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NYC Buildings Department 280 Broadway, New York, NY 10007

Melanie E. La Rocca Commissioner



BUILDINGS BULLETIN 2019-005 Technical

Supersedes:	None
Issuer:	Gus Sirakis, P.E. First Deputy Commissioner
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Purpose:	This document clarifies peer review requirements for crane or derrick notice applications.
Related Code/Zoning Section(s):	AC 28-104.7.11 BC 3319.6 1 RCNY 3319-01
Subject(s):	Crane; derrick; notice application; certificate of on-site inspection; CN; peer review

I. Background

Section 28-104.7.11 of the New York City Administrative Code authorizes the Commissioner to require "additional plans, surveys, computations, analyses, test reports, photographs, special inspection and such other data and information as may be necessary to determine compliance with this code and other applicable laws and rules." Section 3319.6 of the New York City Building Code and 1 RCNY 3319-01 require a certificate of onsite inspection (CN) to be obtained prior to the use of a crane or derrick. If the CN application proposes out of the ordinary or complex loading, load paths, configurations, operations, or site conditions, or requires enhanced coordination among city agencies, the commissioner may require additional data and information to be submitted with the CN application in the form of a peer review. Where the Commissioner requests a peer review for a crane or derrick, the peer review shall be in accordance with the requirements of this bulletin. This bulletin is not intended to limit the Commissioner's authority under Section 28-104.7.11 of the New York City Administrative Code.

II. Peer Review Required

A peer review is required for a CN application that proposes any one of the following out of the ordinary conditions:

- 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 in length
- The use of a mobile crane in a configuration where the manufacturer requires, at a wind speed of 20 mph or less (sustained or gust): i) the boom or boom/jib combination to be laid down; ii) the boom or boom/jib combination to be placed in a jackknife position; or iii) other special protective measures to be implemented
- The placement of a mobile crane with a maximum manufacturer rated capacity in excess of 10 tons on any elevation of a building above grade

The Commissioner may also require a peer review if the CN application proposes other out of the ordinary or complex loading, load paths, configurations, operations, or site conditions, or requires enhanced coordination among city agencies.

III. Plan Examination Required Item

Following plan examination of a CN application, a design requiring peer review shall be designated as such via the issuance of an additional required item by the Cranes and Derricks plan examiner. The peer review shall not begin until the peer review required item has been issued by the plan examiner.

A CN application that has been designated as requiring peer review will not be approved until a report that meets the requirements of Section VIII of this bulletin has been submitted to and accepted by the Department.

IV. Peer Reviewer

The peer review shall be performed by a qualified and independent New York State licensed professional engineer who has been retained by or on behalf of the equipment user.

The peer reviewer's qualifications shall be acceptable to the engineer who filed the CN application (crane or derrick notice engineer). The Department reserves the right to reject a peer reviewer on grounds of lack of qualification or independence as outlined below:

- In order to satisfy the requirements that the peer reviewer be "qualified," the engineer must be a NY State licensed professional engineer who has the education, training, and experience required for the design of structures of a similar complexity and size as the CN 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.
- In order to avoid a conflict of interest, the peer reviewer must be independent, and must 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.

V. Responsibility

The crane or derrick notice engineer retains sole responsibility for the crane or derrick design indicated on the submitted CN application. The activities and reports of the peer reviewer shall not relieve the crane or derrick notice engineer of any responsibility for the crane or derrick design indicated on the submitted CN application.

The peer reviewer's report states his or her opinion regarding the design of the crane or derrick proposed in the CN application. The standard of care to which the peer reviewer shall be held in the performance of the peer review and report shall be equal to the level of skill and care required to prepare and submit the CN application.

VI. Phased Submission

If the CN application is to be submitted in phases, the peer review and report shall be phased. The crane or derrick notice engineer shall provide the peer reviewer with sufficient information to make a peer review of the phased submission.

VII. Extent of the Peer Review

The peer reviewer shall perform an independent review and analysis of the crane or derrick design indicated on the submitted CN application to confirm such design is in general compliance with New York City Codes, rules, and regulations for cranes and derricks. The peer reviewer must, at a minimum, perform the following tasks:

- 1. 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.
- 2. Confirm that approved load charts have been included and maximum picks represented correctly.

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- 3. 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 CN application design drawings, the peer reviewer must state any assumptions or criteria utilized in the analysis or the CN application design.
- 4. Confirm the assembly/disassembly plan is complete, specific to the configurations shown in the CN application, and able to be fully implemented based upon site conditions.
- 5. Confirm the wind action plan is complete, specific to the configurations shown in the CN application, and able to be fully implemented based upon site conditions.
- 6. Where applicable, confirm that complete pre-operational test procedures, including load test procedures, are included.
- 7. Confirm that the crane or derrick has a complete load path into the base building structure or ground.
- 8. Perform independent calculations for all structural members, connections and systems included in the load path determined in item 7 above and verify the foundation and structural elements' ability to support the crane or derrick loads.

The Commissioner may require additional items to be included in the scope of the peer review.

If the design criteria and design assumptions are not shown on the CN drawings or in the computations, the crane or derrick notice engineer shall provide a statement of these criteria and assumptions to the peer reviewer. In addition, the crane or derrick notice engineer shall provide other information and/or calculations if requested by the peer reviewer.

VIII. Peer Review Report

The peer reviewer shall submit a report to the department detailing whether or not the crane or derrick design indicated on the submitted CN application is in general compliance with New York City Codes, rules, and regulations for cranes and derricks. The report shall be signed and sealed by the peer reviewer.

The report shall confirm at a minimum that the CN application:

- 1. Complies with each of the items listed in Section VII, above.
- 2. 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.
- 3. The crane and its supporting elements can safely sustain the design loads.

In the introduction to the submitted report, the peer reviewer shall list his or her qualifications meeting the requirements of Section IV above, including a statement that he or she is independent from the crane or derrick notice engineer.

Submitted reports shall include all calculations, specific conclusions and results of verification calculations performed by the peer reviewer.

The report shall list 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, such shall be disclosed in the peer review report. Such reports or data shall be maintained by the peer reviewer for a minimum of six years after the date of project completion in accordance with New York State Rules of the Board of Regents, General Provisions for Design Professions §29.3, item a.4 (8 NYCRR 29.3 (a)(4)), and shall be provided to the department upon request.

Peer review reports shall be based on and reference only the set of documents submitted to the department with the CN application; all drawings and the latest revision dates shall be clearly enumerated in the peer review report.

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Where a CN application is submitted in phases, the phased peer review report submission shall cover the documents submitted for that phase, and shall be without any exclusion that would make such review incomplete. Peer review reports shall 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. The peer reviewer shall keep a log of any discussions with the crane or derrick notice engineer.

Peer review reports shall provide a clear conclusion either: i) accepting that the crane or derrick design indicated on the submitted CN application is in general compliance with New York City Codes, rules, and regulations for cranes and derricks; *or* ii) rejecting the design. Positive evaluations must also include a completed **Peer Review Statement: Crane or Derrick Notice (CN) Application Design**, shown in Attachment A, as part of the report. Positive evaluations with conclusions that contain exceptions will not be accepted by the Department.

The peer reviewer shall also provide copies of the submitted reports and statements to the equipment user.

IX. Modifications To The Design

Amendments to the CN that include changes that substantially modify the basis of the peer review evaluation shall not be approved unless an updated Attachment A and an amended peer review report providing a statement of acceptance that the design indicated in the amended CN application is in general compliance with New York City codes, rules, and regulations for cranes and derricks is submitted by the peer reviewer to the department. 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.

X. Disputes And Changes In Designated Peer Reviewer

When a dispute arises between the crane or derrick notice engineer and the peer reviewer regarding compliance with this bulletin or New York City Codes, rules, or regulations for cranes and derricks, and which cannot be resolved by these parties, such dispute shall be reported to the Department in the form of a letter from the crane or derrick notice engineer.

The peer reviewer cannot be changed without the express consent of the department. The current peer reviewer must submit both a written letter to the Executive Director of the Cranes & Derricks Unit detailing the reason for the withdrawal request and a report of the peer review findings to date.

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Attachment A

Peer Review Statement: Crane or Derrick Notice (CN) Application Design

The following crane or derrick notice (CN) design has been reviewed in accordance with Buildings Bulletin 2019-005. A peer review and report have been completed for CN ______ phase _____ amendment ____.

Crane or derrick design peer reviewer name:

Crane or derrick design peer reviewer address:

Project address:

Crane or Derrick Notice Application Peer Reviewer Statement

I, ______, am a NYS licensed and registered professional engineer meeting the requirements of BB 2019-005 and possessing the necessary qualifications and independency to perform a peer review of the CN design referenced above. I have reviewed the design for the referenced CN application phase and amendment in accordance with BB 2019-005 and determined that crane or derrick design plans, load path calculations, assembly/disassembly plans, and wind action plans as applicable are complete and generally conform to the requirements of 1 RCNY 3319-01, Title 28 of the Administrative Code, and the NYC Construction Codes. The Peer Review Report is attached.

New York State Regist	ered Design Professional
- (for CN Peer Review only)

Name_____

Signature_____

Date

cc: Equipment User Crane or Derrick Notice Engineer

PE Seal: apply seal, then sign and date over seal.