it has been proof load tested within the last 4 years





Crane Certification Requirements

- Temporary or Final Certificate must be posted in operator's cab or station
- Crane Certifications are valid for one year





Crane Certification Requirements

- A crane's certification becomes invalid should any of the following occur: (WAC 296-155-53214)
 - Contact with an energized power line;
 - Any overload, other then proof load testing;
 - Any significant modification or significant repair of a load sustaining/bearing part



Crane Operator Qualifications

What does it take for a person to operate a crane at a construction site here in Washington State?







 Employers are prohibited from allowing a person who does not meet the requirements of this rule to operate a crane without direct supervision by a qualified crane operator





- Crane operators must obtain a valid operator's certificate issued by a crane operator testing organization that is accredited by a nationally recognized accrediting agency
 - Currently there are 4 that meet this requirement
 - NCCCO, CIC, NCCER, and Local 12 of the Operator's Union in CA
- Candidates must successfully pass written and practical examinations for the type/class of crane to be operated





- Operators must have up to 2000 hrs of documented crane operator experience, based on the type of crane they operate (This is a one time requirement.) (upcoming slide will show how this is broken down for the types of cranes)
- Crane operators must recertify at least every 5 years
- Crane operators must successfully pass a substance abuse test conducted by a recognized laboratory





Crane Operator Trainee Requirements

- Trainees must be provided sufficient training prior to operating the crane to enable the trainee to operate the crane safely under limitations outlined in the rule
- Trainee must be continuously supervised by a qualified operator
- The qualified operator is not allowed to perform any tasks that would detract from their ability to supervise the trainee





Crane Operator Trainee Requirements

The qualified operator must be in direct line of site of the trainee, except for tower cranes and then they must be in direct communications with each other





What the Trainee Cannot do

- Cannot place any part of crane or load within 20 ft of a power line (up to 350 kV), or no closer than 50 ft of a power line that is over 350 kV;
- Cannot hoist personnel;
- Cannot perform a multiple-crane lift; or
- Multiple-lift rigging or Critical Lifts unless the qualified operator determines the trainee's skills are sufficient for this high-skill work





- Crane Operators Must have documented hours of experience per Table 1:
 - Actual Crane Operating Experience
 - Crane Related Experience





Hours of Experience

- Mobile Cranes
 - Crawler & Truck Lattice Boom

	Operating	Related	
300t & above	1000 Hrs	1000 Hrs	

Under 300t
 500 Hrs
 500 Hrs

Lg Telescopic Boom Cranes (Swing Cab)

50 Hrs 7	750 Hrs
	$50 \text{ Hrs} \qquad 7$

Over 40t & up to 130t
 250 Hrs
 250 Hrs

Up to 40t
 40 Hrs
 40 Hrs





Lattice Boom Cranes

Truck Mounted

Crawler









Large Telescopic Boom (Swing Cab)









Hours of Experience

Sm Telescopic Boom Cranes (Fixed Cab)

Over 15t

Over 5t to 15t

5t & under

Operating Related

40 Hrs 40 Hrs

20 Hrs 20 Hrs

8 Hrs 16 Hrs

Articulating Cranes (Knuckle Boom

20 Hrs 20 Hrs

Derricks20 Hrs500 Hrs





Small Telescopic Boom (Fixed Cab)









Articulating Cranes





Note: NCCCO is currently developing written and practical exams for these cranes.





Hours of Experience

		I ronce
	WW	Cranes

- Hammerhead
- Luffing
- Self-Erecting

Operating

500 Hrs

500 Hrs

50 Hrs

Related

500 Hrs

500 Hrs

50 Hrs

Overhead/Bridge Cranes

Cab Operated

Pendant / Remote

40 Hrs

40 Hrs

40 Hrs

40 Hrs







Hammerhead

Luffing

Self-Erecting





Actual Operating Hours

For All Cranes:

 Time while the operator is at the controls of the crane; and/or has direct control of the crane; or a combination of operating hours within the same crane type







- For Mobile cranes:
 - This includes time while installing/removing boom sections, luffing boom, jib, extending and retracting outriggers/stabilizers, leveling crane, and replacing hoisting rope





Actual Operating Hours

- For Tower cranes:
 - This includes time while jumping (increasing the height of the tower/mast)





Related Crane Experience

- Time as a signalman/bellman, oiler, crane mechanic, crane inspector
- Formal classroom training, crane simulator operation, and
- a combination of operating hours on other categories of cranes





Crane Operator Documentation

For experience obtained prior to January 1, 2010 or experience obtained outside L&I's jurisdiction, the employer may accept a declaration from the crane operator attesting to actual hours of crane operator experience and crane related experience separated out by crane type and capacity





Crane Operator Documentation

 Beginning January 1, 2010, crane operator experience and related crane experience must be documented and separated out by crane type and capacity and accessible to the operator upon request





Questions?

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