The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts the amendment to §336.1115 *without change* to the proposed text as published in the July 13, 2018, issue of the *Texas Register* (43 TexReg 4712) and, therefore, will not be republished.

Background and Summary of the Factual Basis for the Adopted Rule

The commission adopts rulemaking to implement a federal rule update as well as respond to a petition filed by Lloyd Gosselink on behalf of the Owner/Operator Members of the Uranium Committee of the Texas Mining and Reclamation Association (TMRA-UC) in October 2016 (Project Number 2017-005-PET-NR; approved on December 15, 2016 to initiate rulemaking). The rulemaking modifies rules in 30 TAC in order to fulfill the requirements of an Agreement State program for radioactive material licenses and also to clarify and streamline rules. The adopted change to §336.1115 corrects a citation in the rule.

This rulemaking includes corresponding changes to 30 TAC Chapter 305, Consolidated Permits and 30 TAC Chapter 331, Underground Injection Control.

Section Discussion

§336.1115, Expiration and Termination of Licenses; Decommissioning of Sites, Separate Buildings or Outdoor Areas

The commission adopts amended §336.1115(d)(2) to correct a reference to the citation for the definition of the term "Principal activities." "Principal activities" is defined in

Texas Commission on Environmental Quality Chapter 336 – Radioactive Substance Rules Rule Project No. 2018-017-336-WS

§336.1105(30).

Final Regulatory Impact Determination

The commission adopts the rulemaking action under the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the action is not subject to Texas Government Code, §2001.0225 because it does not meet the definition of a "Major environmental rule" as defined in the statute. A "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 rulemaking action is clerical and corrects a citation to the defined term "principal activities." The adopted rulemaking is 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 the amendment does not alter in a material way the existing substantive requirements for radioactive material licensees.

Furthermore, the adopted rulemaking action does not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §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 action does not exceed a standard set by federal law, an express requirement of state law, a requirement of a delegation agreement, nor does it adopt a rule solely under the general powers of the agency.

The commission implements an Agreement State program under the federal Atomic Energy Act and must maintain a compatible program with the United States Nuclear Regulatory Commission (NRC). The adopted revision to correct a rule citation does not exceed a standard of federal law. The adopted rule is compatible with federal law. The adopted rule does not exceed a requirement of state law. Texas Health and Safety Code (THSC), Chapter 401, the Radiation Control Act, establishes requirements for the commission's radioactive materials licensing program. The adopted rulemaking is consistent with THSC, Chapter 401.

The commission also determined that the adopted rule does 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 NRC under the authority of the Atomic Energy Act. The adopted revision to correct a rule citation does not exceed a requirement of a delegation agreement or the state's agreement with the NRC for maintaining a compatible licensing program.

The commission also determined that the rule is adopted under specific authority of the Texas Radiation Control Act, THSC, Chapter 401. THSC, §§401.051, 401.103, 401.104, and 401.412 authorize the commission to adopt rules for the control of sources or radiation, the licensing of source material recovery and disposal of radioactive materials.

The commission invited public comment regarding the draft regulatory impact analysis determination during the public comment period. No comments were received on the Draft Regulatory Impact Analysis Determination.

Takings Impact Assessment

The commission evaluated the adopted rule and performed a preliminary assessment of whether the Private Real Property Rights Preservation Act, Texas Government Code, Chapter 2007 is applicable. The commission's preliminary assessment is that implementation of the adopted rule does not constitute a taking of real property.

Promulgation and enforcement of the adopted rule is neither a statutory nor a constitutional taking of private real property. The adopted rule does 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 rule. The adopted rule is clerical and corrects the citation to the defined term "principal"

Texas Commission on Environmental Quality Chapter 336 – Radioactive Substance Rules Rule Project No. 2018-017-336-WS

activities."

Consistency with the Coastal Management Program

The commission reviewed the adopted rule and found it is neither identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(2) or (4), nor will it affect any action/authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(a)(6). Therefore, the adopted rule is not subject to the Texas Coastal Management Program (CMP).

The commission invited public comment regarding the consistency with the CMP during the public comment period. No comments were received on the CMP.

Public Comment

The commission offered a public hearing on August 9, 2018. The comment period closed on August 13, 2018. The commission received one comment letter from Lloyd Gosselink on behalf of TMRA-UC in support of the rulemaking and suggesting changes to the rulemaking.

Texas Commission on Environmental Quality Chapter 336 – Radioactive Substance Rules Rule Project No. 2018-017-336-WS

Response to Comments

30 TAC §336.109, Fees after Request for Termination of License

Comment

TMRA-UC commented that §336.109 should be amended so that licensees are not subject to the fee requirement of §336.109 after restoration is completed and while awaiting NRC approval.

Response

Regarding the requested change to §336.109, the commission responds that the determination by the commission that restoration has been completed for a site requires confirmation of that finding by the NRC. Agency expenses may be incurred in reviewing licensee reports, conducting site confirmatory surveys, developing reports to send to NRC, and responding to NRC requests. It would be premature to suspend annual fees while this additional work is conducted. No changes have been made in response to this comment.

30 TAC §336.208, Radiation Safety Officer

Comment

TMRA-UC suggested changes to §336.208 as requested in the rulemaking petition, to revise training requirements for radiation safety officers so that previous professional experience may satisfy this rule requirement.

Response

The requested change to §336.208 regarding training requirements for radiation safety officers in the petition is not compatible with NRC requirements. No changes have been made in response to this comment.

SUBCHAPTER L: LICENSING OF SOURCE MATERIAL RECOVERY AND BY-PRODUCT MATERIAL DISPOSAL FACILITIES

§336.1115

Statutory Authority

The amendment is adopted under the Texas Radiation Control Act, Texas Health and Safety Code (THSC), Chapter 401; THSC, §401.011, which provides the commission authority to regulate and license the disposal of radioactive substances, the commercial processing and storage of radioactive substances, and the recovery and processing of source material; THSC, §401.051, which authorizes the commission to adopt rules and guidelines relating to control of sources of radiation; THSC, §401.103, which authorizes the commission to adopt rules and guidelines that provide for licensing and registration for the control of sources of radiation; THSC, §401.104, which requires the commission to provide rules for licensing for the disposal of radioactive substances; THSC, §401.2625, which provides the commission authority to grant licenses for source material recovery and processing, and for the storage, processing or disposal of by-product material; and THSC, §401.412, which provides the commission authority to adopt rules for the recovery and processing of source material and the disposal of by-product material. The adopted amendment is also authorized by Texas Water Code, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its powers and duties under the water code and other laws of the state.

The adopted amendment implements THSC, Chapter 401, including THSC, §§401.011, 401.051, 401.103, 401.104, 401.107, and 401.265.

§336.1115. Expiration and Termination of Licenses; Decommissioning of Sites, Separate Buildings or Outdoor Areas.

- (a) The term of the specific license is for a fixed term not to exceed ten years.
- (b) Expiration of the specific license does not relieve the licensee of the requirements of this chapter.
- (c) All license provisions continue in effect beyond the expiration date with respect to possession of radioactive material until the agency notifies the former licensee in writing that the provisions of the license are no longer binding. During this time, the former licensee must:
- (1) be limited to actions involving radioactive material that are related to decommissioning; and
- (2) continue to control entry to restricted areas until the location(s) is suitable for release for unrestricted use in accordance with the requirements of subsection (e) of this section.

- (d) Within 60 days of the occurrence of any of the following, each licensee must provide notification to the agency in writing and either begin decommissioning its site, or any separate buildings or outdoor areas that contain residual radioactivity in accordance with the closure plan in §336.1111(1)(B) of this title (relating to Special Requirements for a License Application for Source Material Recovery and By-product Material Disposal Facilities), so that the buildings or outdoor areas are suitable for release in accordance with subsection (e) of this section if:
- (1) the license has expired in accordance with subsection (a) of this section; or
- (2) the licensee has decided to permanently cease principal activities, as defined in §336.1105(30) of this title (relating to Definitions), at the entire site or in any separate building or outdoor area; or
- (3) no principal activities have been conducted for a period of 24 months in any building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with agency requirements.
- (e) Outdoor areas are considered suitable for release for unrestricted use if the following limits are not exceeded.

- (1) The concentration of radium-226 or radium-228 (in the case of thorium by-product material) in soil, averaged over any 100 square meters (m²), may not exceed the background level by more than:
- (A) 5 picocuries per gram (pCi/g) (0.185 becquerel per gram (Bq/g)), averaged over the first 15 centimeters (cm) of soil below the surface; and
- (B) 15 pCi/g (0.555 Bq/g), averaged over 15 cm thick layers of soil more than 15 cm below the surface.
- (2) The contamination of vegetation may not exceed 5 pCi/g (0.185 Bq/g), based on dry weight, for radium-226 or radium-228.
- (3) By-product material containing concentrations of radionuclides other than radium in soil (e.g., natural uranium, natural thorium, lead-210), and surface activity on remaining structures, must not result in a total effective dose equivalent (TEDE) exceeding the dose from cleanup of radium contaminated soil to the standard in paragraph (1) of this subsection (radium benchmark dose), and must be at levels which are as low as reasonably achievable. If more than one residual radionuclide is present in the same 100 m² area, the sum of the ratios for each radionuclide of concentration present to the calculated radium benchmark dose equivalent concentration limits will not exceed "1" (unity). A calculation of the potential peak

annual TEDE within 1,000 years to the average member of the critical group that would result from applying the radium standard (not including radon) must be submitted for approval, using the United States Nuclear Regulatory Commission (NRC) staff guidance on the Radium Benchmark Dose Approach.

- (f) Coincident with the notification required by subsection (c) of this section, the licensee shall maintain in effect all decommissioning financial security established by the licensee in accordance with §336.1125 of this title (relating to Financial Assurance Requirements) in conjunction with a license issuance or renewal or as required by this section. The amount of the financial security must be increased, or may be decreased, as appropriate, with agency approval, to cover the detailed cost estimate for decommissioning established in accordance with subsection (l)(5) of this section.
- (g) In addition to the provisions of subsection (h) of this section, each licensee must submit an updated closure plan to the agency within 12 months of the notification required by subsection (d) of this section. The updated closure plan must meet the requirements of §336.1111(1)(B) and §336.1125 of this title. The updated closure plan must describe the actual conditions of the facilities and site and the proposed closure activities and procedures.
- (h) The agency may grant a request to delay or postpone initiation of the decommissioning process if the agency determines that such relief is not detrimental to the occupational and public health and safety and is otherwise in the public interest.

The request must be submitted no later than 30 days before notification in accordance with subsection (d) of this section. The schedule for decommissioning in subsection (d) of this section may not begin until the agency has made a determination on the request.

- (i) A decommissioning plan must be submitted if required by license condition or if the procedures and activities necessary to carry out decommissioning of the site or separate building or outdoor area have not been previously approved by the agency and these procedures could increase potential health and safety impacts to workers or to the public, such as in any of the following cases:
- (1) procedures would involve techniques not applied routinely during cleanup or maintenance operations;
- (2) workers would be entering areas not normally occupied where surface contamination and radiation levels are significantly higher than routinely encountered during operation;
- (3) procedures could result in significantly greater airborne concentrations of radioactive materials than are present during operation; or
- (4) procedures could result in significantly greater releases of radioactive material to the environment than those associated with operation.

- (j) The agency may approve an alternate schedule for submittal of a decommissioning plan required in accordance with subsection (d) of this section if the agency determines that the alternative schedule is necessary to the effective conduct of decommissioning operations and presents no undue risk from radiation to the occupational and public health and safety and is otherwise in the public interest.
- (k) The procedures listed in subsection (i) of this section may not be carried out prior to approval of the decommissioning plan.
- (l) The proposed decommissioning plan for the site or separate building or outdoor area must include:
- (1) a description of the conditions of the site, separate buildings, or outdoor area sufficient to evaluate the acceptability of the plan;
 - (2) a description of planned decommissioning activities;
- (3) a description of methods used to ensure protection of workers and the environment against radiation hazards during decommissioning;
 - (4) a description of the planned final radiation survey;

- (5) an updated detailed cost estimate for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and a plan for assuring the availability of adequate decommissioning; and
- (6) for decommissioning plans calling for completion of decommissioning later than 24 months after plan approval, a justification for the delay based on the criteria in subsection (p) of this section.
- (m) The proposed decommissioning plan may be approved by the agency if the information in the plan demonstrates that the decommissioning will be completed as soon as practicable and that the occupational health and safety of workers and the public will be adequately protected.
- (n) Except as provided subsection (p) of this section, licensees shall complete decommissioning of the site or separate building or outdoor area as soon as practicable but no later than 24 months following the initiation of decommissioning.
- (o) Except as provided in subsection (p) of this section, when decommissioning involves the entire site, the licensee must request license termination as soon as practicable but no later than 24 months following the initiation of decommissioning.
- (p) The agency may approve a request for an alternate schedule for completion of decommissioning of the site or separate buildings or outdoor areas and the license

termination if appropriate, if the agency determines that the alternative is warranted by the consideration of the following:

- (1) whether it is technically feasible to complete decommissioning within the allotted 24-month period;
- (2) whether sufficient waste disposal capacity is available to allow completion of decommissioning within the allotted 24-month period; and
- (3) other site-specific factors that the agency may consider appropriate on a case-by-case basis, such as the regulatory requirements of other government agencies, lawsuits, groundwater treatment activities, monitored natural groundwater restoration, actions that could result in more environmental harm than deferred cleanup, and other factors beyond the control of the licensee.
 - (q) As the final step in decommissioning, the licensee must:
- (1) certify the disposition of all radioactive material, including accumulated by-product material;
- (2) conduct a radiation survey of the premises where the licensed activities were carried out and submit a report of the results of this survey unless the

licensee demonstrates that the premises are suitable for release in accordance with subsection (e) of this section. The licensee shall, as appropriate:

(A) report the following levels:

(i) gamma radiation in units of microroentgen per hour $(\mu R/hr)$ (millisieverts per hour (mSv/hr)) at 1 meter (m) from surfaces;

(ii) radioactivity, including alpha and beta, in units of disintegrations per minute (dpm) or microcuries (μ Ci) (megabecquerels (MBq)) per 100 cm² for surfaces;

(iii) μCi (MBq) per milliliter for water; and

(iv) picocuries (pCi) (becquerels (Bq)) per gram (g) for solids such as soils or concrete; and

- (B) specify the manufacturer's name, and model and serial number of survey instrument(s) used and certify that each instrument is properly calibrated and tested.
- (r) The executive director will provide written notification to specific licensees, including former licensees with license provisions continued in effect beyond the

expiration date in accordance with subsection (d) of this section, that the provisions of the license are no longer binding. The executive director will provide such notification when the executive director determines that:

- (1) radioactive material has been properly disposed;
- (2) reasonable effort has been made to eliminate residual radioactive contamination, if present;
- (3) a radiation survey has been performed that demonstrates that the premises are suitable for release in accordance with agency requirements;
- (4) other information submitted by the licensee is sufficient to demonstrate that the premises are suitable for release in accordance with the requirements of subsection (e) of this section;
- (5) all records required by §336.343 of this title (relating to Records of Surveys) have been submitted to the agency;
- (6) the licensee has paid any outstanding fees required by this chapter and has resolved any outstanding notice(s) of violation issued to the licensee;

- (7) the licensee has met the applicable technical and other requirements for closure and reclamation of a by-product material disposal site; and
- (8) the NRC has made a determination that all applicable standards and requirements have been met.
- (s) Licenses for source material recovery or by-product material disposal are exempt from subsections (d)(3), (g), and (h) of this section with respect to reclamation of by-product material impoundments or disposal areas. Timely reclamation plans for by-product material disposal areas must be submitted and approved in accordance with §336.1129(p) (aa) of this title (relating to Technical Requirements).
- (t) A licensee may request that a subsite or a portion of a licensed site be released for unrestricted use before full license termination as long as release of the area of concern will not adversely impact the remaining unaffected areas and will not be recontaminated by ongoing authorized activities. When the licensee is confident that the area of concern will be acceptable to the agency for release for unrestricted use, a written request for release for unrestricted use and agency confirmation of closeout work performed shall be submitted to the agency. The request should include a comprehensive report, accompanied by survey and sample results that show contamination is less than the limits specified in subsection (e) of this section and an explanation of how ongoing authorized activities will not adversely affect the area

proposed to be released. Upon confirmation by the agency that the area of concern is releasable for unrestricted use, the licensee may apply for a license amendment, if required.