Department-Approved Course Requirements: 32-Hour Lift Director

REVISED 10/25

Course Required for: **License Qualification**

Purpose: This course is a prerequisite for registration as a **Lift Director** and licensure as a **Master Rigger**.

Duration: 32 Hours of instructional time, excluding breaks and meals

A single session may not exceed 9 1/2 hours, including breaks and meals. If two or more sessions are delivered the same day to the same student roster, a break must be scheduled between the sessions.

Class Size: 1 – 40 Trainees

NYC Requirement: **Per §28-424.3 of the NYC Administrative Code: Qualifications.**

Applicants for a **lift director registration** shall submit satisfactory proof establishing that the applicant:

- **Has successfully completed a department-approved training course for lift directing that is at least 32 hours in length.** Such lift directing training course shall cover topics relating to mobile cranes, tower cranes, and derricks, including but not limited to roles and responsibilities of site personnel, operational planning, weather warnings, conducting on-site meetings, and log and reporting requirements. **Successful completion of a lift directing training course shall be based upon passage of a written exam, and evidenced by the issuance of a certificate card that is in accordance with the provisions of item 2.5 of section 3316.9.2 of the New York City Building Code;** and
- Meets one of the following:
    - Possesses a valid certification as a lift director. The certification must be acceptable to the commissioner and be issued by a lift director certification program that is accredited by the National Commission for Certifying Agencies (NCCA) or the American National Standards Institute (ANSI);
    - Has at least two (2) years' experience, within the three (3) years prior to application, supervising rigging operations in New York City in accordance with section 3316.9.1 of the New York City Building Code;
    - Has been licensed as a New York City class A, class B, or class C hoisting machine operator for at least three (3) years prior to application; or
    - Such applicant has at least one (1) year of experience as a lift director in New York City in accordance with rules promulgated by the commissioner, prior to the date that registration as a lift director is required pursuant to section 28-424.2.

NYC Requirement (cont'd):

Per §28-404.3.1 of the NYC Administrative Code: Master rigger license qualifications

All applicants for a **master rigger license** shall submit satisfactory proof establishing that the applicant:

- Possesses valid certifications for both rigging supervision and lift direction. The certifications must be acceptable to the commissioner and be issued by a rigging supervision and lift direction certification program that is accredited by the National Commission for Certifying Agencies (NCCA) or the American National Standards Institute (ANSI). The certifications shall cover areas including, but not limited to, the inspection and use of rigging hardware, rigging techniques, signaling, hazards associated with rigging, and calculations and problem solving with respect to rigging.
- **Has, within the one (1) year prior to application, satisfactorily completed a department-approved training course for lift directing that is at least 32 hours in length and in accordance with the requirements of section 28-424.3 of this code;**
- Has, within the one (1) year prior to application, satisfactorily completed a department-approved training course for rigging supervision that is at least 32 hours in length and in accordance with the requirements of section 3316.9.2 of the New York City Building Code; and
- Meets one of the following experience criteria:
    - Has at least five (5) years of experience, within the seven (7) years prior to application, working as a designated master rigging foreman in the city of New York under the direct and continuing supervision of a licensed master rigger;
    - Is a licensed professional engineer and, within the five (5) years prior to application, has developed and provided onsite verification of the critical pick plan in accordance with section 3316.9.1 of the New York City Building Code for at least twenty-five (25) separate New York City certificates of on-site inspections; or
    - Has at least five (5) years of experience, within the seven (7) years prior to application, working as a licensed lift director in the city of New York.

Delivery Requirements:

This course contains:

- **Demonstration(s):** shows how something is done while emphasizing its merits. The demonstration may be delivered either by a person or a video. Video Demonstrations may be delivered by a virtual live classroom; however, on-demand self-study modules are not permissible.
- **Classroom Lecture/Discussion w A/V (Audio-Visual):** oral presentation by an instructor to present information or teach students about a particular subject. The instruction may be delivered by a virtual live classroom; however, on-demand self-study modules are not permissible.
- **Handouts**
- **In-class Written Assessment**

This course may be delivered:

- **In-Person:** gathers participants in the same physical location at the same time. Provides face-to-face interaction with the opportunity for participants to share and discuss what they are learning. Allows Hands-On practical exercises.
- **Virtual Live:** a shared online space where learners and trainers work together simultaneously. Usually, these interactions take place through a videoconferencing platform (ex. Zoom, Microsoft Teams).
- **Hybrid:** a combination of In-Person and Virtual Live sessions. Although this course does not have a Hands-On component, the course provider may deliver the course as a combination of In-Person and Virtual Live sessions.

This course may NOT be delivered:

- **On-Demand:** self-paced and can be taken anytime and anywhere from a device with internet access. No live instructor needed. On-Demand is only acceptable for SST courses.

Delivery Requirements: (cont'd)

Virtual Live training must comply with the following:

- The course must be approved by the Department.
- The provider must confirm the identification of the individual taking such training by adhering to the actively proctored online format requirements
    - The provider must confirm the identification of the individual prior to providing secure access to the online training.
    - The individual must attest that they are the individual who received the online access and will complete the training without assistance. The online program must have secure access and monitor participation during the course of training to ensure that the individual receiving the training is present for the entirety of the training.
- The provider must ensure that participants have their web-cameras activated and are on-camera for the duration of class.

Facility Requirements:

Per 1 RCNY §105-03 (d) (4) Course Facilities:

The course facilities must:

- Have sufficient room to accommodate all expected attendees and the equipment needed to perform Hands-On exercises, where required as part of the course.
- Make provisions for the presentation of training material in all media types (computer, projector, video/ DVD player, etc.) and
- Comply with all applicable laws, rules, and regulations relating to occupancy, zoning, egress, fire detection, fire suppression, light, ventilation, cleanliness, sanitary facilities, emergency notification, and evacuation procedures.

Training may be held at construction sites, provided the above requirements are met.

Instructor Requirements:

Per 1 RCNY §105-03 (e) Course Instructors:

Course providers must require that course instructor(s):

- Demonstrate that they are credentialed or trained in instructional methods and learning processes.
- Successfully demonstrate their ability to solve or resolve problems relating to the subject matter by possession of a recognized degree, certificate, licensure, or professional standing, or by extensive knowledge, training, and experience in the subject matter being taught.
- To the extent that the course instructor(s) holds, or has held, a trade license issued by the Department, it must be in good standing and not be surrendered to, suspended by, or revoked by the Department.
- Comply with all applicable Federal, State, and local laws, rules, and regulations, and the Department's Industry Code of Conduct.
- Be in compliance with the Department's Industry Code of Conduct.

In addition, course providers must require that course instructors:

- Be a Qualified Person with documented lift directing, rigging, or crane operator experience acceptable to the Department, relevant to the Course Content Requirements in this document.
- Be authorized by the Occupational Safety and Health Administration (OSHA) as a trainer(s) for its Construction and Outreach Program.

Course Requirements:

Each section of the Course Content Requirements must be covered using its designated Instructional Delivery Method. The time dedicated to each outline topic should be appropriate for the course content and can vary depending on the trade or job performed by the licensee.

The Instructional Materials used in this course must contain all current applicable NYC Construction Code references, current rules, policies, and bulletins.

All statistics referenced should reflect the latest publicly available statistics. The selection of Case Studies should prioritize incidents in NYC since the prior renewal period and contain relevant and illustrative photos where available.

Refresher or Renewal Courses should focus on the updates since the prior renewal period.

Course Content Requirements	Instruction Delivery Method
1 . Introduction	Classroom Lecture/Discussion w A/V

2. Crane and Hoisting Machine Incidents
• Common causes of incidents with cranes and hoisting machines, especially
  ○ Planning
  ○ Setup
  ○ Stowing
  ○ Communication failures
• Historical crane and hoisting machine incidents in NYC and other major cities
• Case study of at least two failure scenarios with emphasis on how they could have been prevented with better site leadership/communication
	Classroom Lecture/Discussion w A/V

3. CFR 29 OSHA 1926 Construction
• Subpart CC – Cranes and Derricks and any other subparts pertaining to Cranes and Derricks
  ○ 1926.1402 Ground conditions
  ○ 1926.1423 Fall protection
  ○ 1926.1424 Work area control
  ○ 1926.1425 Keeping clear of the load
	Classroom Lecture/Discussion w A/V

4. NYC Code Review • BC 3316 • BC 3319 • Relevant licenses in AC 28-400 • Relevant definitions in BC 2 • 1 RCNY 3316-01 Rigging • 1 RCNY 3319-01 Cranes and Derricks • 1 RCNY 3319-02 Lift Directors	Classroom Lecture/Discussion w A/V
5. NYC Department of Buildings – All applicable: • Policy statements • Bulletins • Commissioner memos • Standard operating procedures • Policy and procedure or regulatory notices • Filing and site documents • Plans • Inspection checklists/logs • Wind and weather advisories	Classroom Lecture/Discussion w A/V
6. NYC Department of Transportation (DOT) – All applicable requirements by NYC DOT to operate a crane/derrick: • Codes • Rules • Regulations • Operating procedures • Policies • Permits/notifications • Forms • Filling and site documents • Plans, etc. required traffic/pedestrian controls for crane/derrick operations (flag persons, signs, barricades, etc.)	Classroom Lecture/Discussion w A/V
7. NYC Transit Authority (NYCTA) – All applicable requirements by the NYC Transit Authority to operate a crane/derrick near TA infrastructure: • Codes • Rules & Regulations • Operating procedures • Policy procedures • Permits/Notifications • Forms • Filling and site documents • Plans, etc.	Demonstration

Course Content Requirements	Instruction Delivery Method
8. Roles and Responsibilities of Site Personnel with an overview of licensing/training/certifications required for each party • Lift Director, Rigger, HMO, Signalpersons, Flag persons, Site Safety Manager/Coordinator, Construction Superintendent, Permit holder, and other relevant parties	Demonstration
9. Authority of Lift Director • Ordering corrective action • Authority to stop operations	Demonstration
10. Crew Resource Management • Overview • Effective communication (speaking and listening) • Leadership/decision-making • At least two case studies (from an industry other than construction) of crew resource management (one failure scenario, one successful employment of CRM)	Classroom Lecture/Discussion w A/V
11. On-site Meetings • Pre-shift meeting requirements • Effective strategies for conducting on-site meetings	Classroom Lecture/Discussion w A/V
12. Required Crane/Derrick/Rigging Inspections By: • HMO, Rigger, PE, DOB, and other personnel	Classroom Lecture/Discussion w A/V
13. Log and Reporting Requirements • Cranes or Derrick Log • Notification to Department	Classroom Lecture/Discussion w A/V
14. Reading Plans • CN plans • Wind action plans • Assembly/disassembly plans	
15. Crane and Derrick Setup and Configuration • Verifying crane/derrick location, setup, and configuration match plans • Verifying site conditions match plans	Classroom Lecture/Discussion w A/V

16. Securing/Stowing the Crane/Derrick
• Procedures to secure/stow crane/derrick:
  ○ At the end of the shift
  ○ In advance of inclement weather
  ○ For an extended period of time
• Verifying crane/derrick secured/stowed to plans
• Documentation (log) requirements for securing/stowing crane/derrick
	Classroom Lecture/Discussion w A/V

17. Basic Meteorology
• Types of storms
  ○ Thunderstorms, squalls, gustnado, downbursts, tropical systems, etc.
• Hazardous weather
• Wind
  ○ Gusts vs sustained
  ○ Beaufort Scale
  ○ Coastal vs inland wind effects
  ○ NYC canyon effect
  ○ Wind changes at elevation
• Understanding forecasts and weather observations
• Understanding NOAA watches/warnings/advisories and other alerts
	Classroom Lecture/Discussion w A/V

18. Wind and Weather Restrictions for Cranes and Derricks • Max. wind speeds for cranes/derricks • Wind action plan requirements	Classroom Lecture/Discussion w A/V
19. Critical Picks • Identifying critical picks • Requirements for critical picks	Classroom Lecture/Discussion w A/V

Course Content Requirements	Instruction Delivery Method
20. Requirements for Hoisting Personnel	Classroom Lecture/Discussion w A/V
21. Requirements for Operating Over Occupied Buildings	Classroom Lecture/Discussion w A/V
22. Powerline Safety • Understanding electrocution risks, voltage, and safe distances • Precautions for working near powerlines	Classroom Lecture/Discussion w A/V
23. Fall Protection	Classroom Lecture/Discussion w A/V
24. Crane and Derrick Safety Protocols and Emergency Procedures	Classroom Lecture/Discussion w A/V
25. Handouts • **NYC Buildings Unsafe Condition (311) Notification Procedure** • **NYC/DOI Buildings Integrity Training Contact Information Sheet**	Provide Copy to Trainee & Discuss
26. Review	Discussion with Q&A
27. Written (Multiple Choice) Assessment	Classroom