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TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

September 6, 2001

Mr. Paul Lohaus, Director
U.S. Nuclear Regulatory Commission
Office of State Programs
PI-37
Washington, D.C. 20555

Re: Adopted Amendments to Title 30 Texas Administrative Code (TAC) Chapter 336,
Radioactive Substance Rules

Dear Mr. Lohaus:

In accordance with the Office of State Programs Procedure SA-201, Review of State Regulations, the Texas Natural Resource Conservation Commission (TNRCC) is enclosing the final adoption publication of the subject amendments. A draft of the proposed rule amendments entitled "Proposed Revisions to 30 TAC Chapter 336, Radioactive Substance Rules" was submitted for U.S. Nuclear Regulatory Commission (NRC) review and comment by letter dated January 10, 2001. NRC's reply, dated March 5, 2001, stated that if TNRCC's proposed rules were adopted without significant change, they would meet NRC compatibility requirements. The rule amendments were published for public comment on June 8, 2001, no public comments were received, and the rule amendments were adopted without change from the proposed version on August 8, 2001.

A completely updated version of Chapter 336 and all other rules of this agency can be viewed or downloaded from our web site: <http://www.tnrcc.state.tx.us/oprd/rules>.

Please contact Dr. Hygie H. Reynolds of my staff, at (512) 239-6825, or by correspondence at the address below at mail code 126 (MC126), if you have questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads "Katherine Nelson".

Katherine Nelson, Acting Director
Waste Permits Division

KN/HHR/hbs

Enclosure

cc: Dr. Hygie Reynolds

Handwritten initials "SPDB" in a stylized, slanted font.

Ramon Dasch
Acting Director, Environmental Law Division
Texas Natural Resource Conservation Commission
Effective date: August 29, 2001
Proposal publication date: June 8, 2001
For further information, please call: (512) 239-4712

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**DIVISION 3. FLEXOGRAPHIC AND
ROTOGRAVURE PRINTING**

30 TAC §§115.432, 115.433, 115.435, 115.436, 115.439

STATUTORY AUTHORITY

The amendments are adopted under Texas Water Code (TWC), §5.103, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; Texas Health and Safety Code, TCAA, §382.017, which provides the commission authority to adopt rules consistent with the policy and purposes of the TCAA; §382.002, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, which authorizes the commission to control the quality of the state's air; §382.012, which authorizes the commission to develop plans to protect the state's air; and §382.016, which authorizes the commission to require that records of the air contaminant emissions from a source or activity be made and maintained.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Filed with the Office of the Secretary of State on August 9, 2001.

TRD-200104571

Ramon Dasch

Acting Director, Environmental Law Division
Texas Natural Resource Conservation Commission
Effective date: August 29, 2001

Proposal publication date: June 8, 2001

For further information, please call: (512) 239-4712

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**DIVISION 4. OFFSET LITHOGRAPHIC
PRINTING**

30 TAC §115.442

STATUTORY AUTHORITY

The amendment is adopted under Texas Water Code (TWC), §5.103, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; Texas Health and Safety Code, TCAA, §382.017, which provides the commission authority to adopt rules consistent with the policy and purposes of the TCAA; §382.002, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, which authorizes the commission to control the quality of the state's air; §382.012, which authorizes the commission to develop plans to protect the state's air; and §382.016, which authorizes the commission to require

that records of the air contaminant emissions from a source or activity be made and maintained.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Ramon Dasch

Acting Director, Environmental Law Division
Texas Natural Resource Conservation Commission
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**SUBCHAPTER F. MISCELLANEOUS
INDUSTRIAL SOURCES**

DIVISION 1. CUTBACK ASPHALT

30 TAC §§115.512, 115.517, 115.519

STATUTORY AUTHORITY

The amendments are adopted under Texas Water Code (TWC), §5.103, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; Texas Health and Safety Code, TCAA, §382.017, which provides the commission authority to adopt rules consistent with the policy and purposes of the TCAA; §382.002, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, which authorizes the commission to control the quality of the state's air; §382.012, which authorizes the commission to develop plans to protect the state's air; and §382.016, which authorizes the commission to require that records of the air contaminant emissions from a source or activity be made and maintained.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Filed with the Office of the Secretary of State on August 9, 2001.

TRD-200104573

Ramon Dasch

Acting Director, Environmental Law Division
Texas Natural Resource Conservation Commission
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For further information, please call: (512) 239-4712

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**CHAPTER 336. RADIOACTIVE SUBSTANCE
RULES**

The Texas Natural Resource Conservation Commission (TNRCC or commission) adopts the amendments to §336.2, Definitions; §336.305, Occupational Dose Limits for Adults; §336.307, Determination of External Dose from Airborne Radioactive Material; §336.310, Planned Special Exposures; §336.312, Dose Equivalent to an Embryo/Fetus; §336.315,

General Requirements for Surveys and Monitoring; §336.316, Conditions Requiring Individual Monitoring of External and Internal Occupational Dose; §336.319, Use of Process or Other Engineering Controls; §336.320, Use of Other Controls; §336.321, Use of Individual Respiratory Protection Equipment; §336.322, Further Restrictions on the Use of Respiratory Protection Equipment; §336.335, Reporting Requirements for Incidents; §336.341, General Recordkeeping Requirements for Licensees; §336.346, Records of Individual Monitoring Results; §336.358, Appendix A. Assigned Protection Factors for Respirators; §336.359, Appendix B. Annual Limits on Intake (ALI) and Derived Air Concentrations (DAC) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sanitary Sewerage; and §336.611, Public Notification and Public Participation. The commission is also adopting the repeal of Subchapter I, §336.801, Purpose and Scope; §336.802, Definitions; §336.803, Financial Assurance Requirements; §336.804, Financial Assurance Mechanisms; §336.805, Long-Term Care Requirements; §336.806, Wording of Financial Assurance Mechanisms; and §336.807, Appendix A. Wording of Financial Assurance Instruments. The amendments to §§336.2, 336.305, 336.307, 336.310, 336.312, 336.315, 336.316, 336.319 - 336.322, 336.335, 336.341, 336.346, 336.358, 336.359, and 336.611 and the repeal of §§336.801 - 336.807 are adopted without changes to the proposal as published in the June 8, 2001, issue of the *Texas Register* (26 TexReg 4052) and will not be republished.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

Nearly all of the amendments to this chapter were derived from three United States Nuclear Regulatory Commission (NRC) rulemakings: 1.) Respiratory Protection and Controls to Restrict Internal Exposures, October 7, 1999 (64 FR 54543), and October 13, 1999 (64 FR 55524), effective February 4, 2000; 2.) Minor Corrections, Clarifying Changes, and a Minor Policy Change, July 23, 1998 (63 FR 39477), and August 26, 1998 (63 FR 45393), effective October 26, 1998; and, to a very limited extent, 3.) Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act, December 10, 1996 (61 FR 65119), effective January 9, 1997, which was revisited to add a definition inadvertently omitted in an earlier rulemaking (in 1998). The commission must incorporate NRC rulemakings into its rules to preserve the status of Texas as an Agreement State authorized to administer a portion of the radiation control program in this state. NRC rules must be incorporated into the commission's rules within three years of their effective date.

The amendments from NRC's "Respiratory Protection and Controls to Restrict Internal Exposures" rulemaking make the regulations more consistent with the philosophy of controlling the sum of internal and external radiation exposure and reflect current guidance on respiratory protection from the American National Standards Institute (ANSI). The amendments are also consistent with recently effective revisions to the Occupational Safety and Health Administration's (OSHA's) respiratory protection rule and make requirements for radiological protection less prescriptive, while reducing unnecessary regulatory burden, without reducing worker protection. The amendments provide greater assurance that worker doses will be maintained as low as is reasonably achievable and that recent technological advances in respiratory protection equipment and procedures are reflected in the regulations and clearly approved for use by licensees.

The amendments from NRC's "Minor Corrections, Clarifying Changes, and a Minor Policy Change" rulemaking make minor corrections and clarifying changes and are also intended to conform with the NRC's revised radiation protection standards. In addition, the rulemaking includes a minor policy change that raises the criteria for placement of monitoring devices on minors from 0.05 rem to 0.1 rem in a year and on declared pregnant women from 0.05 rem to 0.1 rem during their pregnancies. The 0.1 rem deep dose equivalent monitoring criterion represents a quantity more consistent with the measurement sensitivity of individual monitoring devices. (Minor Corrections, Clarifying Changes, and a Minor Policy Change, July 23, 1998 (63 FR 39478)). The NRC determined that the current criterion of 0.05 rem, if received uniformly in a year or throughout the gestation period, would result in an average monthly dose of less than 0.005 rem, and that the most routinely utilized monitoring devices cannot accurately measure doses below 0.01 rem, which is greater than the average monthly dose of 0.005 rem. These changes to the threshold for monitoring exposures to radiation and radioactive material do not change the total occupational dose limits for minors or declared pregnant women of 0.5 rem.

Lastly, the definition for "constraint (dose constraint)" from NRC's "Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act" rulemaking was inadvertently omitted from a previous commission rulemaking (August 28, 1998 issue of the *Texas Register* (23 TexReg 8837)) and needs to be incorporated now to assure compatibility with the NRC regulations.

The commission also adopts in 30 Texas Administrative Code (TAC) Chapter 336, Radioactive Substance Rules, an update to one cross-reference in Subchapter D, an update to one cross-reference in Subchapter G, and a repeal of Subchapter I, which was made obsolete when its requirements were previously incorporated into 30 TAC Chapter 37, Subchapters S and T.

SECTION BY SECTION DISCUSSION

Subchapter A, General Provisions

All of the changes adopted in Subchapter A are derived from the federal rule changes.

The amendments to §336.2 are adopted to make it compatible with the latest version of Title 10 Code of Federal Regulations (CFR) §20.1003. New federal definitions are added for "Air-purifying respirator," "Assigned protection factor (APF)," "Atmosphere-supplying respirator," "Constraint (dose constraint)," "Demand respirator," "Disposable respirator," "Filtering facepiece (dust mask)," "Fit factor," "Fit test," "Helmet," "Hood," "Lens dose equivalent (LDE)," "Loose-fitting facepiece," "Negative pressure respirator (tight fitting)," "Positive pressure respirator," "Powered air-purifying respirator (PAPR)," "Pressure demand respirator," "Qualitative fit test (QLFT)," "Quantitative fit test (QNFT)," "Self-contained breathing apparatus (SCBA)," "Supplied-air respirator (SAR) or airline respirator," "Tight-fitting facepiece," and "User seal check (fit check)." Also, per the NRC rules, the commission adopts the amendment of the definitions of "Declared pregnant woman," "High radiation area," "Individual monitoring devices," and "Very high radiation area," and the deletion of the definition of "Eye dose equivalent." The new definition of "Constraint (dose constraint)" is added to make it clear that although a constraint is not the same as a limit, licensees are expected to develop radiation programs to ensure that doses from air emissions are below ten mrem per year. The definition of "Declared pregnant woman" is revised to specify that the

written declaration of pregnancy is to be given to the licensee rather than to the employer, unless the employer is also the licensee. This is necessary to ensure that the entity responsible for work assignments involving radiation exposure, the licensee, is aware of the declaration of pregnancy to facilitate timely and appropriate protective action. The revision also specifies that the declaration, as well as associated dose restrictions, remain in effect until withdrawn in writing or until the woman is no longer pregnant. The determination that a declared pregnant woman is no longer pregnant should be based on a discussion between the declared pregnant woman and the licensee. The definitions of "High radiation area" and "Very high radiation area" are revised to make it clear that these area designations exist solely to note radiation levels from sources external to an individual who may receive the dose. The existing definition of "Eye dose equivalent (EDE)" is deleted and replaced by the new definition of "Lens dose equivalent (LDE)" to avoid confusion between the acronyms for dose to the lens of the eye (EDE) and effective dose equivalent (EDE). This should pose no procedural burden on licensees because the required NRC Forms 4 and 5 for records and reports were revised in August 1995 to reflect the new terminology, and these forms or their equivalents are required to be used by the existing rules.

Subchapter D, Standards for Protection Against Radiation

All of the changes adopted in Subchapter D are derived from the federal rule changes, except the cross-reference update in §336.359.

Section 336.305(a)(2)(A) is amended by replacing the words "an eye" with the words "a lens." This change is consistent with the previously adopted deletion of the definition of "Eye dose equivalent (EDE)" and its replacement by the new definition of "Lens dose equivalent (LDE)" in §336.2 to avoid confusion between the acronyms for dose to the lens of the eye (EDE) and effective dose equivalent (EDE). Section 336.305(c) is amended by changing "shall" to "must" for better readability and changing "eye" to "lens" for consistency with the change to §336.305(a)(2)(A). These changes will also update this section to make it consistent with the latest version of 10 CFR §20.1201.

Section 336.307(a) is amended in the second line to replace "eye" with "lens" for the same reason given in the discussion of §336.305(a)(2)(A) and to update this section to be consistent with the latest version of 10 CFR §20.1203.

Section 336.310(1) is amended by changing "higher exposure" to "dose estimated to result from the planned special exposure." This amendment is intended to clarify what was intended by the words "higher exposure" used in the rule previously. The phrase applies to dose estimates performed prior to authorizing the planned special exposure (PSE). The new wording states that PSE's are authorized only in exceptional situations when alternatives that might avoid the dose estimated to result from the PSE are unavailable or impractical. Improved clarification will avoid possible misinterpretation of a PSE criterion. This change will also make this section compatible with the latest version of 10 CFR §20.1206.

Section 336.312 title is changed to "Dose Equivalent to an Embryo/Fetus" to make it clear that the dose limit specifically applies to the dose equivalent, which is the technically correct term to denote effect of dose to an organ. Subsection (c)(2) is amended by adding the word "resulting" in front of the word "from" for greater clarity. Subsection (d) is amended by moving the phrase "by the time the woman declares pregnancy to the licensee" for greater

clarity, by adding "equivalent" after the word "dose" in two places to use the technically correct expression "dose equivalent," and by changing "has exceeded" to "is found to have exceeded" for greater clarity. These changes will also make this section compatible with the latest version of 10 CFR §20.1208.

Section 336.315 is amended to be consistent with the latest version of 10 CFR §20.1501. Subsection (a)(2)(A) is amended by adding at the beginning the words "magnitude and extent of" in front of "radiation levels" to clarify the intended meaning that surveys should evaluate both the area covering the dose field as well as the amount of dose in that area; and subsection (a)(2)(C) is amended by deleting the unnecessary words "that could be present."

Section 336.316 is amended to make it consistent with the latest version of 10 CFR §20.1502. In paragraph (1), the words "from licensed and unlicensed radiation sources under the control of the licensee" are added after "exposure to radiation" to improve clarity and to make it clear that, in determining whether or not monitoring is required, a licensee need not take into account sources of radiation not under its control. In paragraphs (1) and (2), the criteria for monitoring minors and declared pregnant women in subparagraph (B) are separated into two subparagraphs, (B) and new (C), and amended to make them consistent with §336.312 and technically correct. The criteria for monitoring the deep dose equivalent are changed for minors and declared pregnant women from 0.05 rem to 0.1 rem. (Minor Corrections, Clarifying Changes, and a Minor Policy Change, July 23, 1998 (63 FR 39478)). The 0.1 rem in a year deep dose equivalent monitoring criterion is consistent with the public dose limit and is more consistent with the measurement sensitivity of individual monitoring devices. The NRC determined that the current criteria of 0.05 rem, if received uniformly in a year or throughout the gestation period would result in an average monthly dose of less than 0.005 rem, and that the most routinely utilized monitoring devices cannot accurately measure doses below 0.01 rem, which is greater than the average monthly dose of 0.005 rem. Changing the criteria for monitoring does not, in any way, change the dose limits for declared pregnant women, for the embryo/fetus, or for minors. This change constitutes a small licensee burden reduction while maintaining the current adequate level of protection of health and safety of minors and declared pregnant women.

Section 336.319 is amended by adding "decontamination" to the list of examples of process or engineering controls that licensees should consider for controlling the concentration of radioactive material in air. The NRC and the commission intend that licensees consider decontamination, consistent with maintaining total effective dose as low as reasonably achievable, to reduce resuspension of radioactive material in the work places as a means of controlling internal dose instead of using respirators. This amendment will make this section compatible with the latest version of 10 CFR §20.1701.

Section 336.320 is amended to add a subsection (b) to the section. This new subsection is added to clarify that if a licensee performs an as low as reasonably achievable dose analysis to determine whether or not respirators should be used, the licensee may consider safety factors other than radiological. A reduction in the total effective dose equivalent for a worker is not reasonably achievable if, in the licensee's judgment, an attendant increase in the worker's industrial health and safety risk would exceed the benefit obtained by the reduction in the radiation risk. The NRC's Regulatory Guide 8.15, "Acceptable Programs for

Respiratory Protection," and NUREG-0041, "Manual of Respiratory Protection Against Airborne Radioactive Material" address how factors such as heat, discomfort, reduced vision, etc., associated with respirator use, might reduce efficiency or increase stress thereby increasing health risk. The NRC and the commission expect that licensees will exercise judgment in determining how non-radiological factors apply to selecting an appropriate level of respiratory protection. This new subsection will make this section compatible with the latest version of 10 CFR §20.1702.

Section 336.321 is amended to make it consistent with the latest version of 10 CFR §20.1703 and §20.1705. This section states the requirements for licensees who use respiratory protection equipment to limit intakes of radioactive material. The use of a respirator is, by definition, intended to limit intake of airborne radioactive materials, unless the device is clearly and exclusively used for protection against non-radiological airborne hazards. Whether or not credit is taken for the device in estimating doses, use of the respiratory protection device to limit intake of radioactive material and associated physiological stresses to the user activates the requirements of §336.321. Thus, this section defines the minimum respiratory protection program expected of any licensee who assigns or permits the use of respirators to limit intake.

Section 336.321(a) is amended to change "licensee uses respiratory protection equipment" to "licensee assigns or permits the use of respiratory equipment" to make it clear when this section applies. This subsection is also amended to delete the reference to §336.320 because this language has been misinterpreted at times to mean that an approved respiratory protection program is not needed if respirators are used when concentrations of radioactive material in the air are already below values that define an airborne radioactivity area. The new language makes it clear that, if a licensee uses respiratory protection equipment to limit intakes, the minimum requirements of this section are applicable.

In §336.321(a)(1), the language is amended to add the acronym "NIOSH" and to delete "and the Mine Safety and Health Administration (NIOSH/MSHA)" so that licensees are permitted to use only respirators certified by the National Institute for Occupational Safety and Health.

Section 336.321(a)(2) is amended to delete "NIOSH/MSHA and has not had certification extended by NIOSH/MSHA" because all existing extensions have expired and no new extensions will be granted except for classes of respirators certified under 42 CFR Part 84 and to be consistent with the previous deletion of the Mine Safety and Health Administration as a respirator certifier. Also, further clarification of the language is adopted, including deletion of "including a demonstration by testing, or a demonstration on the basis of reliable test information, that the material and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions of use" and addition of "The application must include evidence that the material and performance characteristics of the equipment are capable of providing the proposed degree of protection under anticipated conditions of use. This must be demonstrated either by licensee testing or on the basis of reliable test information."

In §336.321(a)(3)(A) - (E), minor editing is adopted. Subparagraph (D) is amended to improve clarity, reorder priorities, and bring together in one subparagraph all of the elements required

in written procedures. Subparagraph (E) is amended to clarify that the worker's medical evaluation for using non-face sealing respirators occurs before the first field use, not before first fitting (as required for tight fitting respirators) because fit testing is not needed for these types.

Section 336.321(a)(3)(F) is added to require fit testing before first field use of tight-fitting, face sealing respirators and periodically after the first use. This new language clarifies when and how often fit testing is required. The NRC and the commission require that the licensee specify a frequency of retest in the procedures, that may not exceed one year. The new language also specifies existing NRC staff guidance and ANSI recommendations regarding the test "fit factors" that must be achieved to use the assigned protection factors (APFs). Specifically, fit testing with "fit factors" greater than or equal to ten times the APF is required for tight fitting, negative pressure devices. A fit factor greater than or equal to 500 is required for all tight fitting face pieces used with positive pressure, continuous flow, and pressure-demand devices. ANSI recommended a fit factor of 100 for these devices, but OSHA selected 500 to provide an additional safety margin. The NRC agrees with the OSHA position and, in the interest of consistency, this fit factor is specified as 500. This provision is intended to maintain a sufficient margin of safety to accommodate the greater difficulty in maintaining a good "fit" under field and work conditions as compared to fit test environments. It is important to note that all tight fitting facepieces are to be fit tested in the negative pressure mode regardless of the mode in which they will be used.

Section 336.321(a)(4) is deleted because it is not needed. All of the elements that were required to be in the policy statement are already found in Subchapter D and in the requirement for licensees to have and implement written procedures in §336.321(3)(D).

Newly renumbered §336.321(a)(5) is clarified and expanded to emphasize the existing requirements that provisions be made for vision correction, adequate communications, and low-temperature work environments. A licensee is required to account for the effects of adverse environmental conditions on the equipment and the wearer. The NRC considers the inability of the respirator wearer to read postings, to operate equipment and/or instrumentation, and to properly identify hazards to be an unacceptable degradation of personnel safety. Also, a requirement for licensees to consider low-temperature work environments when selecting respiratory protection devices is added. The NRC believes that this requirement is needed because the moisture from exhaled air when temperatures are below freezing could cause the exhalation valve on negative pressure respirators to freeze in the open position. The open valve would provide a pathway for unfiltered air into the respirator inlet covering without the user being aware of the malfunction. Lens fogging that reduces vision in a full facepiece respirator is another problem that can be caused by low temperature. The reference to adequate skin protection has been removed. The NRC does not consider skin protection to be an appropriate reason for the use of respirators (with the exception of air supplied suits). Limitation of skin dose is currently dealt with elsewhere in the regulations (in §336.305). It may be inconsistent with maintaining the dose as low as reasonably achievable to use tight fitting respirators solely to prevent facial contamination. Other protective measures such as the use of faceshields instead of respirators or decontamination should be considered.

Section 336.321(b) is amended by deleting existing obsolete language in subsection (b)(1), by moving the language in subsection (b)(2) to new subsection (f), and by adding a new requirement for standby rescue persons. This new language requires standby rescue persons to be present whenever one-piece atmosphere-supplying suits, or any other combination of supplied air respirator device and protective equipment is used that is difficult for the wearer to take off without assistance. Standby rescue persons would also need to be in continuous communication with the workers, be equipped with appropriate protective clothing and devices and be immediately available to provide needed assistance if the air supply fails. Without continuous air supply, unconsciousness can occur within seconds to minutes.

Section 336.321(c) is amended by deleting existing obsolete language and adding new language. The new language specifies the minimum quality of supplied breathing air, as defined by the Compressed Gas Association (CGA) in their publication G-7.1, "Commodity Specification for Air," 1997, that must be provided whenever atmosphere-supplying respirators are used. This change, which recognizes the CGA recommendations for air quality, was initiated by NIOSH and endorsed by ANSI. The quantity of air supplied, as a function of air pressure or flow rate, would be specified in the NIOSH approval certificate for each particular device and is not addressed in the rule.

Section 336.321(d) is amended by deleting existing obsolete language and adding new language. The new language prohibits the use of respirators whenever any objects, materials, or substances such as facial hair, or any other conditions interfere with the seal of the respirator. The intent of this provision is to prevent the presence of facial hair, cosmetics, spectacle earpieces, surgeon's caps, and other things from interfering with the respirator seal, exhalation valves, and/or proper operation of the respirator.

New §336.321(e) is amended to provide the provisions for changing intake estimates if later, more accurate measurements show that intake was greater or less than initially estimated. Protection factors for use in these calculations are specified in §336.358 (relating to Appendix A. Assigned Protection Factors for Respirators).

New §336.321(f) is amended to contain language moved from deleted §336.321(b)(2) with slight modification, such as changing "commission" to "executive director." This amendment provides compatibility with NRC regulations in 10 CFR §20.1705 in that the authorization for a licensee to assign respiratory protection factors in excess of those specified in §336.358 does not require an amendment of the license. The amendment clarifies that the authorization may be approved by the executive director. The licensee may file with the chief clerk a motion to overturn, under §50.139(b) - (g) of this title (relating to Motion to Overturn Executive Director's Decision), of the executive director's decision on an application for authorization to use higher assigned protection factors.

Section 336.322(1) is amended to clarify that the commission will use "keeping doses as low as reasonably achievable" considerations in any additional restrictions imposed by the commission on the use of respiratory protection equipment for the purpose of limiting exposures of individuals to airborne radioactive materials. This amendment will also make this section consistent with the latest version of 10 CFR §20.1704.

Section 336.335 is amended to make it consistent with the latest version of 10 CFR §20.2202. Subsections (a)(1)(B) and (b)(1)(B)

are amended by changing "eye dose equivalent" to "lens dose equivalent" to be consistent with previous similar changes.

Section 336.341 is amended to make it consistent with the latest version of 10 CFR §20.2101. A new subsection (b) is added to permit licensees to add the new International System of Units (SI) units to the old (special) units of dose on records required by this chapter. Each of the recorded dose quantities is to be recorded in the appropriate special unit and, if so desired, followed by the appropriate SI unit in parentheses. Also, in newly designated subsection (d), "eye dose equivalent" is replaced by "lens dose equivalent" to be consistent with previous similar changes. Subsequent subsections are renumbered to account for the addition of the new subsection and in new subsection (c) the SI acronym is now used rather than first defining the SI acronym here.

Section 336.346 is amended to make it consistent with the latest version of 10 CFR §20.2106. In subsection (a)(1), "eye dose equivalent" is changed to "lens dose equivalent" to be consistent with previous similar changes. Also, in subsection (a)(2) and (3), the words "or body burden" are deleted because this expression is now obsolete. Subsection (a)(4) is amended by adding a reference to §336.308(a), that requires licensees to take measurements of: 1.) concentrations of radioactive materials in air in work areas; or 2.) quantities of radionuclides in the body; or 3.) quantities of radionuclides excreted from the body; or 4.) combinations of these measurements to determine internal dose. This, in effect, uses recorded concentrations of radioactive material in the air, quantities of radioactive material determined to be in the body or excreta, or any combination of these that would be needed, for assessing the committed effective dose equivalent (CEDE). The NRC believes that this information is necessary to support the recorded results of the licensee's calculation of CEDE. Adding this reference would not impose any additional record keeping burden on licensees because they are required to obtain this information to calculate CEDE under §336.308. Section 336.316 is added as a reference to indicate when assessment of committed effective dose is required.

Section 336.358 is amended to make it consistent with the latest version of 10 CFR Part 20, Appendix A. The title is amended to add "Assigned" before "Protection Factors." A new version of the figure contained in §336.358, Appendix A, which has been modified extensively, is substituted for the old version. In the new figure, new devices are recognized, assigned protection factors are revised to be consistent with current ANSI guidance and technical knowledge, and the footnotes to Appendix A are moved elsewhere in the rule, deleted, revised, or adjusted so that only those necessary to explain the table remain.

Section 336.359 title is amended by adding a period after "Appendix B" for punctuation consistency throughout the chapter. Subsection (d) is amended to update the cross-reference to §336.333 to §336.215 because the requirements in §336.333 were moved to §336.215 in a previous rulemaking.

Subchapter G, Decommissioning Standards

Section 336.611 is amended to update the reference to §39.313 to §39.713 because §39.313 was repealed in a previous rulemaking and its requirements moved to §39.713.

Subchapter I, Financial Assurance

Subchapter I is repealed because its requirements were moved to Chapter 37, Subchapters S and T in a previous rulemaking.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to §2001.0225 because it does not meet the definition of a "major environmental rule" as defined in the act. "Major environmental rule" means a rule, the specific intent of which, is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The adopted amendments to Chapter 336 are not anticipated to adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state because there were no significant requirements added to radioactive material disposal facilities. The adopted rulemaking maintains consistency with NRC requirements and provides clarity to existing rules by updating cross-references and deleting obsolete financial assurance provisions.

Furthermore, the adopted rulemaking does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Section 2001.0225 only applies to a major environmental rule, the result of which is to: 1.) exceed a standard set by federal law, unless the rule is specifically required by state law; 2.) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3.) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4.) adopt a rule solely under the general powers of the agency instead of under a specific state law. The adopted rulemaking does not exceed a standard set by federal law, an express requirement of state law, a requirement of a delegation agreement, nor adopt a rule solely under the general powers of the agency.

The Texas Health and Safety Code (THSC), Texas Radiation Control Act (TRCA), Chapter 401, authorizes the commission to regulate the disposal of most radioactive material in Texas. Sections 401.051, 401.103, and 401.104 authorize the commission to adopt rules for the control of sources of radiation and the licensing of the disposal of radioactive materials. In addition, the state of Texas is an Agreement State, authorized by the NRC to administer a radiation control program under the AEA. The NRC requirements must be implemented by the commission to preserve the status as an Agreement State. The commission believes that the adopted rules do not exceed the standards set by federal law. The adopted rulemaking clarifies existing rules, implements changes in federal respiratory protection requirements, and modifies threshold monitoring requirements for minors and declared pregnant women.

The commission believes that the adopted rules do not exceed an express requirement of state law. The THSC, TRCA, Chapter 401, establishes general requirements for the licensing and disposal of radioactive materials. However, the TRCA does not provide specific requirements or technical limitations for respiratory protection or threshold monitoring requirements.

The commission has also determined that the adopted rules do not exceed a requirement of a delegation agreement or contract between the state and an agency of the federal government. The State of Texas has been designated as an Agreement State by the Nuclear Regulatory Commission under the authority of the

AEA. The AEA requires that the NRC find that the state radiation control program is compatible with the NRC's requirements for the regulation of radioactive materials and is adequate to protect health and safety. The commission believes that the adopted rules do not exceed the NRC's requirements nor exceed the requirements for retaining status as an Agreement State.

The commission also believes that these rules are adopted under specific authority of the THSC, TRCA, Chapter 401. Sections 401.051, 401.103, and 401.104 authorize the commission to adopt rules for the control of sources of radiation and the licensing of the disposal of radioactive materials.

The commission invited public comment on this regulatory impact determination; however, no public comments were received.

TAKINGS IMPACT ASSESSMENT

The commission evaluated these adopted rules and performed a final assessment of whether Texas Government Code, Chapter 2007 is applicable. The commission's final assessment indicates that Texas Government Code, Chapter 2007 does not apply to these adopted rules because this is an action that is reasonably taken to fulfill an obligation mandated by federal law, which is exempt under Texas Government Code, §2007.003(b)(4). The State of Texas has received authorization as an Agreement State from the NRC to administer a radiation control program under the AEA. The AEA requires the NRC to find that the state's program is compatible with NRC requirements for the regulation of radioactive materials and is adequate to protect health and safety. The adopted rulemaking will provide consistency with federal regulations.

Nevertheless, the commission further evaluated these adopted rules and performed a final assessment of whether these adopted rules constitute a taking under Texas Government Code, Chapter 2007. The following is a summary of that evaluation and final assessment. The primary purpose of these adopted rules is to implement changes to federal requirements for the regulation and licensing of radioactive material. The adopted rules substantially advance this purpose by clarifying existing rules, implementing new federal requirements for respiratory protection, and modifying threshold monitoring requirements for minors and declared pregnant women.

Promulgation and enforcement of these adopted rules would be neither a statutory nor a constitutional taking of private real property. The subject adopted regulations do not affect a landowner's rights in private real property because this rulemaking does not burden (constitutionally), nor restrict or limit, the owner's right to property and reduce its value by 25% or more beyond which would otherwise exist in the absence of the regulations. The adopted rules primarily implement clarifications to existing rules. In addition, the adopted rules reduce burdens on licensees for respiratory protection and threshold monitoring requirements.

COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW

The commission has reviewed the adopted rulemaking and found that the rules are neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11, relating to Actions and Rules Subject to the Texas Coastal Management Program (CMP), nor will they affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11. Therefore, the adoption is not subject to the CMP.

HEARING AND COMMENTERS

No public hearing was held on this rulemaking; therefore, no oral comments were received. Also, no written comments were received. Further, the NRC has reviewed the proposal and has informed staff, by letter dated March 5, 2001, that if the proposed regulations are adopted without significant change, they would meet the NRC's compatibility and health and safety requirements.

SUBCHAPTER A. GENERAL PROVISIONS

30 TAC §336.2

STATUTORY AUTHORITY

The amendment is adopted under the THSC, TRCA, Chapter 401; THSC, §401.011, which provides the commission the authority to regulate and license the disposal of radioactive substances; §401.051, which authorizes the commission to adopt rules and guidelines relating to control of sources of radiation; §401.103, which authorizes the commission to adopt rules and guidelines that provide for licensing and registration for the control of sources of radiation; §401.104, which requires the commission to provide rules for licensing for the disposal of radioactive material; §401.201, which provides authority to the commission to regulate the disposal of low-level radioactive waste; and §401.412, which provides authority to the commission to regulate licenses for the disposal of radioactive substances. The adopted amendment is also authorized by the TWC, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its powers and duties under the TWC and other laws of the state.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Filed with the Office of the Secretary of State on August 10, 2001.

TRD-200104632

Ramon Dasch

Interim Director, Environmental Law Division

Texas Natural Resource Conservation Commission

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For further information, please call: (512) 239-6087

SUBCHAPTER D. STANDARDS FOR PROTECTION AGAINST RADIATION

30 TAC §§336.305, 336.307, 336.310, 336.312, 336.315, 336.316, 336.319 - 336.322, 336.335, 336.341, 336.346, 336.358, 336.359

STATUTORY AUTHORITY

The amendments are adopted under the THSC, TRCA, Chapter 401; THSC, §401.011, which provides the commission the authority to regulate and license the disposal of radioactive substances; §401.051, which authorizes the commission to adopt rules and guidelines relating to control of sources of radiation; §401.103, which authorizes the commission to adopt rules and guidelines that provide for licensing and registration for the control of sources of radiation; §401.104, which requires the commission to provide rules for licensing for the disposal of radioactive material; §401.201, which provides authority to the commission to regulate the disposal of low-level radioactive waste; and

§401.412, which provides authority to the commission to regulate licenses for the disposal of radioactive substances. The adopted amendments are also authorized by the TWC, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its powers and duties under the TWC and other laws of the state.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Ramon Dasch

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Texas Natural Resource Conservation Commission

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SUBCHAPTER G. DECOMMISSIONING STANDARDS

30 TAC §336.611

STATUTORY AUTHORITY

The amendment is adopted under the THSC, TRCA, Chapter 401; THSC, §401.011, which provides the commission the authority to regulate and license the disposal of radioactive substances; §401.051, which authorizes the commission to adopt rules and guidelines relating to control of sources of radiation; §401.103, which authorizes the commission to adopt rules and guidelines that provide for licensing and registration for the control of sources of radiation; §401.104, which requires the commission to provide rules for licensing for the disposal of radioactive material; §401.201, which provides authority to the commission to regulate the disposal of low-level radioactive waste; and §401.412, which provides authority to the commission to regulate licenses for the disposal of radioactive substances. The adopted amendment is also authorized by the TWC, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its powers and duties under the TWC and other laws of the state.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Ramon Dasch

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For further information, please call: (512) 239-6087

SUBCHAPTER I. FINANCIAL ASSURANCE

30 TAC §§336.801 - 336.807

STATUTORY AUTHORITY

The repeals are adopted under the THSC, TRCA; §§401.011, 401.051, 501.057, 501.101, 401.103(b) and (c), 401.104(b) - (e), 401.106(b) and (c), 401.201 - 401.203, 401.303, 401.412, and 401.413; and TWC, §5.103.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

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Ramon Dasch

Interim Director, Environmental Law Division

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For further information, please call: (512) 239-6087

TITLE 34. PUBLIC FINANCE

PART 1. COMPTROLLER OF PUBLIC ACCOUNTS

CHAPTER 3. TAX ADMINISTRATION SUBCHAPTER V. FRANCHISE TAX

34 TAC §3.578

The Comptroller of Public Accounts adopts a new §3.578, concerning economic development credits, without changes to the proposed text as published in the June 22, 2001, issue of the *Texas Register* (26 TexReg 4660).

This new section is the result of Tax Code, new Subchapter O, §§171.721 - 171.730, new Subchapter P, §§171.751 - 171.761, and new Subchapter Q, §§171.801 - 171.811. This section provides franchise tax guidelines for eligibility and calculation of three credits: research and development, job creation, and capital investment. The section is in accordance with Senate Bill 441 passed by the 76th Legislature, 1999. A corporation may claim a research and development credit, a jobs creation credit, and an investment credit only for expenses and payments incurred, qualified investments or expenditures made, or new jobs created in Texas on or after January 1, 2000.

No comments were received regarding adoption of the new section.

This new section is adopted under Tax Code, §111.002, which provides the comptroller with the authority to prescribe, adopt, and enforce rules relating to the administration and enforcement of the provisions of Tax Code, Title 2.

The new section implements Tax Code, §§171.721 - 171.811.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Filed with the Office of the Secretary of State on August 7, 2001.

TRD-200104509

Martin Cherry

Deputy General Counsel for Tax Policy and Agency Affairs

Comptroller of Public Accounts

Effective date: August 27, 2001

Proposal publication date: June 22, 2001

For further information, please call: (512) 463-4062

TITLE 40. SOCIAL SERVICES AND ASSISTANCE

PART 1. TEXAS DEPARTMENT OF HUMAN SERVICES

CHAPTER 3. TEXAS WORKS

SUBCHAPTER OO. ELECTRONIC BENEFIT TRANSFER (EBT) RETAILER REQUIREMENTS

40 TAC §3.5006

The Texas Department of Human Services (DHS) adopts an amendment to §3.5006, in its Electronic Benefit Transfer (EBT) Retailer Requirements chapter. The amendment is adopted without changes to the proposed text published in the June 1, 2001 issue of the *Texas Register* (26 TexReg 3921). The amendment will not be republished.

Justification for the amendment is to comply with a federal interpretation and the implementation of the new multi-vendor EBT system.

No comments were received regarding the proposal.

The amendment is adopted under the Human Resources Code, Title 2, Chapter 31, which authorizes the department to administer financial assistance programs.

The amendment implements the Human Resources Code, §31.001-31.0325.

This agency hereby certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Filed with the Office of the Secretary of State on August 8, 2001.

TRD-200104556

Paul Leche

General Counsel, Legal Services

Texas Department of Human Services

Effective date: September 1, 2001

Proposal publication date: June 1, 2001

For further information, please call: (512) 438-3734

CHAPTER 20. COST DETERMINATION PROCESS

40 TAC §20.112

The Texas Department of Human Services (DHS) adopts an amendment to §20.112, with changes to the proposed text published in the May 18, 2001, issue of the *Texas Register* (26 TexReg 3610). The change to §20.112(a) in the proposed rule