

**SUBCHAPTER C: GENERAL LICENSING REQUIREMENTS**  
**§§336.201, 336.203, 336.205, 336.207 -336.211, 336.213, 336.215,**  
**336.217, 336.219, 336.221, 336.223, 336.225, 336.227, 336.229**  
**Effective July 11, 2013**

**§336.201. Purpose and Scope.**

This subchapter establishes general licensing requirements for all radioactive materials, except oil and gas naturally occurring radioactive material waste.

Adopted January 30, 2008

Effective February 28, 2008

**§336.203. License Required.**

No person shall dispose of radioactive material unless that person has a license from the Texas Commission on Environmental Quality, or an exemption under Texas Health and Safety Code, §401.106(a).

Adopted January 30, 2008

Effective February 28, 2008

**§336.205. Application Requirements.**

(a) Applications shall be submitted according to the requirements of Chapter 305 of this title (relating to Consolidated Permits), unless otherwise indicated.

(b) An application for a license, or amendment of a license shall be accompanied by the appropriate fee, specified in Subchapter B of this chapter (relating to Radioactive Substance Fees).

Adopted August 23, 2000

Effective September 14, 2000

**§336.207. General Requirements for Issuance of a License.**

An application may be approved if the commission determines that the requirements set forth in the applicable subchapter of this chapter and Chapter 305, Subchapter C of this title (relating to Application for Permit) have been met and that:

(1) the applicant is qualified by training and experience to conduct the proposed radioactive material activities in accordance with the rules in this chapter in

such a manner as to protect and minimize danger to the public health and safety and the environment;

(2) the applicant's proposed equipment, facilities, and procedures are adequate to protect and minimize danger to the public health and safety and the environment;

(3) the issuance of the license will not be inimical to public health and safety nor have a long-term detrimental impact on the environment.

(4) the applicant for a license issued under Subchapter H of this chapter (relating to Licensing Requirements for Near-Surface Land Disposal of Low-Level Radioactive Waste) has acquired the title to and any interest in land and buildings, including the surface and mineral estates, on which the facility or facilities are to be located by either having acquired:

(A) an undivided ownership of the buildings, surface estate, and mineral estate in fee simple through purchase or completed condemnation; or

(B) an undivided ownership of the buildings and surface estate, along with an exemption, granted by the commission in accordance with federal law for use of a surface use agreement, in lieu of acquiring fee simple title to the mineral estate; and

(5) if applicable, the applicant has demonstrated financial capability to conduct the proposed activity, including all costs associated with decommissioning, decontamination, disposal, reclamation, and any long-term care and surveillance.

Adopted January 30, 2008

Effective February 28, 2008

**§336.208. Radiation Safety Officer.**

(a) Qualifications of the designated radiation safety officer (RSO) are adequate for the purpose requested and include as a minimum:

(1) have earned at least a bachelor's degree in a physical or biological science, industrial hygiene, health physics, radiation protection, or engineering from an accredited college or university, or an equivalent combination of training and relevant experience, with two years of relevant experience equivalent to a year of academic study, from a uranium or mineral extraction/recovery, radioactive waste processing, or a radioactive waste or by-product material disposal facility;

(2) have at least one year of relevant experience, in addition to that used to meet the educational requirement, working under the direct supervision of the RSO at a uranium or mineral extraction/recovery, radioactive waste processing, or radioactive waste or by-product material disposal facility; and

(3) have at least four weeks of specialized training in health physics or radiation safety applicable to uranium or mineral extraction/recovery, radioactive waste processing, or radioactive waste or by-product material disposal operations from a course provider that has been evaluated and approved by the agency.

(b) The specific duties of the RSO include, but are not limited to, the following:

(1) to establish and oversee operating, safety, emergency, and as low as reasonably achievable procedures, and to review them at least annually to ensure that the procedures are current and conform with this chapter;

(2) to oversee and approve all phases of the training program for operations and/or personnel so that appropriate and effective radiation protection practices are taught;

(3) to ensure that required radiation surveys and leak tests are performed and documented in accordance with this chapter, including any corrective measures when levels of radiation exceed established limits;

(4) to ensure that individual monitoring devices are used properly by occupationally-exposed personnel, that records are kept of the monitoring results, and that timely notifications are made in accordance with §336.405 of this title (relating to Notifications and Reports to Individuals);

(5) to investigate and cause a report to be submitted to the agency for each known or suspected case of radiation exposure to an individual or radiation level detected in excess of limits established by this chapter and each theft or loss of source(s) of radiation, to determine the cause(s), and to take steps to prevent a recurrence;

(6) to investigate and cause a report to be submitted to the executive director for each known or suspected case of release of radioactive material to the environment in excess of limits established by this chapter;

(7) to have a thorough knowledge of management policies and administrative procedures of the licensee;

(8) to assume control and have the authority to institute corrective actions, including shutdown of operations when necessary in emergency situations or unsafe conditions;

(9) to ensure that records are maintained as required by this chapter;

(10) to ensure the proper storing, labeling, transport, use and disposal of sources of radiation, storage, and/or transport containers;

(11) to ensure that inventories are performed in accordance with the activities for which the license application is submitted;

(12) to perform an inventory of the radioactive sealed sources authorized for use on the license every six months and make and maintain records of the inventory of the radioactive sealed sources authorized for use on the license every six months, to include, but not be limited to, the following:

(A) isotope(s);

(B) quantity(ies);

(C) radioactivity(ies); and

(D) date inventory is performed.

(13) to ensure that personnel are complying with this chapter, the conditions of the license, and the operating, safety, and emergency procedures of the licensee; and

(14) to serve as the primary contact with the agency.

Adopted February 11, 2009

Effective March 12, 2009

### **§336.209. Issuance of License.**

Upon a determination that an application meets the requirements of the Texas Health and Safety Code, Chapter 401 and the commission rules relating to radioactive material licensing, the commission may issue a license authorizing the proposed activity.

Adopted December 17, 2003

Effective January 8, 2004

**§336.210. Emergency Plan for Responding to a Release.**

(a) A new or renewal application for each specific license to possess radioactive materials in unsealed form, on foils or plated sources, or sealed in glass in excess of the quantities in subsection (e) of this section shall contain either:

(1) an evaluation showing that the maximum dose to a person off-site due to a release of radioactive material would not exceed 1 rem effective dose equivalent or 5 rems to the thyroid; or

(2) an emergency plan for responding to a release of radioactive material.

(b) One or more of the following factors may be used to support an evaluation submitted in accordance with subsection (a)(1) of this section:

(1) the radioactive material is physically separated so that only a portion could be involved in an accident;

(2) all or part of the radioactive material is not subject to release during an accident because of the way it is stored or packaged;

(3) the release fraction in the respirable size range would be lower than the release fraction in subsection (e) of this section due to the chemical or physical form of the material;

(4) the solubility of the radioactive material would reduce the dose received;

(5) facility design or engineered safety features in the facility would cause the release fraction to be lower than that in subsection (e) of this section;

(6) operating restrictions or procedures would prevent a release fraction as large as that in subsection (e) of this section; or

(7) other factors appropriate for the specific facility.

(c) An emergency plan for responding to a release of radioactive material submitted in accordance with subsection (a)(1) of this section shall include the following information.

(1) Facility description. A brief description of the licensee's facility and area near the site.

(2) Types of accidents. An identification of each type of radioactive materials accident for which protective actions may be needed.

(3) Classification of accidents. A classification system for classifying accidents as alerts or site area emergencies.

(4) Detection of accidents. Identification of the means of detecting each type of accident in a timely manner.

(5) Mitigation of consequences. A brief description of the means and equipment for mitigating the consequences of each type of accident, including those provided to protect workers onsite, and a description of the program for maintaining the equipment.

(6) Assessment of releases. A brief description of the methods and equipment to assess releases of radioactive materials.

(7) Responsibilities. A brief description of the responsibilities of licensee personnel should an accident occur, including identification of personnel responsible for promptly notifying off-site response organizations and the agency; also, responsibilities for developing, maintaining, and updating the plan.

(8) Notification and coordination. A commitment to and a brief description of the means to promptly notify off-site response organizations and request off-site assistance, including medical assistance for the treatment of contaminated injured onsite workers when appropriate. A control point shall be established. The notification and coordination shall be planned so that unavailability of some personnel, parts of the facility, and some equipment will not prevent the notification and coordination. The licensee shall also commit to notify the agency immediately after notification of the appropriate off-site response organizations and not later than one hour after the licensee declares an emergency. These reporting requirements do not supersede or release licensees from complying with the requirements in accordance with the Emergency Planning and Community Right-to-Know-Act of 1986, Title III, Publication L. 99-499 or other state or federal reporting requirements.

(9) Information to be communicated. A brief description of the types of information on facility status, radioactive releases, and recommended protective actions, if necessary, to be given to off-site response organizations and to the agency.

(10) Training. A brief description of the frequency, performance objectives, and plans for the training that the licensee will provide workers on how to respond to an

emergency, including any special instructions and orientation tours the licensee would offer to fire, police, medical, and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios.

(11) Safe shutdown. A brief description of the means of restoring the facility to a safe condition after an accident.

(12) Exercises. Provisions for conducting quarterly communications checks with off-site response organizations at intervals not to exceed three months and biennial onsite exercises to test response to simulated emergencies. Communications checks with off-site response organizations shall include the check and update of all necessary telephone numbers. The licensee shall invite off-site response organizations to participate in the biennial exercises. Participation of off-site response organizations in biennial exercises, although recommended, is not required. Exercises shall use accident scenarios postulated as most probable for the specific site and the scenarios shall not be known to most exercise participants. The licensee shall critique each exercise using individuals not having direct implementation responsibility for the plan. Critiques of exercises shall evaluate the appropriateness of the plan, emergency procedures, facilities, equipment, training of personnel, and overall effectiveness of the response. Deficiencies found by the critiques shall be corrected.

(13) Hazardous chemicals. A certification that the applicant has met its responsibilities in accordance with the Emergency Planning and Community Right-to-Know Act of 1986, Title III, Publication L. 99-499, if applicable to the applicant's activities at the proposed place of use of the radioactive material.

(d) The licensee shall allow the off-site response organizations expected to respond in case of an accident 60 days to comment on the licensee's emergency plan before submitting it to the agency. The licensee shall provide any comments received within the 60 days to the agency with the emergency plan.

(e) The following indicates release fractions for radioactive material.

Figure: 30 TAC §336.210(e)

Radioactive Material*	Release Fraction	Quantity (curie)	Radioactive Material*	Release Fraction	Quantity (curies)	Radioactive Material*	Release Fraction	Quantity (curie)
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	on	s)		on	)		on	s)
Ac-228 (89)	0.001	4,000	In-114m (49)	0.01	1,000	V-48 (23)	0.01	7,000
Am-241 (95)	0.001	2	Ir-192 (77)	0.001	40,000	Xe-133 (54)	1.0	900,000
Am-242 (95)	0.001	2	Fe-55 (26)	0.01	40,000	Y-91 (39)	0.01	2,000
Am-243 (95)	0.001	2	Fe-59 (26)	0.01	7,000	Zn-65 (30)	0.01	5,000
Sb-124 (51)	0.01	4,000	Kr-85 (36)	1.0	6,000,000	Zr-93 (40)	0.01	400
Sb-126 (51)	0.01	6,000	Pb-210 (82)	0.01	8	Zr-95 (40)	0.01	5,000
Ba-133 (56)	0.01	10,000	Mn-56 (25)	0.01	60,000	Any other beta-gamma emitter	0.01	10,000
Ba-140 (56)	0.01	30,000	Hg-203 (80)	0.01	10,000			
Bi-207 (83)	0.01	5,000	Mo-99 (42)	0.01	30,000	Mixed fission products	0.01	1,000
Bi-210 (83)	0.01	600	Np-237 (93)	0.001	>2			
Cd-109 (48)	0.01	1,000	Ni-63 (28)	0.01	20,000	Mixed corrosion products	0.01	10,000
Cd-113 (48)	0.01	80	Nb-94 (41)	0.01	300			
Ca-45 (20)	0.01	20,000	P-32 (15)	0.5	100	Contaminated equipment, beta-gamma	0.001	10,000
Cf-252 (98)	0.001	9(20mg)	P-33 (15)	0.5	1,000			
C-14 (6)**	0.01	50,000	Po-210 (84)	0.01	10			
Ce-141 (58)	0.01	10,000	K-42 (19)	0.01	9,000			



Ce-144 (58)	0.01	300	Pm-145 (61)	0.01	4,000	Irradiated material, any form other than solid non-combustible		
Cs-134 (55)	0.01	2,000	Pm-147 (61)	0.01	4,000			
Cs-137 (55)	0.01	2,000	Ra-226 (88)	0.001	100			
Cl-36 (17)	0.5	100	Ru-106 (44)	0.01	200			
Cr-51 (24)	0.01	300,000	Sm-151 (62)	0.01	4,000			
Co-60 (27)	0.001	5,000	Sc-46 (21)	0.01	3,000		0.01	1,000
Cu-64 (29)	0.01	200,000	Se-75 (34)	0.01	10,000	Irradiated material, solid non-combustible		
Cm-242 (96)	0.001	60	Ag110m (47)	0.01	1,000			
Cm-243 (96)	0.001	3	Na-22 (11)	0.01	9,000			
Cm-244 (96)	0.001	4	Na-24 (11)	0.01	10,000		0.001	10,000
Cm-245 (96)	0.001	2	Sr-89 (38)	0.01	3,000	Mixed radioactive waste, beta-gamma		
Eu-152 (63)	0.01	500	Sr-90 (38)	0.01	90			
Eu-154 (63)	0.01	400	Sr-35 (16)	0.5	900			
Eu-155 (63)	0.01	3,000	Tc-99 (43)	0.01	10,000	Packaged mixed waste, beta-		
Ge-68 (32)	0.01	2,000	Tc-99m (43)	0.01	400,000			

Gd-153 (64)	0.01	5,000	Te-127m(52)	0.01	5,000	gamma***		
Au-198 (79)	0.01	30,000	Te-129m(52)	0.01	5,000	Any other alpha emitter	0.001	2
Hf-172 (72)	0.01	400	Tb-160 (65)	0.01	4,000			
Hf-181 (72)	0.01	7,000	Tm-170 (69)	0.01	4,000	Contaminated equipment, alpha	0.0001	20
Ho-166 (67)	0.01	100	Sn-113 (50)	0.01	10,000			
H-3 (1)	0.5	20,000	Sn-123 (50)	0.01	3,000	Packaged waste, alpha***	0.0001	20
I-125 (53)	0.5	10	Sn-126 (50)	0.01	1,000			
I-131 (53)	0.5	10	Ti-144 (22)	0.01	100			

\* For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in this paragraph exceeds one.

\*\*Non-carbon dioxide forms only.

\*\*\*Waste packaged in Type B containers does not require an emergency plan.

Adopted January 11, 2012

Effective February 2, 2012

### **§336.211. General Requirements for Radioactive Material Disposal.**

(a) Unless otherwise exempted, a licensee may dispose of licensed material, as appropriate to the type of licensed material, only:

(1) by transfer to an authorized recipient as provided in §336.331(g) and (h) of this title (relating to Transfer of Radioactive Material), Subchapter H of this chapter (relating to Licensing Requirements for Near-Surface Land Disposal of Low-Level Radioactive Waste), or in Subchapter L of this chapter (relating to Licensing of Source Material Recovery and By-product Material Disposal Facilities);

(2) by transfer to a recipient authorized in another state by license issued by the United States Nuclear Regulatory Commission or an Agreement State or to the United States Department of Energy;

(3) by decay in storage as authorized by law;

(4) by release in effluents within the limits specified in §336.313 of this title (relating to Dose Limits for Individual Members of the Public);

(5) as authorized under §336.213 of this title (relating to Method of Obtaining Approval of Proposed Disposal Procedures);

(6) as authorized under §336.215 of this title (relating to Disposal by Release into Sanitary Sewerage);

(7) as authorized under §336.223 of this title (relating to Disposal in Underground Injection Control Class I Injection Wells);

(8) as authorized under §336.225 of this title (relating to Disposal of Specific Wastes); or

(9) as specifically authorized by commission license issued under this chapter.

(b) A person must be specifically licensed to receive waste containing licensed material from other persons for:

(1) treatment prior to disposal;

(2) treatment by incineration;

(3) decay in storage;

(4) disposal at a land disposal facility; or

(5) disposal by injection in an underground injection control Class I injection well.

(c) Except as provided in subsection (d) of this section, the processing and storage of radioactive material received from other persons is subject to Subchapter M of this chapter (relating to Licensing of Radioactive Substances Processing and Storage Facilities).

(d) The receipt, storage, and/or processing of radioactive materials received at a licensed commercial radioactive material disposal facility for the explicit purpose of disposal at that facility shall be regulated in accordance with the license authorizing disposal under this chapter.

(e) The on-site disposal of low-level radioactive waste is prohibited, except as provided by this section. The commission may, on request or its own initiative, authorize on-site disposal of low-level radioactive waste on a specific basis at any facility at which licensed low-level radioactive waste disposal operations began before September 1, 1989, if, after evaluation of the specific characteristics of the waste, the disposal site, and the method of disposal, the commission finds that the continuation of the disposal activity will not constitute a significant risk to public health and safety and to the environment. Persons subject to this subsection shall be licensed under Subchapter F of this chapter (relating to Licensing of Alternative Methods of Disposal of Radioactive Material).

(f) The disposal of low-level radioactive waste received from other persons is prohibited, except by a person who is specifically licensed under Subchapter H of this chapter.

Adopted January 30, 2008

Effective February 28, 2008

### **§336.213. Method of Obtaining Approval of Proposed Activities.**

(a) A person who plans to dispose of radioactive material; store or process radioactive substances from other persons; or recover or process source material shall submit an application for a license according to Chapter 305 of this title (relating to Consolidated Permits) and the applicable subchapter in this chapter.

(b) A person holding a license issued under this chapter shall request changes to the license by requesting a license amendment, according to Chapter 305, Subchapter D of this title (relating to Amendments, Renewals, Transfers, Corrections, Revocation, and Suspension of Permits).

(c) If this chapter does not specifically authorize a proposed disposal procedure, a person shall file an application for a license or license amendment under Subchapter F of this chapter (relating to Licensing of Alternative Methods of Disposal of Radioactive Material) for approval of on-site disposal of radioactive material generated in the person's activities.

Adopted January 30, 2008

Effective February 28, 2008

**§336.215. Disposal by Release into Sanitary Sewerage.**

A licensee may discharge licensed material into sanitary sewerage if each of the following conditions is satisfied:

- (1) the material is readily soluble in water, or is readily dispersible biological material;
- (2) the quantity of licensed or other radioactive material that the licensee releases into the sewer in one month divided by the average monthly volume of water released into the sewer by the licensee does not exceed the concentration listed in Table III of §336.359 of this title (relating to 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);
- (3) if more than one radionuclide is released, the licensee shall determine the fraction of the limit in Table III of §336.359 of this title represented by discharges into sanitary sewerage by dividing the actual monthly average concentration of each radionuclide released by the licensee into the sewer by the concentration of that radionuclide listed in Table III of §336.359 of this title; the sum of the fractions for all of the radionuclides released shall not exceed one; and
- (4) the total quantity of licensed and other radioactive material that the licensee releases into the sanitary sewerage in a year does not exceed five curies (185 gigabecquerels) of hydrogen-3, one curie (37 gigabecquerels) of carbon-14, and one curie (37 gigabecquerels) of all other radioactive materials combined.

Adopted August 23, 2000

Effective September 14, 2000

**§336.217. Disposal by Burial in Soil.**

No licensee shall dispose of radioactive material by burial in soil except as provided by:

- (1) §336.225 of this title (relating to Disposal of Specific Wastes);
- (2) specific license issued under the applicable subchapter of this chapter;

or

(3) an exemption issued under §336.5(a) of this title (relating to Exemptions).

Adopted August 23, 2000

Effective September 14, 2000

**§336.219. Disposal by Release into Septic Tanks.**

No licensee shall discharge radioactive material into a septic tank system except by specific license issued by the commission under Subchapter F of this chapter (relating to Alternative Methods of Disposal of Radioactive Material).

Adopted August 23, 2000

Effective September 14, 2000

**§336.221. Treatment or Disposal by Incineration.**

(a) Treatment of radioactive material by incineration, except in a form and concentration specified by §336.225 of this title (relating to Disposal of Specific Wastes), shall be subject to applicable rules of the Texas Department of Health.

(b) Ash residue waste containing radioactive material shall be disposed of in accordance with §336.211 of this title (relating to General Requirements for Radioactive Material Waste Disposal).

Adopted August 23, 2000

Effective September 14, 2000

**§336.223. Disposal in Underground Injection Control Class I Injection Wells.**

A person shall dispose of radioactive material by injection, only into an underground injection control Class I injection well that is:

(1) permitted under Chapter 331 of this title (relating to Underground Injection Control); and

(2) specifically licensed under this chapter for radioactive material waste disposal.

Adopted August 23, 2000

Effective September 14, 2000

**§336.225. Disposal of Specific Wastes.**

(a) A licensee may dispose of the following licensed material as if it were not radioactive:

(1) 0.05 microcurie (1.85 kilobecquerels), or less, of hydrogen-3, carbon-14, or iodine-125 per gram of medium used for liquid scintillation counting or in vitro clinical or in vitro laboratory testing; and

(2) 0.05 microcurie (1.85 kilobecquerels), or less, of hydrogen-3, carbon-14, or iodine-125 per gram of animal tissue, averaged over the weight of the entire animal.

(b) A licensee shall not dispose of tissue under subsection (a)(2) of this section in a manner that would permit its use either as food for humans or as animal feed.

(c) A licensee may, upon commission approval under subsection (d) of this section, dispose of licensed material listed in §336.365 of this title (relating to Appendix H. Radionuclide Concentration and Annual Activity Limits for Disposal in a Type I Municipal Solid Waste Facility or a Hazardous Waste Facility), provided that the licensed material does not exceed the specified concentration and annual activity limits, in a Type I municipal solid waste facility as defined in the commission's rules in Chapter 330 of this title (relating to Municipal Solid Waste), unless the licensed material is hazardous waste, or is combined with hazardous waste, as defined in Chapter 330 of this title. Licensed material listed in §336.365 of this title which does not exceed the specified concentration and annual activity limits and which is hazardous waste, or is combined with hazardous waste, shall be disposed of at a hazardous waste disposal facility in accordance with the commission's rules in Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste). Disposals at a Type I municipal solid waste facility or a hazardous waste disposal facility must comply with other requirements for those facilities as set forth in Chapters 330 or 335 of this title, respectively.

(d) A licensee shall apply for commission authorization, by license amendment, for the disposal of licensed material under subsection (c) of this section by submitting procedures for the following to the agency:

(1) physical delivery of the material to the disposal facility;

(2) surveys to be performed for compliance with subsection (e)(1) of this section;

(3) maintaining secure packaging during transportation to the site; and

(4) maintaining records of any disposals made under this subsection.

(e) Each licensee who disposes of licensed material under subsections (a) - (d) of this section shall:

(1) make surveys adequate to assure that the limits specified in subsection (a) or (c) of this section are not exceeded; and

(2) remove or otherwise obliterate or obscure all labels, tags, or other markings which would indicate that the material or contents is radioactive.

(f) Each licensee who disposes of licensed material under subsections (a) - (d) of this section shall maintain records in accordance with §336.338 of this title (relating to General Recordkeeping Requirements for Disposal).

(g) Material disposed of under this section is exempt from the requirements of §336.332 of this title (relating to Preparation of Radioactive Material for Transport).

Adopted August 23, 2000

Effective September 14, 2000

**§336.227. Radioactive Tracers Used in the Exploration, Development or Production of Oil or Gas or Geothermal Resources.**

(a) Disposal of radioactive tracer materials used in the exploration, development or production of oil or gas or geothermal resources is exempt from licensing requirements for the disposal of radioactive substances under this chapter if the radioactive tracer materials are disposed of in accordance with this section.

(b) Radioactive tracers are eligible for exemption under this section if:

(1) the possession, transportation, and use of the radioactive tracers are licensed or otherwise authorized by the Texas Department of State Health Services;

(2) the non-water soluble radioactive tracers are in fluids that have been retrieved from a well used in the exploration, development or production of oil or gas or geothermal resources and such well is permitted or otherwise authorized by the Railroad Commission of Texas;

(3) the total concentration of radioactivity for all isotopes disposed does not exceed 1,000 picocuries per gram (pCi/g), and the half-life of each isotope is 120 days or less; and



(4) the radioactive tracers are non-water soluble.

(c) A person may dispose of radioactive tracers that are eligible for exemption under subsection (b) of this section in an on-site disposal pit that is permitted by the Railroad Commission of Texas for the disposal of oil and gas waste and is covered by at least two feet of clean soil.

(d) A person may dispose of radioactive tracers that are eligible for exemption under subsection (b) of this section in a Class II injection well permitted by the Railroad Commission of Texas for the disposal of oil and gas waste if the permit specifically authorizes the disposal of radioactive tracers.

(e) Any person who disposes of radioactive tracers exempted from licensing requirements under this section must maintain records related to the disposal, including method and location of disposal, identity of specific isotopes, estimated volume of the radioactive tracers, and total concentration of radioactivity for the isotopes disposed, and dates of disposal. The executive director may request records related to disposal of tracer materials under this section at any time.

Adopted June 18, 2013

Effective July 11, 2013

#### **§336.229. Prohibition of Dilution.**

No person shall reduce the concentration of radioactive constituents by dilution to meet exemption levels established under the Texas Health and Safety Code, Chapter 401, §401.106, or change the waste's classification or disposal requirements. Radioactive material that has been diluted as a result of stabilization, mixing, or treatment, including, but not limited to, Resource Conservation and Recovery Act (RCRA) Land Disposal Restrictions (LDR) treatment, or for any other reason, shall be subject to the disposal regulations it would have been subject to prior to dilution.

Adopted August 23, 2000

Effective September 14, 2000