

2SHB 2022 - S AMD
By Senator Keiser

ADOPTED AND ENGROSSED 02/23/2024

1 Strike everything after the enacting clause and insert the
2 following:

3 "NEW SECTION. **Sec. 1.** The legislature finds that there is
4 significant opportunity to improve worker and public safety in tower
5 crane assembly, disassembly, and reconfiguration. The Seattle tower
6 crane incident on April 27, 2019, killing two members of the public,
7 Sarah Pantip Wong and Alan Jay Justad, and two iron workers, Travis
8 Daniel Corbet and Andrew W. Yoder, exposed weaknesses in construction
9 safety efforts. Requirements for permitting, street closures, and
10 penalties are created to ensure that assembly, disassembly, and
11 reconfiguration of tower cranes proceed safely.

12 NEW SECTION. **Sec. 2.** A new section is added to chapter 49.17
13 RCW to read as follows:
14 Sections 3 through 10 of this act apply to construction crane
15 safety.

16 **Sec. 3.** RCW 49.17.400 and 2007 c 27 s 2 are each amended to read
17 as follows:

18 The definitions in this section apply throughout ((RCW 49.17.400
19 through 49.17.430)) this section and sections 4 through 7 of this act
20 unless the context clearly requires otherwise.

21 (1) "Apprentice operator or trainee" means a crane operator who
22 has not met requirements established by the department under RCW
23 49.17.430.

24 (2) "Attachments" includes, but is not limited to, crane-attached
25 or suspended hooks, magnets, grapples, clamshell buckets, orange peel
26 buckets, concrete buckets, drag lines, personnel platforms, augers,
27 or drills and pile-driving equipment.

28 (3) "Certified crane inspector" means a crane inspector who has
29 been certified by the department.

1 (4) "Construction" means all or any part of excavation,
2 construction, erection, alteration, repair, demolition, and
3 dismantling of buildings and other structures and all related
4 operations; the excavation, construction, alteration, and repair of
5 sewers, trenches, caissons, conduits, pipelines, roads, and all
6 related operations; the moving of buildings and other structures, and
7 the construction, alteration, repair, or removal of wharfs, docks,
8 bridges, culverts, trestles, piers, abutments, or any other related
9 construction, alteration, repair, or removal work. "Construction"
10 does not include manufacturing facilities or powerhouses.

11 (5) "Crane" means power-operated equipment used in construction
12 that can hoist, lower, and horizontally move a suspended load.
13 "Crane" includes, but is not limited to: Articulating cranes, such as
14 knuckle-boom cranes; crawler cranes; floating cranes; cranes on
15 barges; locomotive cranes; mobile cranes, such as wheel-mounted,
16 rough-terrain, all-terrain, commercial truck mounted, and boom truck
17 cranes; multipurpose machines when ~~((configured))~~ used to ~~((hoist))~~
18 lift and lower ~~((by means of a winch or hook and))~~ a suspended load,
19 or horizontally move a suspended load; industrial cranes, such as
20 carry-deck cranes; dedicated pile drivers; service/mechanic trucks
21 with a hoisting device; a crane on a monorail; tower cranes, such as
22 fixed jib, hammerhead boom, luffing boom, and self-erecting; pedestal
23 cranes; portal cranes; overhead and gantry cranes; straddle cranes;
24 side-boom tractors; derricks; and variations of such equipment.

25 (6) "Crane operator" means an individual engaged in the operation
26 of a crane.

27 (7) "Professional engineer" means a professional engineer as
28 defined in RCW 18.43.020.

29 (8) "Qualified crane operator" means a crane operator who meets
30 the requirements established by the department under RCW 49.17.430.

31 (9) "Safety or health standard" means a standard adopted under
32 this chapter.

33 (10) "Assembly, disassembly, and reconfiguration" means the
34 assembly, disassembly, or reconfiguration of cranes covered under
35 this section and sections 4 through 7 of this act.

36 (11) "Assembly/disassembly work zone" is applicable to tower
37 cranes and means the total area that the crane and/or components or
38 attachments could reach if the crane were to collapse. Height of the
39 crane, length of boom, attachments, and loads, shall all be

1 considered to calculate the area, which can shrink or grow as the
2 work progresses.

3 (12) "Crane owner" means the company or entity that has custodial
4 control of a crane by virtue of lease or ownership.

5 (13) "Prime contractor" means the person or entity that has
6 overall responsibility for the construction of the project, its
7 planning, quality, and completion and serves as the site supervisor.

8 (14) "Reconfiguration" means adding or subtracting components
9 that alter the height, length, or capacity of a crane. The set-up of
10 a crane is not considered reconfiguration.

11 NEW SECTION. Sec. 4. A new section is added to chapter 49.17
12 RCW to read as follows:

13 (1) The department shall establish, by rule, a permit for the
14 performance of any work involving the operation, assembly,
15 disassembly, or reconfiguration of a tower crane, subject to the
16 requirements of subsection (2) of this section.

17 (2) The tower crane permit established by rule under subsection
18 (1) of this section must include the following provisions, at a
19 minimum:

20 (a) Require a complete application, subject to the requirements
21 of subsection (5) of this section;

22 (b) Require a safety conference prior to issuing the permit,
23 subject to the requirements of subsection (6) of this section;

24 (c) Require the department to issue or deny a permit, subject to
25 the requirements of subsections (7) and (8) of this section;

26 (d) Allow the department to suspend or revoke a permit, subject
27 to the requirements of subsection (9) of this section;

28 (e) Require the department to provide written notice of denials,
29 suspensions, or revocation of a permit specifying the reasons for the
30 denial, suspension, or revocation;

31 (f) Allow appeals of a denial, suspension, or revocation of a
32 permit, subject to the requirements of subsection (10) of this
33 section;

34 (g) Require advance notification to the department of any
35 assembly, disassembly, or reconfiguration of a tower crane and
36 require confirmation from the department to proceed;

37 (h) Allow the department to require additional information or
38 updated safety conferences before issuing a confirmation to proceed
39 under (g) of this subsection;

1 (i) Require the department to inspect permitted activities for
2 the tower crane once assembled, following any reconfiguration, or any
3 other permitted activities; and

4 (j) Require that if the department identifies deficiencies that
5 directly affect the structural integrity or safe operation of a tower
6 crane, the deficiencies be addressed immediately, and the tower crane
7 not be operated until the deficiencies are corrected.

8 (3) Beginning January 1, 2026, a prime contractor must obtain a
9 permit from the department, as established under this section, prior
10 to performing or allowing the performance of any work involving the
11 operation, assembly, disassembly, or reconfiguration of a tower
12 crane. An exemption from the permit requirement may be allowed by the
13 department for exceptions as determined by the department.

14 (4)(a) The prime contractor must possess a permit, as required
15 under subsection (3) of this section, at all times a tower crane is
16 present on a construction worksite.

17 (b) If the prime contractor's permit is suspended or revoked, the
18 tower crane may not be used in operations, nor can assembly,
19 disassembly, or reconfiguration take place until all deficiencies
20 have been addressed and the permit is reinstated by the department.

21 (5) The prime contractor must apply for a permit required under
22 subsection (3) of this section in a manner and form prescribed by the
23 department that must include, but is not limited to, the following:

24 (a) Name of the assembly/disassembly director;

25 (b) Beginning the later of January 1, 2027, or 12 months after
26 the date an assembly/disassembly director program is approved by a
27 nationally accredited organization recognized by the department, the
28 application must include a copy of the assembly/disassembly
29 director's national assembly/disassembly director certification; and

30 (c) Certification from the prime contractor that all assembly,
31 disassembly, and reconfigurations will be performed with a technical
32 representative of the distributor or manufacturer present to assure
33 that such processes and operations are performed in accordance with
34 manufacturer operation instructions and guidelines. The technical
35 representative must be knowledgeable of assembly, disassembly, and
36 reconfiguration procedures.

37 (6)(a) Prior to issuing a permit as required under subsection (3)
38 of this section, the department must complete a safety permit
39 conference, which may be conducted using remote videoconference
40 technology, to ensure all parties involved with the assembly,

1 disassembly, and reconfiguration of the tower crane are aware of the
2 requirements and responsibilities under the permit, including
3 manufacturer operation instructions and guidelines, and recommended
4 best practices. The department must establish the information and
5 materials required to be submitted prior to the safety conference,
6 the information and material required to be reviewed at the safety
7 conference, and the required attendees at the safety conference.

8 (b) During the safety conference, at a minimum the following
9 items must be evaluated:

10 (i) The potential risks of the procedures, including those
11 addressed in the crane operating manual, as well as specific measures
12 to be taken by the permit applicant and all entities required in the
13 operation, assembly, disassembly, and reconfiguration of the tower
14 crane to minimize these risks;

15 (ii) The written accident prevention programs of the permit
16 applicant and all entities involved in the operation, assembly,
17 disassembly, and reconfiguration of the tower crane;

18 (iii) The permit applicant's written job plan as required under
19 RCW 49.17.440; and

20 (iv) For each employee directly involved with the permitted work,
21 a review of their experience and qualifications, including a copy of
22 the crane operator's license.

23 (7) The department shall issue a permit under this section within
24 five working days of the initial project permit safety conference
25 under subsection (6) of this section, if the application materials
26 are complete and the materials presented by the prime contractor at
27 the safety conference are complete. If the application or safety
28 conference materials are not complete, the prime contractor must be
29 given a written list, before leaving the safety conference, of the
30 materials or information outstanding. The department shall then
31 either issue the permit within five working days of receiving the
32 outstanding materials or deny the permit in writing pursuant to the
33 requirements under this chapter and rules established by the
34 department. The department may issue conditional permits, including
35 when specific information is not yet available.

36 (8) The department must deny a permit if the permit applicant has
37 a record of safety and health violations which indicates that the
38 permit applicant may not be maintaining a safe worksite or operation.

39 (9) The department must suspend or revoke a permit if the permit
40 holder:

1 (a) Has failed to comply with applicable occupational health and
2 safety standards or regulations involving tower cranes;

3 (b) Fails to notify the department in advance of the assembly,
4 disassembly, or reconfiguration of a fixed tower crane as required
5 under this section;

6 (c) Fails to ensure that a technical representative of the
7 distributor or manufacturer of the tower crane who is knowledgeable
8 of assembly, disassembly, and reconfiguration procedures was present
9 during assembly, disassembly, or reconfiguration;

10 (d) Fails to immediately correct deficiencies directly affecting
11 the structural integrity of a tower crane;

12 (e) Fails to correct deficiencies directly affecting the safe
13 operation of a tower crane; or

14 (f) Has refused the department entry to a worksite that contains
15 activity for which a permit is required.

16 (10)(a) A denial, suspension, or revocation of a permit may be
17 appealed to department within 15 working days after the denial,
18 suspension, or revocation order is communicated.

19 (b) The department shall hold a hearing at such place designated
20 by the director or authorized representative for the convenience of
21 the attending parties within 2 working days of the applicant's or
22 suspended or revoked permit holder's appeal.

23 (c) The applicant or suspended or revoked permit holder has the
24 burden of establishing that it qualifies for a permit.

25 (d) The director or authorized representative shall preside at
26 the hearing, which must be open to employees or employees'
27 representatives.

28 (e) The applicant or permit holder shall notify the employees or
29 employees' representatives of such hearing a reasonable time prior to
30 the hearing, but in no case later than 24 hours prior to the hearing.
31 Proof of such notification by the applicant or permit holder must be
32 made at the hearing.

33 (f) The director or authorized representative shall issue a
34 decision within 10 business days of the hearing. The director's or
35 authorized representative's decision may affirm the order, reverse
36 the order, or reverse the order with conditions to mitigate any
37 deficiencies.

38 (g) The director's or authorized representative's decision is
39 subject to appeal to the board of industrial insurance appeal under
40 RCW 49.17.140.

1 **Sec. 5.** RCW 49.17.420 and 2007 c 27 s 4 are each amended to read
2 as follows:

3 (1) The department shall establish, by rule, a crane
4 certification program for cranes used in construction. In
5 establishing rules, the department shall consult nationally
6 recognized crane standards.

7 (2) The crane certification program must include, at a minimum,
8 the following:

9 (a) The department shall establish certification requirements for
10 crane inspectors, including an experience requirement, an education
11 requirement, a training requirement, and other necessary requirements
12 determined by the director;

13 (b) The department shall establish a process for certified crane
14 inspectors to issue temporary certificates of operation for a crane
15 and the department to issue a final certificate of operation for a
16 crane after a certified crane inspector determines that the crane
17 meets safety or health standards, including meeting or exceeding
18 national periodic inspection requirements recognized by the
19 department;

20 (c) Crane owners must ensure that cranes are inspected and load
21 proof tested by a certified crane inspector at least annually and
22 after any significant modification or significant repairs of
23 structural parts. If the use of weights for a unit proof load test is
24 not possible or reasonable, other recording test equipment may be
25 used. In adopting rules implementing this requirement, the department
26 may consider similar standards and practices used by the federal
27 government;

28 (d) Tower cranes and tower crane assembly parts must be inspected
29 by a certified crane inspector (~~both~~) prior to and following every
30 assembly (~~and following erection~~), disassembly, and reconfiguration
31 of a tower crane. Any issues identified throughout the procedure must
32 be tracked and corrected according to this chapter and applicable
33 department rule;

34 (e) Before installation of a nonstandard tower crane base, the
35 engineering design of the nonstandard base shall be reviewed and
36 acknowledged as acceptable by an independent professional engineer;

37 (f) A certified crane inspector must notify the department and
38 the crane owner if, after inspection, the certified crane inspector
39 finds that the crane does not meet safety or health standards. A
40 certified crane inspector shall not attest that a crane meets safety

1 or health standards until any deficiencies are corrected and the
2 correction is verified by the certified crane inspector; and

3 (g) Inspection reports including all information and
4 documentation obtained from a crane inspection shall be made
5 available or provided to the department by a certified crane
6 inspector upon request.

7 (3) Except as provided in RCW 49.17.410(2), any crane operated in
8 the state must have a valid temporary or final certificate of
9 operation issued by the certified crane inspector or department
10 posted in the operator's cab or station.

11 (4) Certificates of operation issued by the department under the
12 crane certification program established in this section are valid for
13 one year from the effective date of the temporary operating
14 certificate issued by the certified crane inspector.

15 (5) This section does not apply to maritime cranes regulated by
16 the department.

17 **Sec. 6.** RCW 49.17.440 and 2007 c 27 s 6 are each amended to read
18 as follows:

19 (1) The department of labor and industries shall adopt rules
20 necessary to implement ((RCW 49.17.400 through 49.17.430)) sections 3
21 through 7 of this act.

22 (2) The department shall adopt rules for tower crane assembly,
23 disassembly, and reconfiguration including, but not limited to:

24 (a) A process for determining when the department will be present
25 for the assembly, disassembly, and reconfiguration of a tower crane;

26 (b) Requirements that the prime contractors of construction
27 projects acknowledge all applicable safety orders, crane manufacturer
28 operation instructions and guidelines, written procedures from a
29 registered professional structural engineer, and recommended
30 practices prior to the assembly, disassembly, and reconfiguration of
31 a tower crane;

32 (c) Requirements that the prime contractor of the construction
33 project ensure that a qualified technical representative of the
34 distributor or manufacturer who is knowledgeable of assembly,
35 disassembly, and reconfiguration procedures will be present during
36 assembly, disassembly, and reconfiguration of a tower crane to assure
37 that such procedures are performed in accordance with manufacturer
38 operation instructions and guidelines;

1 (d) Requiring prime contractors of construction projects to
2 follow crane manufacturer operation instructions and guidelines or
3 alternate plans/instructions approved by a registered professional
4 engineer when assembling, disassembling, and reconfiguring a tower
5 crane;

6 (e) Requiring the presence of an assembly/disassembly director at
7 every tower crane assembly, disassembly, and reconfiguration to
8 directly oversee all work performed. The assembly/disassembly
9 director may not serve in any other capacity while directly
10 supervising a tower crane assembly, disassembly, or reconfiguration
11 procedure;

12 (f) Conducting programmed inspections of workplaces that contain
13 tower cranes;

14 (g) Establishing requirements for the maximum allowable wind
15 speed for tower crane assembly, disassembly, and reconfiguration;

16 (h) Establishing requirements for a written job plan that
17 addresses the requirements of the manufacturer's manual tailored to
18 the site conditions where the tower crane will be installed, as
19 appropriate for assembly, disassembly, and reconfiguration of a tower
20 crane;

21 (i) Establishing requirements that must be met to be considered a
22 competent and qualified assembly/disassembly director including,
23 beginning January 1, 2027, or 12 months after the date an applicable
24 certification program is approved by a nationally accredited
25 organization recognized by the department, certification from a
26 national organization recognized by the department;

27 (j) Establishing effective stop work procedures that ensure the
28 authority of any employee, including employees of contractors, to
29 refuse or delay the performance of a task related to a tower crane
30 that the employee believes could reasonably result in serious
31 physical harm or death. The rules must ensure that employees who
32 exercise stop work authority are protected from intimidation,
33 retaliation, or discrimination; and

34 (k) Other rules necessary to implement sections 3 through 7 of
35 this act.

36 (3) The department may set fees in rule to be charged for permits
37 issued under section 4 of this act in an amount sufficient to cover
38 the costs of administering section 4 of this act. Fees shall be
39 deposited in the industrial insurance trust funds.

1 NEW SECTION. **Sec. 7.** A new section is added to chapter 49.17
2 RCW to read as follows:

3 A tower crane manufacturer and distributor shall, without
4 exception, provide all relevant manufacturer operation instructions
5 and guidelines, including assembly, disassembly, and reconfiguration
6 instructions, for the safe use and maintenance of all of the
7 manufacturer's or distributor's tower cranes located in the state to
8 any person who requests access to such materials. The prescribed
9 information, format, and distribution channel must be determined by
10 the department. These materials must be written in the English
11 language with customary grammar and punctuation. Information must be
12 provided within a reasonable time frame, as determined by the
13 department.

14 NEW SECTION. **Sec. 8.** A new section is added to chapter 36.70B
15 RCW to read as follows:

16 (1) When a worksite contains a tower crane, the local government
17 in which the tower crane is located must, at a minimum, do the
18 following before any assembly, disassembly, or reconfiguration of the
19 tower crane:

20 (a) Align permit issuance for street closures with the definition
21 of assembly/disassembly work zone when a tower crane is being
22 assembled, disassembled, reconfigured, or otherwise not fully
23 stabilized and secure;

24 (b) Issue street closure permits with consideration for
25 sufficient time, as defined by the permit applicant, to safely
26 conduct assembly, disassembly, or reconfiguration; and

27 (c) Develop permitting procedures that provide notice to
28 residents and occupants in buildings within the assembly/disassembly
29 work zone in advance of any assembly, disassembly, or
30 reconfiguration.

31 (2) For purposes of this section, "assembly, disassembly, or
32 reconfiguration" and "assembly/disassembly work zone" have the same
33 meanings as those terms are defined in RCW 49.17.400.

34 NEW SECTION. **Sec. 9.** A new section is added to chapter 49.17
35 RCW to read as follows:

36 The provisions of this act do not apply to cranes used on marine
37 vessels and at ports, terminals, and marine facilities for maritime
38 activities regulated by the department.

1 **Sec. 10.** RCW 49.17.190 and 2011 c 96 s 40 are each amended to
2 read as follows:

3 (1) Any person who gives advance notice of any inspection to be
4 conducted under the authority of this chapter, without the consent of
5 the director or his or her authorized representative, shall, upon
6 conviction be guilty of a gross misdemeanor and be punished by a fine
7 of not more than one thousand dollars or by imprisonment for not more
8 than six months, or by both.

9 (2) Whoever knowingly makes any false statement, representation,
10 or certification in any application, record, report, plan, or other
11 document filed or required to be maintained pursuant to this chapter
12 shall, upon conviction be guilty of a gross misdemeanor and be
13 punished by a fine of not more than ten thousand dollars, or by
14 imprisonment for not more than six months or by both.

15 (3) Any employer who willfully and knowingly violates the
16 requirements of RCW 49.17.060, any safety or health standard
17 promulgated under this chapter, any existing rule or regulation
18 governing the safety or health conditions of employment and adopted
19 by the director, or any order issued granting a variance under RCW
20 49.17.080 or 49.17.090 and that violation caused death to any
21 employee shall, upon conviction be guilty of a gross misdemeanor and
22 be punished by a fine of not more than (~~one hundred thousand~~
23 ~~dollars~~) \$100,000 or by imprisonment for not more than six months or
24 by both; except, that if the conviction is for a violation committed
25 after a first conviction of such person, punishment shall be a fine
26 of not more than (~~two hundred thousand dollars~~) \$200,000 or by
27 imprisonment for not more than (~~three hundred sixty-four~~) 364 days,
28 or by both.

29 (4) Any employer who has been issued an order immediately
30 restraining a condition, practice, method, process, or means in the
31 workplace, pursuant to RCW 49.17.130 or 49.17.170, and who
32 nevertheless continues such condition, practice, method, process, or
33 means, or who continues to use a machine or equipment or part thereof
34 to which a notice prohibiting such use has been attached, shall be
35 guilty of a gross misdemeanor, and upon conviction shall be punished
36 by a fine of not more than (~~ten thousand dollars~~) \$10,000 or by
37 imprisonment for not more than six months, or by both.

38 (5) Any employer who shall knowingly remove, displace, damage, or
39 destroy, or cause to be removed, displaced, damaged, or destroyed any
40 safety device or safeguard required to be present and maintained by

1 any safety or health standard, rule, or order promulgated pursuant to
2 this chapter, or pursuant to the authority vested in the director
3 under RCW 43.22.050 shall, upon conviction, be guilty of a
4 misdemeanor and be punished by a fine of not more than (~~one thousand~~
5 ~~dollars~~) \$1,000 or by imprisonment for not more than (~~ninety~~) 90
6 days, or by both.

7 (6) An employer is guilty of a misdemeanor if the employer: (a)
8 Allows any person to engage in the assembly, disassembly, or
9 reconfiguration of a tower crane without direct supervision by a
10 competent and qualified assembly/disassembly director as required
11 under this chapter and defined by the department; or (b) allows a
12 tower crane to be assembled, disassembled, or reconfigured not in
13 accordance with manufacturer operation instructions, manufacturer
14 guidelines, or written procedures from a registered professional
15 structural engineer.

16 (7) Whenever the director has reasonable cause to believe that
17 any provision of this section defining a crime has been violated by
18 an employer, the director shall cause a record of such alleged
19 violation to be prepared, a copy of which shall be referred to the
20 prosecuting attorney of the county wherein such alleged violation
21 occurred, and the prosecuting attorney of such county shall in
22 writing advise the director of the disposition he or she shall make
23 of the alleged violation.

24 NEW SECTION. Sec. 11. This act takes effect January 1, 2025."

2SHB 2022 - S AMD
By Senator Keiser

ADOPTED 02/23/2024

25 On page 1, line 1 of the title, after "safety;" strike the
26 remainder of the title and insert "amending RCW 49.17.400, 49.17.420,
27 49.17.440, and 49.17.190; adding new sections to chapter 49.17 RCW;
28 adding a new section to chapter 36.70B RCW; creating a new section;
29 providing an effective date; and prescribing penalties."

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