**2022-S2 AMS ENGR S5418.E - NOT FOR FLOOR USE**

**2SHB 2022** - S AMD

By Senator Keiser

**ADOPTED AND ENGROSSED 02/23/2024**

Strike everything after the enacting clause and insert the following:

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

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

Sections 3 through 10 of this act apply to construction crane safety.

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

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

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

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

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

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

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

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

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

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

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

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

(11) "Assembly/disassembly work zone" is applicable to tower cranes and means the total area that the crane and/or components or attachments could reach if the crane were to collapse. Height of the crane, length of boom, attachments, and loads, shall all be considered to calculate the area, which can shrink or grow as the work progresses.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) Name of the assembly/disassembly director;

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

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

(6)(a) Prior to issuing a permit as required under subsection (3) of this section, the department must complete a safety permit conference, which may be conducted using remote videoconference technology, to ensure all parties involved with the assembly, disassembly, and reconfiguration of the tower crane are aware of the requirements and responsibilities under the permit, including manufacturer operation instructions and guidelines, and recommended best practices. The department must establish the information and materials required to be submitted prior to the safety conference, the information and material required to be reviewed at the safety conference, and the required attendees at the safety conference.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(f) A certified crane inspector must notify the department and the crane owner if, after inspection, the certified crane inspector finds that the crane does not meet safety or health standards. A certified crane inspector shall not attest that a crane meets safety or health standards until any deficiencies are corrected and the correction is verified by the certified crane inspector; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) Establishing requirements that must be met to be considered a competent and qualified assembly/disassembly director including, 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, certification from a national organization recognized by the department;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(5) Any employer who shall knowingly remove, displace, damage, or destroy, or cause to be removed, displaced, damaged, or destroyed any safety device or safeguard required to be present and maintained by any safety or health standard, rule, or order promulgated pursuant to this chapter, or pursuant to the authority vested in the director under RCW 43.22.050 shall, upon conviction, be guilty of a misdemeanor and be punished by a fine of not more than ((~~one thousand dollars~~)) $1,000 or by imprisonment for not more than ((~~ninety~~)) 90 days, or by both.

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

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

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

**2SHB 2022** - S AMD

By Senator Keiser

**ADOPTED 02/23/2024**

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