

July 10, 2000

Ms. Susan McClanahan, Supervisor  
Radiation Control Unit  
Division of Environmental Health  
Minnesota Department of Health  
121 E. Seventh Place, Suite 220  
P. O. Box 64975  
St. Paul, MN 55164-0975

Dear Ms McClanahan:

As requested, we have reviewed the Minnesota draft regulations Notices, Instructions and Reports to Radioactive Material Workers; Inspections, Radiation Safety Requirements for Irradiators, Radiation Safety Requirements for Nuclear Logging, Definitions (RAM) and Definitions (General), which were provided on April 4, 2000. The regulations were reviewed by comparison to the equivalent NRC regulations in 10 CFR Parts 19, 36, and 39. The definition sections were reviewed by comparison to the NRC definitions in 10 CFR Parts 19, 20, 30, 32, 34, 35, 36, 40, 61, 70, 71 and 150. We discussed aspects of our review of these regulations with you on May 1, 2000, and on May 30, 2000 by e-mail. In addition, discussions were held on June 6, 2000 between Mr. Paul Lohaus, Director, Office of State and Tribal Programs (STP) and Ms. Linda Bruemmer, Manager, Section of Asbestos, Indoor Air, Lead, and Radiation.

As a result of our review, we have identified 52 comments in the enclosure. A generic comment on the use of the term "nuclear logging" instead of the term "well logging" is included. However, we understand from the June 6, 2000 discussions between Mr. Lohaus and Ms. Bruemmer that the State has decided to use the term "well logging." We anticipate evaluating this change as a part of our review of the proposed final Minnesota regulation package.

Please note that we have limited our review to regulations required for compatibility and for health and safety. These comments must be addressed to meet the compatibility and health and safety categories established in the STP Procedure SA-200. Under our current procedure, a finding that a State regulation meets the compatibility and/or health and safety categories of the equivalent NRC regulation may only be made base on a review of the final State regulation. However, we have determined that if your draft regulations were adopted incorporating the comments and without other significant change, they would meet the compatibility and health and safety categories established in STP Procedure SA-200.

We request that when the draft regulations are developed into proposed final regulations, a copy of the proposed final regulations be provided to us for review. As requested in STP Procedure SA-201, Review of State Regulations, (November 10, 1998), please highlight any changes and send one copy in a computer readable format, if possible.

Susan McClanahan

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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 me at (301) 415-2325 or Ms. Cardelia H. Maupin at (301) 415-2312 or by e-mail at [chm@nrc.gov](mailto:chm@nrc.gov).

Sincerely,

***/RA/***

Frederick C. Combs, Deputy Director  
Office of State and Tribal Programs

Enclosure:  
As stated

Distribution  
 DIR RF (9-186)  
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DCD (SP07)  
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STP-NA-11

**COMMENTS ON DRAFT MINNESOTA REGULATIONS  
AGAINST COMPATIBILITY AND HEALTH AND SAFETY CATEGORIES**

State Regulation	NRC Regulation	Category	Subject and Comment
4730.0900, Subpart I.	19.1	D	<p>Purpose</p> <p>The references to the Atomic Energy Act should be removed from this provision and the Minnesota statute should be inserted.</p>
4730.0904	19.14	C	<p>Presence of Representative of Licensees and Workers During Inspections</p> <p>The paragraph (a) of 10 CFR Part 19.14 did not appear to be included in the draft Minnesota regulations. If these provisions are incorporated in a generic provision, please indicate. This paragraph is designated a Compatibility C and the essential objectives of the NRC provisions in 10 CFR should be adopted.</p>
19.3	19.3	D	<p>Definition of Act</p> <p>The references to the Atomic Energy Act should be removed from this definition and the Minnesota statute should be inserted.</p>
19.3	20.1003	A	<p>Definition of Airborne Radioactivity Area</p> <p>The Minnesota definition includes an adoption by reference of sections of 10 CFR. The sections are not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 20, Appendix B of Sections 20.1101 - 20.2401." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3 and 4730.0100	20.1003	A	<p>Definition of ALARA</p> <p>This definition appears in two sections of Minnesota regulations, 19.3 and 4730.0100. Both definitions need to be revised to insert the words "and licensed material" between "nuclear energy" and "in." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
4730.0100	20.1003	A	<p>Definition of Annual Limit on Intake or ALI.</p> <p>Two different definitions of this term appear in section 4730.0100 of Minnesota regulations. Both definitions include an adoption by reference of sections of 10 CFR. In both definitions, the 10 CFR sections are not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 20 Appendix B of Sections 20.1101 - 20.2401." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	20.1003	A	<p>Definition of Derived Air Concentration (DAC)</p> <p>The Minnesota definition includes an adoption by reference of sections of 10 CFR. The sections are not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 20, Appendix B of Sections 20.1101 - 20.2401." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
Not applicable	20.1003	A	<p>Definition of Internal Dose</p> <p>The Minnesota definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	20.1003	A	<p>Definition of Limits</p> <p>The Minnesota definition includes an extra sentence at the end. This sentence should be deleted. This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	20.1003	A	<p>Definition of Occupational Dose</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 35, Section 35.75." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
4730.0100	20.1003	A	<p>Definition of Person</p> <p>Three different definitions of this term appear in section 4730.0100 of Minnesota regulations. The second and third definitions should be deleted. These definitions should be deleted because they address areas of regulation that cannot be relinquished to the State. This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
4730.0100	20.1003	A	<p>Definition of Public Dose</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 35, Section 35.75." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
4730.0100	20.1003	A	<p>Definition of Quality Factor</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 20, tables 1004(b).1 and 1004(b).2 of §20.1004." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
4730.0100	20.1003	A	<p>Definition of Radiation</p> <p>The Minnesota definition omitted the second sentence of the definition. The Minnesota definition should be revised to include this sentence. This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
Not applicable	32.2	B	<p>Definition of Lot Tolerance Percent Defect</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
Not applicable	34.2	C	<p>Definition of Annual Refresher Safety Training</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
19.3	34.2	B	<p>Definition of Certifying Entity</p> <p>The Minnesota definition indicates “the requirements in appendix A, Parts II and III of this part.” Because the terms and definitions have been separated from the pertinent regulation sections, the State should cite the appropriate portion of the Minnesota regulation and delete the wording “of this part.” This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
4730.0100	34.2	A	<p>Definition of Gray</p> <p>This provision references Minnesota section on “Units” and this section was not provided. This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR. Accordingly, we were unable to determine that the definition is essentially identical to that of NRC.</p>
Not applicable	34.2	C	<p>Definition of Hands-On Experience</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
19.3	34.2	B	<p>Definition of Independent Certifying Entity</p> <p>The Minnesota definition indicates “the requirements in appendix A of this part.” Because the terms and definitions have been separated from the pertinent regulation sections, the State should cite the appropriate portion of the Minnesota regulation and delete the wording “of this part.” This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
Not applicable	34.2	C	<p>Definition of Radiographer</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
Not applicable	34.2	<p>B- for States that authorize radiographer's assistant</p> <p>D- for other States</p>	<p>Definition of Radiographer's Assistant</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category B for States that authorize radiographer's assistants. If the State of Minnesota plans to authorize the use of radiographer's assistants, then this definition should be adopted, and should be essentially identical to the NRC definition in 10 CFR.</p>
Not applicable	34.2	C	<p>Definition of Radiographic Operations</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
4730.0100	34.2	B	<p>Definition of Radiography</p> <p>In the 10 CFR regulations industrial radiography and radiography are used interchangeably and have the same definition. In the Minnesota regulations, the two terms have different definitions. The Minnesota definition of industrial radiography is compatibility with 10 CFR; the definition of radiography is not. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	20.1004 and 34.2	A	<p>Definition of Quality Factor</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 20, Section 20.1004." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	34.2	B	<p>Definition of Independent Storage Container</p> <p>The Minnesota definition includes an extra phrase "in accordance with the manufacturer's guidance...." This phrase should be deleted. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
19.3	35.2	B	<p>Definition of Authorized Medical Physicist</p> <p>Draft final amendments to "Medical Use of Byproduct Material," 10 CFR Part 35, went before the Commission on May 3, 2000, for approval as a final regulation. It is expected that this definition will be designated a Compatibility Category B in the final amendments. However, please note that these amendments are not final and, as such, are subject to change. Please keep abreast of the regulation change and conform your definition to the final regulation.</p>
19.3	35.2	B	<p>Definition of Authorized Nuclear Pharmacist</p> <p>Draft final amendments to "Medical Use of Byproduct Material," 10 CFR Part 35, went before the Commission on May 3, 2000, for approval as a final regulation. It is expected that this definition will be designated a Compatibility Category B in the final amendments. However, please note that these amendments are not final and, as such, are subject to change. Please keep abreast of the regulation change and conform your definition to the final regulation.</p>
19.3	35.2	B	<p>Definition of Authorized User</p> <p>Draft final amendments to "Medical Use of Byproduct Material," 10 CFR Part 35, went before the Commission on May 3, 2000, for approval as a final regulation. It is expected that this definition will be designated a Compatibility Category B in the final amendments. However, please note that these amendments are not final and, as such, are subject to change. Please keep abreast of the regulation change and conform your definition to the final regulation.</p>
19.3	35.2	C	<p>Definition of Prescribed Dosage</p> <p>Draft final amendments to "Medical Use of Byproduct Material," 10 CFR Part 35, went before the Commission on May 3, 2000, for approval as a final regulation. It is expected that this definition will be designated a Compatibility Category C in the final amendments. However, please note that these amendments are not final and, as such, are subject to change. Please keep abreast of the regulation change and conform your definition to the final regulation.</p>
19.3	35.2	B	<p>Definition of Radiation Safety Officer</p> <p>The new "Medical Use of Byproduct Material," 10 CFR Part 35, went before the Commission on May 3, 2000, for approval as a final regulation. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR. Please keep abreast of the regulation change and conform your definition to the final regulation.</p>



State Regulation	NRC Regulation	Category	Subject and Comment
4730.1100	39	C	Generic Comment: The term "well logging" has been replaced by "nuclear logging." In addition, the State has suggested the use of the term "nuclear well logging." The State should either adopt the term "well logging" or "wireline services" for the purpose of compatibility. This term is designated a Compatibility C and the essential objectives of the NRC provisions in 10 CFR should be adopted, which includes the adoption of a widely accepted term which will not create conflict, duplication or gaps or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis.
Not applicable	39.2	B	Definition of Energy Compensation Source  This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR. This definition is added to the NRC regulations as a result of amendment, "Energy Compensation Sources for Well Logging and Other Regulatory Clarifications," (65 FR 20337, April 17, 2000), effective May 17, 2000. This definition is assigned a Compatibility Category B because the sources are routinely transported across jurisdictional boundaries for use. It is adopted essentially identical to assure uniform regulation.
Not applicable	39.2	B	Definition of Tritium Neutron Generator Target Source  This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR. This definition is added to the NRC regulations as a result of amendment, "Energy Compensation Sources for Well Logging and Other Regulatory Clarifications," (65 FR 20337, April 17, 2000), effective May 17, 2000. This definition is assigned a Compatibility Category B because the sources are routinely transported across jurisdictional boundaries for use. It is adopted essentially identical to assure uniform regulation.
4730.1100.5	39.13	C	Specific Licenses for Well Logging  See Generic Comment Above
4730.1100.7	39.15	C	Agreement With Well Owner or Operator  See Generic Comment Above
4730.1105	39.35	C	Leak Testing or Sealed Sources  We were unable to determine the compatibility of this provision. This provision references Minnesota section "4730.0155" and this section was not provided.

State Regulation	NRC Regulation	Category	Subject and Comment
Not applicable	39.53	C	<p>Energy Compensation Source</p> <p>This provision was not included in the proposed Minnesota regulations. This provision is assigned a Compatibility Category C. Agreement States should adopt the essential safety objectives of this provision, and should be no less stringent than the NRC provisions. This provision is added as a result of amendment, "Energy Compensation Sources for Well Logging and Other Regulatory Clarifications," (65 FR 20337, April 17, 2000), effective May 17, 2000.</p>
Not applicable	39.55	C	<p>Tritium Neutron Generator Target Source</p> <p>This provision was not included in the proposed Minnesota regulations. This provision is assigned a Compatibility Category C. Agreement States should adopt the essential safety objectives of this provision, and should be no less stringent than the NRC provisions. This provision is added as a result of amendment, "Energy Compensation Sources for Well Logging and Other Regulatory Clarifications," (65 FR 20337, April 17, 2000), effective May 17, 2000.</p>
4730.1121	39.61	B	<p>Training</p> <p>Paragraph (b) of this provision needs to be revised by deleting the term "nuclear logging" and inserting the term "well logging." This provision is designated a Compatibility Category B and should be essentially identical to the NRC provisions in 10 CFR.</p>
4730.1135	39.75	C	<p>Documents &amp; Records Required at Temporary Job Sites</p> <p>See Generic Comment Above</p>
4730.1137	39.77	C	<p>Notification of Incidents, Abandonment Procedures for Irretrievable Sources</p> <p>See Generic Comment Above</p>
19.3	40.4 and 150.3(i)	A	<p>Definition of Special Nuclear Material</p> <p>The Minnesota definition needs to be revised to be compatible with NRC authority in this area. The State should delete the phrase "and any other material that the Commissioner, pursuant to the provisions of section 51 of the act, determines to be special nuclear material." The State should insert the following phrase "and any other material the Nuclear Regulatory Commission, pursuant to the provisions of section 51 of the Atomic Energy Act of 1954, as amended, determines to be special nuclear material." This definition is designated a Compatibility Category A and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
Not applicable	61.2	C	<p>Definition of Disposal</p> <p>This definition was not included in the proposed Minnesota regulations. Although the State is not pursuing low-level waste authority, this definition is needed because of its association with Appendix G to Part 20, "Requirements for transfers of Low-level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifest." This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
Not applicable	61.2	C	<p>Definition of Hazardous Waste</p> <p>This definition was not included in the proposed Minnesota regulations. Although the State is not pursuing low-level waste authority, this definition is needed because of its association with Appendix G to Part 20, "Requirements for transfers of Low-level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifest." This definition is designated a Compatibility Category C and the essential objectives of the NRC term and definition in 10 CFR should be adopted.</p>
Not applicable	61.2	B	<p>Definition of Land Disposal Facility</p> <p>This definition was not included in the proposed Minnesota regulations. Although the State is not pursuing low-level waste authority, this definition is needed because of its association with Appendix G to Part 20, "Requirements for transfers of Low-level Radioactive Waste Intended for Disposal at Licensed Land Disposal Facilities and Manifest." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	71.4	B	<p>Definition of Fissile Material</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 71, Section 71.53." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
Not applicable	71.4	B	<p>Definition of Packaging</p> <p>This definition was not included in the proposed Minnesota regulations. This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	71.4	B	<p>Definition of Type B Package</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 71, Section 71.13." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>

State Regulation	NRC Regulation	Category	Subject and Comment
19.3	71.4	B	<p>Definition of Special form Radioactive Material</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 71, Section 71.75." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	71.4	B	<p>Definition of Transport Index</p> <p>The Minnesota definition includes an adoption by reference of a section of 10 CFR. The section is not referenced properly. The adoption by reference should be revised to include, "Code of Federal Regulations, Title 10, Part 71, Section 71.59." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>
19.3	71.4	B	<p>Definition of Type A Quantity</p> <p>The Minnesota definition indicates "the requirements in appendix A of this part." Because the terms and definitions have been separated from the pertinent regulation sections, the State should cite the appropriate portion of the Minnesota regulation and delete the wording "of this part." This definition is designated a Compatibility Category B and should be essentially identical to the NRC definition in 10 CFR.</p>