



Washington State Department of
Labor & Industries

Division of Occupational Safety and Health (DOSH)



Chapter 296-155 WAC, Part L Cranes, Rigging, and Personnel Lifting Proposed Rule

Agenda

- Chapter 296-155 WAC, Part L – Summary of Proposed Rule
- Q&A
- Next Steps

Occupational Safety and Health Administration (OSHA) – Initiated Changes

- Multipurpose equipment used as a crane
- Operator certification
- Operator evaluation
- Forklift when used as crane

L&I – Initiated Changes

- Power line rule
- Tower crane assembly, disassembly, or reconfiguration
- 2,000 pounds and under
- Crane certifier certification
- Crane certification worksheet/annual
- Lift director qualifications
- A/D director qualifications
- A/D director duties
- Rigger duties
- Site supervisor duties
- Multi-tier rigging
- Forklift when used as a crane

Multipurpose Equipment – OSHA Language

- Multipurpose equipment being used as a crane to perform construction work will require operator certification.
- If no accredited testing agency offers certification examinations for a particular type of equipment, an operator will be deemed to have complied with the certification requirements of this section for that equipment if the operator has been certified for the type that is most similar to that equipment and for which a certification examination is available. The operator's certificate must state the type of equipment for which the operator is certified.

Evaluation – OSHA Language

- Operator evaluation. Through an evaluation, the employer must ensure that each operator is qualified by a demonstration of:
- (i) The skills and knowledge, as well as the ability to recognize and avert risk, necessary to operate the equipment safely, including those specific to the safety devices, operational aids, software, and the size and configuration of the equipment. Size and configuration includes, but is not limited to, lifting capacity, boom length, attachments, luffing jib, and counterweight set-up.
- (ii) The ability to perform the hoisting activities required for assigned work, including, if applicable, blind lifts, personnel hoisting, and multi-crane lifts.

Evaluation – Part L Draft

WAC 296-155-53300 Operator qualifications and certification.

- (3)(a) Through an evaluation, the employer must ensure that each operator is qualified by a demonstration of:
 - (i) The skills and knowledge, as well as the ability to recognize and avert risk, necessary to operate the equipment safely, including those specific to the safety devices, operational aids, software, and the size and configuration of the equipment. Size and configuration includes, but is not limited to: lifting capacity; boom length; attachments; luffing jib; and counterweight set-up;
 - (ii) The ability to perform the hoisting activities required for assigned work, including, if applicable, on rubber hoisting, pick and carry work, assembly/disassembly or reconfiguration work, blind lifts, personnel hoisting, and multi-crane/equipment lifts;
 - (iii) The ability to perform the duties as an A/D director, if the operator is expected perform the duties of an A/D director; and
 - (iv) The evaluation shall be based on all of the information from the operator's manual. Any additional requirements/language interpretations must be in writing from the manufacturer, or if the manufacturer is no longer available, an RPE must be used.

Evaluation – Part L Draft (cont.)

WAC 296-155-53300 Operator qualifications and certification.

- (b) For operators employed prior to (insert the publication date of this new rule), the employer may rely on its previous documented evaluation of the operator, in lieu of conducting a new evaluation of that operator's existing knowledge and skills.
- (c) The evaluation required under this subsection must be conducted by an individual who has the knowledge, training, and experience necessary to assess equipment operators.
- (d) The evaluator must be an employee or agent of the employer. Employers that assign evaluations to an agent retain the duty to ensure that the requirements in this subsection are satisfied. Once the evaluation is completed successfully, the employer may allow the operator to operate other equipment that the employer can demonstrate does not require substantially different skills, knowledge, or ability to recognize and avert risk to operate.
- (e) The employer must document the completion of the evaluation. This document must provide: The operator's name; the evaluator's name and signature; the date; and the make, model, and configuration of equipment used in the evaluation. The employer must make the document available at the job site while the operator is employed by the employer. For operators assessed per (b) of this subsection, the documentation must reflect the date of the employer's determination of the operator's abilities and the make, model, and configuration of equipment on which the operator has previously demonstrated competency.

Power Lines

WAC 296-155-53408 Power line safety.

(1) Assembly, disassembly, or reconfiguration of crane/equipment:

- (i) Conduct a planning meeting with the A/D director, operator, assembly, disassembly, or reconfiguration crew and the other workers who will be in the assembly/disassembly work zone to review the location of the power line(s) and the steps that will be implemented to prevent encroachment/electrocution. The utility owner shall be invited to attend. This meeting shall be conducted prior to assembly, disassembly, or reconfiguration of the crane/equipment, must be documented, and such documentation shall remain on site for the duration that the crane/equipment is on site. Should power line conditions change, another meeting shall be conducted prior to work commencing. The meeting document shall include at least the following:
 - (A) Date the meeting is conducted;
 - (B) Names and signatures of all meeting attendees;
 - (C) Address/location of where the crane assembly, disassembly, or reconfiguration will be performed;
 - (D) Drawing showing the crane/equipment's work zone and how it will be identified;
 - (E) Voltage information and the location of all energized lines; and
 - (F) Steps that are implemented to prevent encroachment/electrocution.

Power Lines (cont.)

(2) Operation of crane/equipment:

- (i) Conduct a planning meeting with the operator and the other workers who will be in the area of the crane/equipment or load. This meeting shall be conducted prior to the commencement of using the crane/equipment, documented, and must remain on site for the entire duration that the crane/equipment is on site. The utility owner shall be invited to attend. Should power line conditions change, another meeting shall be conducted prior to work commencing. The meeting document shall include at least the following:
 - (A) Date the meeting is conducted;
 - (B) Names and signatures of all meeting attendees;
 - (C) Address/location of where crane/equipment work will be performed;
 - (D) Picture/drawing showing the crane/equipment's work zone at the site and how it will be identified (360 degrees around the crane/equipment, up to its maximum working radius, range limit device, or range control warning device);
 - (E) Voltage information and the location of all energized lines; and
 - (F) Steps that are implemented to prevent encroachment/electrocution.

2,000 Pounds or Less

WAC 295-155- 53414 Cranes/equipment with a rated hoisting/lifting capacity of 2,000 pounds or less.

- (2) Prior to utilizing a crane/equipment inside of or on a multi-level building, the following must be reviewed and acknowledged as acceptable by a RPE:
 - (a) The engineering of the structural support of the crane/equipment;
 - (b) The methods to prevent the crane/equipment from inadvertently moving while hoisting a load; and
 - (c) The equipment base, structural supports, and connection points provide adequate support with applied torsional and overturning moments, and horizontal and vertical forces.
- Qualified riggers, lift director, and operator evaluation added.

Accreditation of Certifiers

WAC 296-155-53100 Accreditation of crane/equipment certifiers – Requirements.

- Crane certifier certification.
- A crane certifier would acquire the national certification, in conjunction with a singular Washington State test.
- Valid for a period of five years instead of the current three.

Worksheet/Annual Certificates

WAC 296-155-53114 Issuance of worksheet/annual certificates of operation.

- Crane certification annual/worksheet.
- Certifiers will provide a worksheet/crane annual certification which will then be verified and validated by the crane certification program.

Lift Director

WAC 296-155-53301 Lift director qualifications.

(1) The lift director must meet the qualification requirements prior to using a crane/equipment to perform hoisting activities. A lift director is required to be present and directly oversees all work that is being performed by a crane and the associated rigging crew. This requirement must be met by using either Option (1) or Option (2).

(3) Each lift director must:

- (a) Be a current qualified rigger as outlined in WAC 296-155-53306 Rigger qualifications; and
- (b) Be a current qualified signal person as outlined in WAC 296-155-53302 Signal person qualifications.

(4) Qualification requirements. Each lift director must:

- (a) Know and understand the relevant requirements of WAC 296-155-53401(6) Duties of assigned personnel;
- (b) Know and understand the relevant requirements of WAC 296-155-53408 Power line safety;
- (c) Know and understand the relevant requirements of WAC 296-155-56420 Operator certification—Written examination—Technical knowledge criteria; and
- (d) Demonstrate that they meet these requirements of this subsection through the successful passing of a written or oral test, containing questions based on (a) through (c) of this subsection. All tests must be documented and provided upon request.

Lift Director (cont.)

(5) Qualification period. A lift director qualification may not exceed a five-year period; this qualification must be renewed every five years to ensure lift directors maintain qualified status. This renewal must include a documented written or oral exam.

(6) During the assembly, disassembly, or reconfiguration work of a tower crane, a lift director shall NOT perform combined duties listed in WAC 296-155-53401. For example, a lift director and an A/D director, lift director and crane operator, or lift director and rigger. The lift director may assist in rigging or signaling.

A/D Director Qualifications

WAC 296-155-53303 Assembly/disassembly director qualifications.

- A competent and qualified person, who may rely on qualified personnel to assist.
- Must pass a written test, which can be employer given or third party. Qualification valid for five years.
- (a) Be capable of identifying existing and predictable hazards in the surroundings or working conditions of the assembly, disassembly, or reconfiguration work which are hazardous, or dangerous to employees;
- (b) Have knowledge of applicable chapter 296-155 WAC, Part L, requirements regarding relevant crane assembly, disassembly, or reconfiguration procedures;
- (c) Have knowledge of manufacturer's instructions, warnings, precautions and prohibitions regarding the assembly, disassembly, or reconfiguration of the specific crane being assembled, disassembled, or reconfigured;
- (d) Know and fulfill the relevant duty requirements of WAC 296-155-53401(9) and this section; and
- (e) Demonstrate that they meet the requirements in (a) through (d) of this subsection through an oral or written test. All tests must be documented.

A/D Director Qualifications (cont.)

(f) FOR TOWER CRANES ONLY:

For the assembly, disassembly, or reconfiguration of a tower crane, the A/D director must also have a valid assembly/disassembly director certification, issued by a nationally accredited organization recognized by the department. This requirement is effective beginning January 1, 2027, or 12 months after the date an applicable certification program is approved by a nationally accredited organization recognized by the department.

Duties of Assigned Personnel – A/D Director

WAC 296-155-53401(9) A/D director added into the duties of assigned personnel:

Qualifications:

- (a) Having the authority, and ensuring prompt corrective measures are taken, to eliminate hazards associated with the assembly, disassembly, or reconfiguration work;
- (b) Ensuring that WAC 296-155-53402 is followed;
- (c) Providing direct on-site supervision of all assembly, disassembly, or reconfiguration work;
- (d) Understanding and following the applicable assembly, disassembly, or reconfiguration procedures;

Duties of Assigned Personnel – A/D Director (cont.)

- (e) Creating an assembly/disassembly plan. This plan shall be in written or digital format, and remain on site for the entire duration that the crane is on site. The plan shall include at least the following:
 - (i) Date of meeting;
 - (ii) Names and signatures of all personnel, their role, and their responsibilities;
 - (iii) A sequence of operation detailing the assembly, disassembly, or reconfiguration, along with the components, the rigging, and capacity to be used in such operations;
 - (iv) A weight list and configuration of all assemblies and components proposed to be lifted;
 - (v) List of all assist cranes and their gross rated capacity;
 - (vi) The location and voltage information of all energized line(s) in the vicinity. (WAC 296-155-53408 shall also be followed);
 - (vii) The location and proposed timeline of the assembly, disassembly work zone;
 - (viii) Relevant weather warnings, and how to address them; and
 - (ix) Discuss disassembly issues or concerns found, and how to remedy them.

Duties of Assigned Personnel - Rigger

WAC 296-155-53401(8) Rigger added into the duties of assigned personnel:

The rigger(s) assigned to load handling activity duties include the following:

- (a) Ensuring the weight of the load and its approximate center of gravity have been obtained;
- (b) Selecting the proper rigging equipment, inspecting it, and complying with the applicable ASME B30 Volume (i.e., B30.9, B30.10, B30.20, B30.23, or B30.26) and applicable chapter 296-155 WAC, Part L, requirements;
- (c) Ensuring the rated load of the rigging equipment as selected and configured is sufficient for the load to be handled, based on the number of legs, hitch configuration and effects of angles;
- (d) Properly attaching the rigging equipment to the hook, shackle, or other load-handling device;
- (e) Ensuring that rigging equipment is adequately protected from abrasion, cutting, or other damage during load handling activities;

Duties of Assigned Personnel – Rigger (cont.)

- (f) Rigging the load in a manner to ensure balance and stability during the load handling activity;
- (g) Knowing and understanding the applicable signal for equipment in use;
- (h) Installing and using a tag line(s) when additional load control is required;
- (i) Ensuring that the load is properly rigged and balanced before it is lifted more than a few inches;
- (j) Ensuring that the load is properly stabilized and balanced before the weight is removed from the crane/equipment; and
- (k) Ensuring all loads are attached to the hook by means of suitable slings and/or other suitable devices of sufficient lifting capacity.

Duties of Assigned Personnel – Site Supervisor

WAC 296-155-53401(5) The site supervisor's duties include the following:

- (g) Ensuring that the assembly, disassembly work zone is adequate, and that access into the zone is controlled;
- (n) Notify the department by email at towercranenotify@Lni.wa.gov at least seven business days prior to having a tower crane assembled, disassembled, or reconfigured at the site. All of the following information shall be included in the email:
 - (i) Planned start and end date of the assembly, disassembly, or reconfiguration of the crane;
 - (ii) Job site address;
 - (iii) Type of work being performed, i.e. assembly, disassembly, or reconfiguration the tower crane; and
 - (iv) The names and contact numbers of all employers involved and their role in performing the work.
- (o) Display the name(s) of the site supervisor, A/D director, lift director(s), rigger(s), signal person(s), and the crane/equipment operator(s) for the job site. The display shall be conspicuously posted on the premises for the entire duration that any crane/equipment is on site. (This requirement shall not apply to a crane/equipment making a delivery while unloading that delivery.)

Multi-Tier Rigging

WAC 296-155-55600 General requirements.

(23) Multi-tier rigging is only permitted when all of the following criteria are met:

- (a) Only employees essential to the operation are allowed to be in the fall zone, but must keep clear of loads and never be directly under the suspended load;
- (b) All employees engaged in the multi-tier rigging must be made aware of and understand the additional hazards imposed by multi-tier rigging, and will avoid the associated hazards;
- (c) The total load must not exceed:
 - (i) The rated capacity of the hoisting equipment specified in the hoisting equipment load charts; and
 - (ii) The rigging capacity specified in the rigging-rating chart.

Multi-Tier Rigging (cont.)

(d) The multi-tier rigging assembly must be rigged:

- (i) With a maximum of three tiers hoisted per lift;
- (ii) Slings are protected with material of sufficient strength, thickness, and construction to prevent damage from sharp edges, corners, protrusions, or abrasive surfaces;
- (iii) Appropriately rigged and maintained reasonably level;
- (iv) Hooks with self-closing latches or their equivalent must be used;
- (v) Each tier shall be independently rigged back to the hook or master link, and may not support another tier; and
- (vi) Rigged with enough space for at least seven feet apart from each load.

(e) As each load is landed, the remaining loads must be swung off to the side prior to disconnecting the landed load;

(f) Controlled load lowering must always be used;

(g) Loads shall be landed on a stable surface to prevent movements causing hazards such as crush/pinch points;

(h) A double wrapped basket hitch is the only allowable basket hitch to be used.

Forklifts Being Used as a Crane

- Current OSHA language: 1926.1400(c) Exclusions. This subpart does not cover:
 - (8) Powered industrial trucks (forklifts), EXCEPT when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load.
- Current language in WAC 296-155-52900, Scope:
 - (3)(b) Powered industrial trucks (forklifts) when configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load are exempted from WAC 296-155-532 (crane certification). Operators must also follow the requirements in chapter 296-863 WAC, Forklifts and other powered industrial trucks.
- Proposed draft language in WAC 296-155-52900, Scope:
 - (3)(b) Powered industrial trucks, including all variations of forklifts when used to lift, lower, and/or horizontally move a suspended load. See WAC 296-155-53416 for operator certification information. The forklift is only exempted from WAC 296-155-531 and 296-155-532 (crane certifier accreditation and crane certification) only when the machine was not built to an ASME B30 series standard.

Forklifts

WAC 296-155-53416 Forklifts when lifting a suspended load.

- (1) Effective January 1, 2027, forklift operators must be certified or qualified depending on the configuration and usage utilized to lift a suspended load.
- (2) All machine and attachment manufacturer prohibitions/restrictions must be complied with.
- (3) Operators must be evaluated in accordance with WAC 296-155-53300(3) (Operator qualifications and certification).
- (4) Depending on the configuration and usage of the forklift, operators must be certified or qualified in the following manner:
 - (a) When the forklift is configured and used to lift or lower a suspended load, by means of a hook/shackle – Certified operator required.
 - (b) When the forklift is configured and used to lift or lower a suspended load by any other manner – Choice of certified operator, or qualified operator.

Forklifts (cont.)

- (5) Qualified operator requirements (similar to current rigger qualifications):
 - Third-party qualified evaluator.
 - Employer's qualified evaluator.
 - Written and practical test criteria outlined in the rule. For renewal, at a minimum the practical test must be passed.
- (6) L&I will review and evaluate the qualified operator option for operators using forklifts to lift suspended loads within two years of January 1, 2027.

Updates to Part L from 2SHB 2022

- A process for determining when L&I will be present for the assembly, disassembly, and reconfiguration of a tower crane. (WAC 296-155-53910)
- Various requirements for the prime contractor of construction projects, including: acknowledgement of applicable safety orders; following crane manufacturer operation instructions and guidelines; and ensuring the presence of an assembly/disassembly director, as well as a technical rep of the distributor or manufacturer, at every assembly, disassembly, and reconfiguration. (WAC 296-155-53401)
- Language addressing L&I conducting programmed inspections of workplaces that contain tower cranes. (WAC 296-155-53910)
- Establishing maximum allowable wind speed for tower crane assembly, disassembly, and reconfiguration. (WAC 296-155-53401)
- Requirements for a written job plan. (WAC 296-155-53401)

Updates to Part L from 2SHB 2022 (cont.)

- Requirements that must be met for an A/D director to be considered competent and qualified. (WAC 296-155-53303)
- Establishing effective stop work procedures that ensure the authority of any employee to refuse or delay tasks related to a tower crane that the employee believes could reasonably result in serious physical harm or death. (WAC 296-155-53900)
- Language addressing the information, format, and method of distribution by which a tower crane manufacturer and distributor must provide all relevant manufacturer operation instructions and guidelines upon request by any person requesting such materials. (WAC 296-155-53900)
- Requirement for tower cranes and tower crane assembly parts to be inspected by a certified crane/equipment inspector prior to and following every assembly, disassembly and reconfiguration. (WAC 296-155-53206)

Next Steps

- Public hearings on the proposed rule are taking place May 13th in Spokane, May 15th in Tukwila, and a virtual option May 19th.
- The deadline for submitting written comments is 5 p.m. on May 23, 2025. Comments can be submitted to:
Cynthia.Ireland@Lni.wa.gov.
- Tentatively targeting August 2025 for adoption of final rule language (CR-103).

Questions?

Contact Information

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