



**Substitute Senate Bill No. 323**

**Public Act No. 12-99**

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

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

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 Section 29-221 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

As used in this chapter and section 13 of this act: (1) "Board" means the Examining Board for Crane Operators established under section 29-222, as amended by this act; (2) "commissioner" means the Commissioner of Construction Services; (3) "crane" means (A) a tower crane used in construction, demolition or excavation work, (B) a hydraulic crane, (C) a power-operated derrick, or (D) a mobile crane which is a mobile, carrier-mounted, power-operated hoisting machine utilizing a power-operated boom which moves laterally by rotation of the machine on the carrier and which has a manufacturers' maximum rated capacity exceeding five tons; (4) "hoisting equipment" means motorized equipment (A) used in construction, demolition or excavation work, (B) at a construction site for a project, other than a project involving residential structures of less than four stories, the estimated cost of which is more than one million two hundred fifty thousand dollars, and (C) which has a manufacturer's rated lifting capacity exceeding five tons and a manufacturer's rated maximum reach in excess of thirty-two feet; (5) "department" means the

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Department of Construction Services; and (6) "apprentice" means [anyone registered with the board for the purpose of learning crane operation or hoisting equipment operation] a person who is not licensed under this chapter, who has filed an application for a license with the board and whose employer has registered him or her with the board to learn crane operations or hoisting equipment operations under the direct supervision of a licensed operator in accordance with section 13 of this act.

Sec. 2. Section 29-221 of the general statutes, as amended by section 1 of this act, is repealed and the following is substituted in lieu thereof (*Effective October 1, 2014*):

As used in this chapter and [section] sections 3 and 13 of this act: (1) "Board" means the Examining Board for Crane Operators established under section 29-222, as amended by this act; (2) "commissioner" means the Commissioner of Construction Services; (3) "crane" means [(A) a tower crane used in construction, demolition or excavation work, (B) a hydraulic crane, (C) a power-operated derrick, or (D) a mobile crane which is a mobile, carrier-mounted, power-operated hoisting machine utilizing a power-operated boom which moves laterally by rotation of the machine on the carrier and which has a manufacturers' maximum rated capacity exceeding five tons] power-operated equipment that can hoist, lower and horizontally move a suspended load and which has a manufacturer's maximum rated hoisting or lifting capacity exceeding two thousand pounds, including, but not limited to: (A) Articulating cranes such as knuckle-boom cranes, (B) crawler cranes, (C) floating cranes, (D) cranes on barges, (E) locomotive cranes, (F) mobile cranes such as wheel-mounted, rough terrain, all-terrain, commercial truck-mounted and boom truck cranes, (G) multi-purpose machines when configured to hoist and lower, by means of a winch or hook, and horizontally move a suspended load, (H) industrial cranes such as carry-deck cranes, (I) dedicated pile

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drivers when used in construction, demolition or excavation work, (J) service or mechanic trucks with a hoisting device, (K) cranes on monorails, (L) tower cranes such as fixed jib hammerhead boom, luffing boom and self-erecting, (M) pedestal cranes, (N) portal cranes, (O) overhead and gantry cranes, (P) straddle cranes, (Q) side boom cranes, (R) derricks, and (S) variations of such equipment; (4) "hoisting equipment", other than cranes, means motorized equipment (A) used in construction, demolition or excavation work, (B) at a construction site for a project, other than a project involving residential structures of less than four stories, the estimated cost of which is more than one million two hundred fifty thousand dollars, and (C) which has a manufacturer's rated hoisting or lifting capacity exceeding five tons and a manufacturer's rated maximum reach in excess of thirty-two feet; (5) "department" means the Department of Construction Services; and (6) "apprentice" means a person who is not licensed under this chapter, who has filed an application for a license with the board and whose employer has registered him or her with the board to learn crane operations or hoisting equipment operations under the direct supervision of a licensed operator in accordance with section 13 of this act.

Sec. 3. (NEW) (*Effective October 1, 2014*) (a) Notwithstanding subdivisions (3) and (4) of section 29-221 of the general statutes, as amended by section 2 of this act, the following items are excluded from the scope of chapter 539 of the general statutes: (1) Machinery included in subdivisions (3) and (4) of section 29-221 of the general statutes, as amended by section 2 of this act, while it has been converted or adapted for a nonhoisting or nonlifting use, including power shovels, excavators and concrete pumps, (2) power shovels, excavators, wheel loaders, backhoes, loader backhoes and track loaders, including when this machinery is used with chains, slings or other rigging to lift suspended loads, (3) automotive wreckers and tow trucks including rotators registered as wreckers and operated by a person, firm or

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corporation licensed as a motor vehicle dealer or repairer in accordance with the provisions of subpart (D) of part III of chapter 246 of the general statutes when used in such licensed business, whose functions may include consensual or nonconsensual vehicle recovery and load transfer and consensual or nonconsensual towing and transportation of wrecked or disabled vehicles from the point at which the accident occurred or the vehicle became disabled, (4) digger derricks when used for augering holes for poles carrying electric and telecommunication lines, placing and removing the poles and handling associated materials to be installed on or removed from the poles, (5) machinery originally designed as vehicle-mounted aerial devices for lifting personnel and self-propelled elevating work platforms, (6) telescopic or hydraulic gantry systems, (7) stacker cranes, (8) powered industrial forklifts, except when configured to hoist and lower, by means of a winch or hook, and horizontally move a suspended load, (9) mechanic trucks with a hoisting device when used in activities related to equipment maintenance and repair, (10) machinery that hoists by using a come-a-long or chain fall, (11) gin poles when used for the erection of communication towers, (12) anchor handling or dredge-related operations with a vessel or barge using an affixed A-frame, (13) roustabouts, (14) helicopter cranes, (15) propane service vehicles that are equipped with a crane to load or offload Department of Transportation (DOT) approved propane tanks or American Society of Mechanical Engineers (ASME) approved propane tanks having a capacity of two thousand gallons or less, (16) overhead and gantry cranes when used for non-construction-related work, and (17) dedicated drill rigs.

(b) Articulating or knuckle-boom truck cranes that deliver material to a construction site are excluded from the scope of chapter 539 of the general statutes when used to (1) transfer materials from the truck crane to the ground without arranging the materials in a particular sequence for hoisting, or (2) transfer building supply sheet goods or

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building supply packaged materials including, but not limited to, sheets of sheetrock, sheets of plywood, bags of cement, sheets or packages of roofing shingles and rolls of roofing felt from the truck crane onto a structure, using a fork or cradle at the end of the boom, but only when the truck crane is equipped with a properly functioning automatic overload prevention device.

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

Sec. 4. Section 29-222 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

There shall be in the Department of Construction Services an Examining Board for Crane Operators consisting of five members who shall be residents of this state. Members shall be appointed by the Governor subject to the provisions of section 4-9a. One member shall be an employee of the department, one member shall be a crane operator having at least ten years of experience, one member shall represent the interests of crane owners and two members shall be public members. Members shall not be compensated for their services but shall be reimbursed for necessary expenses in the performance of their duties. A quorum of the board for the purpose of transacting

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business shall exist only when there is present, in person, a majority of its membership. Any member absent from (1) three consecutive meetings of the board, or (2) fifty per cent of such meetings during any calendar year shall be deemed to have resigned from the board.

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

(a) The board shall keep a record of its proceedings and a roster of persons licensed or registered by it. The commissioner shall, with the advice and assistance of the board, adopt regulations, in accordance with chapter 54, for crane operators and hoisting equipment operators, specifying qualifications for applicants for licensure, requirements for examinations, procedures for issuance and renewal of licenses and certificates of registration and examination and application fees sufficient to meet the costs of administration of this chapter. The board shall administer and establish passing grades for licensure examinations. The board shall hold examinations at times and locations determined by the board and shall give written notice to applicants for examination of the time and place of examinations. Examinations may be written or practical or both.

(b) Prior to October 1, 2014, the board may develop and administer written and practical examinations for, and issue licenses to, operators of cranes as defined in section 29-221, as amended by section 2 of this act, including cranes which have a manufacturer's rated hoisting or lifting capacity exceeding two thousand pounds but not exceeding ten thousand pounds. The provisions of this subsection shall not be construed to eliminate the licensure requirements in effect prior to October 1, 2014, for operators of cranes or hoisting equipment, as those terms are defined in section 29-221, as amended by section 1 of this act.

[(b)] (c) The board shall adopt regulations, in accordance with the provisions of chapter 54, establishing a safety code for the operation

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and maintenance of cranes and hoisting equipment.

Sec. 6. Section 29-223 of the general statutes, as amended by section 5 of this act, is repealed and the following is substituted in lieu thereof (*Effective October 1, 2014*):

(a) The board shall keep a record of its proceedings and a roster of persons licensed or registered by it. The commissioner shall, with the advice and assistance of the board, adopt regulations, in accordance with chapter 54, for crane operators and hoisting equipment operators, specifying qualifications for applicants for licensure, requirements for examinations, procedures for issuance and renewal of licenses and certificates of registration and examination and application fees sufficient to meet the costs of administration of this chapter. The board shall administer and establish passing grades for licensure examinations. The board shall hold examinations at times and locations determined by the board and shall give written notice to applicants for examination of the time and place of examinations. [Examinations may be written or practical or both.] An applicant for a license shall be required to take both a written and practical examination.

(b) The written examination shall determine whether the applicant (1) knows the information necessary for the safe operation of the specific type of crane or hoisting equipment that the applicant will operate including (A) the controls and operational or performance characteristics, (B) use of, and the ability to calculate, manually or with a calculator, load or capacity information on a variety of configurations of the equipment, (C) procedures for preventing and responding to power line contact, (D) technical knowledge applicable to the specific type of equipment the individual will operate concerning (i) site information, (ii) operations, and (iii) load information, and (E) technical knowledge applicable to site suitability, site hazards and site access, and (2) is able to read and locate relevant information in the

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equipment manual and other materials containing information referred to in subdivision (1) of this subsection.

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

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

[[b)] (e) Prior to October 1, 2014, the board may develop and administer written and practical examinations for, and issue licenses to, operators of cranes as defined in section 29-221, as amended by section 2 of this act, including cranes which have a manufacturer's rated hoisting or lifting capacity exceeding two thousand pounds but not exceeding ten thousand pounds. The provisions of this subsection shall not be construed to eliminate the licensure requirements in effect prior to October 1, 2014, for operators of cranes or hoisting equipment, as those terms are defined in section 29-221, as amended by section 1 of this act.

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

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Sec. 7. Section 29-223a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

(a) No person shall engage in, practice or offer to perform the work of a hoisting equipment operator, except as provided in subsection (b) [or (c)] of this section, who is not the holder of a valid crane operator's license or hoisting equipment operator's license issued by the board. Each licensed hoisting equipment operator shall carry his or her license on his or her person when operating hoisting equipment. No person may engage in, practice or perform the work of a hoisting equipment operator apprentice unless he or she has obtained a certificate of registration from the board. An apprentice's certificate may be issued for the performance of work of a hoisting equipment operator for the purpose of training, [which] provided such work may be performed only under the direct supervision of a licensed hoisting equipment operator and is in compliance with the provisions of section 13 of this act.

(b) The provisions of this section shall not apply to: (1) Any person engaged in the occupation of hoisting equipment operator in the state on October 1, 2003, provided such person shall be required to obtain a license not later than one year of October 1, 2004, (2) engineers under the jurisdiction of the United States, (3) engineers or operators employed by public utilities or industrial manufacturing plants, (4) any person operating either a bucket truck or a digger derrick designed and used for an electrical generation, electrical transmission, electrical distribution, electrical catenary or electrical signalization project, if such person: (A) Holds a valid limited electrical line contractor or journeyman's license issued pursuant to chapter 393 or any regulation adopted pursuant to said chapter, or (B) has engaged in the installation of electrical line work for more than one thousand hours, or (C) has enrolled in or has graduated from a federally recognized electrical apprenticeship program, or (5) persons engaged

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in boating, fishing, agriculture or arboriculture.

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

Sec. 8. Section 29-223a of the general statutes, as amended by section 7 of this act, is repealed and the following is substituted in lieu thereof (*Effective October 1, 2014*):

(a) No person shall engage in, practice or offer to perform the work of a hoisting equipment operator, except as provided in subsection (b) of this section, who is not the holder of a valid crane operator's license or hoisting equipment operator's license issued by the board. Each licensed hoisting equipment operator shall carry his or her license on his or her person when operating hoisting equipment. No person may engage in, practice or perform the work of a hoisting equipment operator apprentice unless he or she has obtained a certificate of registration from the board. An apprentice's certificate may be issued for the performance of work of a hoisting equipment operator for the purpose of training, provided such work may be performed only under the direct supervision of a licensed hoisting equipment operator and is in compliance with the provisions of section 13 of this act.

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

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derrick designed and used for an electrical generation, electrical transmission, electrical distribution, electrical catenary or electrical signalization project, if such person: (A) Holds a valid limited electrical line contractor or journeyman's license issued pursuant to chapter 393 or any regulation adopted pursuant to said chapter, or (B) has engaged in the installation of electrical line work for more than one thousand hours, or (C) has enrolled in or has graduated from a federally recognized electrical apprenticeship program, [or (5)] (4) persons engaged in [boating, fishing,] the recreational boating or fishing industry, except when engaged in construction-related work, or in agriculture or arboriculture, or (5) persons engaged in activities, or using equipment, excluded under section 3 of this act.

Sec. 9. Section 29-224 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

(a) No person shall engage in, practice or offer to perform the work of a crane operator, except as provided in subsection (b) of this section, who is not the holder of a valid license issued by the board. Each licensed crane operator shall carry his or her license on his or her person when operating a crane. No person may engage in, practice or perform the work of a crane operator apprentice unless he or she has obtained a certificate of registration from the board. An apprentice's certificate may be issued for the performance of work of a crane operator for the purpose of training, [which] provided such work may be performed only under the direct supervision of a licensed crane operator and is in compliance with the provisions of section 13 of this act. No crane owner may operate or permit the operation of any of his or her cranes in this state unless he or she has obtained a certificate of registration from the board. Nothing in this subsection shall be construed to require a hoisting equipment owner to obtain a certificate of registration from the board.

(b) The provisions of subsection (a) of this section shall not apply to:

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(1) Any person engaged in the occupation of crane operator in the state on October 1, 1981, provided such person shall be required to obtain a license within one year of October 1, 1981, (2) engineers under the jurisdiction of the United States, (3) engineers or operators employed by public utilities or industrial manufacturing plants, (4) any person operating either a bucket truck or a digger derrick designed and used for an electrical generation, electrical transmission, electrical distribution, electrical catenary or electrical signalization project, if such person: (A) Holds a valid limited electrical line contractor or journeyman's license issued pursuant to chapter 393 or any regulation adopted pursuant to said chapter, or (B) has engaged in the installation of electrical line work for more than one thousand hours, or (C) has enrolled in or has graduated from a federally recognized electrical apprenticeship program, or (5) persons engaged in boating, fishing, agriculture or arboriculture.

Sec. 10. Section 29-224 of the general statutes, as amended by section 9 of this act, is repealed and the following is substituted in lieu thereof (*Effective October 1, 2014*):

(a) No person shall engage in, practice or offer to perform the work of a crane operator, except as provided in subsection (b) of this section, who is not the holder of a valid license issued by the board. Each licensed crane operator shall carry his or her license on his or her person when operating a crane. No person may engage in, practice or perform the work of a crane operator apprentice unless he or she has obtained a certificate of registration from the board. An apprentice's certificate may be issued for the performance of work of a crane operator for the purpose of training, provided such work may be performed only under the direct supervision of a licensed crane operator and is in compliance with the provisions of section 13 of this act. No crane owner may operate or permit the operation of any of his or her cranes in this state unless he or she has obtained a certificate of

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registration from the board. Nothing in this subsection shall be construed to require a hoisting equipment owner to obtain a certificate of registration from the board.

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

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Sec. 11. Section 29-224a of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

Each crane or hoisting equipment owner or operator shall immediately report any accident involving a crane or hoisting equipment he or she owns or operates to the board. Upon receipt of any such report, the board may cause a full investigation and inspection of such crane or hoisting equipment to determine the cause of the accident and may take any action it deems appropriate if, after notice and opportunity for hearing, it determines that a violation of any provision of this chapter or any regulations adopted thereunder exists.

Sec. 12. Section 29-224b of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

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

Sec. 13. (NEW) (*Effective October 1, 2012*) (a) An apprentice shall be permitted to operate a crane or hoisting equipment only where the requirements of this section are met.

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

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

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(d) While operating the equipment, the apprentice shall be continuously monitored by an individual who: (1) Is employed by, or is an agent of, the apprentice's employer, (2) holds a valid crane operator's or hoisting equipment license issued under chapter 539 of the general statutes, (3) while monitoring the apprentice, performs no tasks that detract from such individual's ability to monitor the apprentice, (4) for equipment other than tower cranes, is in direct line of sight of the apprentice and communicates orally or by hand signals with the apprentice, and (5) for tower cranes, is in direct communication with the apprentice.

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

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

Sec. 14. Section 29-225 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2012*):

(a) The board may suspend or revoke a crane operator's license, a

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hoisting equipment operator's license or an apprentice's certificate after notice and hearing upon a finding that the holder has demonstrated incompetence or has been guilty of negligence in the performance of his or her work.

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

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

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