



**NEW YORK CITY
DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

Notice of Public Hearing and Opportunity to Comment on Proposed Rules

What are we proposing? The New York City Department of Health and Mental Hygiene (“DOHMH” or the “Department”) is proposing to add a new Chapter 40 to Title 24 of the Rules of the City of New York to establish rules for the certification required by a qualified environmental professional regarding the maximum levels of radon and certain organic chemical vapors in a basement or cellar apartment in the process of obtaining a temporary or permanent Certificate of Occupancy pursuant to New York City Local Law (“Local Law”) 126 of 2024 and by sections U202.09 and U 202.10 of Local Law 127 of 2024.

When and where is the hearing? The Department will hold a public hearing on the proposed rules. The public hearing will take place from 10 a.m. to 11 a.m. on July 24th, 2025. The hearing will be conducted by video conference accessible via internet or telephone.

- **Internet.** To participate in the public hearing, please register at this Webex URL: <https://nycdohmh.webex.com/nycdohmh/j.php?MTID=m0f29247225aeda737f9edd7eaad3caf3>
If prompted to provide an event number or password, please enter the following:
Event number: **2330 008 6602**
Password: **v7M3RYDqN5e (87637937** when dialing from a phone or video system)
- **Phone:** For access, dial: (646) 992-2010 or (408) 418-9388, then please enter the following
Access code: **233 000 86602**, Password: **TAcFpqK77d2**

How do I comment on the proposed rules? Anyone can comment on the proposed rules by:

- **Website.** You can submit comments online to the Department through the NYC rules website at <https://rules.cityofnewyork.us>.
- **Email.** You may email comments to resolutioncomments@health.nyc.gov
- **Mail.** You can mail comments to:
New York City Department of Health and Mental Hygiene
Gotham Center, 42-09 28th Street, CN 31
Long Island City, NY 11101-4132
Attn: Svetlana Burdeynik
- **Fax.** You may fax comments to the Department at 347-396-6087.
- **By speaking at the hearing.** Anyone who wants to comment on the proposed rule at the public hearing must sign up to speak. You can sign up before the hearing by calling Svetlana Burdeynik at (347) 396-6078 or (347) 396-6116. You can also sign up at Webex event when you join hearing at 10 a.m. on July 24th, 2025. You can speak for up to three minutes. Please note that the hearing is for accepting oral testimony only and is not held in a “Question and Answer” format.

Is there a deadline to submit written comments? Written comments must be received on or before July 24, 2025, at 5:00 pm.

What if I need assistance to participate in the hearing? You must tell the Office of General Counsel if you need a reasonable accommodation of a disability at the hearing. You must tell us if you need a sign language interpreter. You can tell us by mail at the address given above. You may also tell us by

telephone at 347-396-6078. Advance notice is requested to allow sufficient time to arrange the accommodation. Please tell us by July 10, 2025.

Can I review the comments made on the proposed rules? You can review the comments made online on the proposed rules by going to the website at <https://rules.cityofnewyork.us/>. All written comments and a summary of the oral comments received by the Department will be made available to the public within a reasonable time by the Department's Office of the General Counsel.

What authorizes the Department to make this amendment? Section 389(b) of the New York City Charter provides that "heads of mayoral agencies shall have the power to adopt rules to carry out the powers and duties delegated to the agency head or the agency by or pursuant to federal, state or local law." Charter section 1043(a) similarly provides that each "agency is empowered to adopt rules necessary to carry out the powers and duties delegated to it by or pursuant to federal, state or local law." Local Laws 126 and 127 of 2024 requires DOHMH to promulgate rules setting the maximum levels of radon and other vapors in basement and cellar apartments. This proposed rule was not included in the Department's regulatory agenda, because its need was not known and the time the agenda was published.

Where can I find the DOHMH rules and the Health Code? DOHMH's rules and the Health Code are located in Title 24 of the Rules of the City of New York.

What laws govern the rulemaking process? DOHMH must satisfy the requirements of section 1043 of the Charter when adding or amending rules. This notice is made according to the requirements of section 1043(b) of the Charter. These changes were not included in DOHMH's legislative agenda because they were not contemplated at that time.

Statement of Basis and Purpose of Proposed Rule

This proposed rule addresses standards for radon and organic chemical vapor levels in basement and cellar apartments. The current housing emergency has led people to inhabit thousands of unsafe illegal basement and cellar units throughout the city.¹ Some of the more common concerns with these unauthorized units include the risk of carbon monoxide poisoning, insufficient means of escape in case of fire, and inadequate natural light and ventilation.² Additionally, with climate change increasingly causing extreme weather events, flood risks pose ever greater safety concerns for those living below street level.³

¹ According a 2021 estimate by the Pratt Center for Community Development, over 30,000 illegal basement or cellar apartments were concentrated in just eight Community Districts. Pratt Center for Community Development, *New York's Housing Underground: 13 Years Later* (Oct. 2021), 3, available at https://prattcenter.net/our_work/new_yorks_housing_underground_revisited.

² N.Y.C. Department of Housing Preservation and Development, *Housing Quality/Safety: Basements and Cellars*, available at <https://www.nyc.gov/site/hpd/services-and-information/basement-and-cellar.page>.

³ N.Y.C. Comptroller, *Bringing Basement Apartments Into the Light: Establishing a NYC Basement Board to Provide Basic Rights, Responsibilities, and Protections for Basement Apartment Residents and Owners*, 9 (Aug. 2022), available at <https://comptroller.nyc.gov/reports/bringing-basement-apartments-into-the-light/>.

To address the dangers of illegal basement and cellar residences, two local laws were adopted in 2024. Local Law 126 of 2024 (“LL 126”) sets forth standards for temporary occupancy of illegal basement and cellar apartments prior to the issuance of a certificate of occupancy for such use, as codified in section 28-507.4.5.2 of the Administrative Code. Local Law 127 of 2024 (“LL 127”), provides for the construction of ancillary dwelling units (“ADUs”) in basements and cellars on the same lot as certain one- and two-family dwellings, as codified in sections U202.9 and U202.10 of Appendix U of the NYC Building Code. Among other safety provisions, these laws require certification that the basement or cellar apartment or basement or cellar ADU meets the standards for radon and organic chemical vapor levels in rules adopted by the Department to address the potential health impacts of these substances on occupants. The Department is now proposing rules for these standards.

Existing Illegal Basement and Cellar Apartments

LL 126 authorizes a program to legalize occupancy of existing basement and cellar dwelling units in certain community districts in the Bronx, Brooklyn, Manhattan, and Queens that can be occupied safely. Among the LL 126 program requirements is submission of certification to DOB, no later than one year after the issuance of a ten-year Authorization for Temporary Residence, that the unit has been tested and meets the Department’s standards for radon and soil vapors.⁴ If the owner does not meet all of the benchmarks or a certificate of occupancy is not issued within the 10-year period, the authorization for temporary residence may be revoked and any occupants of the basement or cellar be required to vacate.

New Basement and Cellar Units

LL 127 provides for the creation of new ADUs, including ADUs in basements and cellars. Among the requirements for basement and cellar ADUs is submission of certification to DOB that the radon and vapor levels in such ADUs not exceed the threshold levels for radon and soil vapors in rules adopted by the Department.

Radon and Soil Vapor Threshold Levels Required for Certification

In accordance with LL 126 and LL 127 of 2024, the proposed rules establish the maximum levels of radon and vapors in the indoor air of basement and cellar units, the qualifications of individuals or firms conducting the radon and vapor testing, the type of laboratory qualified to analyze the air samples, and the certification form to be submitted to DOB. A property owner may need to consult with a qualified professional if mitigation is needed to bring the indoor air vapor levels below the thresholds proposed in this rule.

1. Radon

Radon is an odorless and invisible radioactive gas naturally released from rocks, soil, and water. It can get trapped inside homes and buildings and build up in the air. Over time, breathing in high levels of radon can lead to lung cancer. This extremely dangerous substance is the second highest cause of lung cancer deaths nationally after cigarette smoking.⁵

⁴ NYC Administrative Code § 28-507.4.5.2(2) sets the schedule for such testing and certification.

⁵ See, <https://www.cdc.gov/radon/about/index.html>, last accessed 5/23/25.

Pursuant to section U202.9 of the Building Code, the Department, in consultation with DOB, the Fire Department (“FDNY”), and Emergency Management (“NYCEM”), is proposing to adopt the same threshold radon level as was used for Local Law 49 of 2019, the precursor to these current housing initiatives that similarly piloted an approach to legalize and make safe cellar and basement apartments. Section 11 of that law required that radon levels in such apartments must be below two picocuries per liter of air. This is the level at which the federal Environmental Protection Agency recommends homeowners consider mitigating for radon.⁶

The Department is now proposing to adopt this standard for all basement and cellar apartments and ADUs legalized pursuant to LL 126s and LL 127. Testing for radon must be conducted by a certified radon testing professional using a testing device approved by the National Radon Proficiency Program or equivalent program. The samples must be tested by a laboratory certified by the New York State Environmental Laboratory Approval Program (“ELAP”) to analyze air samples for radon, and the results, if below the threshold, must be certified by a qualified radon tester. Such certification must be submitted to DOB as required by section U202.9.

2. Organic Chemical Vapors

A. *Identification of Soil Vapor Intrusion*

Section U202.10 of LL 127 requires the Department, in consultation with DOB, the Mayor’s Office of Environmental Remediation, FDNY, and NYCEM, to adopt standards for vapor levels for basement and cellar apartments. Soil vapor intrusion from volatile organic chemicals (“VOCs”) is the primary health concern. The phrase “soil vapor intrusion” or “SVI” refers to the process by which VOCs move from contaminated soil and groundwater into the indoor air of buildings. SVI occurs when volatile contaminants in the subsurface evaporate and rise through pores in soil and into homes and other buildings through cracks and gaps in the building’s foundation. VOC vapors can also be present when a chemical is being used nearby in common products such as cleaners, room deodorizers, paints, stains, or new furniture, carpets, or floors.

When this VOC vapor is present in buildings, occupants may be exposed to volatile chemicals in indoor air. In certain cases, the vapors may accumulate to levels that may increase the risk of adverse health effects for persons living in or using those buildings. The potential adverse health effects from chemical exposures vary based on several factors, including the length of exposure, the amount of the exposure, the frequency of exposure, the toxicity of the VOC, ventilation, and an individual’s sensitivity.⁷

The health effects of these vapors include eye, nose, and throat irritation; headaches, loss of coordination and nausea; damage to liver, kidney, and central nervous system; and cancer.⁸ Perhaps the

⁶ See, <https://www.epa.gov/radon/what-epas-action-level-radon-and-what-does-it-mean>, last accessed 5/23/25.

⁷ See, <https://dec.ny.gov/regulatory/regulations/tenant-notification-of-indoor-air-contamination-associated-with-soil-vapor-intrusion>, last accessed 2/19/25.

⁸ [Volatile Organic Compounds' Impact on Indoor Air Quality | US EPA](#)

best-known VOC is perchloroethylene, known as PERC, emitted by dry cleaning processes. The Health Code already defines indoor PERC vapor at levels at or above 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as a nuisance and requires its remediation when the Department deems necessary.⁹

The nature and impact of the health effects of VOCs depend on their concentrations and exposure time. Although exposure to low levels of VOCs without adverse effect is not uncommon, living in a unit with elevated concentrations poses a risk of developing adverse health effects. Thus, identifying the indoor air vapor concentration levels where serious potential health concerns arise is the key to the standards the Department is proposing. While there are health-based guidance values for some VOCs, there are no federally enforceable standards set for them in non-industrial settings. The standards proposed are therefore based on New York State Department of Health (“SDOH”) Soil Vapor Intrusion Guidance and Updates (“SDOH guidance”) available online at https://www.health.ny.gov/environmental/indoors/vapor_intrusion/update.htm, which outline the threshold indoor air vapor levels where monitoring or mitigation is required. When indoor air sampling results are above defined thresholds, the guidance includes protocols for next steps, including monitoring and mitigation as needed depending on the vapor concentration beneath the building as described in a series of SDOH matrices for different types of SVIs.

B. Determination of Soil Vapor Threshold Levels

Based on its review of the SDOH guidance, the Department is proposing to adopt indoor air threshold levels for 20 different VOCs. The SDOH guidance provides health-based indoor air values for tetrachloroethene, trichloroethene, and methylene chloride, which values will be used as thresholds for those three compounds. For the other 17 chemicals proposed, the thresholds are the upper limits set by the SDOH guidance where monitoring or mitigation is recommended. All 20 VOCs are commonly identified VOCs that enter buildings via soil vapor and for which SDOH has developed matrices to assess indoor air and soil vapor concentrations. The table below includes the VOCs for which testing is required, the letter identification from the SDOH guidance matrix on which the upper limit was based, and the proposed upper limit to allow for the issuance of a certification for occupancy:

Compound	NYSDOH Matrix	Proposed Limit ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene	B	30
Trichloroethene	A	2
Methylene chloride	B	60
Vinyl chloride	C	0.2
Carbon tetrachloride	A	1
1,1-dichloroethene	A	1
1,1,1-trichloroethane	B	10

⁹ NYC Health Code § 13.17.

Compound	NYSDOH Matrix	Proposed Limit (µg/m ³)
Cis-1,2-dichloroethene	A	1
Benzene	D	10
Toluene	F	50
Ethylbenzene	D	10
o-Xylene	D	10
m,p-Xylene	E	20
Naphthalene	D	10
Cyclohexane	D	10
2,2,4-Trimethylpentane	D	10
1,2,4-Trimethylbenzene	D	10
1,3,5-Trimethylbenzene	D	10
Heptane	E	20
Hexane	E	20

C. Testing Method & Qualified Environmental Professional Tester

Compendium Method TO-15 is the federal Environmental Protection Agency (“EPA”) Selected Analytical Method (SAM) to detect VOCs in indoor air samples for environmental remediation and recovery, and it is the most used analytical method in the United States. The “TO” in TO-15 stands for toxic organics. This method documents sampling and analytical procedures for the measurement of subsets of the 97 VOCs that are included in the 189 hazardous air pollutants (HAPs) listed in Title III of the Clean Air Act Amendments of 1990.¹⁰ Pursuant to this method, ambient air samples are collected using specially prepared and precleaned evacuated stainless-steel canisters. Laboratory analysis of the samples involves use of a pre-concentrator to focus small amounts of VOCs from large volumes of air. A gas chromatograph is then used to separate the individual VOC components and a mass spectrometer is used to identify and quantify each individual component in the sample.

Given the complex and technical nature of TO-15 testing, it should only be conducted by a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases of VOCs. New York State Department of Environmental Conservation (“NYS DEC”) has adopted rules providing that such testing must be conducted by a “qualified environmental professional.” The rule requires that such a person must:

¹⁰ Whitaker, w., et al., EPA, *Method TO-15A: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography–Mass Spectrometry (GC-MS)*, Sept. 2019, available online at: https://www.epa.gov/sites/default/files/2019-12/documents/to-15a_vocs.pdf, last accessed 2/18/25.

(1) hold a current professional engineer's or a professional geologist's license or registration issued by the State or another state, and have the equivalent of three years of full-time relevant experience in site investigation and remediation of the type detailed in this Part; or (2) be a site remediation professional licensed or certified by the Federal government, a state or a recognized accrediting agency, to perform investigation or remediation tasks consistent with department guidance, and have the equivalent of three years of full-time relevant experience.

6 NYCRR § 375.1.2(ak). The Department proposes adoption of the same standard for who may conduct TO-15 VOC testing and provide certification. Testing of VOC samples collected must be conducted by laboratories certified by the New York State Environmental Laboratory Approval Program to analyze air samples for volatile organic compounds.

Certification Format

The Department is proposing that the certification by qualified professionals making submissions to DOB pursuant to Building Code Sections U202.9 and U202.10 be on forms provided by the Department. This requirement will streamline the review and approval process for the public and administrators alike.

The proposed rule is as follows:

“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.

New material is underlined.

Section 1. Title 24 of the Rules of the City of New York is amended by adding a new chapter 40, to read as follows:

Chapter 40: Certification of Radon and Other Vapors Levels in Certain Basement and Cellar Apartments

§ 40-01. Scope and applicability.

This chapter applies to the certification for permissible maximum radon and other vapor levels in basement or cellar apartment units as required by section 28-507.4.5.2 of the Administrative Code and sections U202.9 and U202.10 of Appendix U of the New York City Building Code (Chapter 8 of Title 28 of the Administrative Code).

§ 40-02. Definitions.

Terms used in this chapter have the same meanings as the terms defined in section 28-507.1 of the Administrative Code and in Appendix BC U102 of Appendix U of the New York City Building Code. In addition, the following definitions shall apply:

“Certification” means the certification described in sections U202.9 or U202.10 of Appendix U of the New York City Building Code.

“Department” means the Department of Health and Mental Hygiene.

“Qualified environmental professional” has the same meaning as such term is defined in 6 NYCRR 375-1.2(ak).

“Qualified radon tester” means an individual or firm certified as such by the American Association of Radon Scientists and Technologists, the National Radon Safety Board, the State of New Jersey, or the Commonwealth of Pennsylvania.

§ 40-03. Methods of indoor air testing.

All indoor air samples must be tested and reported by a laboratory certified by the New York State Environmental Laboratory Approval Program to analyze air samples for radon and volatile organic compounds using the appropriate sampling method:

(a) Radon.

Testing of indoor air for radon must be conducted by a qualified radon tester using a testing device approved by the National Radon Proficiency Program, the National Radon Safety Board, or an equivalent program that verifies device compliance with the latest publication of ANSI/AARST (Performance Specification for Instrumentation Systems Designed to Measure Radon Gas in Air).

(b) Volatile Organic Compounds.

Testing of indoor air for the volatile organic compounds listed in section 40-06 must be conducted by a qualified environmental professional using the process described in United States Environmental Protection Agency, Method TO-15A: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially Prepared Canisters and Analyzed by Gas Chromatography–Mass Spectrometry (GC-MS), Sept. 2019.

§ 40-04. Radon level certification.

The radon level in any eligible basement or cellar apartment or ancillary dwelling unit must be less than two picocuries per liter of air based upon laboratory results as certified by a qualified radon tester.

§ 40-05. Volatile organic compound vapor level certification.

The indoor air levels for the following volatile organic compounds must be less than the limit for each such compound set in the table below, as certified by a qualified environmental professional:

<u>Compound</u>	<u>Limit (µg/m³)</u>
<u>Tetrachloroethene</u>	<u>30</u>
<u>Trichloroethene</u>	<u>2</u>
<u>Methylene chloride</u>	<u>60</u>
<u>Vinyl chloride</u>	<u>0.2</u>
<u>Carbon tetrachloride</u>	<u>1</u>
<u>1,1-dichloroethene</u>	<u>1</u>
<u>1,1,1-trichloroethane</u>	<u>10</u>
<u>Cis-1,2-dichloroethene</u>	<u>1</u>
<u>Benzene</u>	<u>10</u>
<u>Toluene</u>	<u>50</u>
<u>Ethylbenzene</u>	<u>10</u>
<u>o-Xylene</u>	<u>10</u>
<u>m,p-Xylene</u>	<u>20</u>
<u>Naphthalene</u>	<u>10</u>
<u>Cyclohexane</u>	<u>10</u>
<u>2,2,4-Trimethylpentane</u>	<u>10</u>
<u>1,2,4-Trimethylbenzene</u>	<u>10</u>
<u>1,3,5-Trimethylbenzene</u>	<u>10</u>
<u>Heptane</u>	<u>20</u>
<u>Hexane</u>	<u>20</u>

§ 40-06. Submission of certification.

The certifications of the qualified radon tester and the qualified environmental professional who conducted the indoor air testing pursuant to this chapter must be submitted on the forms provided by the Department to, and as required by, the Department of Buildings.

**NEW YORK CITY MAYOR'S OFFICE OF OPERATIONS
253 BROADWAY, 10th FLOOR
NEW YORK, NY 10007
212-788-1400**

**CERTIFICATION / ANALYSIS
PURSUANT TO CHARTER SECTION 1043(d)**

**RULE TITLE: Examination of Indoor Air in Basements and Cellar Apartments for Radon
and Certain Organic Chemical Vapors**

REFERENCE NUMBER: DOHMH-160

RULEMAKING AGENCY: Department of Health and Mental Hygiene

I certify that this office has analyzed the proposed rule referenced above as required by Section 1043(d) of the New York City Charter, and that the proposed rule referenced above:

- (i) Is understandable and written in plain language for the discrete regulated community or communities;
- (ii) Minimizes compliance costs for the discrete regulated community or communities consistent with achieving the stated purpose of the rule; and
- (iii) Does not provide a cure period because it does not establish a violation, modification of a violation, or modification of the penalties associated with a violation.

/s/ Francisco X. Navarro
Mayor's Office of Operations

June 10, 2025
Date

**NEW YORK CITY LAW DEPARTMENT
DIVISION OF LEGAL COUNSEL
100 CHURCH STREET
NEW YORK, NY 10007
212-356-4028**

**CERTIFICATION PURSUANT TO
CHARTER §1043(d)**

RULE TITLE: Examination of Indoor Air in Basements and Cellar Apartments for Radon and Certain Organic Chemical Vapors

REFERENCE NUMBER: 2025 RG 032

RULEMAKING AGENCY: Department of Health and Mental Hygiene

I certify that this office has reviewed the above-referenced proposed rule as required by section 1043(d) of the New York City Charter, and that the above-referenced proposed rule:

- (i) is drafted so as to accomplish the purpose of the authorizing provisions of law;
- (ii) is not in conflict with other applicable rules;
- (iii) to the extent practicable and appropriate, is narrowly drawn to achieve its stated purpose; and
- (iv) to the extent practicable and appropriate, contains a statement of basis and purpose that provides a clear explanation of the rule and the requirements imposed by the rule.

/s/ STEVEN GOULDEN
Senior Counsel

Date: June 10, 2025