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Mr. J. William Bennett
Acting Director
Office of Geologic Repositories
U.S. Department of Energy
Washington, D.C. 20545

WM Record File 109
WM Project 1
Docket No. _____
PDR
LPDR _____

Distribution: _____

(Return to WM, 623-SS)

Dear Mr. Bennett:

Enclosed are copies of several documents of interest to DOE regarding:
(1) NRC's efforts in defining high-level radioactive waste (HLW) under the Nuclear Waste Policy Act of 1982; and (2) NRC comments to EPA on its HLW standard.

Please pay particular attention to the approach being taken to defining additional material as HLW under §2(12)(B) of the Waste Act. Wastes from facility licensees above certain concentrations of particular radionuclides (an example might be highly radioactive reactor internals) would be defined by rule as HLW and would require permanent isolation. Other wastes generated by both facility licensees and material licensees that were not acceptable for near surface disposal would need to be evaluated on a case-by-case basis and might be found to require permanent isolation.

In order for the NRC rule to be effectively implemented, DOE would need to take some actions with respect to its HLW program. Please consider the impacts of this possible approach on the DOE repository program, including potential impacts on DOE contracts with NRC licensees. While your Office may also want to comment on the particular concentrations we are considering as requiring permanent isolation, you should view these as preliminary since additional technical studies are planned.

I would appreciate a telephone call from you by the end of the month, if you perceive the NRC approach will be particularly difficult for DOE to implement. We would expect you would also provide detailed comments during the public comment period on the Federal Register notice when it is published.

Sincerely,

Original Signed by
MICHAEL J. BELL

Michael J. Bell, Deputy Director
Division of Waste Management

Enclosures: As stated

cc: R. Browning, DWM
H. Miller, DWM
E. Conti, RES

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PDR WASTE
WM-1 PDR

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 19, 1984

The Honorable William D. Ruckelshaus
Administrator
United States Environmental Protection Agency
Washington, DC 20460

Dear Mr. Ruckelshaus:

In letters dated May 10 and May 11, 1983 the Nuclear Regulatory Commission (NRC) transmitted comments on the Environmental Protection Agency's (EPA) proposed environmental standards for the management and disposal of spent nuclear fuel, high-level and transuranic wastes (47 FR 58196). One of the major concerns raised in these letters involved EPA's authority to issue the proposed "assurance requirements" and "procedural requirements." The NRC considers these proposed requirements to involve matters of implementation which are beyond the EPA's jurisdiction.

On August 17, 1983 you wrote to me about this jurisdictional issue. We responded by pointing out that the NRC's existing regulation, 10 CFR Part 60, already addresses many of the concerns to which assurance requirements are directed. For example, the proposed EPA requirements for markers and records, use of multiple barriers, and avoidance of natural resources are very similar to the corresponding provisions of 10 CFR Part 60. We also said that we would work with the EPA to resolve this issue, and our staffs have continued to meet to discuss this and other unresolved matters.

Recognition of the similarity between several of the proposed assurance requirements and the corresponding provisions of the NRC's Part 60 suggests a possible resolution. This would take the form of modification of Part 60 as appropriate so as to incorporate the principles of EPA's proposed assurance requirements. Additional modifications to Part 60 appear possible which would capture the intent of EPA's proposed procedural requirements. In view of such changes, EPA would delete the assurance and procedural requirements from the standard. Thus, problems of overlapping jurisdiction between the two agencies (and potentially conflicting requirements) could be avoided.

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Central Docket Section (LE-130)
U. S. Environmental Protection Agency
ATTN: Docket No. R-82-3
Washington, DC 20460

The Nuclear Regulatory Commission (NRC) staff is pleased to respond to the request by the Environmental Protection Agency (EPA) for comments on its Science Advisory Board's review of the proposed EPA standards for management and disposal of spent nuclear fuel, high-level and transuranic radioactive wastes (40 CFR Part 191). The NRC staff shares the concerns of the Science Advisory Board (SAB) regarding the implementability of the proposed standards, and several of our comments address this concern. Our specific comments are listed below. In each case the SAB's recommendation is first presented, followed by the NRC staff's comment.

EXECUTIVE SUMMARY RECOMMENDATIONS

A. The Standard

1. The Subcommittee recommends that the release limits specified in Table 2 of the proposed standards be increased by a factor of ten, thereby causing a related ten fold relaxation of the proposed societal objective (population risk of cancer).

The NRC staff considers that the proposed release limits can be achieved provided that the implementation concerns expressed in the NRC's formal comments on the proposed standards (comment letters dated May 10 and 11, 1983) are resolved. (Specific issues of concern are discussed below.) Thus, from the point of view of implementation of the standards, the NRC staff would not consider it necessary to increase the proposed release limits.

B. Uncertainty and the Standard

1. We recommend that the probabilistic release criteria in the draft standard be modified to read "analysis of repository performance shall demonstrate that there is less than a 50% chance of exceeding the Table 2 limits, modified as is appropriate. Events whose median frequency is less than one in one-thousand in 10,000 years need not be considered."

2. We recommend that use of a quantitative probabilistic condition on the modified Table 2 release limits be made dependent on EPA's ability to provide evidence that such a condition is practical to meet and will not lead to serious impediments, legal or otherwise, to the licensing of high-level waste

DRAFT

AN EVALUATION OF HIGHLY RADIOACTIVE MATERIAL

REQUIRING PERMANENT ISOLATION

Introduction: It has long been recognized that certain radioactive materials produced in the uranium fuel cycle are sufficiently hazardous to require disposal in a manner that results in permanent isolation from the environment, and these materials have been termed "high-level radioactive wastes" (HLW). The term "high-level radioactive waste" is currently defined qualitatively and refers to the source (namely, spent fuel and waste from reprocessing operations), rather than the hazard, of a waste stream. The Nuclear Waste Policy Act (NWPA) recognizes that wastes from other sources may present equivalent hazards and may require treatment and disposal in a similar manner. Thus, under section 2(12)(B) of NWPA, "high-level radioactive waste" means not only wastes from reprocessing but also "other highly radioactive material that the Commission, consistent with existing law, determines by rule requires permanent isolation."

The purpose of this evaluation is to determine whether it is feasible to develop a concentration-based approach which could be used as a basis for identifying other highly radioactive material requiring permanent isolation. Concentrations are derived from consideration of representative waste streams and forms traditionally considered to be HLW. A table, based on these concentrations, is developed identifying the important radionuclides and associated concentrations. Highly radioactive material containing these radionuclides in similar or higher

NUCLEAR REGULATORY COMMISSION

10 CFR Part 60

Definition of "High-Level Radioactive Waste"

AGENCY: Nuclear Regulatory Commission.

ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Commission has previously adopted regulations with respect to the disposal of high-level radioactive waste (HLW) in geologic repositories. The Commission is considering changes in the definition of HLW in those regulations so as to follow more closely the statutory definition in the Nuclear Waste Policy Act of 1982. In this advance notice of proposed rulemaking, the Commission identifies legal and technical considerations that are pertinent to the definition of HLW and solicits public comment.

DATES: Comment period expires [insert date ____ days after publication of this advance notice in the FEDERAL REGISTER]. Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given except as to comments received on or before this date.

ADDRESSES: Send comments or suggestions to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch. Copies of comments received may be examined at the NRC Public Document Room, 1717 H Street N.W., Washington, DC 20555.

FOR FURTHER INFORMATION CONTACT: Patricia A. Comella, Deputy Director of the Division of Health, Siting and Waste Management, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, telephone (301) 427-4616.