Minnesota Department of Health **AR427**
Division of Environmental Health
Indoor Environments and Radiation Section

NOTICE OF INTENT TO ADOPT RULES WITHOUT A PUBLIC HEARING

Proposed Amendment to Rules Governing Radioactive Material, *Minnesota Rules*, Chapter 4731

Introduction. The Department of Health intends to adopt rules without a public hearing following the procedures in the rules of the Office of Administrative Hearings, *Minnesota Rules*, parts 1400.2300 to 1400.2310, and the Administrative Procedure Act, *Minnesota Statutes*, sections 14.22 to 14.28. You may submit written comments on the proposed rules and may also submit a written request that a hearing be held on the rules until December 17, 2008.

Agency Contact Person. You must submit comments or questions on the rules and written requests for a public hearing to the agency contact person. The agency contact person is: George F. Johns, Jr. at Radiation Control, Freeman Building, 625 Robert Street North, P.O. Box 64975, St. Paul, MN 55164-0975, phone (651) 201-4530, and FAX (651) 201-4606. TTY users may call the Department of Health at (651) 201-5797

Subject of Rules and Statutory Authority. The proposed rules reflect changes the U.S. Nuclear Regulatory Commission made to its regulations plus a few changes that were MDH-initiated. The changes to NRC regulations that are part of this rulemaking are:

- National Source Tracking of Sealed Sources, published in the *Federal Register*, 71 FR 65685, with an effective date of February 6, 2007. This rule requires licensees to initially report sealed source inventories of Category 1 sources by November 15, 2007 and Category 2 sources by November 30, 2007 to the National Source Tracking System. It also requires licensees to report transactions of the Category 1 and Category 2 sources after the initial reporting dates, and to annually check the database against their actual inventory and make changes as necessary. In addition, manufacturers are required to assign each tracked source a unique serial number.

- National Source Tracking of Sealed Sources; Revised Compliance Dates, published in the *Federal Register*, 72 FR 59162, with an effective date of October 19, 2007. This rule changes the date when licensees must initially report source inventories and begin reporting source transactions to the National Source Tracking System to January 31, 2009 for both Category 1 and Category 2 sources.

- Medical Use of Byproduct Material – Minor Corrections and Clarifications, published in the *Federal Register*, 72 FR 45147 and 54207, with an effective date of October 29, 2007. This rule corrected several minor errors in the regulations relating to the medical use of radioactive material.

- Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements, published in the *Federal Register*, 72 FR 58473, with an effective date of December 17, 2007. This rule: changes the reporting frequency for distributions to persons exempt from licensing from every five years to annually; removes an outdated exemption to distribute resins containing scandium-46; requires an NRC license to introduce radioactive material into products in exempt concentrations; prohibits bundling of exempt sources by an end user, except for continued use of devices distributed before 1999; removes outdated product specific exemptions; adds a product specific exemption for smoke detectors, making it easier for distributers to get licensed than through the old class exemption for gas and aerosol detectors; and clarifies the reporting requirement, maintenance requirement, and labeling changes required for putting a generally licensed devise on a specific license.

- Requirements for Expanded Definition of Byproduct Material, published in the *Federal Register*, 72 FR 55864, with an effective date of November 30, 2007. This rule adds provisions reflecting the NRC's new jurisdiction over discrete sources of radium-226; accelerator produced radioactive materials; and other discrete sources of natural occurring radioactive material. EPAct conferred this jurisdiction and expanded the definition of byproduct material to include these new sources.

- Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent, published in the Federal Register, 72 FR 68043, with an effective date of January 3, 2008. This rule: changes the annual dose reporting to workers from all people who are monitored to only those who have received an occupational dose of 1 mSv (100 mrem) TEDE or 1 mSv (100 mrem) to any individual organ or tissue; changes the definition of total effective dose equivalent (TEDE) by substituting effective dose equivalent (EDE) for deep dose equivalent (DDE) (despite this change in definition, if exposure is measure by an external personal monitoring device, DDE must be used to calculate the TEDE unless the dosimetry method is approved by the MDH); adds an exemption to labeling containers containing radioactive material for nuclear power reactor licensees; and removes the requirement that licensee try to obtain the cumulative occupational dose unless the employee will participate in a planned special exposure.

The proposed rules initiated by MDH consist of specifying survey meter calibrations at a 12-month frequency instead of the current non-specific "periodically"; put into rule leak test requirements for sealed sources, which are typically required by license condition; move the decay in storage requirements from the medical section to a general section, making them applicable to all licensees; specifying dose calibrator testing requirements including frequency; and clarifying the amendment requirements to add a medical use authorized user.

The statutory authority to adopt the rules is *Minnesota Statutes*, sections 144.1202 and 144.1203. A copy of the proposed rules is available on the MDH Radioactive Materials web page at http://www.health.state.mn.us/divs/eh/radiation/radioactive/index.htm. A free copy of the rules is also available upon request from the agency contact person listed above.

Purpose and Motivation. The main purpose of the proposed rules is to meet compatibility requirements with U.S. Nuclear Regulatory Commission (NRC) regulations. This is a requirement

of the Agreement between Minnesota and the NRC that allows Minnesota to regulate radioactive material within the state. At the same time, there are a few changes that are not compatibility issues, but MDH-initiated. These changes are proposed to clarify parts of the rule and to put into rule parts typically required by license condition.

Comments. You have until 4:30 p.m. on Wednesday, December 17, 2008, to submit written comment in support of or in opposition to the proposed rules and any part or subpart of the rules. Your comment must be in writing and the agency contact person must receive it by the due date. The Department encourages comment. Your comment should identify the portion of the proposed rules addressed and the reason for the comment. You are encouraged to propose any change desired. You must also make any comments about the legality of the proposed rules during this comment period.

Request for a Hearing. In addition to submitting comments, you may also request that the Department hold a hearing on the rules. Your request must be in writing and the agency contact person must receive it by 4:30 p.m. on December 17, 2008. Your written request for a public hearing must include your name and address. You must identify the portion of the proposed rules that you object to or state that you oppose the entire set of rules. Any request that does not comply with these requirements is not valid and the agency cannot count it when determining whether it must hold a public hearing. You are also encouraged to state the reason for the request and any changes you want made to the proposed rules.

Withdrawal of Requests. If 25 or more persons submit a valid written request for a hearing, the Department will hold a public hearing unless a sufficient number withdraw their requests in writing. If enough requests for hearing are withdrawn to reduce the number below 25, the agency must give written notice of this to all persons who requested a hearing, explain the actions the agency took to effect the withdrawal, and ask for written comments on this action. If a public hearing is required, the agency will follow the procedures in *Minnesota Statutes*, sections 14.131 to 14.20.

Alternative Format. Upon request, the Department can make this Notice available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact the agency contact person at the address or telephone number listed above.

Modifications. The Department may modify the proposed rules as a result of public comment. The modifications must be supported by comments and information submitted to the agency, and the adopted rules may not be substantially different than these proposed rules, unless the agency follows the procedure under *Minnesota Rules*, part 1400.2110. If the proposed rules affect you in any way, the Department encourages you to participate in the rulemaking process.

Statement of Need and Reasonableness. The statement of need and reasonableness statement contains a summary of the justification for the proposed rules, including a description of who will be affected by the proposed rules and an estimate of the probable cost of the proposed rules. It is now available from the agency contact person. You may review or obtain copies the cost of reproduction by contacting the agency contact person.

Lobbyist Registration. *Minnesota Statutes*, chapter 10A, requires each lobbyist to register with the State Campaign Finance and Public Disclosure Board. You should direct questions about this requirement to the Campaign Finance and Public Disclosure Board at: Suite 190, Centennial Building, 658 Cedar Street, St. Paul, Minnesota 55155, telephone 651-296-5148 or 1-800-657-3889.

Adoption and Review of Rules. If no hearing is required, the agency may adopt the rules after the end of the comment period. The agency will then submit the rules and supporting documents to the Office of Administrative Hearings for review for legality. You may ask to be notified of the date the Department submits the rules to the office. If you want to be so notified, or want to receive a copy of the adopted rules, or want to register with the agency to receive notice of future rule proceedings, submit your request to the agency contact person listed above.

10/31/08 **// Original Signed By://**

Date

John Linc Stine, Director
Environmental Health Division

Minnesota Department of Health
Environmental Health Division
Indoor Environments and Radiation Section

STATEMENT OF NEED AND REASONABLENESS

Proposed Amendment to Rules Governing Radioactive Materials, *Minnesota Rules*, Chapter 4731

The Minnesota Department of Health proposes rule amendments that reflect the U.S. Nuclear Regulatory Commission's (NRC's) recent regulation changes. These changes amend the following: the National Source Tracking System; the medical use of byproduct material; the expanded definition of "byproduct material" in the Energy Policy Act of 2005 (EPAct)[1],; occupational dose records, including the definition of "total effective dose equivalent"; labeling containers; distribution of exempt material; and transferring generally licensed material to a specific license. These proposed changes are necessary to conform with US Nuclear Regulatory Commission regulations. The rules do not affect areas of exclusive federal jurisdictions (such as Veteran's Administration facilities) or to radioactive material used to produce nuclear power.

The proposed rule changes also include Minnesota Department of Health-initiated changes for calibration of survey instruments, leak test requirements for sealed sources, disposal by decay in storage, and survey records. They also clarify licensing and notification requirements for medical use licenses.

INTRODUCTION

By an agreement with the NRC (Agreement), the State of Minnesota regulates byproduct, source, and special nuclear material. Essentially, this means that Minnesota regulates radioactive material within the state. The State thus gained control of these substances and the licensees benefit from reduced fees. The agreement does not cover nuclear-power-plant regulation, byproduct material used at facilities under exclusive federal jurisdiction, exempt-quantities distribution, or sealed-sources or devices evaluation. The NRC still performs these functions exclusively.

Minnesota and other states that have entered into this type of agreement are known as "Agreement States." The Agreement requires Minnesota to have rules that are compatible with NRC regulations. When the NRC makes regulation changes, the Agreement States have a set period of time to bring their rules likewise up to date. The NRC categorizes their regulations by level of compatibility required—some categories require strict adherence while others allow states flexibility in their rules.

Prompted by EPAct, the US Nuclear Regulatory Commission made two significant changes: one that implements the National Source Tracking System, the other redefines "byproduct" material. Other changes were not as significant, but still require that Minnesota's rules be brought up to date. Without these changes, Minnesota's Agreement State status is jeopardized.

[1] Public. Law No. 109-58, 119 Stat. 594, Sec. 651 (2005).

The following summarizes the NRC's six federal rule changes that MDH proposes to incorporate in this rule revision, much of which is wholesale adoption except for formatting and reference changes (i.e., a reporting requirement to the NRC will become a reporting requirement to the Commissioner of Health, and references to 10 CFR will become references to chapter 4731):

I. National Source Tracking of Sealed Sources, published in the *Federal Register*, 71 FR 65685, with an effective date of February 6, 2007. This rule requires licensees to initially report sealed source inventories of Category 1 sources by November 15, 2007 and Category 2 sources by November 30, 2007 to the National Source Tracking System. It also requires licensees to report transactions of the Category 1 and Category 2 sources after the initial reporting dates, and to annually check the database against their actual inventory and make changes as necessary. In addition, manufacturers are required to assign each tracked source a unique serial number.

The National Source Tracking System will be an electronic system run by the NRC. Minnesota's rules will be updated to require licensees to participate in the program by reporting transactions directly to the NRC. Each licensee will have online access to the system, but each will only have access to its own information. Although updating transactions online is the preferred method; licensees will be able to submit records electronically, by facsimile, mail, or telephone with follow-up by facsimile or mail.

II. National Source Tracking of Sealed Sources; Revised Compliance Dates, published in the *Federal Register*, 72 FR 59162, with an effective date of October 19, 2007. This rule changes the date when licensees must initially report source inventories and begin reporting source transactions to the National Source Tracking System to January 31, 2009 for both Category 1 and Category 2 sources.

III. Medical Use of Byproduct Material – Minor Corrections and Clarifications, published in the *Federal Register*, 72 FR 45147 and 54207, with an effective date of October 29, 2007. This rule corrected several minor errors in the regulations relating to the medical use of radioactive material.

IV. Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements, published in the *Federal Register*, 72 FR 58473, with an effective date of December 17, 2007. This rule:

- changes the reporting frequency for distributions to persons exempt from licensing from every five years to annually;
- removes an outdated exemption to distribute resins containing scandium-46;
- requires an NRC license to introduce radioactive material into products in exempt concentrations;
- prohibits bundling of exempt sources by an end user, except for continued use of devices distributed before 1999;

- removes outdated product specific exemptions;

- adds a product specific exemption for smoke detectors, making it easier for distributers to get licensed than through the old class exemption for gas and aerosol detectors; and

- clarifies the reporting requirement, maintenance requirement, and labeling changes required for putting a generally licensed devise on a specific license.

Minnesota's rules will maintain that an NRC, not Minnesota, license is required to distribute exempt sources or concentrations.

V. Requirements for Expanded Definition of Byproduct Material, published in the *Federal Register*, 72 FR 55864, with an effective date of November 30, 2007. This rule adds provisions reflecting the NRC's new jurisdiction over discrete sources of radium-226; accelerator produced radioactive materials; and other discrete sources of natural occurring radioactive material. EPAct conferred this jurisdiction and expanded the definition of byproduct material to include these new sources.

The expanded definition includes materials that have historically been regulated by the states, including Minnesota. Chapter 4731 has had these materials incorporated into it since it was first adopted. These amendments add regulations that the NRC had most recently adopted that were not in Minnesota's rules.

VI. Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent, published in the Federal Register, 72 FR 68043, with an effective date of January 3, 2008. This rule:

- changes the annual dose reporting to workers from all people who are monitored to only those who have received an occupational dose of 1 mSv (100 mrem) TEDE or 1 mSv (100 mrem) to any individual organ or tissue;

- changes the definition of total effective dose equivalent (TEDE) by substituting effective dose equivalent (EDE) for deep dose equivalent (DDE) (despite this change in definition, if exposure is measure by an external personal monitoring device, DDE must be used to calculate the TEDE unless the dosimetry method is approved by the MDH);

- adds an exemption to labeling containers containing radioactive material for nuclear power reactor licensees; and

- removes the requirement that licensee try to obtain the cumulative occupational dose unless the employee will participate in a planned special exposure.

A detailed summary and discussion of the NRC changes can be found in the *Federal Register* pages listed above that can be accessed online from the Government Printing Office, *Federal Register* website at http://www.gpoaccess.gov/fr/index.html. [From the main page, perform a page number search; highlight the desired volume (number preceding FR), and enter the page number (number following FR)].

In addition to the above, the Department proposes several changes to address editorial issues, which are listed below.

ALTERNATIVE FORMAT

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact:

George F. Johns, Jr., Supervisor
Minnesota Department of Health
625 Robert Street North
P.O. Box 64975
St. Paul, Minnesota 55164-0975
Phone: (651) 201-4530
FAX: (651) 201-4606
TTY users: (651) 201-5797.

STATUTORY AUTHORITY

Minnesota Statutes, sections 144.1202 and 144.1203 authorize the Department to enter into an agreement with the NRC to assume regulatory authority over certain nuclear materials. These sections also authorize rulemaking to allow Minnesota to assume regulatory authority under the agreement with the NRC.

REGULATORY ANALYSIS

The Department is amending its rules to reflect recent NRC regulation changes. These changes maintain standards necessary to promote and protect the radiological health and safety of the public, employee's health and safety, and the safety of the environment. Specifically, amendments add the National Source Tracking System, the new definition by the Energy Policy Act of 2005 of "byproduct" material, leak testing requirements for sealed sources, and minor rule clarifications. The proposed rule changes establish requirements that are an integral element in the Agreement State process.

Minnesota Statutes, section 14.131, sets out seven factors for a regulatory analysis that must be included in the SONAR. Paragraphs (1) through (7) below quote these factors and then provide the agency's response.

"(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule."

The rules in general affect MDH radioactive material licensees. The extent to which the proposed changes will affect a licensee will depend on the type of license the licensee has and the material it possesses.

The rules governing the National Source Tracking System affect licensees with security-related quantities of radioactive material. These licensees currently must meet additional security requirements. The proposed rule will require these licensees to track specific sources in a National database and will be consistent with federal requirements.

The rules related to the leak-test requirements affect licensees with sealed sources. Currently, these licensees are meeting the proposed rule through license conditions.

The largest group affected by these rules is the Minnesota general public since the purpose of the rules is to protect both licensees and the general public from unwanted or unsafe exposures to radioactive materials.

"(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues."

The increased cost of enforcement is negligible. The cost of enforcement of the rules is already funded through annual fees, which were established in the 2004 Minnesota Legislature Legislative Session. The Department will require no additional revenues to enforce these rules.

"(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule."

The NRC requires that MDH adopt the proposed rules compatible NRC's regulations. MDH has little discretion in considering methods that would be less restrictive to the regulated parties.

"(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule."

The Department could terminate its agreement with the NRC, which would allow NRC to reclaim its regulatory role. However, if that action was taken, the licensees in Minnesota would pay higher fees.

"(5) the probable costs of complying with the proposed rule."

Most of the proposed changes are minor in nature and will have a nominal cost for licensees. The change in annual dose reporting to workers will actually have a slight decrease in cost for licensees.

The National Source Tracking System will require licensees possessing security-related quantities of radioactive material to enter source information into the NRC database whenever they receive or transfer one of these risk significant sources, and annually verify that their entry in the database is accurate. This cost is minimal and only affects a small portion of the licensees. This is considered a security requirement for higher activity sources.

"(6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals."

If the proposed rule changes are not adopted, our rules would not meet the NRC's compatibility requirements, which the State agreed to when it became an Agreement State. The NRC could ultimately end the agreement and reclaim regulatory control, costing the State the annual fees that licensees would then pay to the federal government. Also, licensees would pay more; NRC annual fees are currently 25% higher than the Minnesota fees.

"(7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference."

The only differences between the proposed rule changes and the federal regulations are those necessary to conform to Minnesota rulemaking format.

COST DETERMINATION

As required by Minnesota Statues, section 14.127, MDH has considered whether the cost of complying with the proposed rules in the first year after the rules take effect will exceed $25,000 for any small business or small city. MDH has determined that it will not. This determination mirrors the probable costs of complying with the proposed rule, as described in the Regulatory Analysis section of this SONAR on pages 4-6.

LIST OF WITNESSES

MDH does not plan to call non-agency witnesses to testify if these rules were to go to a public hearing. In that event, George F. Johns, Jr., Supervisor of the Radioactive Materials Unit, Minnesota Department of Health would testify briefly about the rule amendments' development and content.

PERFORMANCE-BASED RULES

As stated above, the proposed rules are based on federal regulations that the department is contractually required to adopt. The Department thus has little flexibility in designing these rules.

ADDITIONAL NOTICE

The Department will provide all notices required by statute. The proposed rules and Notice of Intent to Adopt will be sent to everyone who has registered to be on the Department's rulemaking mailing list under Minnesota Statutes, section 14.14, subdivision 1a. We will also give notice to the Legislature per Minnesota Statutes, section 14.116.

At the time the Notice of Intent to Adopt in the State Register, the Department will provide a copy of the Notice to the 182 facilities that have an MDH-specific radioactive materials license or the 62 that have a general license that requires registration. The notice will also be posted on the Radioactive Materials page of the MDH website, with a link from the MDH homepage. The facilities that will receive a mailed notice include medical facilities, colleges and universities, research facilities, and industrial users.

RULE-BY-RULE ANALYSIS

As previously indicated, the proposed rule changes are essentially those of the U.S. Nuclear Regulatory Commission. The NRC categorizes rules that are adopted by states as A, B, C, D, or H&S. The following describes the NRC's various categories:

A = Basic radiation protection standard or related definitions, signs, labels, or terms necessary for the common understanding of radiation principles. The state program should be essentially identical to that of the NRC.

B = Program element with significant direct trans-boundary implications. The state program element should be essentially identical to that of the NRC.

C = Program element, the essential objectives of which should be adopted by the state to avoid conflicts, duplications, or gaps. The manner in which the essential objectives are addressed need not be the same as the NRC, provided the essential objectives are met.

D = Not required for compatibility purposes.

H&S = Program element with a particular health and safety significance. The state should adopt the essential objectives of such program elements in order to maintain an adequate program.

A table correlating the NRC rules to the proposed rule changes and indicating the compatibility level of each rule is included as Exhibit 1 of this SONAR.

The following changes are MDH initiated rather than being NRC-driven.

4731.2200	MDH proposes to clarify the calibration interval, from "periodically" to "intervals not to exceed 12 months", for calibration of instruments.
4731.2360	Licensees possessing radioactive material in sealed source form are required to perform leak tests. Currently, these leak test requirements are regulated through license conditions. MDH proposes incorporating these license conditions into rule for regulation consistency.
4731.2405	In practice, radioactive waste decay-in-storage applies to all licensees. The current rule, however, resides in the medical use portion of the rules. MDH proposes moving the decay-in-storage requirements to make it more obvious that they apply to all licensees.
4731.2510	Licensees are required to keep records of surveys and calibrations performed. MDH proposes to identify the specific components to be included in these records to promote consistency in documentation.
4731.4403	MDH proposes to eliminate language because it conflicts with current practices. Licensees typically submit the training documentation to MDH for review as part of the amendment process. In addition, experience has shown that the documentation is frequently inconsistent with the NRC, MDH and other Agreement State requirements. The additional language is to allow authorized users who are currently authorized on an NRC, MDH or other Agreement State license to work for 60 days before being authorized on an additional license.
4731.4420	Instruments used for measuring activity of unsealed radioactive material must be checked and tested based on currently recognized standards or equipment manufacturer's recommendations before radioactive material may be administered to a patient or human research subject. To provide clarity, MDH proposes to define the testing intervals.
4731.4429	As described above, MDH proposes to relocate the decay-in-storage requirements from the medical section and create the general decay-in-storage requirement in 4731.2405. This proposed rule part will now reference the requirements in 4731.2405.
4731.4508	MDH proposes to repeal this part since the record requirements for decay-in-storage are part of 4731.2405.

Cross-references to these sections were also changed but not noted separately here.

LIST OF EXHIBITS

1. Correlation of Department Rules to NRC Regulations and Compatibility Classification

CONCLUSION

Based on the foregoing, the proposed rule changes are both needed and reasonable.

_____	_____
Date	Commissioner, Minnesota Department of Health

Exhibit 1

Correlation of Department Rules to NRC Regulations and Compatibility Classification

MN Rule Part	Title	10 CFR	Compatibility
4731.0100	Definitions		
Subp. 4a	Accelerator-produced radioactive material	30.4	H&S
Subp. 32	Byproduct material	30.4, 40.4, 150.3	A
Subp. 43b	Consortium	30.4	C
Subp. 51a	Cyclotron	30.4, 35.2	D
Subp. 60a	Discrete Source	20.1003, 30.4, 150.3	H&S
Subp. 140	Medium dose-rate remote afterloader	35.2	D
Subp. 147a	Nationally tracked source	20.1003, 32.2	B
Subp. 163a	Particle accelerator	20.1003, 30.4	H&S
Subp. 171a	Positron Emission Tomography (PET) radionuclide production facility	35.2	H&S
Subp. 196	Radioactive waste or waste	61.2	B
Subp. 243	Total Effective Dose Equivalent	20.1003	B
4731.0355	Reciprocity	150.20	C
4731.1030	Exposure Notifications and Reports	19.13	C
4731.2020	Occupational Dose Limits for Adults		
Subp. 3	Assessing Dose	20.1201	A
4731.2200	Surveys and Monitoring	20.1501	DH&S
4731.2360	Leak Test Requirements	License Cond.	
4731.2400	Waste Disposal	20.2001	C
4731.2405	Decay-in-storage	35.92	H&S
4731.2450	Transfer for disposal; manifests	20.2006	B
4731.2460	Disposal of Certain Byproduct material	20.2008	B
4731.2510	Records; surveys	20.2103	D
4731.2520	Determination of Prior Occupational Dose	20.2104	D
4731.2640	Reports to Individuals; Dose Limits Exceeded	20.2205	C
4731.2705	Reports of transactions involving nationally tracked sources	20.2207	B
4731.2750	Annual limits on intake and derived air concentrations; ALIs & DACs	Appendix B	A
4731.2820	Nationally tracked source thresholds	Appendix E	B
4731.3025	Exemption; Certain Concentrations	30.14	B
4731.3030	Exemption; certain items containing radioactive material	30.15	B
4731.3035	Exemption; resins containing Scandium-46; sand-consolidation in oil wells	30.16	Removed
4731.3040	Exempt quantities	30.18	B
4731.3050	Exemption; gas and aerosol detectors containing radioactive material	30.20	B
4731.3065	Specific licenses; application	30.32	C
4731.3075	Terms and conditions of licenses	30.34	C

4731.3145	Exempt Quantities	30.71	B
4731.3150	Radioactive materials; Emergency plan quantities	30.72	DH&S
4731.3215	General license; detecting, measuring, gauging, controlling, and other devices	31.5	D
4731.3230	General license; calibration or reference sources	31.8	D
4731.3245	General license; in vitro clinical or laboratory testing use	31.11	D
4731.3250	General license for certain items and self-luminous products containing radium-226	31.12	C
4731.3305	Specific License; Introduction of Radioactive Material in Exempt Concentrations; Transfer of Ownership or Possession	32.11, 32.12	Removed NRC only
4731.3315	Prohibition of Introduction	32.13	C
4731.3320	Specific License; Resins Containing Scandium-46; Manufacture or Initial Transfer	32.17	Removed NRC only
4731.3365	Specific license; calibration or reference sources, manufacture or initial transfer		
Subp. 1	Approval criteria	32.57	B
Subp. 2	Labeling	32.58	B
Subp. 3	Leak testing	32.59	B
4731.3390	Specific license; material for in vitro clinical or laboratory testing; manufacture and distribution	32.71	B
4731.3395	Specific license; radioactive drugs for medical use; manufacture, preparation, or transfer	32.72	B
4731.3400	Specific License; Sources or Devices for Medical Use; Manufacture or Distribution	32.74	B
4731.3410	Prototype tests; calibration or reference sources containing Americium-241, Plutonium, or Radium-226	32.102	B
4731.3450	Serialization of nationally tracked sources	32.201	B
4731.3580	Limits for broad scope licenses	33.100	D
4731.4403	Specific License; Medical Use of Radioactive Materials		
Subp. 3	License Amendments	35.13	D
Subp. 4	Notification of Changes	35.14	D
Subp. 5	Exemptions; broad scope license	35.15	D
4731.4409	Procedures for Administrations Requiring Written Directive	35.41	D
4731.4420	Measuring activity of unsealed radioactive material; instruments required	35.60	DH&S
4731.4422	Determination of dosages; unsealed radioactive material	35.63	DH&S
4731.4429	Decay-in-storage	35.92	DH&S
4731.4432	Unsealed radioactive material; uptake, dilution, and excretion studies; written directive not required	35.100	H&S
4731.4434	Unsealed radioactive material; imaging and localization studies; written directive not required	35.200	H&S
4731.4435	Permissible molybedenum-99, strontium-82, and strontium-85 concentrations	35.204	DH&S
4731.4440	Unsealed radioactive material; written directive required	35.300	DH&S
4731.4508	Decay-in-storage records	35.2092	D
4731.4509	Molybdenum-99, strontium-82, and strontium-85 records	35.2204	D