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**AGENCY FOR NUCLEAR PROJECTS  
NUCLEAR WASTE PROJECT OFFICE**

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November 5, 1987

Mr. Robert E. Browning, Director  
Division of High-Level Waste Management  
Office of Nuclear Material Safety  
and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Browning:

A copy of James P. Knight's July 15, 1987 letter to you has recently come to my attention. That letter identifies and discusses several subjects which Mr. Knight believes may be appropriate for near term NRC rulemaking.

A. Mr. Knight's letter first addresses DOE's preparation of a petition for rulemaking requesting that "NRC amend 10 C.F.R. Part 60 to establish a 5 rem accident dose limit for the design basis accident." In Mr. Knight's earlier (March 3, 1987) letter to John Linehan, he set forth DOE's thinking with respect to a standard for the design basis accident. Generally Nevada disagrees with DOE's rationale and supports a more conservative NRC approach.

First, "Disposal systems for spent nuclear fuel or high-level or transuranic radioactive wastes shall be designed to provide a reasonable expectation, based upon performance assessments, that the cumulative release of radionuclides to the accessible environment for 10,000 years after disposal from all significant processes and events . . . ." 40 C.F.R. 191.13 (Emphasis supplied.) Though this regulation is subject to current judicial reversal, it is the EPA's most definitive statement of the appropriate "generally applicable standards for protection of the general environment from offsite release from radioactive material in repositories." 42 U.S.C. 10141(a).

We are, of course, aware of the various boundaries which the federal polyglot has established to translate the term "offsite", i.e., "controlled area"/"accessible environment," 40 C.F.R. 191.12(g), (k); 10 C.F.R. 960.2; and 10 C.F.R. 60.2;

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"restricted areas"/"unrestricted areas," 10 C.F.R. 20.131(a)(14), (17), 20.101, 20.105. And we are also aware that the cumulative release of radioactivity over time will depend on particular practices and particular events during that time. It is not therefore illogical that DOE would seek to establish parameters for certain segments of total cumulative releases, (relying on the logic of multiple design bases, 10 C.F.R. 72.3(i), 72.68(b)). It is merely wrong.

The cumulative release model required by 40 C.F.R. 191.13 must take all releases into account, whether they result from accidents or other events, and whether they happen during operation or post closure. No "parameters or reference bounds for design" (10 C.F.R. 72.3(i)) should be established unless they are sufficiently conservative to guarantee that they will not permit specific contemplated releases in excess of that specific design parameter's share of cumulative releases. With this in mind, Nevada supports NRC's more conservative standard, applied by 10 C.F.R. 111(a) before permanent closure and 10 C.F.R. 20.105(a) to "unrestricted areas". The imposition of this more conservative standard to DOE's operational accident planning will later guarantee that EPA's cumulative release standard will be met "at all times". Whether or not, as DOE argues, 10 C.F.R. 111(a) was promulgated with the intention that pre-closure standards take post closure periods into account, the EPA cumulative release standard requires it. And NRC technical requirements and criteria may not be inconsistent with EPA's standards. 42 U.S.C. 10141(b)(1)(C).

Nevada's position then, is that no specific design basis accident standard should be established in advance of DOE's demonstration of total system compliance with the EPA cumulative release standard, taking both facility operation and long term disposal into account. Predicted operation accident values should be integrated into the cumulative release model. If those values are unrealistic, then the total cumulative release model should be revised. In the alternative, a conservative standard should be set.

B. Mr. Knight's letter next suggests that it is time for NRC to consider amendment of 10 C.F.R. Part 51 to define "what NEPA documentation is required for the construction authorization; and NRC's role in scoping and preparing the site selection EIS, as well as the extent to which the EIS will be used to support NRC's decision to grant a construction authorization for a geologic repository." As you know, this is also a matter of concern for the State of Nevada as a

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prospective party in a construction authorization proceeding. The State's earlier petition for rulemaking, PRM 60-2A raised issues of the standard which NRC must apply in adopting DOE's EIS, prepared pursuant to § 114(f) of the Nuclear Waste Policy Act. We continue to believe that the adequacy of DOE's EIS, for purposes of NRC's use, must be determined prior to or at the outset of any NRC proceeding considering a construction authorization for a geologic repository. And short of any amendment to the statute, we believe that the NRC, like DOE, must consider as alternate sites for the first repository three candidate sites with respect to which site characterization has been completed and for which a Secretarial determination has been made, preliminary to NRC's own determination in licensing, that such sites are suitable for development as repositories. NRC must, then, in answer to Mr. Knight's question, rely upon an EIS which satisfies section 114(f) of the NWPA "to support NRC's decision to grant a construction authorization" even if DOE doesn't provide it.

C. Mr. Knight addresses several other issues which DOE considers may be appropriate candidates for rulemaking. As we have expressed to you on repeated previous occasions, all technical issues must be litigable within the NRC's hearing evaluating DOE's application for construction authorization. To the extent that DOE's remarks, contained in Mr. Knight's letter, constitute a suggestion that rules be enacted to remove matters from that proceeding, they are inappropriate. We understand DOE's desire to get some advance NRC staff reaction to the technical positions which DOE may propound by submitting its completed application for construction authorization. And we have no objection to DOE and NRC interaction in order that the NRC staff advise DOE staff in advance that particular technical issues are not sufficiently well developed, documented or analyzed to go forward in the licensing context, particularly where, as Mr. Knight suggests, the procedure by which this is conducted includes state and Indian tribal participation. But, as before, we are cautious that everyone understand in advance that such a procedure should not supplant the open review of the issue in licensing before the licensing hearing board. Therefore, though the interactive activity is helpful to all, it is inappropriate to reduce any conclusion reached through that interaction to a formal agency rule, and the State of Nevada would resist any petition for rulemaking which intended to so formalize that interactive process.

The State of Nevada would also object to any NRC staff action arising from such an interactive process which would

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preclude the staffs' later ability to think freely and critically about the technical issue which is involved. Because new information will be developed as site characterization occurs, and because the commencement of the state's own technical work has been frustrated by problems with funding, the NRC staff needs to be open to the potential modification of any technical issue.

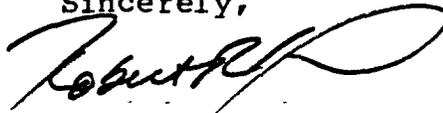
D. Mr. Knight refers specifically to the development of a "site specific tectonic strategy to gather site characterization data for the Yucca Mountain site." Such a "strategy" is clearly a plan "for any investigation activities that may affect the capability of such candidate site to isolate high-level radioactive waste" and should therefore be included in the Yucca Mountain site characterization plan. 42 U.S.C. 10133(b)(1)(A)(ii). The State is, of course, entitled to review the site characterization plan before significant site characterization begins. It would be inappropriate for DOE and NRC to develop site specific strategies for site characterization which are outside of that plan.

Most of the comments contained in Mr. Knight's letter raise the important question of when it is most appropriate to commence an official process by which technical issues are adjudicated by a licensing board. Though NRC, like any federal agency, is required to consider a proposed federal action in an integrated and complete fashion, and because it is therefore incumbent upon the NRC to withhold commencement of its construction authorization proceeding until such time as DOE's application is complete, we realize that it is not economical of administrative time to spend significant time in which DOE and NRC staff resolve technical differences, only to have them revisited in the licensing proceeding. No applicant in a permit process is in any different situation and, except for the size of the project contemplated, DOE should not be heard to decry its situation as applicant. However, there may be a

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legitimate question when the real controversy over each technical issue should begin to be aired and resolved in a true litigative context.

Sincerely,



Robert R. Loux  
Executive Director  
Nuclear Waste Project Office  
State of Nevada

RRL\*jfr

cc: James P. Knight, Director  
Siting, Licensing and Quality  
Assurance Division, Office of  
Civilian Radioactive Waste Management

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