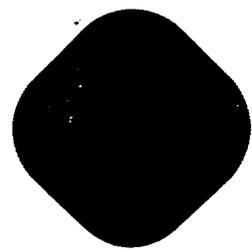


Department of Comprehensive Planning Nuclear Waste Division

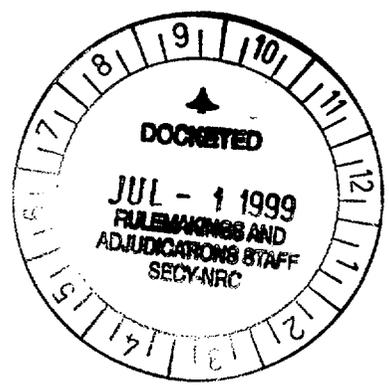
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John L. Schlegel, Director • Dennis Bechtel, Planning Manager



30 June 1999

DOCKET NUMBER
PROPOSED RULE **PR 2,19,20 et al.**
(64FR8640)



Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Att: Rulemakings and Adjudications Staff

Re: COMMENTS BY CLARK COUNTY, NEVADA TO THE PROPOSED 10 CFR PART 63, DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTES IN A PROPOSED GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA

Dear Secretary Jackson:

The Clark County, Nevada Department of Comprehensive Planning, Nuclear Waste Division appreciates the opportunity to provide commentary on the proposed Rule, 10 CFR 63, *Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, Nevada.*

In 1988, Clark County was named as an *affected unit of local government* under provisions of the Nuclear Waste Policy Amendments Act of 1987, in recognition of the potential impacts to Clark County and its citizens from activities and decisions associated with the Yucca Mountain Program. There are nine affected governments in Nevada and one in California, which in addition to the State of Nevada monitor DOE Yucca Mountain activities.

Staff has had several opportunities to meet with the full Nuclear Regulatory Commission in the past, the most recent being in March 1999 where the affected units of local government and the State of Nevada, provided input to the NRC on the Department of Energy (DOE) Viability Assessment documents. We are extremely appreciative of the time taken by the NRC to hold multiple meetings in Nevada to discuss the proposed Rule.

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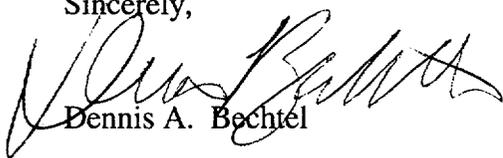
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letter to U.S. Nuclear Regulatory Commission
June 30, 1999
page 2

The NRC has the key regulatory role in evaluating the ability of the proposed repository site and engineered barrier system to protect the public and environment from the radioactive waste proposed for disposal at Yucca Mountain. The publics and their descendants resident in the area encompassed by the currently designated affected units of local government will in the future be on the front lines of potential impacts should a repository be developed. We urge the NRC to help ensure that the studies, data and models developed by DOE provide a defensible basis for the siting of a repository at Yucca Mountain.

We look forward to future interactions with the Commission and staff. If you have questions on our comments please contact me or Engelbrecht von Tiesenhausen at (702) 455-5175.

Sincerely,



Dennis A. Bechtel

Attachment

cc: John Schlegel
Richard B. Holmes
Clark County Commission
Cities of Boulder City, Henderson, Las Vegas,
Mesquite and North Las Vegas
State of Nevada
Affected Units of Local Government

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**COMMENTS BY THE CLARK COUNTY
DEPARTMENT OF COMPREHENSIVE PLANNING, NUCLEAR WASTE DIVISION
ON THE PROPOSED RULE FOR THE DISPOSAL OF
HIGH-LEVEL RADIOACTIVE WASTES IN A PROPOSED
GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA
June 30, 1999**

The following comments are offered for consideration of the development of the final rule.

General Comments:

1. ***Draft performance assessment standard.*** As you are aware, the Environmental Protection Agency (EPA) recently promulgated a draft standard for Yucca Mountain. This standard, as we understand it, is currently undergoing federal interagency review. It is, of course, the responsibility of EPA, with advice from the National Academy of Science, to provide public health and safety standards for the proposed Yucca Mountain repository. The law subsequently requires the Nuclear Regulatory Commission (NRC) to conform its requirements for a geologic disposal employing these standards. We are concerned, however, that the NRC chose to incorporate a draft standard into the proposed Rule prior to the release of the standard. It gives the impression of attempting to force a standard rather than accepting one from the appropriate regulating agency (EPA). We feel that it is inappropriate to promulgate a rule that is out of time sequence with the requirements set by Congress.

2. **"Risk informed performance based" Regulations.** The NRC's move to "risk informed performance based regulations" can conceivably lead to standards that will more adequately determine risk to the public. Notwithstanding the criteria presented, however, it is uncertain how these regulations will be defined and applied by NRC. For example, how will the term "risk-informed" be defined? We also have apprehensions that "risk insights" and "judgement," noted in the text as elements in the decision process, will be used *in lieu* of performance data. The potential replacement of information by judgement has been of major concern of key groups such as the Nuclear Waste Technical Review Board (TRB) in its caution to DOE on the use of expert elicitation panels.

Performance must, of course, be based upon a comprehensive knowledge of the many aspects of the repository system. Key to understanding the suitability of the system should be dependent on the comprehensive availability of information and data, the adequacy of this information including, its accuracy and adherence to recognized quality assurance standards. It should also be recognized that the use of these techniques for the time frames under consideration is obviously unprecedented. They should, therefore, be applied with caution.

3. ***Critical Group.*** In defining a critical group, the NRC is considering a *farming group* as the group that would receive the greatest exposure from all sources, using potentially contaminated groundwater, and being the group most at risk to being exposed to contamination from multiple pathways. While we do not necessarily disagree with the discussion provided we have several comments and questions. How, for example, is the "average member" of the critical group to be defined? Should it not be more appropriately a critical member of an exposed group? Given the

experience at Chernobyl a more accurate description of a critical group would a subset of the farming group, generally children who, as demonstrated in numerous studies, would more readily absorb contamination into their bodies and be, therefore, more at risk for health affects.

4. *Reference Biosphere (part 1)*. The biosphere is essentially defined as conditions consistent with today's community surrounding Yucca Mountain located largely in the Amargosa Valley. While this is adequate for the time period of site characterization, it does not take into consideration processes and events that are currently taking place in Southern Nevada which could in fact present potentially radically different futures.

A major factor ignored is the rapid growth that has taken place in Southern Nevada over the past thirty years (and indeed is continuing to occur). The estimated future growth in Las Vegas alone will result in an increased demand for considerable new water supplies. Water sources north of Clark County have long been considered as options to meet potential future demand. Continued growth could serve to increase the pumpage of water from contaminated aquifers. Increased pumpage in fact could accelerate contamination by increasing subsurface groundwater flow. Another reasonable near-term future alternative, with similar potential impacts, would be an increase in urban growth in Southern Nye County. Evidence of this is present in the substantial influx of residential development currently taking place in the Pahrump area adjacent to the Amargosa Valley and Yucca Mountain.

These potential future alternatives are far from hypothetical. The two alternatives provided are reasonable (others could be offered as well). Acceleration in demand and impacts on public health and safety standards in such cases are worthy of consideration in the proposed Rule. Given the extensive time period that is being evaluated and events that are happening today, it is important that present circumstances not be provided as the only given reference case.

5. *Reference Biosphere (part 2)*. Under "Reference Biosphere and Critical Group for Yucca Mountain" there is a discussion of the variability of releases to the ground water. Given all the uncertainty in assessing the performance of the repository for the time periods under consideration, we have difficulty understanding the need to introduce further uncertainty assuming that some wells could miss a contaminated plume. The only reasonable way to deal with this issue would be to state that for purposes of dose calculations any withdrawal of ground water would be from the point of maximum radionuclide concentration.

6. *Quality Assurance*. In the preamble there is a section on *Quality Assurance* (XIV). We concur with the Commission that the DOE should be under the quality assurance program specified in Appendix B of 10 CFR Part 60. These, however, are the same criteria that the DOE has been unable to implement effectively during the site characterization program. What additional steps will the NRC take to ensure that these same problems do not occur after a license is granted? Will there be a requirement for NRC audits?

7. **Groundwater Protection Standard.** There has been considerable discussion between the EPA and NRC regarding whether a separate ground water standard should be applied. The EPA has been a strong advocate of this position; currently it is not in Part 63 as promulgated by the NRC. The protection of valuable water resources is a very important consideration.

8. **Transportation.** In refining the regulations the NRC has apparently reduced the importance of the transportation of nuclear waste and its potential impact on public health and safety. Not considering transportation, including, for example, the comparative health risks of various transportation routes and modes of transport, may in fact reduce the effectiveness of the "risk-informed, performance-based" process advocated by the NRC. The NRC staff in meetings obviously recognize the importance of transportation risk. We, therefore, urge the NRC to ensure that risk associated with the transportation of the waste is included as a key performance measure.

As a side note, a major concern of affected governments in Nevada, and conceivably others throughout the nation, is that transportation will not be adequately addressed in the soon to be released Yucca Mountain Environmental Impact Statement.

Specific Comments on Rule

1. **Section 63.21 c, 4.i** The amount of information requested regarding the design of the engineered barrier systems is sketchy. Considering that the engineered barrier system is being promoted as a key barrier to radionuclide release, a mere listing of design criteria and a description and discussion of the design, seems totally inadequate. It is our firm belief that without detailed design drawings, including specifications and flow-sheets for all manufacturing processes that NRC will be unable to satisfactorily evaluate this critical aspect of the license application.

2. **Section 63.61 (Provision of Information).** Per the NWPA as amended in 1987, there is a legal role for the Affected Units of Local Government (AULGs). Please explain why these entities have been completely ignored in this and subsequent sections dealing with participation in the licensing activities.

3. **Section 63.62 (Definitions).** "*High-level radioactive waste of HLW*". It is not clear how liquid wastes fit into the disposal scenario. From this definition, it would appear that liquid wastes could also be disposed of at Yucca Mountain. There is also a discussion (page 8665, last column) of wastes, other than HLW that could be received for emplacement in a geologic repository. What are these?

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