January 9, 2004

Mr. Michael Ford, Chairman
Texas Radiation Advisory Board
1100 West 49th Street
Austin, Texas 78756

Dear Mr. Ford:

The Texas Commission on Environmental Quality (TCEQ) appreciates the August 23, 2003 recommendation for adoption of Low-Level Radioactive Waste Disposal Rules in Title 30, Texas Administrative Code (TAC), Chapters 37, 39, 305, and 336 by the Texas Radiation Advisory Board (TRAB). We thank you for your September 19, 2003 letter providing comments on the proposed revisions to Low-Level Radioactive Waste Disposal Rules. I would like to take this opportunity to respond to TRAB comments in writing on behalf of the TCEQ in the attached document.

As you know, the TCEQ's rulemaking implements recent state legislation that authorizes the licensing of a low-level radioactive disposal facility to a private entity applicant. The statute authorizes the licensing of a compact waste disposal facility and a federal facility waste disposal facility under one license. The State of Texas is committed to retaining its status as an Agreement State, and the statute requires that the TCEQ assure that the management of low-level radioactive waste is compatible with applicable U.S. Nuclear Regulatory Commission standards.

I am also enclosing a copy of the adopted rules which were published in the *Texas Register* on January 2, 2004. [NOT ATTACHED IN THIS EMAIL] If you have any questions, please feel free to contact me at (512) 239-6731 or by electronic mail at sjablons@tceq.state.tx.us or contact Mr. Devane Clarke at (512) 239-5604 or electronic mail at dclarke@tceq.state.tx.us.

Sincerely,

Susan M. Jablonski
Low-Level Radioactive Waste Specialist

DC/SMJ/jb

cc: Devane Clarke, RML, MC-126
bcc: George FitzGerald, RML, MC-126
Don Redmond, OLS, MC-173
Lisa Roberts, OLS, MC-173
John Racanelli, OAS, MC-214

**Comments of Individual Texas Radiation Advisory Board Members**

**Rule Log No. 2003-037-336-WS for proposed rules:**

**30 TAC Chapter 37, Subchapter T, Financial Assurance for Disposal of Low-Level Radioactive Waste**
**30 TAC Chapter 39, Public Notice**
**30 TAC Chapter 305, Consolidated Permits**
**30 TAC Chapter 336, Radioactive Substance Rules**

**Odis Mack, Insurance Member**

§37.9050 on Financial Assurance Mechanisms, relating to Part (f) allowing insurance as a mechanism

1. Choose financially-sound insurance companies with a minimum of $50-80 billion in assets and the highest rating from the insurance rating institutions such as Best, etc.
   **Response: The rules have applied the highest financial strength category given by A.M. Best Company, XV, which is equivalent to $2 billion in capital, surplus, and unconditional reserves. The rules require an "A" rating which is "excellent," and only one rung below "superior." The commission believes that these standards provide the necessary assurance of the primary insurer's capacity to perform. Substandard insurers are excluded by this criteria. Licensed insurers are members of the Texas Guarantee Fund, and are eligible under these rules to provide insurance if they meet the ratings and financial strength requirements.**

*Timing of Coverage*

1. Exclude companies in the "substandard" insurance category and include companies that are members of the Texas Guarantee Fund.
   **Response: The commission disagrees that the minimum financial strength and financial size categories in §37.9050(f)(1) for a qualifying insurer need to be adjusted. The rules have applied the highest financial strength category given by A.M. Best Company, XV, which is equivalent to $2 billion in capital, surplus, and unconditional reserves. The rules require an "A" rating which is "excellent," and only one rung below "superior." The commission believes that these standards provide the necessary assurance of the primary insurer's capacity to perform. Substandard insurers are excluded by this criteria. Licensed insurers are members of the Texas Guarantee Fund, and are eligible under these rules to provide insurance if they meet the ratings and**

**Comments of Individual Texas Radiation Advisory Board Members**
**financial strength requirements. The commission made no change in response to these comments.**

1. Exclude all polices that may include sudden and accidental clauses. Look for an "All Risk

**Response: Insurance issued in accordance with §37.9050(f) provides a funding mechanism for the licensee's financial assurance obligations that is unaffected by whether an event or activity addressed by the financial assurance was of a sudden or accidental nature.**

2. Ask the writing agent about his "errors and omissions" insurance coverage and limits. This is a very important factor if there is a coverage question.
**Response: The commission responds that concerns about errors or omissions on the part of an agent have been addressed by the revisions recommended by the Texas Department of Insurance (TDI), replacing the certificate of insurance with an endorsement to the policy. TDI recommended that the language necessary to comply with the rules be included in an endorsement that must be attached to the policy, so that all the terms of coverage are contained within the policy agreement.**

3. Ask for the opportunity to design this product with head underwriter of the company. Know your exact coverage and exclusions!
**Response: The commission has made conforming changes to the rules to make the proposed certificate of insurance an endorsement to the insurance policy based on comments from TDI. This change addresses the TRAB recommendation that the commission should know the coverage and exclusions of the policy, since the endorsement incorporates the requirements of §37.9045(a)(5) and §37.9050(f). The insurer covenants in the endorsement that any provision of the policy inconsistent with such regulations is amended by the endorsement to eliminate the inconsistency.**

Comments and questions from TRAB meeting discussion:

1. In allowing insurance as a financial assurance mechanism, if there is an event of human error, if there is a loss, a company will look for the exclusions.
**Response: The commission has determined that to be acceptable, the insurance policy must be a funding arrangement as protective and financially sound as the other financial assurance options. To address the concern that the insurance company will look for exclusions to deny a claim, the commission is adopting a recommendation from TDI that the certificate of insurance be replaced by an endorsement to the insurance**

**policy. The endorsement binds the insurer to the requirements in §37.9045(a)(5) and §37.9050(f) and eliminates policy provisions inconsistent with these subsections.**

*Financial Liability of Licensee*

2. Consider the $20 million dollars over time that the permit runs, dollars now will not be close to what is needed later.

   **Response: The commission agrees and shares the same concerns with the adequacy of financial assurance over a long period of time. Therefore, the rules require commission to conduct an annual review of the cost estimates for financial assurance. As cost estimates increase, financial assurance must also increase. The Texas Health and Safety Code specifies that the financial assurance for corrective action is required to address unplanned events occurring after decommissioning. Prior to decommissioning, it is the licensee's financial responsibility to address corrective action irrespective of financial assurance funding. The commission notes that the financial assurance requirement for corrective action may exceed $20 million, but it must be at least that amount.**

3. Are there companies that will write this type of policy?

   **Response: The commission agrees that the insurance option of financial assurance for decommissioning and other activities is not the typical risk transfer arrangement common to insurance contracts. However, the Texas Health and Safety Code lists insurance as one of the allowable financial assurance options, as long as the form and content are acceptable to the commission. The commission has determined that to be acceptable, the insurance policy must be a funding arrangement as protective and financially sound as the other financial assurance options. Whether there is a market for this product will be determined by the industry; however, other financial assurance options are available.**

*Financial Liability of Licensee*

1. Financial strength of the company will be important.

   **Response: The rules have applied the highest financial strength category given by A.M. Best Company, XV, which is equivalent to $2 billion in capital, surplus, and unconditional reserves. The rules require an "A" rating which is "excellent," and only one rung below "superior." The commission believes that these standards provide the necessary assurance of the primary insurer's capacity to perform.**

2. Sudden and accidental are key words for coverage in insurance. If it is not that, it comes under 'maintenance' and that is where coverage issues will be of concern for exclusions.

**Comments of Individual Texas Radiation Advisory Board Members**

**Response: Sudden and nonsudden accidental occurrences are defined in Title 30, Texas Administrative Code, Chapter 37, Subchapter E, §37.402, Definitions. Section 37.9059(a) states that the licensee must comply with the requirements of Subchapter E.**

**Earl Erdmann, Well Service Industry**

Health and Safety Code Sec. 401.204 provisions on acquisition of property and the respective parts of the TCEQ proposed rules in §336.808 Ownership of Land and Buildings:

1. Mineral rights - How will assurance be guaranteed that slant drilling is prohibited? Is this possible or permissible? (Law states "to the extent permissible....")
   **Response: Intrusions into the land disposal facility, including slant drilling, are addressed by requiring state or federal ownership of the land on which the disposal site is located as provided in Title 30, Texas Administrative Code, §336.734(a). State or federal ownership assures adequate control of the disposal site after closure, and reduces the potential for inadvertent intrusion into the site. Under §336.728, a site should be selected so that future developments, including oil and gas exploration and development, are not likely to affect the ability of the land disposal facility to meet performance objectives. Under §336.728(c), disposal areas should be avoided that have known natural resources which, if exploited, would result in failure to meet performance objectives. The disposal site shall not be located where nearby facilities or activities, including oil and gas exploration and development, could adversely impact the ability of the site to meet the performance objectives or significantly mask the environmental monitoring program. In the executive director's application selection process, Tier I Criteria include the consideration of the adequacy of the proposed facility to safely isolate, shield, and contain low-level radioactive waste (LLRW) from mankind and mankind's environment. Tier I Criteria also include consideration of the natural characteristics of the disposal site including the compatibility of disposal activities with any uses of land near the site, such as oil and gas exploration and development, that could affect the natural performance of the site or that could affect monitoring of the disposal facility.**

2. Condemnation - Could you explain details on this? In particular, will the state be exercising eminent domain powers?
   **Response: Whether the state will be exercising eminent domain powers depends on whether an applicant owns the mineral interests in fee simple title underneath the property on which a proposed land disposal facility is to be located and whether the commission decides to request the Texas attorney general to institute condemnation**

**proceedings. House Bill 1567, 78th Texas Legislature, Regular Session, amended Texas Health and Safety Code, §401.204(c), to provide "if an applicant cannot reach a surface use agreement described by Subsection (b) with a private landowner, the attorney general shall, on request of the commission, institute condemnation proceedings as provided under Chapter 21, Property Code, to acquire fee simple interest in the mineral right." The process for requesting that the commission initiate a condemnation proceeding is set out in §336.808(c).**

**3.** Who will be paying for the mineral rights that are to be taken if that is the case?
**Response: Section 336.808(c) provides that the applicant shall pay for all costs incurred by the commission in the process of obtaining the mineral interests. HB 1567 amended Texas Health and Safety Code, §401.210, to provide that land and buildings transferred to the state or federal government shall be transferred without cost.**

4. Regarding condemnation, who will put a value on the minerals?
**Response: Section 336.808(c) requires the applicant petitioning the commission to request the Texas attorney general to initiate condemnation proceedings under Texas Property Code, Chapter 21, to provide an appraisal of the fair market value of the mineral interests. The actual award of damages in a condemnation proceeding is determined by the special commissioners of the condemnation proceeding or by order of the district court or county court at law in which the condemnation proceeding is heard.**

5. Before a license can be issued, this must all be taken care of, correct?
**Response: No license can be issued before ownership issues are resolved. Section 336.715(7) provides that a license may be issued by the commission upon a finding that the institutional control meets the requirements of §336.734. Unless otherwise exempted, §336.734(a) requires that LLRW disposal occurs only on land owned in fee by the state of federal government. Section 336.207 has been modified to emphasize that an application for a license to dispose of LLRW will not be approved unless an applicant has acquired title to the land and buildings, including the mineral estate, on which the facility or facilities are to be located. The requirement can be met by either having fee simple title to everything (by purchase or condemnation) or by having acquired fee simple in the surface estate and an approved application for an exemption to use a surface use agreement in lieu of having fee simple title to the mineral estate.**

6. What if someone does not want to sell the mineral rights?
**Response: Applicants who do not own the surface and mineral rights in fee simple title underlying their proposed land disposal facilities are strongly encouraged to negotiate**

**with the owners of the outstanding interests to acquire all interests in the property prior to submitting an application. However, if negotiations are not successful, HB 1567 amended Texas Health and Safety Code, §401.204(c), to provide that the Texas attorney general shall, at the request of the commission, initiate condemnation proceedings to acquire fee simple interest in the mineral rights, if an applicant cannot reach a surface use agreement with a private landowner.**

**Comments and questions from TRAB meeting discussion:**

§37.9050 Section Financial Assurance Mechanisms, relating to Part (f) allowing insurance as a mechanism:

1. After decommissioning, what happens with the insurance policy? Can you go into detail on this?
   **Response: Upon any transfer of the license after decommissioning, the financial assurance, which can include insurance as a viable mechanism, is converted to cash and paid into the perpetual care account. Until that time, financial assurance is available to pay for the costs of post closure observation and maintenance and corrective action.**

2. If the federal government takes over the site, will they take the liability?
   **Response: On decommissioning of the federal facility waste disposal facility, the licensee, the owner of the facility, and the waste generators, which will be the federal government, may all be liable.**

3. If there is an event, not an act of God, it will be a mistake not covered by insurance. I want to make sure this will be paid for.
   **Response: The commission agrees that the insurance option of financial assurance for decommissioning and other activities is not the typical risk transfer arrangement common to insurance contracts. However, the Texas Health and Safety Code lists insurance as one of the allowable financial assurance options, as long as the form and content are acceptable to the commission. The commission has determined that to be acceptable, the insurance policy must be a funding arrangement as protective and financially sound as the other financial assurance options. Whether there is a market for this product will be determined by the industry; however, other financial assurance options are available.**

   **To address the concern that the insurance company will look for exclusions to deny a claim, the commission is adopting a recommendation from TDI that the certificate of insurance be replaced by an endorsement to the insurance policy. The endorsement**

**binds the insurer to the requirements in §37.9045(a)(5) and §37.9050(f) and eliminates policy provisions inconsistent with these subsections.**

*Financial Liability of Licensee*

General Comments and Questions:

4. Our job as a board, number one, is to protect Texas residents. But we also need to make this as feasible as possible because we need a disposal site.
   **Response: Public testimony was received on the need for an LLRW disposal facility in Texas by both House and Senate committees during the 2003 Regular Session of the Texas Legislature. The passage of HB 1567 includes a statutory milestone for the commission to begin accepting applications for an LLRW disposal license by June 2004, thus accelerating the initial rulemaking process. HB 1567 also includes milestones to be reached throughout the licensing process in order to address the need for disposal capacity in a timely manner.**

5. Is Maine still liable to pay the fee to Texas even though the state is dropping out of the Compact?
   **Response: The State of Maine passed emergency legislation in April 2002 to withdraw from the Texas Low-Level Radioactive Waste Disposal Compact. The withdrawal of Maine is scheduled to take effect in April 2004. Texas Health and Safety Code, Chapter 403, §7.05, states that "A party state, other than the host state, may withdraw from the compact by repealing the enactment of this compact, but this withdrawal shall not become effective until two years after the effective date of the repealing legislation. During this two-year period the party state will continue to have access to the facility. The withdrawing party shall remain liable for any payments under §4.05(5) and (6) of Article IV that were due during the two-year period and shall not be entitled to any refund of payments previously made."**

**Michael S. Ford, Waste Industry Member and TRAB Chair, Texas Radiation Advisory Board**

Chapter 305 – Consolidated Permits / Rule Log No. 2003-037-336 - No Comment.

Chapter 39 – Public Notice / Rule Log No. 2003-037-336 - No Comment.

Chapter 37 – Financial Assurance / Rule Log No. 2003-037-336

**Comments of Individual Texas Radiation Advisory Board Members**

1. "Corrective action" definition. Why is there a distinction being made between "the" compact waste disposal facility and "a" federal waste disposal facility?
   **Response: No distinction was intended in the definition of "Corrective action" found in §37.9035. However, the definition of "Corrective action" is taken from the financial assurance requirement in Texas Health and Safety Code, §401.241(a).**

2. "Post closure" definition and *throughout* the document: Use of "which" versus "that." The regulatory framework and language requires preciseness in word usage. "That" is the defining or restrictive pronoun, while "which" is the non-defining or non-restrictive pronoun. The definition should properly read "The activities that are identified …." "That" and "which" are not interchangeable. Ref. The Elements of Style, Strunk & White, p. 59.
   **Response: The term "which" was changed to "that" in the SECTION BY SECTION DISCUSSION part of the preamble and in §37.9035 and §37.9050(f).**

3. §37.9045(a). The concept of "liability coverage" is introduced in this paragraph, but there is no further development in subsequent paragraphs and the balance of the discussion is silent on "liability coverage." Ref. §37.9045(a)(1 6) through (b).
   **Response: References to "liability coverage" in the title and §37.9045(a)(1) have been deleted as unnecessary. Specific liability coverage requirements are found in §37.9059.**

4. §37.9050(f). Revise to read "… by obtaining insurance *that* conforms to the requirements …." This defines the type of insurance.
   **Response: The term "which" was changed to "that" in the SECTION BY SECTION DISCUSSION part of the preamble and in §37.9035 and §37.9050(f).**

5. §37.9050(f)(2). This paragraph is close to incomprehensible. Recommend breaking it down into smaller requirements and subrequirements that are more readily understood by the public.
   **Response: Related to changes made in response to comments and addressing TRAB's concerns with the readability of §37.9050(f)(2), the commission is deleting proposed §37.9050(f)(2). The replacement of the certificate of insurance with an endorsement to the policy addresses the enforceability issues of §37.9050(f)(2), rendering the requirement for a separate statement from the insurer unnecessary.**
   **The endorsement has been revised to incorporate the covenant that the insurer will not raise as a defense any provision of the policy that is inconsistent with the requirements of §37.9050(f) and §37.9045(a)(5).**

**Comments of Individual Texas Radiation Advisory Board Members**

6. §37.9050(f)(11). There is a significant problem presented here where the executive director is authorized to withhold payment after approved work has been completed in the event that the forecasted work costs may outstrip the available funds. If there is a question on the availability of adequate funding for the anticipated work, the decision on funding and payment should be made prior to the commencement of work, or the work should be performed under a task-order type contract with sufficient subdivision to allow the appropriate monitoring of cost.

   **Response: This question assumes that the specific work has been approved; however, it is the work plan that receives prior approval. The specific work performed by a contractor may not be in accordance with the approved work plan. The adopted rule makes the licensee responsible for ensuring that work performed is in accordance with the approved work plan and that cost estimates that form the basis for financial assurance are accurate. In practice, the licensee and insurer will be working closely with the commission, and the work should be performed under a task-order type contract with sufficient subdivision to allow the appropriate monitoring of cost. This question also assumes an orderly and planned decommissioning by the licensee, which may not be the case in a worst-case or adversarial situation.**

7. §37.9050(f)(13). This bears out the fact that the "insurance" is not really "insurance", if there is a 100% probability that the policy will be paid out in full at the end of a given period. Are there any insurance vehicles/companies that will write such a policy?

   **Response: The commission agrees that the insurance option of financial assurance for decommissioning and other activities is not the typical risk transfer arrangement common to insurance contracts. However, the Texas Health and Safety Code lists insurance as one of the allowable financial assurance options, as long as the form and content are acceptable to the commission. The commission has determined that to be acceptable, the insurance policy must be a funding arrangement as protective and financially sound as the other financial assurance options. Whether there is a market for this product will be determined by the industry; however, other financial assurance options are available.**

*Financial Liability of Licensee*

1. §37.9060(b &c). "Sudden accidental occurrences" and "non- sudden accidental occurrences" need to be defined. Also, the difference in liability coverage for the occurrence types needs to be described.

   **Response: Sudden and nonsudden accidental occurrences are defined in Chapter 37, Subchapter E, §37.402. Section 37.9059(a) states that the licensee must comply with the requirements of Subchapter E.**

**Comments of Individual Texas Radiation Advisory Board Members**

Chapter 336 – Radioactive Substance Rules/ Rule Log No. 2003-037-336-WS

1. Professional Services: What is the basis for a 3.5 multiplier for contractor fringe and indirect costs? This seems exorbitant. Do the cost estimates reflect those multipliers?
   **Response: Standard state government rates for professional services of scientists and engineers on engineering service contracts reflect a multiplier of 3.0 to 4.0 times the unburdened salary rates for state employees in comparable positions; therefore, a multiplier of 3.5 was used to estimate professional services rates. Fully burdened costs for state employees are near 1.6%. The higher multipliers estimated for professional services from consulting firms are due to a combination of their higher salaries and higher overhead costs.**

2. Page 39, ¶2. Delete "Radiation and" in the second sentence beginning with "HB 1678."
   **Response: Definitions are retained for "Perpetual care account" and "Radiation and perpetual care account" in §336.2 because these terms are used interchangeably in House Bill 1678, 78th Texas Legislature, Regular Session. HB 1678 states that the radiation and perpetual care account is the perpetual care account. Therefore, the use of either term is acceptable.**

3. Page 40, ¶3. Is it correct to conclude that if the monies from the Compact partners do not materialize, then an applicant would be responsible for picking up the approximately $6M tab? This appears to be the case and would appear to be prohibitive in nature.
   **Response: The $500,000 initial application processing fee is intended to recover costs incurred by the commission for administrative review and comparative review of each application received. This payment is made by each applicant. Additional costs must be recovered by the commission that exceed this initial fee, including any portion of administrative review, technical review, hearings, and other actual costs associated with the licensing process. As a matter of comparison, the State of Utah has a $5 million initial fee for "Any application for a waste transfer, storage, decay in storage, treatment, or disposal facility" with a statutory requirement to "subsequently pay an additional fee to cover the costs to the state associated with review of the application, . . ., studies, and services required to evaluate a proposed facility."**

   **Payments made by non-host party states under Section 5.01 of the Compact under Texas Health and Safety Code, §403.006, are deposited in the state treasury to the credit of the low-level waste fund, and have not been designated to pay for a private company's application processing fee or other administrative matters.**

**Response: Demand respirator and air-purifying respirator are separately defined terms in federal regulations. "Demand respirator" is the term used by the NRC in 10 CFR §20.1003. Consistency between state and federal definitions is required for program compatibility.**

5. Definition of DAC-hr continued from previous page. Change "five" to "5" in the last sentence. This is an integer value. See additional comments below on the use of words instead of figures for numerical values requiring comparison to maintain compliance.
   **Response: The commission agrees with this comments and changed the word "five" to the integer "5" in the definition of "Derived air concentration-hour."**

6. Definition of "Distinguishable from background." Insert the words "naturally-occurring" between the words "the" and "background." Otherwise, the definition allows the inclusion of pre-existing man-made radioactivity in the area of interest.
   **Response: The definition of "Distinguishable from background" is a matter of compatibility with the federal definition. The federal definition of "Distinguishable from background" is provided in 10 CFR Part 20.**

7. Definition of "Individual monitoring" subparagraph (B). Recommend adding "1 DAC-hr = 2.5 mrem."
   **Response: The definition of "Individual monitoring" is a matter of compatibility with the federal definition. Furthermore, the relationship of DAC-hour to millirem is given in the federal definition of "derived air concentration-hour" in 10 CFR Part 20 and in the state definition of "Derived air concentration-hour (DAC-hour)" in §336.2.**

8. Definition of "Mixed waste." Add the words "and low level radioactive waste" to the end of the sentence.
   **Response: The terms "compact waste" and "federal facility waste" are defined to be forms of LLRW. In response to comment, the definition of "Mixed waste" in §336.2 was modified to refer to the definition of hazardous waste in Title 30, Texas Administrative Code, Chapter 335.**

9. Definition of "Perpetual care account." Delete the words "radiation and" to be consistent with the balance of the document.
   **Response: Definitions are retained for "Perpetual care account" and "Radiation and perpetual care account" in §336.2 because these terms are used interchangeably**

**Comments of Individual Texas Radiation Advisory Board Members**

**in HB 1678. House Bill 1678, 78th Texas Legislature, Regular Session, states that the radiation and perpetual care account is the perpetual care account. Therefore, the use of either term is acceptable.**

10. Definition of "Radiation and Perpetual Care Account." This definition should be deleted since it has been changed to that described in comment 9 above.

    **Response: Definitions are retained for "Perpetual care account" and "Radiation and perpetual care account" in §336.2 because these terms are used interchangeably in House Bill 1678, 78th Texas Legislature, Regular Session. HB 1678 states that the radiation and perpetual care account is the perpetual care account. Therefore, the use of either term is acceptable.**

11. Definition of "Special nuclear material in quantities not sufficient to form a critical mass." The word change to this paragraph should be rejected. A desired ratio limit of "1" should not be replaced by the word "one" since it implies no level of desired precision.

    **Response: The commission agrees with these comments and changed the word "one" to the integer "1" in the definition of "Special nuclear material in quantities not sufficient to form a critical mass."**

12. §336.103(a). Significant concern presented with the language in this paragraph. Again, is it correct to conclude that **if** the monies from the Compact partners do not materialize, then an applicant would be responsible for picking up the approximately $6M tab? This appears to be the case and would appear to be prohibitive in nature.

    **Response: The $500,000 initial application processing fee is intended to recover costs incurred by the commission for administrative review and comparative review of each application received. This payment is made by each applicant. Additional costs must be recovered by the commission that exceed this initial fee, including any portion of administrative review, technical review, hearings, and other actual costs associated with the licensing process. As a matter of comparison, the State of Utah has a $5 million initial fee for "Any application for a waste transfer, storage, decay in storage, treatment, or disposal facility" with a statutory requirement to "subsequently pay an additional fee to cover the costs to the state associated with review of the application, . . ., studies, and services required to evaluate a proposed facility."**

    **Payments made by non-host party states under Section 5.01 of the Compact under Texas Health and Safety Code, §403.006, are deposited in the state treasury to the credit of the low-level waste fund, and have not been designated to pay for a private company's application processing fee or other administrative matters.**

**Comments of Individual Texas Radiation Advisory Board Members**

13. §336.103(c). Is the requirement of an "annual license fee" in conflict with HB 2292, or was that restricted to TDH licenses.
**Response: The annual license fee is not in conflict with House Bill 2292, 78th Texas Legislature, Regular Session. HB 2292 amended Texas Health and Safety Code, Chapter 12, Subchapter B, by adding §12.0111, which applies to each licensing program administered by the Texas Department of Health or by a regulatory board that is under the jurisdiction of the Texas Department of Health. HB 2292 only applies to licenses issued by the Texas Department of Health or that are under its jurisdiction.**

14. §336.703. Does "concepts" refer to "design concepts?" This should be clarified. How does an applicant go about demonstrating that they've done an adequate job of "considering" the concepts called out in 10 CFR 61.7? Given the vagueness of the wording, this requirement is very weak and lacks enforceability.
**Response: The U.S. Nuclear Regulatory Commission commented that the commission needed to clarify §336.703 to provide that the concepts of 10 C guide the application of the rules because "consideration" is not equivalent to adopting by incorporation. Section 336.703 has been modified to provide that the concepts and requirements provided in 10 CFR §61.7 guide the application of rules in Subchapter H.**

15. §336.708(a)(11). Revise to read, "a decommissioning, site closure and stabilization plan possessing those design features that are intended to facilitate disposal site closure …."
**Response: The language in §336.708(11) is taken directly from federal requirements in 10 CFR §61.12(g).**

16. §336.709. The first paragraph appears to be missing an "(a)."
**Response: Title 1, TAC §91.33(a)(1)(B), Rule Structure and Terminology, states that the implied "(a)" will not be used in the rule language when there is no "(b)." The commission made no change in response to this comment.**

17. §336.709(a)(1). The words "reasonable assurance" in the third sentence need to be defined so that a consistent standard might be established.
**Response: The use of the term "reasonable assurance" in §336.709 is consistent with the NRC's use of the same term in 10 CFR §61.40, General requirement. Consistency in language and use of terms between federal and state rules is important for program compatibility. The applicant has the burden of proof in demonstrating compliance with the federally-mandated performance objectives.**

**Comments of Individual Texas Radiation Advisory Board Members**

18. §336.709(a?)(1). The concept of "peak dose" needs to be better defined. Over the span of 1,000 years, there is no specified period over which the peak dose is to be calculated. Is it "peak dose" in any given year?
**Response: "Peak dose" is defined as the highest annual dose projected to be received by the reasonably maximally exposed individual within any calculated time frame. The 1,000 year time frame after site closure is a minimum time frame for calculating dose for performance assessment. The term "peak dose" as used in §336.709(1) is consistent with federal rules and federal guidance related to low-level radioactive waste disposal.**

19. §336.717(a). The last sentence should direct the reader to the location of the requirements on the federal facility waste facility.
**Response: The term "site" is defined in §336.702; however, the commission changed the term "disposal facility" to the term "compact waste disposal facility" in §336.717(a) to avoid the use of undefined terms. Chapter 336, Subchapter J, provides the requirements for the licensing of the disposal of federal facility waste as set out in §336.901.**

20. §336.723. The words "reasonable assurance" need to be defined so that a consistent standard might be established.
**Response: The use of the term "reasonable assurance" in §336.723 is consistent with the U.S. Nuclear Regulatory Commission's use of the same term in 10 CFR §61.40, General requirement. Consistency in language and use of terms between federal and state rules is important for program compatibility. The applicant has the burden of proof in demonstrating compliance with the federally-mandated performance objectives.**

21. §336.736(e). The terms "sudden and non-sudden accidental occurrences" need to be defined. If they are described in a federal requirements document, that document(s) needs to be referenced.
**Response: Sudden and nonsudden accidental occurrences are defined in Chapter 37, Subchapter E, §37.402, Definitions. Section 37.9059(a) states that the licensee must comply with the requirements of Subchapter E.**

22. §336.805. The first paragraph appears to be missing an "(a)."
**Response: Title 1, TAC §91.33(a)(1)(B), Rule Structure and Terminology, states that the implied "(a)" will not be used in the rule language when there is no "(b)." The commission made no change in response to this comment.**

**Comments of Individual Texas Radiation Advisory Board Members**

23. §336.805(a)(3). The term "reasonableness" presents a very weak standard and should be modified to present a more objective standard.

**Response: The language in §336.805(3) is taken verbatim from Texas Health and 01.219. Further, what constitutes "reasonableness" will be determined by the commission on a case-by-case basis; thus, no qualifiers can be given for these site-specific subjective criteria.**

24. §336.807(d)(6). The administrative review should require a design beyond the conceptual and should require the review of the design, not a "description of the design

**Response: The language in §336.807(d)(6) is taken verbatim from Texas Health and Safety Code, §401.231(6). The description must be adequate to allow the commission to administratively review the technical merits of the application, including review of the design. In addition, the applicant must provide proposed designs sufficient to allow review of the application.**

25. §336.8089(c). We should not allow the condemnation of land to allow the construction of a low level waste site. This requirement should be deleted.

**Response: HB 1567 provides in Texas Health and Safety Code, §401.204(c), that if an applicant cannot reach a surface use agreement with a private landowner, the Texas attorney general shall, on request of the commission, institute condemnation proceedings as provided under Texas Property Code, Chapter 21, to acquire fee simple interest in the mineral rights. Therefore, condemnation of land is specifically allowed, but not required, by statute.**

26. §336.815. Tier 1 – 4 Criteria. How are the listed criteria used in the scoring of applications? Please define.

**Response: HB 1567 provided a license selection process based on comparative merit which includes statutory tiered criteria. Each administratively complete application is subject to a written evaluation according to the statutory criteria established by Texas Health and Safety Code, §§401.233 - 401.236, for the purposes of comparing the relative merit of the applications. Written evaluations will be made of each application that is declared administratively complete based on the tiered criteria. The executive director, based on the written evaluations and application materials, then selects the application that has the highest comparative merit. The application with the highest comparative merit will be evaluated through a thorough technical review process.**

**Comments of Individual Texas Radiation Advisory Board Members**

27. §336.815(c)(2-3). How does one define "acceptable" operational safety and "acceptable" long-term safety? What is "long-term?" Is this 1,000 yrs or something shorter? These criteria are far too subjective. The Commission needs to provide objective guidance for these criteria, e.g., "operational safety programs directed toward employee-driven safety and minimizing occupational injuries."
**Response: The commission appreciates the comment, but respectfully declines to define the terms "acceptable operational safety" and "acceptable long-term safety." These qualitative criteria are tied directly to the federal approach of focusing on performance objectives on a site-specific basis for LLRW disposal. What is "acceptable" is determined by the commission on a case-by-case and comparative basis after thorough evaluation of application materials. Thus, no objective definitions can be offered for these qualitative criteria.**

28. §336.815(d)(1)(b). What are "unanticipated extraordinary events?" These are not defined within the document. Given the potential scale and magnitude of such events, the licensee should be provided some guidance in this area.
**Response: The term "unanticipated extraordinary events" is taken directly from Texas Health and Safety Code, §401.233(d)(1)(B). The statute provided no specific guidance; however, extraordinary events would include site specific evaluation for such occurrences as tornados, hurricanes, earthquakes, etc. These criteria will be evaluated on an application-by-application basis as part of the comparative merit review.**

29. §336.905(a). The volume limit should be stated as "3 million cubic yards", not "three million cubic yards." The commingling of word-based (three million) and numerical (300,000) standards does not make any sense. Even if the value is less than 10, numerical values (or standards) should be identified with figures with the required precision as well. Ref. US Government Printing Office Style Manual, pp 165-171, 1984
**Response: The commission changed the written numbers to numerical values of 3,000,000 cubic yards and 6,000,000 cubic yards in §336.905(a) and (b) in response to this comment.**

30. §336.905(b). See previous comment. The same problem exists here with "three" and and "300,000" and "600,000" cubic yards.
**Response: The commission changed the written numbers to numerical values of 3,000,000 cubic yards and 6,000,000 cubic yards in §336.905(a) and (b) in response to this comment.**

30. §336.909(2). It should be stipulated that the "federal government official" should have authority to engage in such agreements.

**Comments of Individual Texas Radiation Advisory Board Members**

**Response: The commission agrees that the government official referred to in §336.909(2) must have authority to engage in such agreements, and the signed agreement must be acceptable to the executive director. In response to this comment, §336.909(2) has been changed to specify the United States Secretary of Energy as the government official with the authority to engage in this agreement.**

Comment and question from TRAB meeting discussion:

An exemption must be applied for from Subchapter H regarding fee simple title, correct? The final statement 37.1950 Par. 13, the insurer will pay the remaining face value to the account. Will they pay the $20 million (or whatever amount)? Is that the nature of insurance? The insurer is required to provide a lump sum cash payment at the end of the period, correct?

**Response: Ownership by the state in fee simple title of the land and buildings of the compact waste disposal facility is required at license issuance. If requesting authorization to license the disposal of federal facility waste at a federal facility waste disposal facility, an applicant may request an exemption from the requirements of §336.735(a) to transfer ownership of a federal facility waste disposal facility at decommissioning rather than at license issuance. An exemption from the requirement of state or federal ownership of the mineral interests may also be requested to authorize the use of a surface use agreement. The exemption process in §336.5 is authorized by Texas Health and Safety Code, §401.106(b), and is similar to the federal exemption process in 10 CFR §61.6. Section 336.5 requires the applicant to submit an application to the agency using the regulatory flexibility process under Chapter 90 of the commission's rules. An applicant would have to demonstrate that the exemption is not prohibited by law, will not result in a significant risk to public health and safety or the environment, and is at least as protective of the environment and the public health as the method or standard prescribed by commission rule that would otherwise apply.**

**Upon any transfer of the license, the financial assurance, which can include insurance, is converted to cash and paid into the perpetual care account. Until that time, financial assurance is available to pay for the costs of closure, post closure observation and maintenance and corrective action.**

**Comments of Individual Texas Radiation Advisory Board Members**
**Troy Marceleno, Public Member**

Comments and questions from TRAB meeting discussion:

§37.9050 Section Financial Assurance Mechanisms, relating to Part (f) allowing insurance as a mechanism.

1. Regarding insurance, what about an event subsequent to the first event?
   **Response: The commission agrees with the commenters and shares the same concerns with the adequacy of financial assurance over a long period of time; therefore, the rules require the commission to conduct an annual review of the cost estimates for financial assurance. As cost estimates increase, financial assurance must also increase. The Texas Health and Safety Code specifies that the financial assurance for corrective action is required to address unplanned events occurring after decommissioning. Prior to decommissioning, it is the licensee's financial responsibility to address corrective action irrespective of financial assurance funding. The commission notes that the financial assurance requirement for corrective action may exceed $20 million, but it must be at least that amount. If the first event were to exceed the funding set aside for corrective action, the licensee would be financially responsible for any additional corrective action required prior to the transfer of the license.**

2. What if the first event takes the $20 million?
   **Response: Financial assurance funding amounts are determined, as well as revisited annually, by the commission based on the actual disposal activities occurring on a licensed LLRW land disposal facility. Financial assurance amounts will be set based on the actual inventory of LLRW received for disposal for the purpose of monitoring and maintenance during the institutional control period following closure. Additionally, a corrective action amount for any necessary retrieval of waste after closure will be set based on the actual inventory of waste received for disposal that will be on-site.**

3. Will the insurance company go beyond that? Annual aggregates and so forth limit the amount for one year.
   **Response: The commission position is that the insurance will be limited to the face amount of the policy. Insurance is a funding mechanism for the activities of decommissioning, post closure observation and maintenance, corrective action, and institutional control. There are no provisions under this financial mechanism to limit funding to an annual aggregate.**

**Comments of Individual Texas Radiation Advisory Board Members**

4. There is such a long duration on the permit. What will be enough?
**Response: The commission agrees with the commenters and shares the same concerns with the adequacy of financial assurance over a long period of time; therefore, the rules require the commission to conduct an annual review of the cost estimates for financial assurance. As cost estimates increase, financial assurance must also increase. The Texas Health and Safety Code specifies that the financial assurance for corrective action is required to address unplanned events occurring after decommissioning. Prior to decommissioning, it is the licensee's financial responsibility to address corrective action irrespective of financial assurance funding. The commission notes that the financial assurance requirement for corrective action may exceed $20 million, but it must be at least that amount. If the first event were to exceed the funding set aside for corrective action, the licensee would be financially responsible for any additional corrective action required prior to the transfer of the license.**

5. §336.805(a)(3) In rules that reference "reasonable" could you provide some examples so that there is an indication of what is considered "reasonable?" Could you give qualifiers?
**Response: The use of the term "reasonable assurance" in §336.723 is consistent with the U.S. Nuclear Regulatory Commission's use of the same term in General requirement. Consistency in language and use of terms between federal and state rules is important for program compatibility. The requirement in §336.805(a)(3) is derived from the statutory requirement in Texas Health and Safety Code §401.219(a). The applicant has the burden of proof in demonstrating the reasonableness of any technique for managing low-level radioactive waste to be practiced at the proposed facility or facilities.**

**Jimmy Barker, Nuclear Utility Member**

§37.9050 Section Financial Assurance Mechanisms, relating to Part (f) allowing insurance as a mechanism:

Insurance is for catastrophic events. It should be clear that the licensee cannot go to the insurance carrier every time something goes wrong. The licensee should be the responsible entity; that is standard practice. Decommissioning fees should be in place, and it seems the insurer would not want to take on those responsibilities.

**Response: The Texas Health and Safety Code specifies that the financial assurance for corrective action is required to address unplanned events occurring after decommissioning.**

**Comments of Individual Texas Radiation Advisory Board Members**

**Prior to decommissioning, it is the licensee's financial responsibility to address corrective action irrespective of financial assurance funding. Texas Health and Safety Code, §401.211, clearly states that the transfer of title to the LLRW disposal facility, land, and buildings to the state or federal government does not relieve the licensee of liability for any act or omission performed before the transfer or while the LLRW disposal facility, land, and buildings are in the possession and control of the licensee.**

**For the compact waste disposal facility, the disposal fee rate will include a component for the cost of financial assurance. It is expected that the licensee will charge a fee for federal facility waste that also includes the cost of financial assurance. Financial assurance is specifically for the activities of decommissioning, post closure monitoring and maintenance, and corrective action. These are defined activities that take place under the control of the licensee, or in the worst case, under state direction due to a need for corrective action and the licensee is unable or unwilling to address the needed activities. Financial assurance is also for institutional control which takes place after the transfer of the license to the state and to the federal government.**

**Under §336.711 and §336.735, the applicant's financial qualifications will be evaluated. However, in the worst case, if a licensee is unable or unwilling to address an unplanned or unforeseen event (corrective action) that requires remediation during the operation of the site, the executive director has the authority to demand closure and begin the decommissioning process. Additionally, the commission, under authority in Texas Health and Safety Code, §401.152, may use any security provided by the license holder to address a situation that threatens public health and safety and the environment.**

**The commission notes that financial assurance for decommissioning, post closure monitoring and maintenance, corrective action, and institutional control is required to be provided in full before the initial receipt of waste at the facility. In response to other comments, a requirement for executive director approval of financial assurance prior to accepting waste for disposal was added to §336.716(f). Additionally, cost estimates for these obligations will be reviewed annually by the commission. For consistency with the review requirements of other financial assurance, annual review by the commission of financial assurance for corrective action has been added to §336.738(b). In response to these comments, a requirement was added to financial assurance for closure in §336.736(a) to include the disposal of any radioactive material remaining at the site at the time of closure. The rules also ensure the soundness and long-term stability of the financial assurance.**

**Comments of Individual Texas Radiation Advisory Board Members**

General comments:

1. What is the status of Maine in the Compact?

**Response: The State of Maine passed emergency legislation in April 2002 to withdrawal from the Texas Low-Level Radioactive Waste Disposal Compact. The withdrawal of Maine is scheduled to take effect in April 2004. HB 1567, §401.250, requires each non-host party state to pay Texas the initial compact payment of $12.5 million no later than November 1, 2003. The Texas attorney general sent letters to the governors of Maine and Vermont on September 10, 2003 requesting that the initial payment of $12.5 million from each be paid to Texas by November 1, 2003. A payment of $2.5 million has been received from the State of Vermont. No payment has been received from the State of Maine.**

2. We should be careful in enhancing any federal rules because of compatibility issues. This might trigger a compatibility review that takes a great deal of time and could delay the licensing process.

**Response: The Texas Legislature has tasked the commission with protecting occupational and public health and safety and the environment. Texas Health and Safety Code, §401.151, specifically requires the commission to "assure that the management of LLRW is compatible with applicable federal commission standards." The commission takes seriously its regulatory responsibilities over the disposal of LLRW, and is committed to the final adoption of disposal rules that are protective of public health and safety, and the environment while remaining compatible with federal standards.**