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NUCLEAR ENERGY INSTITUTE

Steven P. Kraft
Director,
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April 10, 2002

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

Attention: Rulemakings and Adjudications Staff

SUBJECT: Nuclear Energy Institute (NEI) Comments on Proposed Amendment to 10
CFR Part 63

The Nuclear Energy Institute (NEI),¹ on behalf of the nuclear energy industry, is pleased to submit these comments to the Nuclear Regulatory Commission (NRC) on the proposed rulemaking to amend 10 CFR Part 63, *Specification of a Probability for Unlikely Features, Events, and Processes* (67 Fed. Reg. 3,628 – January 25, 2002). This rulemaking quantifies “unlikely” such that features, events and processes (FEPs) with probabilities of occurrence falling below the upper bound of “unlikely” can be ignored for human intrusion and groundwater protection analyses.

The industry endorses this proposed addition in the licensing criteria for a geologic repository at Yucca Mountain (10 CFR Part 63) and commends the NRC for its continued regulatory leadership on this important national energy, environmental, and security project. The proposed change will further strengthen protection of public
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¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

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health and safety at Yucca Mountain by focusing regulatory compliance efforts on the most important contributors to risk in the area of human intrusion and groundwater protection.

The 10 CFR Part 63 rule is a well-constructed example of risk-informed, performance-based regulation. It is essential to the success of this approach that speculation concerning FEPs that are not risk significant be limited. Such speculation could divert attention away from analysis and evaluations that add the most value to public health and safety protection. We understand that it was EPA's intent in 10 CFR Part 197, and the Commission's intent in the original 10 CFR Part 63 rulemaking, that "very unlikely" FEPs are to be excluded from consideration in the individual protection, human intrusion, and groundwater protection analysis. This limit was set at one chance in 10,000 occurring over 10,000 years.

Furthermore, it was EPA's and the Commission's intent for FEPs determined to be "unlikely" to be excluded from consideration in requirements for human intrusion and groundwater protection analyses for Yucca Mountain. The quantitative definition of "unlikely" as "less than one chance in 10 and at least one chance in 10,000 of occurring within 10,000 years" offered in this proposed amendment will effectively bound speculation to assure that the risk-informed intent of the original rule is effectively implemented.

The human intrusion event itself is of extremely low, albeit not quantifiable, probability and the most limiting maximum contaminant levels in the groundwater protection standard equate to risk levels considerably below that associated with the all-pathway radiation protection standard. It is, therefore, especially important that speculation be bounded in these areas. Consideration of FEPs having greater than a one chance in 10 of occurring in 10,000 years establishes an appropriate boundary while still assuring a robust and thorough evaluation of human intrusion and groundwater contamination. Therefore the proposed definition of "unlikely" will facilitate a reasonable and prudently conservative analysis of these aspects of repository performance.

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NEI looks forward to continuing to participate in ongoing and future NRC Yucca Mountain processes. We would be pleased to address any questions the NRC may have.

Sincerely,



Steven P. Kraft

Enclosure

- c: Mr. Martin J. Virgillio, Director, Nuclear Material Safety and Safeguards,
Nuclear Regulatory Commission
Dr. John Hornberger, Chairman, Advisory Committee on Nuclear Waste,
Nuclear Regulatory Commission
Dr. Margaret S. Y. Chu, Director, Office of Civilian Radioactive Waste
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