

DEPARTMENT OF HEALTH AND MENTAL HYGIENE  
BOARD OF HEALTH

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NOTICE OF ADOPTION  
TO AMEND ARTICLE 175 OF THE NEW YORK CITY HEALTH CODE

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In compliance with §1043(b) of the New York City Charter (the “Charter”) and pursuant to the authority granted to the Board of Health by §558 of said Charter, the Notice of Intention was published in the City Record on March 13, 2007. A public hearing was held on April 20, 2007. No one testified and the Department received no written comments. The Board of Health at its June 14, 2007 meeting adopted the following resolution.

**STATUTORY AUTHORITY**

These amendments to the New York City Health Code (“Health Code”) are being adopted pursuant to Sections 556, 558 and 1043 of the New York City Charter (“Charter”) and applicable state and federal law. Section 556 of the Charter grants the New York City Department of Health and Mental Hygiene (“Department”) jurisdiction to regulate matters affecting health in New York City (NYC). Specifically, Section 556 (c)(11) of the Charter authorizes the Department to regulate all aspects of ionizing radiation within the five boroughs of New York City. Sections 558 (b) and (c) of the Charter empower the Board of Health to amend the Health Code and to include in the Health Code all matters to which the Department’s authority extends. Section 1043 of the Charter grants rule-making powers to the Department. The New York State (NYS) Sanitary Code (10 NYCRR §16.1(b)(3)) delegates radiation licensure regulation to those localities that have a population of more than 2,000,000, provided that said requirements are consistent with NYS Sanitary Code requirements. Section 274 of the Federal Atomic Energy Act of 1954 (the Act) (codified at 42 USC §2021) authorizes “Agreement States” to regulate byproduct material, source material and special nuclear material in quantities not sufficient to form a critical mass. New York State is an “Agreement State” within the meaning of the Act, and the New York City Department of Health and Mental Hygiene is a component of and a party to the relevant Agreement.

**STATEMENT OF BASIS AND PURPOSE**

The Office of Radiological Health (ORH) licenses and inspects radioactive materials facilities for compliance with Article 175 of the New York City Health Code for the protection of the health and safety of patients, radiation program employees and the general public. There are about 375 licensed sites in New York City possessing radioactive material for medical, academic and research purposes. ORH inspects these facilities at frequencies of once every one, two or three years depending on the type of usage.

New York State is an “Agreement State”, which means that the State and the United States Nuclear Regulatory Commission (NRC) have entered into an agreement under the Atomic Energy Act, which delegates authority to NYS to regulate radioactive material at non-reactor sites within its jurisdiction. The New York State Agreement is comprised of three regulatory programs - New York State Department of Health (DOH), New York State Department of Environmental Conservation (DEC), and the New York City Department of Health and Mental Hygiene (DOHMH). Formerly, the radiation protection division of the New York State

Department of Labor (DOL) was a fourth agency, which regulated commercial and industrial sources of radiation. This division of DOL has recently been subsumed under DOH. Under this Agreement State structure, the New York City Department of Health and Mental Hygiene, through ORH, regulates radioactive material for medical, academic and research purposes within the five boroughs of New York City.

Each Agreement State program (there are currently 33) is required to maintain compatibility with NRC regulatory program requirements. To ensure compatibility with applicable federal regulations on radioactive materials, the NYC Health Code must be amended.

### **CHANGES TO HEALTH CODE**

In May 2006, the NRC reviewed portions of Article 175 submitted to it by ORH. This NRC review resulted in 8 (eight) comments, which were transmitted to DOHMH by letter dated June 12, 2006. Based on these NRC comments, the following eight amendments to Article 175 are being adopted to address NRC's compatibility concerns:

- **Radiation Protection Requirements: Amended Definitions and Criteria**
    1. Amend the §175.02(a) definition "Member of the Public".
    2. Amend the §175.02(a) definition "Occupational Dose".
  
  - **Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within An Agreement State**
    3. Amend §175.101(m) to indicate that non-NRC licensees are to provide 3 days advance notice to NRC of activity in areas under exclusive federal jurisdiction within NYC.
  
  - **Radiological Criteria for License Termination**
    4. Amend §175.02(a) definition "Background Radiation".
    5. Amend §175.02(a) by adding the definition "Critical Group".
    6. Amend §175.02(a) by adding the definition "Decommission".
    7. Amend §175.02(a) by adding the definition "Distinguishable from background".
    8. Amend §175.02(a) by adding the definition "Residual radioactivity".
1. Amend the §175.02(a) definition of "Member of the Public" to include the reference to 'occupational dose' as contained in the NRC's definition of 10 CFR §20.1003.

The definition of "Member of the Public", located at §175.02(a)(132), is being changed by inserting the following underlined text and deleting the [bracketed text] as indicated below in italics:

*"Member of the public" means any individual, except [an] when that individual [who is performing assigned duties for the licensee or registrant involving exposure to sources of radiation] is receiving an occupational dose.*

This amendment is to satisfy the following NRC Comment: "NYCDH needs to include the phrase "occupational dose" to 175.02(132) [sic] to meet the Compatibility Category A

designation assigned to this definition in Section 10 CFR 20.1003.” The amended definition is now identical to the NRC definition of "Member of the Public".

2. Amend the §175.02(a) definition of "Occupational Dose" to differentiate between licensed and unlicensed sources of radiation consistent with NRC’s definition.

The definition of "Occupational Dose", located at §175.02(a)(141), is being changed by inserting the following underlined text and deleting the [bracketed text] as indicated below in italics:

*“Occupational dose” means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to [sources of] radiation[,] or to radioactive material from licensed and unlicensed sources of radiation, whether in the possession of the licensee, registrant, or other person. Occupational dose does not include doses received[:] from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released under §175.103(c)(9) [as a patient from medical practices], from voluntary participation in medical research programs, or as a member of the public.*

This amendment is to satisfy the following NRC Comment: “NYCDH needs to revise the definition of “occupational dose” to include both licensed and unlicensed sources of radiation add the phrase to 175.02(141) [sic] to meet the Compatibility Category A designation assigned to this definition in Section 10 CFR 20.1003.” The amended definition is now essentially identical to the NRC definition of "Occupational Dose".

3. Amendment of §175.101(m) concerns reciprocity approval by NRC. NRC is requiring three-day advance notice to it for approval prior to any initial activity by any Agreement State licensee/non-NRC licensee in areas under exclusive federal jurisdiction within NYC.

§175.101(m)(2) is being changed by inserting the underlined text as indicated below in italics:

*The holder of a license issued by the New York State Department of Labor, the New York State Department of Health, the New York City Department of Health and Mental Hygiene or an Agreement State must obtain reciprocity approval from the U.S. Nuclear Regulatory Commission to conduct licensed activity in areas of exclusive federal jurisdiction within New York City. At least three days before engaging in each activity for the first time in a calendar year, the licensee will provide the U.S. Nuclear Regulatory Commission with advanced notice of its proposed activity in areas under exclusive federal jurisdiction within New York City, as indicated in 10 CFR § 150.20, or its successor regulation.*

This amendment is to satisfy the following NRC Comment: “NYCDH needs to include a reference to advance notification in 175.101(m) to meet Compatibility Category C designation assigned to Section 10 CFR 150.20.” The amended provision now captures the essential objectives of the NRC requirement.

4. Amend the §175.02(a) definition of "Background radiation" to include the phrase “or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under control of the licensee” compared to NRC’s definition.

The definition of "Background radiation", located at §175.02(a)(20), is being changed by inserting the following underlined text and deleting the [bracketed text] as indicated below in italics:

*“Background radiation” means radiation from cosmic sources; naturally occurring radioactive material[s], including radon[, ] (except as a decay product of source or special nuclear material[, ]); and [including] global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. “Background radiation” does not include radiation from any regulated sources of radiation.*

This amendment is to satisfy the NRC Comment: “NYCDH needs to add the phrase “or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under control of the licensee” to 175.01(20) (sic) to meet the Compatibility Category A designation assigned to this definition in Section 10 CFR 20.1003.” The amended definition is now essentially identical to the NRC definition of "Background radiation".

5. Amend §175.02(a) by adding the definition “Critical Group” from 10 CFR §20.1003. The definition “Critical Group” as shown in the underlined text below, is being inserted in §175.02(a) in alphanumeric order, and all subsequent subdivisions are being re-numbered accordingly.

“Critical Group” means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

This amendment is to satisfy the following NRC Comment: “NYCDH omitted a definition for “critical group” compared to NRC’s regulations. NYCDH needs to add the definition to 175.02 to meet the Compatibility Category B designation assigned to this portion of Section 10 CFR 20.1003.” The definition is identical to the NRC definition of "Critical Group".

6. Amend §175.02(a) by adding the definition “Decommission” from 10 CFR §20.1003. The definition “Decommission” as shown in the underlined text below, is being inserted in §175.02(a) in alphanumeric order and all subsequent subdivisions are being re-numbered accordingly.

“Decommission” means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits -

- (i) Release of the property for unrestricted use and termination of the license; or
- (ii) Release of the property under restricted conditions and the termination of the license.

This amendment is to satisfy the following NRC Comment: “NYCDH omitted a definition for “decommission” compared to NRC’s regulations. NYCDH needs to add the definition to 175.02 to meet the Compatibility Category designations assigned to these portions 10 CFR 20.1003, 30.4, 40.4 and 70.4.” The definition is identical to the NRC definition of "Decommission".

7. Amend §175.02(a) by adding the definition “Distinguishable from background” from 10 CFR §20.1003. The definition “Distinguishable from background” as shown in the underlined text below, is being inserted in §175.02(a) in alphanumeric order and all subsequent subdivisions are being re-numbered accordingly.

“Distinguishable from background” means that the detectable concentration of a radionuclide is statistically different from the background concentration of that radionuclide in the vicinity of the site or, in the case of structures, in similar materials using adequate measurement technology, survey, and statistical techniques.

This amendment is to satisfy the following NRC Comment: “NYCDH omitted a definition for “distinguishable from background” compared to NRC’s regulations. NYCDH needs to add the definition to 175.02 to meet the Compatibility Category B designation assigned to this portion of Section 10 CFR 20.1003.” The definition is identical to the NRC definition of "Distinguishable from background".

8. Amend §175.02(a) by adding the definition “Residual radioactivity” from 10 CFR §20.1003. The definition “Residual radioactivity” as shown in the underlined text below, is being inserted in §175.02(a) in alphanumeric order and all subsequent subdivisions are being re-numbered accordingly.

“Residual radioactivity” means radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation. It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site and previous burials at the site, even if those burials were made in accordance with the provisions of 10 CFR Part 20.

This amendment is to satisfy the following NRC Comment: “NYCDH omitted a definition for “residual radioactivity” compared to NRC’s regulations. NYCDH needs to add the definition to 175.02 to meet the Compatibility Category B designation assigned to this portion of Section 10 CFR 20.1003.” The definition is identical to the NRC definition of "Residual radioactivity".

The adopted rules are as follows:

Note - Matter in brackets [ ] is to be deleted.

Matter underlined is new.

**RESOLVED**, that subdivision (a) of Section 175.02 of Article 175 of the New York City Health Code, as set forth in Title 24 of the Rules of the City of New York, as last amended by resolution on September 26, 2006, be and the same hereby is amended, to be printed together with explanatory notes, by adding new paragraphs (54), (58), (70) and (195), by renumbering all paragraphs following new paragraph (54), and by amending paragraph (20) and paragraphs (135) and (144) (as renumbered), to read as follows:

#### §175.02 Definitions

(a) As used in this Code, the following definitions shall apply:

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(20) “Background radiation” means radiation from cosmic sources; naturally occurring radioactive material[s], including radon[,] (except as a decay product of source or special nuclear material[,]); and [including] global fallout as it exists in the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the licensee. “Background radiation” does not include radiation from any regulated sources of radiation.

(54) “Critical Group” means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

(58) “Decommission” means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits –

- (i) Release of the property for unrestricted use and termination of the license; or
- (ii) Release of the property under restricted conditions and the termination of the license.

(70) “Distinguishable from background” means that the detectable concentration of a radionuclide is statistically different from the background concentration of that radionuclide in the vicinity of the site or, in the case of structures, in similar materials using adequate measurement technology, survey, and statistical techniques.

[(132)] (135) “Member of the public” means any individual, except [an] when that individual [who is performing assigned duties for the licensee or registrant involving exposure to sources of radiation] is receiving an occupational dose.

[(141)] (144) “Occupational dose” means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to [sources of] radiation[,] or to radioactive material from licensed and unlicensed sources of radiation, whether in the possession of the licensee, registrant, or other person. Occupational dose does not include doses received [:] from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released under §175.103(c)(9) [as a patient from medical practices], from voluntary participation in medical research programs, or as a member of the public.

(195) “Residual radioactivity” means radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee, but excludes background radiation. It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site and previous burials at the site, even if those burials were made in accordance with the provisions of 10 CFR Part 20.

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Notes: A number of definitions in §175.02(a) in Article 175 of the NYC Health Code were added and/or amended on June 14, 2007 in order to assure compatibility with applicable federal U.S. Nuclear Regulatory Commission regulations on radioactive materials and licenses.

**RESOLVED**, that paragraph (2) of subdivision (m) of Section 175.101 of Article 175 of the New York City Health Code, as set forth in Title 24 of the Rules of the City of New York, as last amended by resolution on March 10<sup>th</sup>, 2005, be and the same hereby is amended, to be printed together with explanatory notes, to read as follows:

§175.101. General requirements for radioactive materials licenses

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(2) The holder of a license issued by the New York State Department of Labor, the New York State Department of Health, the New York City Department of Health and Mental Hygiene or an Agreement State must obtain reciprocity approval from the U.S. Nuclear Regulatory Commission to conduct licensed activity in areas of exclusive federal jurisdiction within New York City. At least three days before engaging in each activity for the first time in a calendar year, the licensee will provide the U.S. Nuclear Regulatory Commission with advanced notice of its proposed activity in areas under exclusive federal jurisdiction within New York City.

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Notes: §175.101(m) in Article 175 of the NYC Health Code was amended on June 14, 2007 to provide reciprocity approval by the U.S. Nuclear Regulatory Commission (NRC). NRC required that the Department amend the NYC Health Code to include a 3-day advance notice requirement to NRC for prior approval to any initial activity by any Agreement State licensee/non-NRC licensee in areas under exclusive federal jurisdiction within NYC, as per 10 CFR §150.20.

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