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Chief, Rules and Directives Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

RE: STP-02-011

Dear Sir:

Staff members of the Texas Department of Health (TDH), Bureau of Radiation Control have reviewed the two draft standard review plans, NUREG 1569 Rev. 1 and NUREG 1620 Rev.1, and offer the following comment for consideration.

NUREG 1569

General comments:

It is unlikely that any Agreement State's uranium program would have the resources to address the depth of the review areas listed in NUREG 1569. Most Agreement State programs would approach such a review by looking at only those areas which would directly apply. For example, the need for certain review areas such as seismicity seem unwarranted because no long term impacts are expected from in situ operations. NUREG 1569 will serve as one of several possible guidance/reference documents used in review of applications.

The Acceptance Criteria sections seem to be the most useful because they list those items, areas, and analyses necessary in an application to show coverage of required information and compliance with the regulations. Other sections (e.g., Areas of Review and Review Procedures) are redundant and too long. The Evaluation Findings section, with its suggested wording, is not necessary. It says nothing about the particular application being reviewed. The evaluation should be the reviewer's unique observations and professional evaluation of the application. An evaluation is a careful examination of the elements of the application and their relevance to the issuance of the license. By using this section, the reviewer's attention is diverted to using a generic "boiler plate" for review.

With the continuing acceptance of the metric system in the United States, TDH will be prepared to work with either system during the transition.

Specific comments:

Sections 5.7.8 and 6.0 describe a detailed review of groundwater monitoring for mining/process water excursion. In many Agreement States, the underground injection control program for groundwater monitoring and review of impacts is in another agency. Therefore, those radiation control programs will view these sections as guidance or background reading for understanding the regulatory activity of another agency.

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per
J. Muskiewicz

The detail suggested in sections 5.7.7 and 7.1.3.2 for particulate monitoring and impacts is unnecessary with the advent of vacuum dryers at in situ facilities. Airborne particulate impacts from vacuum dryers would by very low or non-existent.

Regarding section 7.0, a review for impacts on flora and fauna may be reduced to a review of impacts on threatened and endangered species.

Regarding Appendix E, we suggest that a radon source term model developed by TDH staff members may also be a satisfactory way to calculate source terms for radon-222 emissions from in situ operations (Dziuk, Timothy W., Gary L. Smith, and Linda A. Carlson. 1985. "A Radon Source Term Model Incorporating Fluid Residence and Decay Factors." Uranium, 2:67-74). This model emphasizes radon off-gassing from circulating fluids in contact with the ore body. Other in situ, radon source terms may be insignificant in comparison.

Concerning criteria number 5 of the Acceptance Criteria for Groundwater Quality Restoration, Reclamation, and Plant Decommissioning, on page 6-10, we suggest that during restoration, particularly in the later stages, if the concentration of the constituents of concern have already reached an irreducible level, or are otherwise "asymptotic" in magnitude, then conducting post-restoration monitoring may be an unnecessary prolonging of the monitoring process. This would in turn delay the process of releasing the site for unrestricted use.

NUREG 1620

General comment:

NUREG 1620 suffers from the same problems as NUREG 1569 with regard to redundant sections and language.

Specific comments:

In the Executive Summary, page xi, second paragraph, second sentence, insert the word "in" before "10 CFR 40.31."

In Geology and Seismology, page 1-1, section 1.1.2 (4), add the word "facilities" or the expression "environment of deposition". This comment also applies to page 1-2, section 1.1.3 (1).

In section 1.2.3, pages 1-4 through 1-5, the lists should also contain an item that asks the licensee or applicant to discuss the regional and site-specific geologic "attitude" (i.e., dip and strike) of the various beds or stratigraphic units.

In Table 4.1.3-1, page 4-9, the term "net gross alpha" may be ambiguous to some. It should be explained in a footnote.

In section 4.2.5, page 4-24, noticeably absent are any references to the work of the important groundwater statistician (and recent author on the subject), Robert D. Gibbons, Ph.D., University of Illinois at Chicago.

Section 2.1.2, part (8), page 2-2, should specify to what extent the records of historical groundwater-level fluctuations at the site would be required.

In section 2.1.2, first sentence after part (8), page 2-2, the reference to the American Society of Testing and Materials, 1977, should be deleted and be replaced by "(*latest edition or version of the corresponding standard*)" to be consistent with the references found in section 2.1.5.

Regarding section 2.4, Liquefaction Potential, pages 2-19 through 2-21, we believe that in cases where sites are located in a "zero" seismic risk area (see Figure 16-2, Seismic Zone Map of the United States, *Uniform Building Code*, 1997[1] or more current edition), no further seismic characterization, explanation, or description be required on the licensee or applicant.

In section 2.4.5, the reference detail "Ishihara, K. and M. Asimina. 1990, is made, but the corresponding reference source is not found in section 2.4.

In section 2.5.2, part (3), page 2-23, the term "deep root" should be included in the phrase "vegetative root penetration."

In section 2.6.3, part (1), page 2-26, add the words "with appropriate scales" to the opening sentence "Engineering drawings..."

In section 3.1.3, part (2), the reference for NRC 1998 should coincide with the date given in Reference section 3.1.5, as NRC 1999. This comments is also true for all sections subsequent to section 3.1.5.

In Appendix D, section 2.2.4, part (2), page D-5, add the term "severe or prolonged drought" to the list of extreme natural events described in the first sentence.

We appreciate the opportunity to provide comments. If you have any questions concerning the comments please contact Gary Smith, Ph.D., at 512-834-6688 or Gary.Smith@tdh.state.tx.us.

Sincerely,

Richard A. Ratliff, P.E., Chief
Bureau of Radiation Control

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bcc: RAR, REM, GLS, file