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RADON Acceptable Procedures for NYCHA`s PACT Projects **May 2022**

INTRODUCTION

This memorandum describes the radon evaluation procedures that the New York City Housing Authority (“NYCHA”), New York City Housing Preservation Development (“HPD”), and New York City Housing Development Corporation (“HDC”) will for NYCHA’s Permanent Affordability Commitment Together (“PACT”) properties.

BACKGROUND:

Radon is a colorless, odorless, and inert radioactive substance found in soil, rocks, and groundwater. Radon becomes part of the air and can accumulate in buildings. Concern about indoor radon exposure has increased as the World Health Organization (WHO), the National Academy of Sciences, the US Department of Health and Human Services as well as the U.S. Environmental Protection Agency (EPA) have classified radon as a known human carcinogen¹.

There is no known safe level of radon. The EPA established 4 picocuries per liter of air (pCi/L) as the “action level” for radon, although radon levels below 4 pCi/L can still pose health risks. According to EPA, New York City is in Zone 3, a low-radon potential zone, however EPA acknowledges that testing is the only way to determine indoor radon levels at individual properties.

HUD REGULATIONS:

The potential health risks posed to residents of HUD-assisted housing have drawn congressional interest. 24 CFR (Code of Federal Regulations) Parts 50 and 58 state that "it is HUD policy that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances where a hazard could affect the health and safety of occupants or conflict with HUD’s intended use of the property."

“The HUD does not have a departmentwide policy for dealing with radon contamination.... Instead, HUD relies on each program office to develop radon policies that align with HUD’s environmental regulations.”² NYCHA, in collaboration with the PACT Project Sponsor (“PACT Developer”), is committed to addressing any known radon risks, through the incorporation of radon-resistant features into building rehabilitation scopes when needed

PACT POLICY

¹ EPA. “How do we know radon is a carcinogen?” EPA.gov April 27, 2022

² HUD. “HUD Program Offices’ Policies and Approaches for Radon.” www.hudoig.gov, Office of Inspector General Office of Evaluation, 8 Apr. 2021, <https://www.hudoig.gov/sites/default/files/2021-04/2020-OE-0003.pdf>.

Although HUD's Multifamily Application Processing Guide, dated 03/24/2021, (MAP Guide) calls for extensive testing in certain circumstances it also permits projects to be exempted (MAP Guide Section 9.6.3.2.C) from testing when justified, one such justification may be the low-regional-potential for elevated levels of radon gas in buildings. In such instance, there would be a potential for none of the PACT sites to be tested for radon gas. Therefore, this policy was developed to ensure testing occurs at all PACT sites going forward to assess the presence or absence of radon gas at the properties.

PACT RADON REQUIREMENTS

Although HUD's Multifamily Application Processing Guide (MAP) has exceptions to Radon testing in cases where a justification is presented, the PACT program, and HPD as NYCHA's responsible entity under 24 CFR Part 58, is mandating testing across all properties regardless of a valid justification. The PACT Developer may initiate sampling in full accordance with ANSI/AARST MAMF-2017 rev.1-21 or provide an alternative method as described below.

1. **Proposed Scope of Work Plan for Radon Testing** – The Developer must prepare and submit an evaluation plan for radon testing at every building in the Development prior to the start of the on-site evaluation for NYCHA, HDC and HPD, approval.

2. **Radon Testing Protocols** – At a minimum the following shall be provided
 - a. **Inspection and Sampling Protocol** - A visual inspection of the properties and the development of a sampling program that includes samples representative of the lowest level and lowest occupied level, and a typical apartment condition, taken under “worst-case” conditions or sampling in accordance with ANSI/AARST MAMF-2017 rev.1-21. The worst-case scenario must include radon evaluation at each building of the development in the lowest area-level (I.e., basement) and in a sample of units in the lowest habitable level. Regardless of the number of test locations, all radon testing shall be generally consistent with New York State requirements, protocols set forth in ANSI/AARST MAMF-2017 rev.1-21 and the test kit manufacturer’s recommendations. The following information should be provided in tabulated form or otherwise as part of the sampling protocol.

<i>Worst Possible Case Alternate Radon Evaluation Scenario:</i>				
Development Name:				
Building Address				
Site Location (Borough, Neighborhood)				
Block and Lot				
Total # of residential units				
Total # of stories				
Elevator (Y or N)				
Lowest Area Descriptor (basement, crawl space, slab on grade)				
Condition of Lowest area				
Lowest habitable level				
# of basement samples proposed				
# of units on lowest level				

# of in unit (lowest level) samples proposed				
Additional # of samples (garbage chutes, elevators, stairs)				

- b. **Tenant Notification** –Tenants must be notified consistent with the manner described in ANSI/AARST MAMF-2017 rev.1-21, Section II.B and Section III. 2.2.1. Additionally, in the event of required mitigation then residents must be informed both prior to and after mitigation activities.
 - c. **Mitigation Standards** – Radon mitigation is required for existing construction if testing has revealed that radon levels exceed the threshold for unacceptability. The HUD “threshold for unacceptability” is 4.0 pico Curies per liter (4.0 pCi/L) or higher, which is also the “action level” for the US Environmental Protection Agency. However, the World Health Organization recommends action be taken at 100 Bq/m³ (Becquerel per cubic meter), which is approximately 2.7 pCi/L, which will be the standard above which either reevaluation or mitigation and an operations and maintenance plan shall be required. When radon mitigation is required, the system shall be designed and installed in accordance with the Radon Mitigation Standards for Schools And Large Buildings (“ANSI-AARST RMS-MF 2018”).
 - d. **Certification of completion** – For projects requiring mitigation systems, a certificate of completion from the Design or Radon Professional must be provided to demonstrate radon mitigation was completed as part of the project.
3. **A Radon Report** – A radon report is required in all cases, the radon report shall include the results of any testing performed, the sampling strategy as applicable, the details of mitigation deemed necessary, and the timing of any such mitigation.
4. **Operation and Maintenance Plan** – If a radon mitigation system is installed, an operation and maintenance plan (called an operation, maintenance, and monitoring (“OM+M”) plan under the ANSI-AARST standards) must be administered in accordance with the applicable mitigation standard for any mitigation project. The PACT Developer shall maintain an OM + M plan and provide copies the NYCHA, HPD and HDC.

Alternative Approach to Minimum Testing, ANSI/AARST MAMF-2017 rev.1-21.

PACT Developers may choose to follow the all the requirements in the HUD Map Guide and ANSI/AARST MAMF-2017 rev.1-21, however, they are not permitted to utilize the exception found in MAP Guide Section 9.6.3.2.C.

CONCLUSION

NYCHA shall have a right to observe all radon inspection and mitigation activities and, upon request, review all project documentation. NYCHA shall notify the PACT Developers in writing of any inconsistencies with this protocol and any applicable legal requirements to investigate and mitigate radon and shall specify a period in which the PACT Developers must correct such deficiencies, or provide adequate documentation, to the satisfaction of NYCHA, of compliance with the requirements of this memo and all applicable legal requirements.

NYCHA, HPD, and HDC have collaborated to develop this procedure for radon evaluation in PACT properties to ensure the PACT effort aligns with HUD's policy that all properties proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gasses, and radioactive substances where a hazard could affect the health and safety of occupants or conflict with HUD's intended use of the property.