



Promulgation Details for 1 RCNY 3316-01

This rule became effective on November, 9, 2018.

Since such date, one or more amendments have been made to this rule. Each rule amendment has its own effective date and Statement of Basis and Purpose.

Below you will find one or more rule amendments (the most recent appearing at the top), followed by the original rule.

The effective date of each amendment and the original rule can be found at the top of each "NOTICE OF ADOPTION OF RULE."

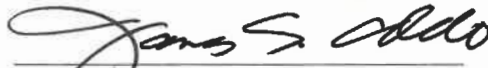
NEW YORK CITY DEPARTMENT OF BUILDINGS
NOTICE OF ADOPTION

R.V.

NOTICE IS HEREBY GIVEN, pursuant to the authority vested in the Commissioner of Buildings by Section 643 of the New York City Charter and in accordance with Section 1043 of the Charter that the Department of Buildings hereby adopts the amendments to its rules regarding riggers and rigging. This rule was first published on October 19, 2023, and a public hearing thereon was held on November 21, 2023. No comments were received.

Dated:

11/29/23
New York, New York



James S. Oddo
Commissioner

Statement of Basis and Purpose of Rule

Article 404 of Title 28 of the New York City Administrative Code sets out the requirement for a license to perform rigging work and establishes three classes of rigger license – master, special and tower. Section 104-10 of Title 1 of the Rules of the City of New York (“RCNY”) establishes qualification requirements to obtain a rigger license. Chapter 33 of the New York City Building Code, particularly sections 3314, 3316 and 3319, specifies the types of work that require supervision by a licensed rigger. 1 RCNY 104-20 sets out the supervisory responsibilities of a licensed rigger. 1 RCNY 3316-01 provides technical specification for rigging equipment.

Local Law 126 for the year 2021 made a wide range of substantive and administrative updates across the New York City Construction Codes (“2022 Code updates”), including the Chapter 4 provisions pertaining to riggers. In particular, the 2022 Code updates require a master rigger applicant to possess a national rigging certification, revised the course requirements for rigger license applicants, updated scaffold fees, and revised definitions and section numbering.

This rulemaking amends rules related to rigging safety, rigging licensing, and rigging oversight at construction and building sites in New York City in accordance with the 2022 Codes and also makes other technical updates to reflect the latest national standards and best practices for rigging safety. Specifically:

- Section 1 of this amendment deletes the fee for outrigger beam application review from section 101-03 of Subchapter A of Chapter 100 of Title 1 of the RCNY because that fee is covered by the general scaffold filing fees in section 28-112.2 of the N.Y.C. Administrative Code.
- Section 2 of this amendment repeals several provisions in subdivision (a) of Section 104-10 of subchapter D of chapter 100 of Title 1 of the RCNY because they were codified in 28-404.3 of the N.Y.C. Administrative Code.
- Sections 3, 4, 6, 8, 9, and 11 of this amendment make changes throughout sections 104-10 and 104-20 of Subchapter D of Chapter 100, and in section 3316-01 of Chapter 3300, of Title 1 of the RCNY to ensure updated cross references to the New York City Building Code reflect renumbering made by the 2022 Codes updates, reflect changes in terminology made by the 2022 Code updates, or remove references to the licensing “reinstatement” option, which was eliminated by the 2022 Code updates.
- Section 5 of this amendment adds a new subdivision (d) to section 104-10 of Subchapter D of Chapter 100 of Title 1 of the RCNY to specify certifications for rigging supervision and lift direction that are acceptable to the commissioner in accordance with section 28-404.3.1 of the Administrative Code.
- Section 7 of this amendment revises subdivision (d) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York to accord with the inspection

requirements contained in section 3314.4.3.1 and 3314.4.3.2 of the New York City Building Code.

- Section 10 of this amendment revises the experience requirements to serve as a designated master rigging foreman in subdivision (h) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York. Specifically, certain national certifications for rigging supervision and lift direction are recognized and credited as fulfilling experience qualifications. Other terminology related to designated master rigging foremen and designated special rigging foremen is made consistent between the foreman types.
- Section 12 of this amendment adds language to subdivision (d) of section 3316-01 of Chapter 3300 of Title 1 of the Rules of the City of New York to make clear that all rigging must be connected to a secure attachment point and that simply wrapping a sling or cable around a boom or fork is unsafe and illegal.
- Section 13 of this amendment updates references to the rigging equipment standards laid out in the American Society of Mechanical Engineers (ASME) B-30 Safety Standard. Section 3316-01 of Chapter 3300 of Title 1 of the Rules of the City of New York will now refer to the latest editions of the ASME B-30 standards, where a new edition exists.

The Department of Buildings’ authority for these rules is found in sections 643 and 1043 of the New York City Charter, Section 28-112.2 and Article 404 of Chapter 4 of Title 28 of the City Administrative Code, and Section 3316 of the New York City Building Code.

New material is underlined.

[Deleted material is in brackets.]

Asterisks (***) indicate unamended text.

“Shall” and “must” denote mandatory requirements and may be used interchangeably in the rules of this department, unless otherwise specified or unless the context clearly indicates otherwise.

Section 1. Section 101-03 of Subchapter A of Chapter 100 of Title 1 of the Rules of the City of New York is amended by deleting the entry for outrigger beam application review as follows:

[Outrigger beam application review.]	[Initial: \$100]	[Amendment: \$100]	[Renewal: \$90]
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§ 2. Paragraphs (1), (2), (3), and (4) of subdivision (a) of Section 104-10 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York, which set forth training course requirements for Master, Special, and Climber or Tower Crane Riggers, are REPEALED.

§ 3. Paragraphs (5) and (6) of subdivision (a) of Section 104-10 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York are amended to read as follows:

(15)1) Fitness. An applicant for a Master, Special or [Climber or] Tower Crane Rigger license shall provide evidence of fitness to perform the work authorized by the license. Such evidence shall be on a form prescribed by the Commissioner and shall establish that the applicant has passed a physical exam that complies with subdivision (c) of this section, and that the applicant has complied with the substance abuse testing provisions and standards of subdivision (c) of this section. Such evidence shall include the name, address and telephone number of the laboratory that performed the tests and consent to the release by such laboratory of the test results to the Department upon request of the Department.

(16)2) Additional requirements.

- (i) Where a licensed master rigger chooses to personally supervise the installation or use of a suspended scaffold, the licensee shall have completed all additional training required by section 3314.4.5.3 of the New York City Building Code.
- (ii) Where a licensed master rigger chooses to personally supervise the assembly, jump, or disassembly of a [climber/]tower crane, the licensee shall have completed all additional training required by section 3319.10 of the building code.
- (iii) Where a licensed special rigger chooses to personally supervise the installation or use of a suspended scaffold, the licensee shall have completed all additional training required by section 3314.4.5.3 of the New York City Building Code.

§ 4. Subdivisions (b) and (c) of section 104-10 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York are amended to read as follows:

(b) Fitness requirements for renewal [and reinstatement]. As a condition of license renewal [or reinstatement], a licensed or previously licensed Master, Special or [Climber or] Tower crane rigger shall provide evidence of fitness to perform the work authorized to be performed by a holder of the license held or once held by the applicant. Evidence shall be on a form prescribed by the Commissioner and shall establish that the applicant has passed a physical exam that complies with subdivision (c) of this section, and that the applicant has received a negative result for a substance abuse test as required in subdivision (c) of this section. Such evidence shall include the name, address and telephone number of the laboratory that performed the tests and consent to the release by such laboratory of the test results to the Department upon request of the Department. A renewal applicant shall satisfy the requirements of this rule at every subsequent renewal.

- (c) Physical exam. Applicants for a Master, Special or [Climber or] Tower Crane Rigger license shall meet the following physical qualifications, unless it can be shown that failure to meet the qualifications will not affect the ability to perform the work authorized to be performed by a holder of the license sought. In such cases, specialized clinical or medical judgments and tests may be required. The following physical qualifications shall be met at all times throughout the term of the license.

* * *

§ 5. Section 104-10 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended by adding a new subdivision (d) to read as follows:

(d) Certifications for master riggers. Individuals who, on or after November 7, 2022, apply for a new master rigger license, or apply to renew a master rigger license whose initial application for licensure was filed on or after November 7, 2022, must provide copies of certifications required by Table 1.

- (1) Required certifications must be maintained throughout the duration of the term of the license;
- (2) The licensee must immediately notify the department if a certification identified in Table 1 of this subdivision and held by the licensee is suspended, revoked, not renewed, or otherwise lapses; and
- (3) The licensee must provide a copy of re-certifications and new certifications identified in Table 1 of this subdivision to the department within 30 days.

Table 1: Certifications for Master Riggers

<u>Certification</u>	<u>Requirement</u>
<u>NCCCO Rigger Level II</u>	<u>Required</u>
<u>NCCCO Lift Director - Mobile Cranes</u>	<u>Required</u>
<u>NCCCO Lift Director - Tower Cranes</u>	<u>Additional</u>

Legend to Table 1:

- “NCCCO” means “National Commission for the Certification of Crane Operators.”
- “Required” means must possess.
- “Additional” means not mandated but required if licensee intends to serve as a lift director for the type of crane specified.

§ 6. Paragraphs (1) and (4) of subdivision (b) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York are amended to read as follows:

- (1) For the purposes of this section, the term “critical pick” shall have the same meaning as set forth in [section 3302.1] Chapter 2 of the Building Code.

* * *

- (4) For the purposes of this section, the term “rigging foreman” shall mean an individual designated by a licensed rigger in accordance with subdivision (i) of this section. Such person shall have the qualifications set forth in subdivision (h) of this section. The term shall also refer to “suspended scaffold foreman” where such term is used in Chapter [33] 2 of the Building Code.

§ 7. Subdivision (d) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the rules of the City of New York is amended to read as follows:

- (d) Supervision of rigging operations other than critical picks and tower [or climber] crane erection, jumping, climbing or dismantling. Except as otherwise provided in subdivision (e) of this section, the licensee need not be personally on site during rigging operations provided that a rigging foreman designated by the licensee pursuant to subdivision (i) of this section is continuously on site and that such rigging foreman performs and/or manages the work under the off-site supervision of the licensee as follows:
 - (1) the licensee and the rigging foreman at the work site are in frequent and direct contact with each other during the course of the rigging operation;
 - (2) for work involving the use of cranes, derricks, work platforms, suspended scaffolds, or other rigging setup where the safe founding or support of such equipment is a cause of concern (i.e. [over] placed atop sidewalks, roadways or yards where vaults or other subsurface structures exist; or where [hooks or clamps are used on parapet walls to support hanging scaffolds] the person performing a suspended scaffold inspection in accordance with Section 3314.4.3.1 or 3314.4.3.2 of the Building Code has identified a concern, etc.), the licensee personally visits the work site to inspect and approve the rigging equipment founding and setup prior to commencement of rigging operations and each time the founding or support changes;
 - (3) the licensee is readily available to provide on-site supervision should the need arise; and
 - (4) the rigging foreman has in his or her possession at the work site the “Designated Foreman Card” issued by the department pursuant to subdivision (j) of this section, which shall be presented upon the demand of any authorized enforcement officer.

§ 8. Subdivision (e) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (e) Supervision of critical picks and tower [or climber] crane erection, jumping, climbing, or dismantling. The licensee must be continuously on site during critical picks and tower [or climber] crane erection, jumping, climbing, or dismantling, and must personally

perform or personally supervise all such work. Off-site supervision of such work is not permitted.

§ 9. Subdivision (g) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

(g) Specialty Crew. Notwithstanding the provisions of section 28-401.17 of the Administrative Code, where rigging work is best handled by or requires crews of a specialty trade (e.g. handling hazardous materials or chemicals such as asbestos, or tower [or climber] crane erection, jumping, climbing, or dismantling) the licensee and/or a rigging foreman designated by such licensee may perform or supervise work on behalf of a person, partnership, corporation or business association engaged in such specialty trade by making an application on a form provided by the department subject to the following conditions:

- (1) the department must approve the licensee's application for such proposed rigging operation;
- (2) the licensee must either plan the equipment setup and operation or be an active participant of the planning team
- (3) for loads of two thousand pounds or more, for all critical picks, and for tower [or climber] crane erection, jumping, climbing, or dismantling, the licensee must provide continuous on-site personal supervision to the rigging crew;
- (4) for loads below two thousand pounds and which are not critical picks, or which are not related to tower [or climber] crane erection, jumping, climbing, or dismantling, the licensee need not be on site if a rigging foreman designated by such licensee is continuously on site. The rigging foreman shall manage the work under the off-site supervision of the licensee in accordance with the conditions set forth in subdivision (d) of this section;
- (5) the licensee and/or his or her designated rigging foreman must have full authority to examine rigging hardware, to approve rigging setups, to mandate changes and to stop the job;
- (6) the licensee is responsible for all aspects of rigging safety on the job; and
- (7) the licensee shall confirm that members of the specialty crew are insured to the minimum requirements specified in section 28-401.9 of the Administrative Code and are covered by worker's compensation under the specialty crew's employer.

§ 10. Paragraphs (2) and (3) of subdivision (h) of section 104-20 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York are amended to read as follows:

- (2) An individual designated as a rigging foreman by a licensed special rigger shall, in addition to the qualifications set forth in the first paragraph of this subdivision, have the following additional qualifications:
- (i) at least one year's practical experience in the hoisting and rigging business; and
 - (ii) the knowledge of and ability to explain the risks related to such business and any particular job for which the individual is designated, and precautions to be taken in connection therewith.
- (3) An individual designated as a rigging foreman by a licensed master rigger shall, in addition to the qualifications set forth in the first paragraph of this subdivision, have the following additional qualifications:
- (i) at least five years of practical experience in the hoisting and rigging business, or at least two years of practical experience in the hoisting and rigging business and possession of a Level II Rigging certification issued by the National Commission for the Certification of Crane Operators, or possession of both a Level II Rigging certification and a Lift Director certification issued by the National Commission for the Certification of Crane Operators; and
 - (ii) the knowledge of and ability to explain the risks related to [the following, where applicable to the] such business and any particular job for which the individual is designated, and precautions to be taken in connection therewith, including but not limited to:
 - (A) rigging operations and precautions to be taken in connection therewith;
 - (B) safe loads and computation thereof;
 - (C) types and methods of rigging; and
 - (D) pertinent hardware such as ropes, cables, blocks, poles, derricks, sheerlegs and other tools used in connection with rigging operations

§ 11. Subdivision (b) of section 3316-01 of Chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (b) Definitions. For the purposes of this section, terms defined in Chapter [33] 2 of the New York City Building Code and section 3319-01 of these rules have the same meaning here.

§ 12. Subdivision (d) of section 3316-01 of Chapter 3300 of Title 1 of the Rules of the City of New York is amended by adding a new paragraph (8) to read as follows:

- (8) Attachment points. Only an attachment point, consisting of a hook or other secure connection not allowing any undesirable movement, and provided or authorized by

the manufacturer of the hoisting machine or hoisting equipment, may be used to support a suspended load. No load shall be slung over, wrapped around, tied to, or otherwise draped from a boom, fork, cradle, lifting arm, bucket, platform, basket, or similar accouterment.

§ 13. Subdivision (j) of section 3316-01 of Chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (j) Referenced standards. The standards referenced in this section are considered part of the requirements of this section to the prescribed extent of each such reference. Where differences occur between provisions of this section and referenced standards, the provisions of this section apply.

Standard	Name	Year
American Society of Mechanical Engineers (ASME)		
ASME B30.9	Slings	[2014] <u>2021</u>
ASME B30.10	Hooks	[2014] <u>2019</u>
ASME B30.20	Below-the-hook lifting devices	[2013] <u>2021</u>
ASME B30.26	Rigging hardware	2015

NOTICE OF ADOPTION OF RULE

NOTICE IS HEREBY GIVEN, pursuant to the authority vested in the Commissioner of the Department of Buildings by Section 643 of the New York City Charter and in accordance with Section 1043 of the Charter, that the Department of Buildings hereby adopts the amendments to sections 104-09 and 104-23 of Subchapter D of Chapter 1 and sections 3316-01 and 3319-01 of Chapter 3300 of Title 1 of the Official Compilation of the Rules of the City of New York, regarding technical cleanup amendments to rules governing the licensing of hoisting machine operators and the rules governing cranes and derricks, adding language on peer review of cranes and amending the rule regarding rigging operations.

This rule was published in the City Record on March 2, 2020 and a virtual public hearing was held on June 4, 2020.

Dated: June 16, 2020
New York, New York



Melanie E. La Rocca
Commissioner

Statement of Basis and Purpose of Rule

The amendments:

- Make technical cleanups to rules governing the licensing of hoisting machine operators, as follows:
 - Sections 1 and 4 of the amendments correct a logical inconsistency in sections 104-09 and 104-23 of chapter 100 of Title 1 of the Rules of the City of New York. The amendments prevent a misinterpretation that would prohibit some applying credits obtained on larger machinery towards obtaining more limited licenses.
 - Article 405 of Title 28 of the New York City Administrative Code does not establish pre-requisite licensing in order to obtain a Class A or a Class C Hoisting Machine Operator license.
 - Only people applying for a Class B Hoisting Machine Operator license must first be licensed as a Class A Hoisting Machine Operator.
 - Individuals who originally intended to get a Class A license but ultimately choose to apply for a Class C license have previously been allowed to credit experience obtained on larger Class A machinery in applying for the more limited Class C license.
 - Similarly, individuals who originally intended to obtain a Class C license but ultimately choose to train on larger Class A machinery and apply for a Class A license have not been required to first obtain a Class C license.
 - Sections 2 and 3 of the amendments remove a distinction between a certification for a tower crane and a self-erecting tower crane. This amendment mirrors current national crane certifications, which do not distinguish between tower cranes and self-erecting tower cranes.
- Include additional rigging best practices (Sections 5 and 6).
- Make technical cleanups to rules governing cranes and derricks, as follows:
 - Section 8 of the amendments require additional engineering information to be submitted to the department for tower crane prototype review; these values were inadvertently left out of the current rules.
 - Section 9 corrects terminology related to a “phase” or “jump.”
 - Section 10 clarifies that a licensed master or tower crane rigger can witness a tower crane load test.
 - Section 12 clarifies that cranes or derricks that are used under the supervision of a master rigger must maintain the same jobsite logs as a crane that requires a certificate of on-site inspection.
 - Section 13 clarifies the title and scope of a particular section of the rule.

- Codify requirements contained in Buildings Bulletin 2019-005 regarding peer review for cranes and derricks in Sections 7 and 11. The department requires certain cranes or derricks with complex or out of the ordinary loading, load paths, configurations, operations, or site conditions, or whose setup requires coordination among city agencies to be subject to a peer review. During a peer review, an independent New York State professional engineer reviews the application submitted by the crane or derrick notice engineer and provides an additional verification that the crane or derrick design indicated on the submitted crane or derrick notice application is in general conformance with New York City Codes, rules, and regulations for cranes and derricks. This rule provides uniform requirements for crane and derrick peer reviewers and crane and derrick peer reviews.

The Department of Buildings' authority for these rules is found in sections 643 and 1043 of the New York City Charter, section 28-104.7.11 of Chapter 1 and Article 405 of Chapter 4 of the City Administrative Code and sections BC 3316 and BC 3319 of the New York City Building Code.

New material is underlined.

[Deleted material is in brackets.]

Section 1. Subparagraph (ii) of paragraph (4) of subdivision (a) of section 104-09 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (ii) Class C license applicants. An applicant for a Class C Hoisting Machine Operator license must provide proof demonstrating that the two (2) years of experience required by Section 28-405.3 of the New York city administrative code was acquired operating hoisting machines under the supervision of a Hoisting Machine Operator licensed by the Department or by another jurisdiction within the United States that regulates crane operators. The experience must have been obtained on hoisting machines of a type, size, and capacity authorized to be operated by the Class C Hoisting Machine Operator license sought; however, nothing in this section prohibits an individual from crediting experience obtained on Class A machinery in accordance with the provisions of section 104-23 of these rules towards obtaining the Class C license. At least one (1) year of the experience must have been undertaken in the City of New York or in an urban area of comparable density within the United States, as determined by the Commissioner, and, for applications for a Class C1 Hoisting Machine Operator license submitted on or after July 1, 2019, have been in the operation of wheel mounted cranes with a manufacturer's rated capacity in excess of 3 tons (2.72 t).

§2. Paragraph (4) of subdivision (d) of section 104-09 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (4) Derricks. No licensed hoisting machine operator may operate a derrick, or supervise the operation of a learner on a derrick, unless the licensee possesses a tower crane certification [(not self-erecting)], and such certification has been listed on the hoisting machine operator's license by the department.

§3. Table 1 of subdivision (d) of section 104-09 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to delete the row entitled "Self-erecting tower crane" and to delete footnotes 3 and 4, renumber footnote 5 as footnote 3, and renumber footnote 6 as footnote 4.

§4. Subdivision (l) of section 104-23 of Subchapter D of Chapter 100 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (l) Type, size, and capacity of hoisting machine operated by learner to be within scope of license sought. The learner may only operate hoisting machinery that is authorized by the scope of the license sought. Only a person who possesses a Class A hoisting machine operator license may operate as a learner on hoisting machinery that is authorized to be operated only by a Class B hoisting machine operator. Nothing in this section prohibits an individual who began training to obtain a Class C hoisting machine operator license from pursuing a Class A hoisting machine operator license instead and from operating Class A machinery as a trainee in accordance with the provisions of this section.

§5. Subdivision (d) of section 3316-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to add a new paragraph (6) to read as follows:

- (6) Trimming and balancing loads.** Loads must be securely slung and balanced before they are set in motion. Loads must be trimmed to prevent the dislodgment of any part during raising, lowering, swinging, or transit.

§6. Subdivision (d) of section 3316-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to add a new paragraph (7) to read as follows:

- (7) Load suspended beneath another load ("Christmas treeing") prohibited.** No load may be suspended directly beneath an existing load.

§7. Subdivision (b) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended by adding new definitions, in alphabetical order, as follows:

- INDEPENDENT (peer reviewer).** A person who does not engage in any activities that may conflict with their objective judgement or integrity, including but not limited to having a financial and/or other interest in the design, construction, installation, manufacturer, or maintenance of the crane or derrick they are reviewing.

QUALIFIED (peer reviewer). A New York State professional engineer who has the education, training, and experience required for the design of structures of a similar complexity and size as the crane or derrick notice application to be peer reviewed and to perform a complete review of the means, methods, and design proposed by the crane or derrick notice engineer.

§8. Clause (C) of subparagraph (iv) of paragraph (5) of subdivision (d) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

(C) Contain the following information from the manufacturer for the given in-service, out-of-service, and, where applicable, full, unreduced, design wind speed at the center of the tower:

1. The maximum moment;
2. The slewing moment; and
3. Corresponding vertical loads at the foundation.]

1. Wind load base shear.
2. Wind load overturning moment at the base.
3. Vertical loads at the base.
4. Overturning moment at the base center due to vertical loads.
5. Maximum tower and boom displacements due to wind.
6. The slewing moment.

§9. Subparagraph (ii) of paragraph (7) of subdivision (g) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

(ii) **Continued validity of the certificate of on-site inspection for a phase or jump.** Where a crane or derrick project includes multiple phases or jumps, the continued validity of the certificate of on-site inspection is contingent upon the crane or derrick passing the inspection and tests required by subparagraphs (i) and (ii) of paragraph (8) below for each phase or jump. Upon successful passage of such inspections and tests, and submittal of the inspection report in accordance with subparagraph (iv) of paragraph (8) below, the certificate of on-site inspection is deemed to cover such phase or jump.

Exception: A phase does not include the relocation of a mobile crane to another location at the site, provided such relocation is indicated on the approved crane or derrick notice plans, and provided such relocation does not require the crane to be assembled or disassembled.

§10. Item number 5 of clause (D) of subparagraph (i) of paragraph (8) of subdivision (g) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

5. [For] A licensed master or tower crane rigger, or, for a derrick, a licensed master rigger[,] or a master rigging foreman.

§11. Subdivision (g) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended by adding a new paragraph (13) to read as follows:

(13) Peer review. Peer reviews for crane or derrick notice applications must be in accordance with the requirements of subparagraphs (i) through (xiii) below.

(i) Peer review required. A crane or derrick notice application is subject to a peer review when the crane or derrick notice application proposes any one of the following:

(A) The use of a mobile crane with a boom, including jibs and any other extensions to the boom, equal to or greater than 300 feet (91.44 m) in length.

(B) The use of a mobile crane in a configuration where the manufacturer requires, at a wind speed of 20 mph (32.19 kph) or less (sustained or gust):

1. The boom or boom/jib combination to be laid down;

2. The boom or boom/jib combination to be placed in a jackknife position; or

3. Other special protective measures to be implemented.

(C) The placement of a mobile crane with a maximum manufacturer rated capacity in excess of 10 tons (9.07 metric tons) on any elevation of a building above grade.

In addition, where other out of the ordinary or complex loading, load paths, configurations, operations, or site conditions exist, or where the crane application requires coordination among city agencies, the commissioner may require peer review.

(ii) Peer reviewer. The peer review must be performed by a qualified and independent New York State professional engineer who has been retained by or on behalf of the equipment user.

(A) Peer reviewer to be acceptable to crane or derrick notice engineer. The peer reviewer's qualifications must be acceptable to the crane or derrick notice engineer.

(B) Department reserves right to reject peer reviewer. The department reserves the right to reject a peer reviewer on the grounds of lack of qualification or independence.

- (iii) Responsibility of crane or derrick notice engineer.** The crane or derrick notice engineer retains sole responsibility for the crane or derrick design indicated on the submitted crane or derrick notice application. The activities and reports of the peer reviewer do not relieve the crane or derrick notice engineer of any responsibility for the crane or derrick design indicated on the submitted crane or derrick application.
- (iv) Standard of care for of peer reviewer.** The standard of care to which the peer reviewer must be held in the performance of the peer review and report must be equal to the level of skill and care required to prepare and submit the crane or derrick notice application.
- (v) Scope of the peer review.** The peer reviewer must perform an independent review and analysis of the crane or derrick design indicated on the submitted crane or derrick notice application to confirm the design is in general conformance with New York City Codes, rules, and regulations for cranes and derricks. The review and analysis to determine general conformance shall include but not be limited to the following:
- (A)** Confirm that drawings are complete, existing conditions and base building construction loading have been accurately represented on the drawings, and that any structures including, but not limited to, vaults, adjacent buildings, overhead wires, transit structures, and utilities are accurately represented on the drawings.
 - (B)** Confirm that approved load charts have been included and maximum picks represented correctly.
 - (C)** Where applicable, review the project's geotechnical report design recommendations and inspection reports to determine that appropriate design criteria for dunnage or foundations has been utilized. If no design criteria have been specified on the crane or derrick notice application design drawings, the peer reviewer must state any assumptions or criteria utilized in the analysis of the crane or derrick notice application design.
 - (D)** Confirm the assembly/disassembly plan is complete, specific to the configurations shown in the crane or derrick notice application, and able to be fully implemented based upon site conditions.
 - (E)** Confirm the wind action plan is complete, specific to the configurations shown in the crane or derrick notice application, and able to be fully implemented based upon site conditions.
 - (F)** Where applicable, confirm that complete pre-operational test procedures, including load test procedures, are included.

- (G) Confirm that the crane or derrick has a complete load path into the base building structure or ground.
 - (H) Perform independent calculations for all structural members, connections and systems included in the load path determined in item vii above and verify the foundation and structural elements' ability to support the crane or derrick loads.
 - (I) Other items required by the commissioner.
- (vi) Design criteria and assumptions not shown.** If the design criteria and design assumptions are not shown on the crane or derrick notice application drawings or in the computations, the crane or derrick notice engineer must provide a statement of these criteria and assumptions to the peer reviewer. In addition, the crane or derrick notice engineer must provide other information and/or calculations if requested by the peer reviewer.
- (vii) Peer review report.** The peer reviewer must submit a report to the department stating his or her opinion regarding the design of the crane or derrick proposed in the crane or derrick notice application and detailing whether or not the crane or derrick design indicated on the submitted crane or derrick notice application is in general conformance with New York City Codes, rules, and regulations for cranes and derricks. The determination of general conformance shall be based upon the review and analysis performed in accordance with subparagraph (v) of this paragraph.
- (A) Report contents.** The peer review report must, at a minimum, contain the following information:
1. Confirmation that the crane or derrick notice application:
 - A. Complies with each of the items listed in subparagraph (v) of this paragraph.
 - B. All design loads and their combinations are adequate and compliant with New York City codes, rules, and regulations for cranes and derricks and specific project conditions.
 - C. The crane and its supporting elements can safely sustain the design loads.
 2. In the introduction to the peer review report, the peer reviewer must list his or her qualifications and include a statement that he or she is independent from the crane or derrick notice engineer.
 3. All calculations, specific conclusions and results of verification calculations performed by the peer reviewer.

4. A listing of all drawings and reports used in verification (including revision numbers and dates). Where the peer reviewer relied upon reports or data prepared by others, including but not limited reports by specialty consultants (e.g. geotechnical reports), or reports prepared by the crane or derrick manufacturer, the reliance must be disclosed in the peer review report. Such reports or data must be maintained by the peer reviewer for a minimum of six years after the date of project completion, and must be provided to the department upon request.

(B) Conclusions. The peer review report must provide a clear conclusion either:

1. Accepting that the crane or derrick design indicated on the submitted crane or derrick notice application is in general conformance with New York City Codes, rules, and regulations for cranes and derricks; or
2. Rejecting the design.

(C) Positive statements to be unequivocal. Positive evaluations with conclusions that contain exceptions will not be accepted by the department.

(D) Basis of report. The peer review report must be based on and reference only the set of documents submitted to the department with the crane or derrick notice application; all drawings and the latest revision dates must be clearly enumerated in the peer review report.

(E) Changes to be enumerated. Peer review reports must enumerate the changes, if any, made by the crane or derrick notice engineer as a result of discussions following an initial structural peer review evaluation.

(F) Cover statement. The peer review report must include a cover letter provided by the department and completed by the peer reviewer.

(G) Signed and sealed. The peer review report and cover statement must be signed and sealed by the peer reviewer.

(vii) Copy to be provided to equipment user. The peer reviewer must provide a copy of submitted peer review reports and cover statements to the equipment user.

(ix) Phased submission. If the crane or derrick notice application is to be submitted in phases, the peer review and report must be phased. The crane or derrick notice engineer must provide the peer reviewer with

sufficient information to make a peer review of the phased submission. The phased peer review report submission must cover the documents submitted for that phase, and must be without any exclusion that would make the review incomplete.

- (x) Log of discussions.** The peer reviewer must keep a log of any discussions with the crane or derrick notice engineer. The log must be made available to the commissioner upon request.
- (xi) Modifications to the design.** Amendments to the crane or derrick notice application that include changes that substantially modify the basis of the peer review evaluation will not be approved by the department until an amended peer review report and cover statement is submitted to the department by the peer reviewer. The report must provide a statement of acceptance that the design indicated in the amended crane or derrick notice application is in general conformance with New York City codes, rules, and regulations for cranes and derricks. It is the responsibility of the crane or derrick notice engineer to clearly identify on the plans the changes that are substantial and to notify the peer reviewer of any such changes.
- (xii) Disputes.** When a dispute arises between the crane or derrick notice engineer and the peer reviewer regarding compliance with New York City Codes, rules, or regulations for cranes and derricks, and which cannot be resolved by the parties, the dispute must be reported to the department in the form of a letter from the crane or derrick notice engineer.
- (xiii) Changes in designated peer reviewer.** The peer reviewer cannot be changed without the express consent of the department. The current peer reviewer must submit a written request for withdrawal to the department detailing the reason for the withdrawal request and a report of the peer review findings to date.

§12. Subdivision (h) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

(h) Crane or derrick log. For a crane or derrick that requires a certificate of on-site inspection, or that is used under the direct and continuing supervision of a licensed master rigger, the equipment user must maintain, for the duration of the job, a crane or derrick log. The log may be maintained in an electronic format acceptable to the commissioner. The log must, at a minimum, contain the following information:

§13. Clause (A) of subparagraph (i) of paragraph (1) of subdivision (k) of section 3319-01 of chapter 3300 of Title 1 of the Rules of the City of New York is amended to read as follows:

- (A) [Mobile cranes, other than an articulating boom crane, and dedicated pile drivers.] Mobile cranes and dedicated pile**

drivers, other than articulating boom cranes. [For a mobile crane, other than an articulating boom crane, and for dedicated pile drivers] For mobile cranes and dedicated pile drivers, other than articulating boom cranes:

NOTICE OF ADOPTION OF RULE

NOTICE IS HEREBY GIVEN, pursuant to the authority vested in the Commissioner of the Department of Buildings by Section 643 of the New York City Charter and in accordance with Section 1043 of the Charter, that the Department of Buildings hereby adopts section 3316-01 of Title 1 of the Official Compilation of the Rules of the City of New York, regarding rigging equipment and operations.

This rule was first published on August 3, 2018 and a public hearing thereon was held on September 6, 2018.

Dated: 10.2.18
New York, New York



Rick D. Chandler, P.E.
Commissioner

Statement of Basis and Purpose of Rule

The Department of Buildings (DOB) is adopting this rule to establish regulations for rigging equipment and rigging operations. Rigging consists of the system of ropes, slings, hooks, and other hardware used to secure loads while they are being lifted or lowered by a crane or other hoisting machine.

The rule adopts national model standards published by the American Society of Mechanical Engineers (ASME) for rigging hardware, hooks, below-the-hook lifting devices, and slings. Additional New York City specific provisions are also adopted. Provisions for inspections, record keeping, and equipment identification are added to create a framework to verify compliance with the ASME standards. Restrictions on repairs, alterations, and modifications are added to ensure these activities are performed in accordance with manufacturer requirements. Other specific precautions for rigging operations and certain types of rigging equipment are adopted to prohibit practices that have led to past rigging failures in New York City.

Adoption of ASME rigging standards, with New York City modifications, was recommended by the Crane Safety Technical Working Group (“TWG”), appointed by Mayor Bill de Blasio and Buildings Commissioner Rick Chandler following the February 2016 crane collapse in Tribeca (TWG recommendation #8).

The Department of Buildings’ authority for these rules is found in sections 643 and 1043 of the New York City Charter and sections 3316.9 and 3319.9 of the New York City Building Code.

New material is underlined.

[Deleted material is in brackets.]

“Shall” and “must” denote mandatory requirements and may be used interchangeably in the rules of this department, unless otherwise specified or unless the context clearly indicates otherwise.

Chapter 3300 of Title 1 of the Rules of the City of New York is amended by adding a new Section 3316-01, to read as follows:

§3316-01 Rigging operations and rigging equipment

(a) Applicability. This section applies to rigging operations performed in connection with the hoisting or lowering of articles on the outside of a building and all rigging equipment utilized in connection with such operations.

(b) Definitions. For the purposes of this section, terms defined in Chapter 33 of the New York City Building Code and section 3319-01 of these rules have the same meaning here.

(c) Manufacturer specifications, design, and capacity restrictions. Rigging operations must be performed, and rigging equipment utilized, in accordance with specifications and rated capacities established by the manufacturer of the rigging

equipment and the manufacturer of the object to be hoisted or lowered. In addition, where plans or design documents are provided, the rigging operations must be performed in accordance with such plans or design documents.

Exceptions: Deviations from the manufacturer specifications and rated capacities are allowed provided they are in accordance with design drawings prepared by a registered design professional who has demonstrated knowledge and experience with rigging. Such design drawings must clearly indicate the deviations from the manufacturer specifications and rated capacities.

(d) Precautions. The following precautions must be observed during rigging operations.

(1) Tag lines. A tag or restraint line must be used where a load could be subject to rotation that would pose a hazard.

(2) Releasing the load. The rigging supervisor required by Section 3316.9.1 of the New York City building code is required to ensure that no load is released from the hoisting line or otherwise deposited until either:

(i) The load is securely attached in place to the building or structure; or

(ii) The load has been placed on a surface or structure capable of supporting the load.

(3) Shock loading. Precautions must be taken to avoid shock loading.

(4) Makeshift links or fasteners. Makeshift links or fasteners formed from bolts or rods, or other such attachments are prohibited.

(5) Job built equipment. Job built rigging equipment must be designed by a registered design professional who has demonstrated knowledge and experience with rigging. Signed and sealed drawings for the job built rigging equipment must be kept at the site at all times.

(e) Slings. Slings must be utilized in accordance with the requirements of this subdivision and ASME B30.9. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.

(1) Repairs, alterations, and modifications. Slings may only be repaired, altered, or modified by the manufacturer of the sling, or an entity authorized by the manufacturer.

Exception: Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the sling.

(2) Inspections. The frequent inspection required by ASME B30.9 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. Where synthetic slings are utilized, the softening mechanisms

must also be inspected as part of the frequent inspection. The periodic inspection and other inspections required by ASME B30.9 must be performed by a competent person designated by the owner of the sling at the intervals prescribed by ASME B30.9.

(i) **Additional inspection for synthetic slings.** Synthetic materials can be degraded by exposure to sunlight or ultraviolet light. Manufacturer recommendations for the inspection of synthetic slings to determine the damage from sunlight or ultraviolet light must be followed.

(3) **Records.** Where ASME B30.9 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the sling.

(4) **Identification.** Tags or similar identification on the sling must be legible.

(5) **Discarded rope.** Discarded rope cannot be used for slings.

(6) **Weakest component.** Hooks, rings, oblong links, pear shaped links, welded or mechanical coupling links, or other attachments must have a rated capacity at least equal to that of the sling with which they are used.

(7) **Protection of synthetic slings from edges, corners, or protrusions.** Synthetic slings cannot be used unless softening mechanisms have been applied to all edges, corners, or protrusions.

(8) **Use of synthetic slings in conjunction with climber or tower crane erection, jumping, climbing, and dismantling.** Synthetic slings can only be used in conjunction with climber or tower crane erection, jumping, climbing, and dismantling if the manufacturer's manual specifically states or recommends the use of synthetic slings.

(f) **Below-the-hook lifting devices.** Below-the-hook lifting devices must be utilized in accordance with the requirements of this subdivision and ASME B30.20. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.

(1) **Repairs, alterations, and modifications.** Below-the-hook lifting devices may only be repaired, altered, or modified by the manufacturer of the device, or an entity authorized by the manufacturer.

Exception: Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the below-the-hook lifting device.

(2) **Inspections.** The frequent inspection required by ASME B30.20 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME

B30.20 must be performed by a competent person designated by the owner of the below-the-hook lifting device at the intervals prescribed by ASME B30.20.

(3) Records. Where ASME B30.20 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the below-the-hook lifting devices.

(4) Identification. Tags or similar identification on the below-the-hook lifting device must be legible.

(g) Rigging hardware. Rigging hardware described in ASME B30.26 must be utilized in accordance with the requirements of this subdivision and ASME B30.26. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.

(1) Repairs, alterations, and modifications. Rigging hardware may only be repaired, altered, or modified by the manufacturer of the rigging hardware, or an entity authorized by the manufacturer.

Exceptions:

1. Missing or illegible identification tags may be replaced by a qualified person in accordance with the requirements of the manufacturer of the rigging hardware.
2. Safety latches may be replaced by a qualified person in accordance with the requirements of the manufacturer of the rigging hardware.

(2) Inspections. The frequent inspection required by ASME B30.26 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME B30.26 must be performed by a competent person designated by the owner of the rigging hardware at the intervals prescribed by ASME B30.26.

(3) Records. Where ASME B30.26 requires a record or documentation of an inspection, calibration, or test, such record or documentation must be signed and dated by the individual who performed the inspection, calibration, or test, and must be maintained by the owner of the rigging hardware.

(4) Identification. Tags or similar identification on the rigging hardware must be legible.

(h) Hooks. Hooks must be utilized in accordance with the requirements of this subdivision and ASME B30.10. Where differences occur between the provisions of this section and referenced standards, the provisions of this section apply.

(1) Repairs, alterations, and modifications. Hooks may only be repaired, altered, or modified by the manufacturer of the hook, or an entity authorized by

the manufacturer. Repairs, alterations, or modifications by welding or reshaping are not acceptable unless prior written approval of the department is obtained.

Exception: Safety latches may be replaced by a qualified person in accordance with the requirements of the manufacturer of the hook.

(2) Inspections. The frequent inspection required by ASME B30.10 must be performed prior to each shift by the individual responsible for supervising the rigging operation in accordance with Section 3316.9 of the New York City Building Code. The periodic inspection and other inspections required by ASME B30.10 must be performed by a competent person designated by the owner of the hook at the intervals prescribed by ASME B30.10.

(3) Records. Where ASME B30.10 requires a record or documentation of an inspection or test, such record or documentation must be signed and dated by the individual who performed the inspection or test, and must be maintained by the owner of the hook.

(4) Identification. Tags or similar identification on the hook must be legible.

(5) Latches and self-locking mechanisms. Hooks without a latch or self-locking mechanism are prohibited.

(i) Documents made available upon request. Where this section or a referenced standard requires inspection records, design drawings, or other documentation to be maintained, such record, design drawing, or documentation must be made available to the commissioner upon request.

(j) Referenced standards. The standards referenced in this section are considered part of the requirements of this section to the prescribed extent of each such reference. Where differences occur between provisions of this section and referenced standards, the provisions of this section apply.

Standard	Name	Year
<u>American Society of Mechanical Engineers (ASME)</u>		
<u>ASME B30.9</u>	<u>Slings</u>	<u>2014</u>
<u>ASME B30.10</u>	<u>Hooks</u>	<u>2014</u>
<u>ASME B30.20</u>	<u>Below-the-hook lifting devices</u>	<u>2013</u>
<u>ASME B30.26</u>	<u>Rigging hardware</u>	<u>2015</u>