

February 6, 2002

Paul Lohaus, Director  
Office of State and Tribal Programs  
U. S. Nuclear Regulatory Commission  
11555 Rockville Pike,  
1 White Flint North  
Rockville, Maryland

Dear Mr. Lohaus:

This is to advise you of several amendments to the Oklahoma Radiation Management Rules [Oklahoma Administrative Code (OAC)] that are scheduled to be adopted in response to changes to the regulations of the U. S. Nuclear Regulatory Commission, as made effective with the publication of the Code of Federal Regulations, Title 10, January 1, 2001. As you are aware, these changes are for the purpose of maintaining compatibility under the agreement between the Commission and the State of Oklahoma.

The aforementioned amendments are shown in the attachment to this electronic message letter. The citations of these amendments are listed under PROPOSED RULES, as shown on the first page of the document entitled TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY CHAPTER 410. RADIATION MANAGEMENT. The attachment also contains individual pages that show the actual changes to each of the amended sections.

The historical record related to these amendments is that these amendments were considered by the Radiation Management Advisory Council at its meeting on January 30, 2002. After consideration of each individual amendment, the Council voted to recommend to the Environmental Quality Board that these amendments be adopted. The Board is scheduled to meet on March 1, 2002. During that meeting, the Board will consider the recommendations of the Council, among other business before it, and either adopt, amend and then adopt the amended version, or reject these amendments recommended by the Council.

Once adopted by the Board, these amendments could come under challenge by an action of the Oklahoma State Legislature. Then, if the legislative bodies fail to take action, which would be tantamount to approval, Governor Keating must sign off on the adopted amendments to allow them to come into effect. It is anticipated that these amendments would become fully effective as June 13, 2002.

Please let us know if you require further information concerning this matter. We will appreciate your approval of these changes in the Oklahoma Rules.

Sincerely,

Mike Broderick  
Environmental Programs Manager  
Radiation Management Section

Attachment: 1  
MB/dmc

**TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY  
CHAPTER 410. RADIATION MANAGEMENT**

**RULEMAKING ACTION:**

PERMANENT final adoption

**PROPOSED RULES:**

Subchapter 1. General Provisions

252:410-1-7. Incorporation of federal regulations by reference  
[AMENDED]

Subchapter 10. State Agreement Program

252:410-10-32. Byproduct Material: Specific Licenses for  
Manufacturing and Transferring Certain Items [AMENDED]

252:410-10-39. Well Logging [AMENDED]

Subchapter 20. Standards for Protection Against Radiation

252:410-20-1. Standards for protection against radiation  
[AMENDED]

**AUTHORITY:**

Environmental Quality Board; 27A O.S. Supp. 2000 §§2-2-101, 2-2-201 and 2-7-106

**DATES:**

**Comment period:**

January 2, 2002 through January 29, 2002 and March 1, 2002.

**Public hearing:**

January 30, 2002 and March 1, 2002

**Adoption:**

March 1, 2002 (proposed)

**Submitted to Governor:**

**Submitted to House:**

**Submitted to Senate:**

**Gubernatorial approval:**

**Legislative approval:**

**Final adoption:**

**Effective:**

June 13, 2002

**SUPERSEDED EMERGENCY ACTIONS:**

None

**INCORPORATION BY REFERENCE:**

**Incorporated standards:**

10 CFR Radiation Regulations as amended through January 1, 2001

**Incorporating rule:**

252:410-1-7

**Availability:**

Through the contact person listed below.

**ANALYSIS:**

The purpose of the proposed amendments to Subchapter 1, Section 1-7, is to update the adoption by reference of the federal radiation

management regulations found in Title 10 of the Code of Federal Regulations (10 CFR) revised as of January 1, 2001 and required or recommended by the Nuclear Regulatory Commission (NRC) for incorporation by agreement states. In addition, these proposed amendments to Section 1-7 involve revoking the incorporation of new or superseding amendments which are now contained in the 10 CFR revised as of January 1, 2001. The amendments proposed for adoption pertain to well logging, respiratory protection, and dosimetry technology and are necessary to keep DEQ's State Agreement Program in radiation management consistent with the federal NRC program and in order to maintain Oklahoma's agreement state status.

The specific regulatory changes to be incorporated from the January 1, 2001 regulations at 10 CFR Part 39 (39.2; 39.15; 39.35; 39.41; 39.49; 39.53 [new]; 39.55 [new]; 39.77) pertain principally to radioactive energy compensation sources ("ECS") and tritium neutron generator target sources used in some well logging applications. The amendments to 10 CFR Part 39 recognize the use of the ECS and the tritium source in well logging and provide requirements governing their use.

The specific regulatory changes to be incorporated from the January 1, 2001 regulations at 10 CFR Part 20 (20.1003; 20.1701; 20.1702; 20.1703; 20.1704; 20.1705 [new]) pertain to the use of respiratory protection and other controls to restrict intake of radioactive material and to control internal and external radiation exposure. The amendments to 10 CFR Part 20 provide greater assurance that worker dose will be maintained as low as is reasonably achievable.

Specific regulatory changes pertaining to dosimetry technology are to be incorporated from the January 1, 2001 regulations and impact 10 CFR Parts 34, 36 and 39 (34.47; 34.83; 36.55; 36.81; 39.65). These amendments allow licensees to use any type of personnel dosimeter that requires processing to determine the radiation dose, provided the processor is accredited under the National Voluntary Laboratory Accreditation Program.

The purpose of the proposed amendment to Subchapter 10, Section 10-32 is to correct an error that occurred in a previous rulemaking. The correction involves changing the word "or" to "of", making it clear that NRC is responsible for issuing certificates "of" registration to manufacturers of sealed sources and devices.

**CONTACT PERSON:**

Mike Broderick (405) 702-5100, 707 North Robinson, Fifth Floor, Oklahoma City, Oklahoma 73102

**PURSUANT TO THE ACTIONS DESCRIBED HEREIN, THE FOLLOWING RULES ARE CONSIDERED FINALLY ADOPTED AS SET FORTH IN 75 O.S., SECTION 308.1(A), WITH AN EFFECTIVE DATE OF JUNE 13, 2002.**

## **SUBCHAPTER 1. GENERAL PROVISIONS**

### **252:410-1-7. Incorporation of federal regulations by reference**

(a) **10 CFR.** References in this Chapter to Title 10 of the Code of Federal Regulations (10 CFR) mean the January 1, ~~1999~~ 2001 publication of 10 CFR, ~~as amended by 64 Fed. Reg. 42269 (August 4, 1999).~~

(b) **40 CFR.** References in this Chapter to Title 40 of the Code of Federal Regulations (40 CFR) mean the July 1, 1998 publication of 40 CFR and 64 Fed. Reg. 5574 (February 3, 1999).

## **SUBCHAPTER 10. STATE AGREEMENT PROGRAM**

### **PART 32. BYPRODUCT MATERIAL: SPECIFIC LICENSES FOR MANUFACTURING AND TRANSFERRING CERTAIN ITEMS**

#### **252:410-10-32. 10 CFR 32 incorporations by reference**

The following provisions are hereby incorporated by reference from 10 CFR 32, Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material:

**(1) General provisions.**

- (A) 32.1 - Purpose and scope, excluding issuance of certificates ~~or~~ of registration to manufacturers of sealed sources and devices
- (B) 32.2 - Definitions
- (C) 32.3 - Maintenance of records

**(2) Subpart A; Exempt concentrations and items.**

- (A) 32.11 - Introduction of byproduct material in exempt concentrations into products or materials and transfer of ownership or possession: Requirements for license
- (B) 32.12 - Same: Records and material transfer reports
- (C) 32.13 - Same: Prohibition of introduction
- (D) 32.17 - Resins containing scandium-46 and designed for sand-consolidation in oil wells: Requirements for license to manufacture, or initially transfer for sale or distribution
- (E) 32.24 - Organ doses table

**(3) Subpart B; Generally licensed items.**

- (A) Byproduct material contained in devices for use under 31.5:
  - (i) 32.51 - Requirements for license to manufacture or initially transfer
  - (ii) 32.51a - Conditions of licenses
  - (iii) 32.52 - Material transfer reports and records
- (B) Luminous safety devices for use in aircraft:
  - (i) 32.53 - Requirements for license to manufacture, assemble, repair or initially transfer
  - (ii) 32.54 - Labeling of devices
  - (iii) 32.55 - Quality assurance; prohibition of transfer
  - (iv) 32.56 - Material transfer reports
- (C) Calibration or reference sources containing americium 241:
  - (i) 32.57 - Requirements for license to manufacture or initially transfer
  - (ii) 32.58 - Labeling of devices
  - (iii) 32.59 - Leak testing of each source
- (D) Ice detection devices containing strontium-90:
  - (i) 32.61 - Requirements for license to manufacture or initially transfer
  - (ii) 32.62 - Quality assurance; prohibition of transfer

(E) 32.71 - Manufacture and distribution of byproduct material for certain *in vitro* clinical or laboratory testing under general license

(F) 32.72 - Manufacture, preparation or transfer for commercial distribution of radioactive drugs containing byproduct material for medical use under part 35

(G) 32.74 - Manufacture and distribution of sources or devices containing byproduct material for medical use

(4) **Subpart B Schedules.**

(A) 32.101 - Schedule B, prototype tests for luminous safety devices for use in aircraft

(B) 32.102 - Schedule C, prototype tests for calibration or reference sources with americium-241

(C) 32.103 - Schedule D, prototype tests for ice detection devices with strontium 90

(5) **Subpart C; Quality control sampling procedures.** 32.110 - Acceptance sampling procedures under certain specific licenses

## **PART 39. WELL LOGGING**

### **252:410-10-39. 10 CFR 39 incorporations by reference**

The following provisions are hereby incorporated by reference from 10 CFR 39, Licenses and Radiation Safety Requirements for Well Logging:

(1) **Subpart A; General provisions.**

(A) 39.1 - Purpose and scope

(B) 39.2 - Definitions

(2) **Subpart B; Specific licensing requirements.**

(A) 39-11 - Application for a specific license

(B) 39.13 - Specific licenses for well logging

(C) 39.15 - Agreement with well owner or operator

(D) 39.17 - Request for written statements

(3) **Subpart C; Equipment.**

(A) 39.31 - Labels, security and transportation precautions

(B) 39.33 - Radiation detection instruments

(C) 39.35 - Leak testing of sealed sources

(D) 39.37 - Physical inventory

(E) 39.39 - Records of material use

(F) 39.41 - Design and performance criteria for sealed sources

(G) 39.43 - Inspection, maintenance and opening of source or source holder

(H) 39.45 - Subsurface tracer studies

(I) 39.47 - Radioactive markers

(J) 39.49 - Uranium sinker bars

(K) 39.51 - Use of a sealed source in a well without surface casing

(L) 39.53 - Energy compensation source

(M) 39.55 - Tritium neutron generator target source

(4) **Subpart D; Radiation safety requirements.**

(A) 39.61 - Training

(B) 39.63 - Operating and emergency procedures

(C) 39.65 - Personnel monitoring

(D) 39.67 - Radiation surveys

(E) 39.69 - Radioactive contamination control

(5) **Subpart E; Security, Records, Notifications.**

(A) 39.71 - Security

(B) 39.73 - Documents and records required at field stations

(C) 39.75 - Documents and records required at temporary jobsites

(D) 39.77 - Notification of incidents and lost sources; abandonment procedures for irretrievable sources

## **SUBCHAPTER 20. STANDARDS FOR PROTECTION AGAINST RADIATION**

### **252:410-20-1. Standards for protection against radiation**

(a) **Scope and applicability.** This Subchapter applies to all persons possessing source(s) of ionizing radiation subject to DEQ jurisdiction. Incorporated exposure limits do not apply to doses an individual has received due to background radiation or any medical administration or from his voluntary participation in medical research programs. Nothing in these rules shall be interpreted as limiting the intentional exposure of patients to radiation for the purpose of medical diagnosis or therapy.

(b) **Terms.** For purposes of this Subchapter:

(1) **"Licensed material"** means any radioactive material under DEQ jurisdiction.

(2) **"Licensee"** means the holder of any DEQ radiation management authorization.

(c) **10 CFR 20 incorporations.** The following provisions of 10 CFR 20, Standards for Protection Against Radiation, are hereby incorporated by reference.

(1) **Subpart A, General Provisions.**

- (A) 20.1001(b) - Purpose
- (B) 20.1002 - Scope
- (C) 20.1003 - Definitions
- (D) 20.1004 - Units of radiation dose
- (E) 20.1005 - Units of radioactivity
- (F) 20.1008 (b) through (e) - Implementation

(2) **Subpart B, Radiation Protection Programs. - 20.1101**

(3) **Subpart C, Occupational Dose Limits.**

- (A) 20.1201 - Occupational dose limits for adults
- (B) 20.1202 - Compliance with requirements for summation of external and internal doses
- (C) 20.1203 - Determination of external dose from airborne radioactive material
- (D) 20.1204 - Determination of internal exposure
- (E) 20.1206 - Planned special exposures
- (F) 20.1207 - Occupational dose limits for minors
- (G) 20.1208 - Dose to embryo/fetus

(4) **Subpart D, Radiation Dose Limits for Individual Members of the Public.**

- (A) 20.1301 (a), (b), (c) and (e) - Dose limits for individual members of the public
- (B) 20.1302 - Compliance with dose limits for individual members of the public

(5) **Subpart E, Radiological Criteria for License Termination.**

- (A) 20.1401 - General provisions and scope
- (B) 20.1402 - Radiological criteria for unrestricted use



- (C) 20.1403 - Criteria for license termination under restricted conditions
- (D) 20.1404 - Alternate criteria for license termination
- (E) 20.1405 - Public notification and public participation
- (F) 20.1406 - Minimization of contamination
- (6) **Subpart F, Surveys and Monitoring.**
  - (A) 20.1501 - General
  - (B) 20.1502 - Conditions requiring individual monitoring of external and internal occupational dose
- (7) **Subpart G, Control of Exposure From External Sources in Restricted Areas.**
  - (A) 20.1601 - Control of access to high radiation areas
  - (B) 20.1602 - Control of access to very high radiation areas
- (8) **Subpart H, Respiratory Protection and Controls to Restrict Internal Exposure in Restricted Areas.**
  - (A) 20.1701 - Use of process or other engineering controls
  - (B) 20.1702 - Use of other controls
  - (C) 20.1703 - Use of individual respiratory protection equipment
  - (D) 20.1704 - Further restrictions on the use of respiratory protection equipment
  - (E) 20.1705 - Application for use of higher assigned protection factors
- (9) **Subpart I, Storage and Control of Licensed Material.**
  - (A) 20.1801 - Security of stored material
  - (B) 20.1802 - Control of material not in storage
- (10) **Subpart J, Precautionary Procedures.**
  - (A) 20.1901 - Caution signs
  - (B) 20.1902 - Posting requirements
  - (C) 20.1903 - Exceptions to posting requirements
  - (D) 20.1904 - Labeling containers
  - (E) 20.1905 - Exemptions to labeling requirements
  - (F) 20.1906 - Procedures for receiving and opening packages
- (11) **Subpart K, Waste Disposal.**
  - (A) 20.2001 - General requirements
  - (B) 20.2002 - Method for obtaining approval of proposed disposal procedures
  - (C) 20.2003 - Disposal by release into sanitary sewerage
  - (D) 20.2004(a)(2) and (3) - Treatment or disposal by incineration
  - (E) 20.2005 - Disposal of specific wastes
  - (F) 20.2006 - Transfer for disposal and manifests
  - (G) 20.2007 - Compliance with environmental and health protection regulations
- (12) **Subpart L, Records.**
  - (A) 20.2101 - General provisions
  - (B) 20.2102 - Records of radiation protection programs
  - (C) 20.2103 - Records of surveys

- (D) 20.2104 - Determination of prior occupational dose
- (E) 20.2105 - Records of planned special exposures
- (F) 20.2106 - Records of individual monitoring results
- (G) 20.2107 - Records of dose to individual members of the public
- (H) 20.2108 - Records of waste disposal
- (I) 20.2110 - Form of records

**(13) Subpart M, Reports.**

- (A) 20.2201 - Reports of theft or loss of licensed material
- (B) 20.2202 - Notification of incidents
- (C) 20.2203 (a), (b) and (d) - Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the limits
- (D) 20.2204 - Reports of planned special exposures
- (E) 20.2205 - Reports to individuals of exceeding dose limits

**(14) Subpart N, Exemptions and Additional Requirements.**

- (A) 20.2301 - Applications for exemptions
- (B) 20.2302 - Additional requirements

**(15) Appendices to Part 20.**

- (A) Appendix A. Protection Factors for Respirators
- (B) Appendix B.
  - (i) Table 1. Annual limits on intake (ALIs) and derived air concentration (DACs) of radionuclides for occupational exposure
  - (ii) Table 2. Effluent concentrations
  - (iii) Table 3. Concentrations for release to sewerage
- (C) Appendix C. Quantities of Licensed Material Requiring Labeling
- (D) Appendix F. Requirements for low-level waste transfer for disposal at land disposal facilities and manifests
- (E) Appendix G. Requirements for transfers of low-level radioactive waste intended for disposal at licensed land disposal facilities and manifests