



# Senate

General Assembly

**File No. 190**

February Session, 2012

Substitute Senate Bill No. 323

*Senate, April 2, 2012*

The Committee on Public Safety and Security reported through SEN. HARTLEY of the 15th Dist., Chairperson of the Committee on the part of the Senate, that the substitute bill ought to pass.

## **AN ACT CONCERNING CRANE OPERATIONS.**

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 29-221 of the general statutes is repealed and the  
2 following is substituted in lieu thereof (*Effective October 1, 2012*):

3 As used in this chapter and sections 2 and 9 of this act: (1) "Board"  
4 means the Examining Board for Crane Operators established under  
5 section 29-222, as amended by this act; (2) "commissioner" means the  
6 Commissioner of Construction Services; (3) "crane" means [(A) a tower  
7 crane used in construction, demolition or excavation work, (B) a  
8 hydraulic crane, (C) a power-operated derrick, or (D) a mobile crane  
9 which is a mobile, carrier-mounted, power-operated hoisting machine  
10 utilizing a power-operated boom which moves laterally by rotation of  
11 the machine on the carrier and which has a manufacturers' maximum  
12 rated capacity exceeding five tons] power-operated equipment that can  
13 hoist, lower and horizontally move a suspended load and which has a  
14 manufacturer's maximum rated hoisting or lifting capacity exceeding

15 two thousand pounds, including, but not limited to: (A) Articulating  
16 cranes such as knuckle-boom cranes, (B) crawler cranes, (C) floating  
17 cranes, (D) cranes on barges, (E) locomotive cranes, (F) mobile cranes  
18 such as wheel-mounted, rough terrain, all-terrain, commercial truck-  
19 mounted and boom truck cranes, (G) multi-purpose machines when  
20 configured to hoist and lower, by means of a winch or hook, and  
21 horizontally move a suspended load, (H) industrial cranes such as  
22 carry-deck cranes, (I) dedicated pile drivers when used in construction,  
23 demolition or excavation work, (J) service or mechanic trucks with a  
24 hoisting device, (K) cranes on monorails, (L) tower cranes such as fixed  
25 jib hammerhead boom, luffing boom and self-erecting, (M) pedestal  
26 cranes, (N) portal cranes, (O) overhead and gantry cranes, (P) straddle  
27 cranes, (Q) side boom cranes, (R) derricks, and (S) variations of such  
28 equipment; (4) "hoisting equipment", other than cranes, means  
29 motorized equipment (A) used in construction, demolition or  
30 excavation work, (B) at a construction site for a project, other than a  
31 project involving residential structures of less than four stories, the  
32 estimated cost of which is more than one million two hundred fifty  
33 thousand dollars, and (C) which has a manufacturer's rated hoisting or  
34 lifting capacity exceeding five tons and a manufacturer's rated  
35 maximum reach in excess of thirty-two feet; (5) "department" means  
36 the Department of Construction Services; and (6) "apprentice" means  
37 [anyone registered with the board for the purpose of learning crane  
38 operation or hoisting equipment operation] any person who is not  
39 licensed under this chapter and whose employer has registered him or  
40 her with the board to learn crane operations or hoisting equipment  
41 operations under the direct supervision of a licensed operator in  
42 accordance with section 9 of this act.

43 Sec. 2. (NEW) (*Effective October 1, 2012*) (a) Notwithstanding  
44 subdivisions (3) and (4) of section 29-221 of the general statutes, as  
45 amended by this act, the following items are excluded from the scope  
46 of chapter 539 of the general statutes: (1) Automotive wreckers and  
47 tow trucks including rotators registered as wreckers and operated by a  
48 person, firm or corporation licensed as a motor vehicle dealer or  
49 repairer in accordance with the provisions of subpart (D) of part III of

50 chapter 246 of the general statutes when used in such licensed  
51 business, whose functions may include consensual or nonconsensual  
52 vehicle recovery and load transfer and consensual or nonconsensual  
53 towing and transportation of wrecked or disabled vehicles from the  
54 point at which the accident occurred or the vehicle became disabled,  
55 (2) digger derricks when used for augering holes for poles carrying  
56 electric and telecommunication lines, placing and removing the poles  
57 and handling associated materials to be installed on or removed from  
58 the poles, (3) machinery originally designed as vehicle-mounted aerial  
59 devices for lifting personnel and self-propelled elevating work  
60 platforms, (4) telescopic or hydraulic gantry systems, (5) stacker  
61 cranes, (6) powered industrial forklifts, except when configured to  
62 hoist and lower, by means of a winch or hook, and horizontally move a  
63 suspended load, (7) mechanic trucks with a hoisting device when used  
64 in activities related to equipment maintenance and repair, (8)  
65 machinery that hoists by using a come-a-long or chain fall, (9) gin  
66 poles when used for the erection of communication towers, (10) anchor  
67 handling or dredge-related operations with a vessel or barge using an  
68 affixed A-frame, (11) roustabouts, (12) helicopter cranes, and (13)  
69 propane service vehicles that are equipped with a crane to load or  
70 offload Department of Transportation (DOT) approved propane tanks  
71 or American Society of Mechanical Engineers (ASME) approved  
72 propane tanks having a capacity of two thousand gallons or less.

73 (b) Articulating or knuckle-boom truck cranes that deliver material  
74 to a construction site are excluded from the scope of chapter 539 of the  
75 general statutes when used to (1) transfer materials from the truck  
76 crane to the ground without arranging the materials in a particular  
77 sequence for hoisting, or (2) transfer building supply sheet goods or  
78 building supply packaged materials including, but not limited to,  
79 sheets of sheetrock, sheets of plywood, bags of cement, sheets or  
80 packages of roofing shingles and rolls of roofing felt from the truck  
81 crane onto a structure, using a fork or cradle at the end of the boom,  
82 but only when the truck crane is equipped with a properly functioning  
83 automatic overload prevention device.

84 (c) The exclusion set forth in subsection (b) of this section does not  
85 apply when (1) the articulating or knuckle-boom crane is used to hold,  
86 support or stabilize the material to facilitate a construction activity,  
87 such as holding material in place while it is attached to the structure,  
88 (2) the material being handled by the articulating or knuckle-boom  
89 crane is a prefabricated component including, but not limited to,  
90 precast concrete members or panels, roof trusses, prefabricated  
91 building sections such as floor panels, wall panels, roof panels, roof  
92 structures or similar items, (3) the material being handled by the crane  
93 is a structural steel member such as joists, beams, columns and steel  
94 decking or a component of a systems-engineered metal building, or (4)  
95 the activity is not otherwise excluded under subsection (b) of this  
96 section.

97 Sec. 3. Section 29-222 of the general statutes is repealed and the  
98 following is substituted in lieu thereof (*Effective October 1, 2012*):

99 There shall be in the Department of Construction Services an  
100 Examining Board for Crane Operators consisting of five members who  
101 shall be residents of this state. Members shall be appointed by the  
102 Governor subject to the provisions of section 4-9a. One member shall  
103 be an employee of the department, one member shall be a crane  
104 operator having at least ten years of experience, one member shall  
105 represent the interests of crane owners and two members shall be  
106 public members. Members shall not be compensated for their services  
107 but shall be reimbursed for necessary expenses in the performance of  
108 their duties. A quorum of the board for the purpose of transacting  
109 business shall exist only when there is present, in person, a majority of  
110 its membership. Any member absent from (1) three consecutive  
111 meetings of the board, or (2) fifty per cent of such meetings during any  
112 calendar year shall be deemed to have resigned from the board.

113 Sec. 4. Section 29-223 of the general statutes is repealed and the  
114 following is substituted in lieu thereof (*Effective October 1, 2012*):

115 (a) The board shall keep a record of its proceedings and a roster of  
116 persons licensed or registered by it. The commissioner shall, with the

117 advice and assistance of the board, adopt regulations, in accordance  
118 with chapter 54, for crane operators and hoisting equipment operators,  
119 specifying qualifications for applicants for licensure, requirements for  
120 examinations, procedures for issuance and renewal of licenses and  
121 certificates of registration and examination and application fees  
122 sufficient to meet the costs of administration of this chapter. The board  
123 shall administer and establish passing grades for licensure  
124 examinations. The board shall hold examinations at times and  
125 locations determined by the board and shall give written notice to  
126 applicants for examination of the time and place of examinations.  
127 [Examinations may be written or practical or both.] An applicant for a  
128 license shall be required to take both a written and practical  
129 examination.

130 (b) The written examination shall determine whether the applicant  
131 (1) knows the information necessary for the safe operation of the  
132 specific type of crane or hoisting equipment that the applicant will  
133 operate including (A) the controls and operational or performance  
134 characteristics, (B) use of, and the ability to calculate, manually or with  
135 a calculator, load or capacity information on a variety of configurations  
136 of the equipment, (C) procedures for preventing and responding to  
137 power line contact, (D) technical knowledge applicable to the specific  
138 type of equipment the individual will operate concerning (i) site  
139 information, (ii) operations, and (iii) load information, and (E)  
140 technical knowledge applicable to site suitability, site hazards and site  
141 access, and (2) is able to read and locate relevant information in the  
142 equipment manual and other materials containing information  
143 referred to in subdivision (1) of this subsection.

144 (c) The practical examination shall determine whether the applicant  
145 has the skills necessary for safe operation of the crane or hoisting  
146 equipment including (1) the ability to recognize, from visual and  
147 auditory observation, all items required in a shift inspection, (2)  
148 operational and maneuvering skills, (3) application of load chart  
149 information, and (4) application of safe shutdown and securing  
150 procedures.

151 (d) Any license, or renewal thereof, issued pursuant to this section  
152 shall be valid for a period of two years from the date of issuance. Every  
153 four years the licensee shall take and pass, prior to the issuance of a  
154 license renewal, an examination developed by the board that is  
155 designed to ensure that the licensee continues to meet the technical  
156 knowledge and skills requirements set forth in subsections (b) and (c)  
157 of this section.

158 [(b)] (e) The board shall adopt regulations, in accordance with the  
159 provisions of chapter 54, establishing a safety code for the operation  
160 and maintenance of cranes and hoisting equipment.

161 Sec. 5. Section 29-223a of the general statutes is repealed and the  
162 following is substituted in lieu thereof (*Effective October 1, 2012*):

163 (a) No person shall engage in, practice or offer to perform the work  
164 of a hoisting equipment operator, except as provided in subsection (b)  
165 [or (c)] of this section, who is not the holder of a valid crane operator's  
166 license or hoisting equipment operator's license issued by the board.  
167 Each licensed hoisting equipment operator shall carry his or her license  
168 on his or her person when operating hoisting equipment. No person  
169 may engage in, practice or perform the work of a hoisting equipment  
170 operator apprentice unless he or she has obtained a certificate of  
171 registration from the board. An apprentice's certificate may be issued  
172 for the performance of work of a hoisting equipment operator for the  
173 purpose of training, [which] provided such work may be performed  
174 only under the direct supervision of a licensed hoisting equipment  
175 operator and is in compliance with the provisions of section 9 of this  
176 act.

177 (b) The provisions of this section shall not apply to: (1) [Any person  
178 engaged in the occupation of hoisting equipment operator in the state  
179 on October 1, 2003, provided such person shall be required to obtain a  
180 license not later than one year of October 1, 2004, (2) engineers]  
181 Engineers under the jurisdiction of the United States, [(3)] (2) engineers  
182 or operators employed by public utilities or industrial manufacturing  
183 plants, [(4)] (3) any person operating either a bucket truck or a digger

184 derrick designed and used for an electrical generation, electrical  
185 transmission, electrical distribution, electrical catenary or electrical  
186 signalization project, if such person: (A) Holds a valid limited electrical  
187 line contractor or journeyman's license issued pursuant to chapter 393  
188 or any regulation adopted pursuant to said chapter, or (B) has engaged  
189 in the installation of electrical line work for more than one thousand  
190 hours, or (C) has enrolled in or has graduated from a federally  
191 recognized electrical apprenticeship program, [or (5)] (4) persons  
192 engaged in boating, fishing, agriculture or arboriculture, or (5) persons  
193 engaged in activities, or using equipment, excluded under section 2 of  
194 this act.

195 [(c) On or after October 1, 2003, but not later than October 1, 2005,  
196 the board shall issue a license for a hoisting equipment operator to any  
197 person who provides a notarized statement from the person's  
198 employer indicating the dates and duties of employment operating  
199 such equipment or proof of ownership and control of a company  
200 utilizing such equipment.]

201 Sec. 6. Section 29-224 of the general statutes is repealed and the  
202 following is substituted in lieu thereof (*Effective October 1, 2012*):

203 (a) No person shall engage in, practice or offer to perform the work  
204 of a crane operator, except as provided in subsection (b) of this section,  
205 who is not the holder of a valid license issued by the board. Each  
206 licensed crane operator shall carry his or her license on his or her  
207 person when operating a crane. No person may engage in, practice or  
208 perform the work of a crane operator apprentice unless he or she has  
209 obtained a certificate of registration from the board. An apprentice's  
210 certificate may be issued for the performance of work of a crane  
211 operator for the purpose of training, [which] provided such work may  
212 be performed only under the direct supervision of a licensed crane  
213 operator and is in compliance with the provisions of section 9 of this  
214 act. No crane owner may operate or permit the operation of any of his  
215 or her cranes in this state unless he or she has obtained a certificate of  
216 registration from the board. Nothing in this subsection shall be

217 construed to require a hoisting equipment owner to obtain a certificate  
218 of registration from the board.

219 (b) The provisions of subsection (a) of this section shall not apply to:  
220 (1) [Any person engaged in the occupation of crane operator in the  
221 state on October 1, 1981, provided such person shall be required to  
222 obtain a license within one year of October 1, 1981, (2) engineers]  
223 Engineers under the jurisdiction of the United States, [(3)] (2) engineers  
224 or operators employed by public utilities or industrial manufacturing  
225 plants, [(4)] (3) any person operating either a bucket truck or a digger  
226 derrick designed and used for an electrical generation, electrical  
227 transmission, electrical distribution, electrical catenary or electrical  
228 signalization project, if such person: (A) Holds a valid limited electrical  
229 line contractor or journeyman's license issued pursuant to chapter 393  
230 or any regulation adopted pursuant to said chapter, or (B) has engaged  
231 in the installation of electrical line work for more than one thousand  
232 hours, or (C) has enrolled in or has graduated from a federally  
233 recognized electrical apprenticeship program, [or (5)] (4) persons  
234 engaged in boating, fishing, agriculture or arboriculture, (5) persons  
235 engaged in activities, or using equipment, excluded under section 2 of  
236 this act, or (6) persons operating equipment that can hoist, lower and  
237 horizontally move a suspended load and has a manufacturer's  
238 maximum rated hoisting or lifting capacity exceeding two thousand  
239 pounds but not exceeding ten thousand pounds who, pursuant to  
240 federal Occupational Safety and Health Administration Standard  
241 1926.1427, are (A) certified by an accredited crane operator testing  
242 organization, (B) qualified by an audited employer program, (C)  
243 qualified by the United States Military, or (D) licensed pursuant to this  
244 chapter.

245 Sec. 7. Section 29-224a of the general statutes is repealed and the  
246 following is substituted in lieu thereof (*Effective October 1, 2012*):

247 Each crane or hoisting equipment owner or operator shall  
248 immediately report any accident involving a crane or hoisting  
249 equipment he or she owns or operates to the board. Upon receipt of

250 any such report, the board may cause a full investigation and  
251 inspection of such crane or hoisting equipment to determine the cause  
252 of the accident and may take any action it deems appropriate if, after  
253 notice and opportunity for hearing, it determines that a violation of  
254 any provision of this chapter or any regulations adopted thereunder  
255 exists.

256 Sec. 8. Section 29-224b of the general statutes is repealed and the  
257 following is substituted in lieu thereof (*Effective October 1, 2012*):

258 The commissioner or any employee of the Department of  
259 Construction Services, while engaged in the performance of his or her  
260 duties, may enter at all reasonable hours into and upon any premises  
261 in or on which a crane or hoisting equipment is located for the purpose  
262 of carrying out the provisions of this chapter and the regulations  
263 adopted thereunder.

264 Sec. 9. (NEW) (*Effective October 1, 2012*) (a) An apprentice shall be  
265 permitted to operate a crane or hoisting equipment only where the  
266 requirements of this section are met.

267 (b) The employer shall provide each apprentice with sufficient  
268 training prior to operating the equipment to enable the apprentice to  
269 operate the equipment safely under the limitations established by this  
270 section, including continuous monitoring, and any additional  
271 limitations established by the employer.

272 (c) The tasks performed by the apprentice while operating the  
273 equipment shall be within the apprentice's ability.

274 (d) While operating the equipment, the apprentice shall be  
275 continuously monitored by an individual who: (1) Is employed by, or  
276 is an agent of, the apprentice's employer, (2) holds a valid crane  
277 operator's or hoisting equipment license issued under chapter 539 of  
278 the general statutes, (3) while monitoring the apprentice, performs no  
279 tasks that detract from such individual's ability to monitor the  
280 apprentice, (4) for equipment other than tower cranes, is in direct line

281 of sight of the apprentice and communicates orally or by hand signals  
282 with the apprentice, and (5) for tower cranes, is in direct  
283 communication with the apprentice.

284 (e) The individual monitoring the apprentice may take short breaks  
285 provided (1) the break lasts no more than fifteen minutes and there is  
286 no more than one break per hour, (2) prior to the break, the individual  
287 informs the apprentice of the specific tasks the apprentice is to perform  
288 and limitations to which the apprentice must adhere, and (3) the  
289 specific tasks are within the apprentice's abilities.

290 (f) An apprentice shall not operate equipment in any of the  
291 following circumstances: (1) If any part of the equipment, load line or  
292 load, including rigging and lifting accessories, if operated up to the  
293 equipment's maximum working radius, could get within twenty feet of  
294 a power line that is three hundred fifty kilovolts or less or within fifty  
295 feet of a power line that is over three hundred fifty kilovolts, (2) if the  
296 equipment is used to hoist personnel, (3) in multiple equipment lifts,  
297 (4) if the equipment is used over a shaft or cofferdam or in a tank farm,  
298 and (5) in multiple-lift rigging operations, except where the individual  
299 monitoring the apprentice determines that the apprentice's skills are  
300 sufficient.

301 Sec. 10. Section 29-225 of the general statutes is repealed and the  
302 following is substituted in lieu thereof (*Effective October 1, 2012*):

303 (a) The board may suspend or revoke a crane operator's license, a  
304 hoisting equipment operator's license or an apprentice's certificate  
305 after notice and hearing upon a finding that the holder has  
306 demonstrated incompetence or has been guilty of negligence in the  
307 performance of his or her work.

308 (b) The board may suspend or revoke a crane owner's registration  
309 after notice and hearing upon a finding that the holder has failed to  
310 properly maintain his or her crane or has permitted the operation of  
311 his or her crane in an unsafe manner.

312 (c) The board may impose a civil penalty of not more than [one]  
 313 three thousand dollars on any crane or hoisting equipment owner or  
 314 operator who violates any provision of this chapter or any regulations  
 315 adopted thereunder.

316 (d) The board shall not renew a license or registration of any crane  
 317 or hoisting equipment owner or operator who has an unpaid civil  
 318 penalty until such time as such penalty is paid in full.

This act shall take effect as follows and shall amend the following sections:		
Section 1	October 1, 2012	29-221
Sec. 2	October 1, 2012	New section
Sec. 3	October 1, 2012	29-222
Sec. 4	October 1, 2012	29-223
Sec. 5	October 1, 2012	29-223a
Sec. 6	October 1, 2012	29-224
Sec. 7	October 1, 2012	29-224a
Sec. 8	October 1, 2012	29-224b
Sec. 9	October 1, 2012	New section
Sec. 10	October 1, 2012	29-225

**Statement of Legislative Commissioners:**

Section 2(a)(13) was rewritten for clarity.

**PS**      *Joint Favorable Subst.*

The following Fiscal Impact Statement and Bill Analysis are prepared for the benefit of the members of the General Assembly, solely for purposes of information, summarization and explanation and do not represent the intent of the General Assembly or either chamber thereof for any purpose. In general, fiscal impacts are based upon a variety of informational sources, including the analyst's professional knowledge. Whenever applicable, agency data is consulted as part of the analysis, however final products do not necessarily reflect an assessment from any specific department.

**OFA Fiscal Note**

**State Impact:**

Agency Affected	Fund-Effect	FY 13 \$	FY 14 \$
Construction Services, Dept.	GF - Potential Revenue Gain	Minimal	Minimal

Note: GF=General Fund

**Municipal Impact:** None

**Explanation**

The bill increases the penalty for crane violations from \$1,000 to \$3,000. This will result in a potential minimal annual General Fund revenue gain (less than \$10,000) due to the potential imposition of civil fines by the Crane Examiners Board.

There is no fiscal impact to the Department of Construction Services because it is anticipated that the agency can modify current regulations without incurring unbudgeted costs.

**The Out Years**

The annualized ongoing fiscal impact identified above would continue into the future.

Sources: Department of Construction Services

**OLR Bill Analysis****sSB 323*****AN ACT CONCERNING CRANE OPERATIONS.*****SUMMARY:**

This bill makes changes in the laws governing cranes and hoisting equipment to comply with new federal Occupational Safety and Health Administration's (OSHA) requirements. Many of the bill's provisions codify current state regulations.

The bill adopts OSHA's definition of crane, thereby extending state regulation, including licensing and training requirements, to equipment with a lifting capacity of over 2,000 pounds, instead of over five tons (i.e., 10,000 pounds). It exempts from the licensure requirement for crane operators, operators of equipment with a lifting capacity between 2,000 and 10,000 pounds if they are certified by an accredited crane operator testing organization or qualified by an audited employer program or the U.S. military.

The bill (1) adopts OSHA's standards governing hoisting equipment apprenticeships, including prohibited practices and the level and nature of supervision; (2) sets standards applicants for a crane or hoisting equipment operator license must meet; and (3) requires such operators to be retested every four years.

The bill also increases, from \$1,000 to \$3,000, the maximum civil fine the Crane Examiners Board may impose on crane or hoisting equipment owners or operators who violate the law or regulations.

The bill deletes obsolete provisions and makes other technical and conforming changes.

EFFECTIVE DATE: October 1, 2012

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**DEFINITIONS**

Under current law, a “crane” means a

1. tower crane used in construction, demolition, or excavation;
2. hydraulic crane;
3. power-operated derrick; or
4. mobile crane, which is a mobile, carrier-mounted, power-operated hoisting machine using a power-operated boom that (a) moves laterally by rotation of the machine on the carrier and (b) has a manufacturer’s maximum rated capacity exceeding five tons.

The bill broadens the definition of cranes, by adopting OSHA’s definition. It defines a “crane” as power-operated equipment that (1) can hoist, lower, and horizontally move a suspended load and (2) has a manufacturer’s maximum rated hoisting or lifting capacity of more than 2,000 pounds, including,:

1. articulating cranes such as knuckle-boom cranes; mobile cranes such as wheel-mounted, rough terrain, all-terrain, commercial truck-mounted, and boom truck cranes; tower cranes such as fixed jib hammerhead boom, luffing boom and self-erecting, and industrial cranes such as carry-deck cranes,
2. crawler, floating, locomotive, pedestal, portal, straddle, side boom, and overhead and gantry cranes;
3. cranes on barges or monorails;
4. multi-purpose machines configured to hoist and lower, by means of a winch or hook, and horizontally move, a suspended load;
5. dedicated pile drivers when used in construction, demolition, or excavation;

6. service or mechanic trucks with a hoisting device; and
7. variations of the above equipment.

By law, "hoisting equipment" is any motorized equipment:

1. used in construction, demolition, or excavation;
2. used at construction sites for projects, other than ones involving residential structures under four stories, with an estimated cost of over \$1.25 million; and
3. with a manufacturer's rated (a) hoisting capacity over five tons and (b) maximum reach over 32 feet.

### **Exemptions**

The bill exempts from the laws governing cranes and hoisting equipment operators and operations:

1. wreckers and tow trucks, including rotators registered as wreckers operated by a licensed motor vehicle dealer or repairer and used to clear wrecks and tow vehicles as specified in the bill;
2. digger derricks augering (digging) holes for poles carrying electric telecommunication lines, placing and removing the poles, and handling material to be installed on or removed from the poles;
3. machinery originally designed as vehicle-mounted aerial devices for lifting personnel and self-propelled elevating work platforms;
4. telescopic or hydraulic gantry systems;
5. stacker and helicopter cranes;
6. powered industrial forklifts, except when configured to hoist and lower, by means of a winch or hook, and horizontally

- move, a suspended load;
7. mechanic trucks with a hoisting device when used in activities related to equipment maintenance and repair;
  8. machinery that hoists by using a come-a-long or chain fall;
  9. gin poles when used for erecting communication towers;
  10. anchor handling or dredge-related operations with a vessel or barge using an affixed A-frame;
  11. roustabouts;
  12. propane service vehicles equipped with a crane to load or offload Department of Transportation-approved propane tanks or American Society of Mechanical Engineers-approved propane tanks having a capacity of 2,000 gallons or less; and
  13. certain articulating or knuckle-boom truck cranes that deliver material to construction sites when used to transfer (1) material from the truck crane to the ground without arranging the material in a particular sequence for hoisting or (2) building supply sheet goods or packaged material, provided the truck crane is equipped with a properly functioning automatic overload prevention device.

The exclusion for articulating or knuckle-boom truck cranes does not apply when the crane is:

1. used to hold, support, or stabilize material to facilitate a construction activity, such as holding material in place while it is attached to the structure;
2. handling a prefabricated component such as precast concrete members or panels, roof trusses, prefabricated building sections such as floor, wall, or roof panels, roof structures, or similar items;

3. handling a structural steel member such as joists, beams, columns, and steel decking or a component of a systems-engineered metal building; or
4. performing activities not otherwise excluded under the bill.

## LICENSURE

By law, crane and hoisting equipment operators must be licensed, unless exempt, and apprentices and crane owners must be registered, by the Crane Examiners Board, which is in the Department of Construction Services. (Hoisting equipment owners do not have to be registered.)

Current law exempts from licensure and registration requirements pertaining to cranes (1) engineers under U.S. jurisdiction; (2) engineers or operators employed by public utilities or industrial manufacturing plants; and (3) people engaged in boating, fishing, agriculture, or arboriculture. It also exempts anyone operating a bucket truck or a digger derrick designed and used for an electrical generation, transmission, distribution, catenary (overhead lines above railroad tracks), or signalization project if the person:

1. holds a valid state-issued Connecticut limited electrical line contractor or journeyman's license;
2. has more than 1,000 hours of experience installing electrical lines; or
3. has enrolled in, or graduated from, a federally recognized electrical apprenticeship program.

The bill additionally exempts from licensure and registration people engaged in activities or using equipment excluded under the bill. It also exempts operators of cranes with a manufacturer's maximum-rated hoisting or lifting capacity over 2,000 and up to 10,000 pounds and who, under federal OSHA, are (1) certified by an accredited crane operator testing organization, (2) qualified by an audited employer

program, or (3) qualified by the U.S. military.

### ***Qualifications for Licensure***

By law, the Department of Emergency Services and Public Protection commissioner, with the Crane Examiners Board's advice and assistance, must adopt regulations specifying license qualifications, examination requirements, and licensing procedures for crane and hoisting equipment operators. Under current law, the licensure examination may be written, practical, or both. The bill requires both a practical and written examination, thereby conforming the law to regulations (Conn. Agencies Reg. §§ 29-223-2a & 29-223-15a).

### ***Written Examinations***

Under the bill, the written examination must determine whether an applicant knows the information necessary to safely operate the specific type of crane or hoisting equipment that he or she will operate, including:

1. the controls and operational or performance characteristics of the equipment;
2. how to use and calculate, manually or with a calculator, load or capacity information on a variety of configurations of the equipment;
3. how to prevent and respond to power line contact;
4. technical knowledge of (a) site information, (b) operations, and (c) load information pertaining to the specific type of equipment he or she will operate; and
5. technical knowledge of site suitability, hazards, and access.

### ***Practical Examination***

The bill requires the practical examination to determine if an applicant has the skills necessary to safely operate the crane or hoisting equipment, including how to (1) recognize by sight and sound all

items required in a shift inspection; (2) apply load chart information; and (3) operate, maneuver, and safely shut down and secure the equipment.

### ***License Validity***

Under current regulations, which the bill codifies, a crane operator or hoisting equipment operator's license is valid for two years (Conn. Agencies Regs. §§ 29-223-4a & 22-223-16a). The bill requires licensees to take and pass a board examination every four years to ensure that they have the technical knowledge and skill to operate cranes or hoisting equipment, as applicable.

### **CRANE AND HOISTING OPERATOR APPRENTICESHIP STANDARDS**

Under current law, apprentices must be supervised by a licensed operator. The bill specifies that the supervision must be direct.

The bill requires that, in addition to complying with existing standards, crane and hoisting equipment operators must comply with the standards governing apprenticeship outlined in the bill and described below.

### ***Supervision***

The bill adopts OSHA's standards for (1) supervising apprentices and (2) operating cranes and hoisting equipment (29 CFR § 1926.1427). Many of these standards already apply under state regulations (Conn. Agencies Reg. § 29-223-17a).

Specifically, the bill requires employers to train apprentices sufficiently before they start operating a crane or hoisting equipment to enable them to operate it safely. It requires apprentices operating such equipment to be capable of doing the tasks they are performing.

While operating any such equipment, the apprentice must be continuously monitored by an individual who:

1. is employed by or an agent of the apprentice's employer;

2. holds a valid Connecticut crane or hoisting equipment operator's license;
3. is not performing any task that detracts from his or her ability to monitor the apprentice;
4. for tower cranes, is in direct communication with the apprentice; and
5. for other equipment, is in direct line of sight of the apprentice and communicates with him or her orally or by hand signals.

The bill allows the supervisor to take one 15-minute break per hour, provided before doing so, (1) he or she informs the apprentice of the specific tasks the apprentice must perform and limitations that apply and (2) the apprentice can perform them.

### ***Equipment Operation***

The bill prohibits apprentices from operating equipment in any of the following circumstances:

1. any part of the equipment, load line, or load, including rigging and lifting accessories, if operated at the equipment's maximum working radius, would get within 20 feet of a power line 350 kilovolts (i.e., 350,000 volts) or less or within 50 feet of a power line over 350 kilovolts;
2. the equipment is used to hoist personnel;
3. in multiple equipment lifts;
4. the equipment is used over a shaft or cofferdam or in a tank farm; or
5. in multiple-lift rigging operations, unless the supervisor determines that the apprentice is sufficiently skilled.

### **VIOLATIONS AND PENALTIES**

The bill increases, from \$1,000 to \$3,000, the maximum civil fine the

Crane Examiners Board may impose on a crane or hoisting equipment owner or operator who violates the laws or regulation governing them. It prohibits the board from renewing the operator's license or owner's registration until the fine is paid in full.

**COMMITTEE ACTION**

Public Safety and Security Committee

Joint Favorable Substitute

Yea 22 Nay 0 (03/15/2012)