



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

#4

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July 7, 2008

Gene Miskin, Director  
Office of Radiological Health  
New York City Department of Health  
2 Lafayette Street, 11<sup>th</sup> Floor  
New York, NY 10007

Dear Mr. Miskin:

We have reviewed the proposed changes to the New York City Department of Health regulations, Article 175 Radiation Control, received by our office on June 19, 2008. These regulations were reviewed by comparison to the equivalent Nuclear Regulatory Commission (NRC) rules in 10 CFR Parts 30, 40, 70, 71, NRC Order EA-07-305 and the requirements of the three amendments identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with Tobias Lickerman on July 7, 2008.

As a result of our review, we have 18 comments that have been identified in the enclosure. Please note that we have limited our review to regulations required for compatibility and/or health and safety. Under our current procedure, a finding that the New York City Department of Health regulations meet the compatibility and health and safety categories of the equivalent NRC regulation may only be made based on a review of the final New York City Department of Health regulations. However, we have determined that if your proposed regulations were adopted, incorporating our comments and without other significant change, they would meet the compatibility and health and safety categories established in the Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-200.

We request that when the proposed regulations are adopted and published as final regulations, a copy of the "as published" regulations be provided to us for review. As requested in FSME Procedure SA-201, "Review of State Regulatory Requirements," please highlight the final changes, and provide a copy to Division of Materials Safety and State Agreements, FSME.

The SRS Data Sheet summarizes our knowledge of the status of other New York City Department of Health regulations, as indicated. Please let us know if you note any inaccuracies, or have any comments on the information contained in the SRS Data Sheet. This letter, including the SRS Data Sheet, is posted on the FSME website: <http://nrc-stp.ornl.gov/rulemaking.html>.

G. Miskin, Director

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If you have any questions regarding the comments, the compatibility and health and safety categories, or any of the NRC regulations used in the review, please contact Kathleen Schneider, State Regulation Review Coordinator at (301) 415-2320 (email: [kathleen.schneider@nrc.gov](mailto:kathleen.schneider@nrc.gov)) or Monica Orendi at (301) 415-3938 (email: [monica.orendi@nrc.gov](mailto:monica.orendi@nrc.gov)).

Sincerely,



James G. Luehman, Deputy Director  
Division of Materials Safety and State Agreements  
Office of Federal and State Materials and  
Environmental Management Programs

Enclosures:  
As stated

**COMPATIBILITY COMMENTS ON NEW YORK CITY PROPOSED REGULATIONS**

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	175.105 (n)(1)	40.36	2003-1	H&S	<p><b>Financial assurance and recordkeeping for decommissioning</b></p> <p>NYCDOH omits "Each applicant for a specific license authorizing the possession and use of more than 100mCi of source material in readily dispersible form shall submit...". This should be added as 175.105 (n)(1)(c).</p> <p>NYCDOH needs to add the above in order to meet the Compatibility Category H&amp;S designation assigned to 10 CFR 40.36.</p>
2	175.105 (n)(1)	70.25	2003-1	H&S	<p><b>Financial assurance and recordkeeping for decommissioning</b></p> <p>NYCDOH omits "Each applicant for a specific license authorizing the possession and use of unsealed special nuclear material in quantities exceeding <math>10^5</math> times the applicable quantities set forth in Appendix B to this section. A decommissioning funding plan must also be submitted when a combination of isotopes is involved if R divided by <math>10^5</math> is greater than 1 (unity rule), where R is the sum of the ratios of the quantity of each isotope to the applicable value in appendix B of this section."</p> <p>NYCDOH needs to add the above as section 175.105(n)(1)(d) in order to meet the Compatibility Category H&amp;S designation assigned to 10 CFR 70.25.</p>
3	N/A	71.4	2004-1	B	<p><b>Definition: Deuterium</b></p> <p>NYCDOH omits this definition from their regulations.</p> <p>NYCDOH needs to add this definition in order to meet the Compatibility Category B designation assigned to 10 CFR 71.4 Definition Deuterium.</p>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
4	175.02 (a)(89)	71.4	2004-1	[B]	<p><b>Definition: Fissile Material</b></p> <p>NYCDOH's definition of Fissile material includes plutonium-238, cites the wrong NRC reference, and excludes the sentence "Fissile material means the fissile nuclides themselves, not material containing fissile nuclides."</p> <p>NYCDOH needs to change their definition of Fissile material to address the above in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.4 Definition Fissile material.</p>
5	N/A	71.4	2004-1	B	<p><b>Definition: Graphite</b></p> <p>NYCDOH omits this definition from its regulations.</p> <p>NYCDOH needs to add this definition in order to meet the Compatibility Category B designation assigned to 10 CFR 71.4 Definition Graphite.</p>
6	175.02 (a)(228)	71.4	2004-1	[B]	<p><b>Definition: Transport Index</b></p> <p>NYCDOH makes a distinction between fissile material and non-fissile material when determining the transport index. NRC's definition does not make this distinction when determining the transport index.</p> <p>NYCDOH's definition of transport index should change their section on determining the transport index so it is essentially identical to NRC's in order to meet the Compatibility category [B] designation assigned to 10 CFR 71.4 Definition Transport index.</p>
7	175.105 (a)(6)	71.5	2004-1	[B]	<p><b>Transportation of licensed material.</b></p> <p>NYCDOH lists the incorrect sections of 49 CFR in 175.105(a)(6)(i). It should read "49 CFR parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport."</p>

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					<p>NYCDOH omits the second half of 10 CFR 71.5(b) regarding request for a waiver, modification or exemption. NYCDOH needs to add this to 175.105(a)(6)(ii).</p> <p>NYCDOH needs to make the above changes in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.5.</p>
8	N/A	71.8	2004-1	C	<p><b>Deliberate Misconduct</b></p> <p>NYCDOH omits a section containing the essential elements of 10 CFR 71.8.</p> <p>NYCDOH needs a section containing the essential elements of 10 CFR 71.8 in order to meet the Compatibility Category C designation assigned to 10 CFR 71.8</p>
9	175.105 (b)(1)	71.13	2004-1	[B]	<p><b>Exemption of physicians.</b></p> <p>NYCDOH should include 10 CFR part 35 or equivalent Agreement State regulations after "... any physician operating under this exemption must be licensed under applicable sections of this Code."</p> <p>Also the last sentence of NYCDOH's regulation is more restrictive because it limits the means of transport the physician can use. This sentence should be removed.</p> <p>NYCDOH needs to make the above changes in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.13.</p>
10	175.105 (b)(2)(ii)	71.14(b)	2004-1	NRC	<p><b>Exemption for low-level materials.</b></p> <p>NYCDOH includes this in their regulations. Since this part of 10 CFR 71.14 is designated Compatibility Category NRC, NYCDOH needs to remove this from their regulations.</p> <p>NYCDOH needs to remove</p>

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					175.105(b)(2)(ii) from their regulations in order to meet the Compatibility category NRC designation assigned to 10 CFR 71.14(b).
11	175.105 (b)(3)	71.15	2004-1	[B]	<p><b>Exemption from classification as fissile material.</b></p> <p>NYCDOH omits an essentially identical paragraph to 10 CFR 71.15(f) from its regulations.</p> <p>NYCDOH needs to add essentially identical language to 10 CFR 71.15(f) in order to meet the Compatibility category [B] designation assigned to 10 CFR 71.15.</p>
12	175.105 (c)(3)	71.20	2004-1	[B]	<p><b>General license: DOT specification container.</b></p> <p>NYCDOH omits stating that this provision expires on October 1, 2008.</p> <p>NYCDOH needs to add a sentence that says that 175.105(c)(3) expires on October 1, 2008 in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.20.</p>
13	175.105 (c)(5)	71.22	2004-1	[B]	<p><b>General license: Fissile material.</b></p> <p>NYCDOH omits the equation:</p> $CSI = 10 \left[ \frac{\text{grams of } ^{235}\text{U}}{X} + \frac{\text{grams of } ^{233}\text{U}}{Y} + \frac{\text{grams of Pu}}{Z} \right]$ <p>from their regulations.</p> <p>NYCDOH needs to insert this equation into their regulations in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.22.</p>
14	175.105 (c)(6)	71.23	2004-1	[B]	<p><b>General license: Plutonium beryllium special form material.</b></p> <p>NYCDOH omits references to correct sections equivalent to NRC regulations throughout this section.</p> <p>NYCDOH needs to go through this section and correct all its references</p>

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					to sections equivalent to NRC sections in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.23.
15	175.105 (d)(4)	71.88	2004-1	[B]	<p><b>Air transport of plutonium.</b></p> <p>NYCDOH regulation 175.105(d)(4)(i)(B) states "...contained in a material in which the specific activity is not greater than 70 Bq/g (0.002mCi/g) of material ...". This is incorrect and should say "...contained in a material in which the specific activity is less than or equal to the activity concentration values listed in Appendix A table A-2...".</p> <p>NYCDOH needs to make the above change in order to meet the Compatibility Category [B] designation assigned to 10 CFR 71.88.</p>
16	175.105 (e)(1)(iv) and (v)	71.101(c)(2), (d), & (e)	2004-1	NRC	<p><b>Quality assurance requirements.</b></p> <p>NYCDOH sections 175.105(e)(1)(iv) and (v) are essentially identical to 10 CFR 71.101 (d) and (e) and should be removed since these paragraphs are delegated to the NRC.</p> <p>NYCDOH needs to remove 175.105(e)(1)(iv) and (v) in order to meet the Compatibility Category NRC designation assigned to 10 CFR 71.101 (c)(2), (d), &amp; (e).</p>
17	N/A	71.101(g)	2004-1	C	<p><b>Quality assurance requirements.</b></p> <p>NYCDOH omits this section from their regulations.</p> <p>NYCDOH needs to add the essential elements of 10 CFR 71.101(g) in order to meet the Compatibility Category C designation assigned to 10 CFR 71.101(g).</p>
18	175.105 Appendix A	10 CFR 71 Appendix A	2004-1	B	<p><b>Determination of A<sub>1</sub> and A<sub>2</sub></b></p> <p>NYCDOH's equations for Appendix A</p>

STATE SECTION	NRC SECTION		RATS ID	CATEGORY	SUBJECT and COMMENTS
					<p>are unreadable. NYCDOH needs to go back and correct all the equations listed in 175.105 Appendix A.</p> <p>NYCDOH's values in Table A-1 column's A1 (TBq) A1 (Ci), A2 (TBq) and A2 (Ci) are incorrect for many of the listed radionuclides. NYCDOH needs to copy the values listed in 10 CFR 71 Appendix A Table A-1. Also in this Table NYCDOH omits the different descriptions of uranium and their associated values and omits the footnotes following the table.</p> <p>NYCDOH's listed table A-2 is not essentially identical to 10 CFR 71 Appendix A table A-2. It is actually aligned with 10 CFR 71 Table A-3 however the values listed are incorrect. NYCDOH needs to remove the table listed as A-2 and replace it with an essentially identical table to 10 CFR 71 Appendix A Table A-2. NYCDOH does not need to list 10 CFR 71 Appendix A Table A-3 because it is cited by reference in 175.105 Appendix A paragraph II.</p> <p>NYCDOH omits an equivalent table to 10 CFR 71 Appendix A Table A-4. NYCDOH needs to add an essentially identical table to their regulations.</p> <p>NYCDOH needs to make the above changes in order to meet the Compatibility Category B designation assigned to 10 CFR 71 Appendix A.</p>