



REHABILITATION / ALTERATION OF EXISTING ACTIVE MASONRY CHIMNEYS

REF CPDDESIGN2016002 – Compactor Stacks
CPDDESIGN2016006 – Boiler Replacement - Chimney Testing & Liner

This *Standard Notice* addresses the procedure and design criteria to be considered regarding the rehabilitation of *existing active masonry chimneys*.

INTRODUCTION

The design approach to brick masonry rehabilitation of chimneys depends on the chimney's function. *OoD Standard Notice 2016002* addresses abandoned incinerator stacks that have been repurposed to function as Refuse Chutes and now serve as ventilation for the Trash Rooms. This Design Notice addresses chimneys serving as vents for gas and oil fired appliances ("active" chimneys).

The following Code references apply to Masonry Chimneys:

- 1 RCNY §16
- 1 RCNY§101-14
- NYC Administrative Code 28-113.2.3.
- 2014 NYC Building Code Chapters 14, 16, 17, and 21
- 2014 NYC Fuel Code, Chapter 5
- 2014 NYC Mechanical Code, Chapter 8
- NFPA 211

DESIGN APPROACH

The scope of work for the rehabilitation of masonry chimneys shall be defined during the Pre-Design and Preliminary Design Phase. The Designer of Record (DoR) shall **evaluate** the extent of required brick restoration work, and whether chimney repairs will be part of the project. The Local Law 11 Reports and an up-to-date condition assessment based on recent observation of the chimneys (as well as the Physical Needs Assessment (PNA) database on existing boilers) shall serve as a starting point for the scope of work determination for the chimney repair. More comprehensive chimney rehabilitations may trigger code mandated smoke testing and will most likely result in a costly chimney liner installation or replacement. If the condition of the existing boilers is such that they will

need to be replaced in the near future, the inclusion of the extensive chimney rehabilitation in an ongoing *Brick Façade Restoration Project (Modernizations and/or Local Law 11 Requirement Contract)* could prove to be economical. The reason being that construction means and methods for the brick repair work (scaffolding, etc.) will be in place and allow for access to the top of the chimney for inspection, testing and liner installation. In this case, the chimney repair work and the chimney liner design **should not** be included in the Boiler's Project's Scope of Services. This will allow future Boiler Replacement projects to be focused purely on the mechanical scope of work reducing the number of trades involved.

In general, the scope of the masonry repair work on NYCHA "active" chimneys can be categorized as:

1. ***Minor brick repair work:***

- Concrete cap and spark arrestor replacement
- Limited areas of brick repair including mortar joints repointing and /or
- Face brick repair on multi-Whyte chimney walls only
- Partial or full top of chimney replacement at locations above the threshold specified in *MC Section 801.20, FC Section 503.5.4., and NFPA 211-Chapter 7*; in this case, smoke testing will not be required.

2. ***Extensive chimney repair*** (including but not limited to):

- Rebuilding a portion of, or replacing the entire chimney
- Large scale face-brick replacement and/or repointing.

This extensive chimney repair work **must include** smoke testing and will likely consist of hazmat materials abatement as well as a chimney liner installation or replacement.

Typically, *Brick Façade Restoration Projects (Modernizations and/or Local Law 11 Requirement Contract)* should consider minor brick repair scope on active chimneys.

*****End of Standard Notice CPDDESIGN2016007*****