

October 26, 2006

The Honorable George V. Voinovich
Chairman, Committee on Environment and
Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission appeared before the Committee on Environment and Public Works, Subcommittee on Clean Air, Climate Change, and Nuclear Safety on September 14, 2006. From that hearing, you forwarded questions that were to be answered for the hearing record. The responses to those questions are enclosed. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

/RA/ Betsy J. Keeling for

Rebecca L. Schmidt, Director
Office of Congressional Affairs

Enclosures:
As stated

cc: Representative Thomas R. Carper

RESPONSE TO THE HONORABLE SENATOR JAMES JEFFORDS

QUESTION 1. Several pending pieces of legislation include waste confidence provisions. In your testimony you state that the NRC would not object if Congress acted to deem that sufficient capacity would exist in a timely fashion to store nuclear waste at Yucca Mountain, or other proposed sites. Is it correct that the NRC has made this determination before in other cases, such as the proposed private fuel storage facility in Utah?

ANSWER.

The NRC made its current waste confidence determination by rule in 1990, and confirmed the rule in 1999. The determination, which is codified in 10 CFR 51.23, applies to licensing and license amendment determinations made with regard to reactors and initial licensing and license amendment determinations made with regard to independent spent fuel storage installations (ISFSIs). Therefore, it has been applied by the NRC to several licensing cases, including, for example, that for the ISFSI at the Humbolt Bay nuclear power plant. In the Private Fuel Storage (PFS) case, NRC cited the waste confidence rule in the final environmental impact statement and elsewhere, in considering whether spent fuel would remain at the PFS site indefinitely; in PFS, however, NRC did not need to rely on the waste confidence rule because utilities' contracts with PFS require them to take back their spent fuel before the PFS license is terminated.

NRC understands that several pending pieces of legislation would direct the NRC to deem, without further consideration, that sufficient capacity will be available in a timely manner to

dispose of the spent fuel and high-level waste from the operation of new reactors and ISFSIs. As we stated in our response to Senator Bingaman's post-hearing question from the August 3, 2006, hearing before the Senate Committee on Energy and National Resources on "S. 2589, the Nuclear Fuel Management and Disposal Act," such legislation is consistent with the NRC's current position that it has confidence that spent fuel and high-level waste produced by nuclear facilities can be both safely disposed of and safely stored until a permanent geologic repository is available. Spent fuel is being managed safely today and the NRC has every expectation that it can be and will be managed safely in the future with at least the same level of protection. Therefore, given that Congress has the authority to impose limits on environmental reviews, and the Commission has confidence in the future safety of stored spent fuel, the NRC has no objection to such waste confidence provisions in pending legislation.

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QUESTION 2. If Congress acts to set waste confidence, I want to understand the effect on the Commission. The NRC has invested resources to make these decisions. If Congress acts to remove this NRC decision making responsibility, what is effect on NRC resources, personnel, and Commission's workload?

ANSWER.

If waste confidence were to be established by statute, the effect on the Commission's resources would depend upon whether there is any further need for the Commission to revisit its 1990 waste confidence findings. In 1999, the Commission stated that it would consider undertaking a comprehensive reevaluation of the waste confidence findings only when the impending repository development and regulatory activities run their course or if significant and pertinent unexpected events occur, raising substantial doubt about the continuing validity of the waste confidence findings. If Congress does not set waste confidence, this is a decision that the Commission could again address as it has before in 1984 and 1990. The agency has not budgeted resources to reevaluate its waste confidence decision. The resources needed for such an undertaking would likely be equivalent to those needed for a major rulemaking (approximately 4 full-time equivalent employees and \$75,000 per year over a 2 year period) .

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QUESTION 3. If Congress did not set waste confidence, is this a decision that the Commission could continue to make as it has before?

ANSWER.

If waste confidence were to be established by statute, the effect on the Commission's resources would depend upon whether there is any further need for the Commission to revisit its 1990 waste confidence findings. In 1999, the Commission stated that it would consider undertaking a comprehensive reevaluation of the waste confidence findings only when the impending repository development and regulatory activities run their course or if significant and pertinent unexpected events occur, raising substantial doubt about the continuing validity of the waste confidence findings. The resources needed for such an undertaking would likely be equivalent to those needed for a major rulemaking. If Congress does not set waste confidence, this is a decision that the Commission could again address as it has before in 1984 and 1990.

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QUESTION 4. I want to make certain I understood a point you made in your testimony. You stated that the NRC has reviewed the interim storage language in the 2007 Senate Energy and Water Appropriations bill. You also said that the existing regulatory infrastructure is sufficient to implement that language should it become law. So the rules don't need to be modified, but you would still need additional people, sufficient funds, and time to implement this change if it became law?

ANSWER.

The NRC has the trained staff, regulatory infrastructure, and guidance to review license applications for spent fuel stored away from reactors in an independent spent fuel storage installation (ISFSI). Currently, the NRC's approved budget for fiscal year 2007 does not provide the monetary resources or the necessary employee resources to support the technical review and adjudication of a large number of concurrent storage license applications as considered in H.R. 5427. Thus, a sudden influx of a large number of new applications for ISFSIs could not be handled without a supplemental appropriation for additional staff and resources. Additional time would also be necessary.

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QUESTION 5. Is it also the case that the NRC does not have capacity to evaluate commercial reprocessing plants and does not have an approved storage container for reprocessing waste?

ANSWER.

Yes, to conduct an efficient and effective licensing review of commercial reprocessing plants, the NRC would need to hire additional specialized staff and modify its regulations.

The NRC regulations that would apply to a reprocessing facility are the same regulations that were used for licensing reactors decades ago. They would not necessarily address all commercial reprocessing facility safety issues and, conversely, are likely to contain requirements that are not applicable to a reprocessing facility. Consequently, licensing of a commercial reprocessing facility under these regulations would present significant challenges to the applicant and to the NRC.

The NRC has a limited number of people who have experience in the licensing of reprocessing facilities, either with the NRC or based on previous work in industry. In addition, the NRC has recent applicable licensing experience with technologies that are similar to the types of recycling processes under consideration for Global Nuclear Energy Partnership (GNEP) (e.g., UREX+ or COEX processes). However, we still need additional expertise in several specialty fields in order to conduct an efficient review of these advanced technologies. For example, NRC needs chemical engineers with a detailed knowledge of reprocessing, actinide chemists,

and nuclear engineers. The NRC has already started looking for this type of experience in making hiring decisions for open positions and have identified some strong candidates. In addition, the NRC has knowledge management efforts underway that will help transfer applicable knowledge from the experts we do have in these areas to the less experienced staff.

The NRC has not approved any storage containers for reprocessing waste. The NRC has approved storage containers for spent nuclear fuel and irradiated materials generated by operating nuclear power plants.

RESPONSE TO THE HONORABLE SENATOR JAMES INHOFE

QUESTION 1. Mr. Reyes stated that the NRC is prepared to receive 19 Combined Construction and Operation License (COLs) applications between 2007 and 2009. The projected number of COL applications has increased from about 12 to 19 in the space of six months. As of June, 2006 NRC staff informed my staff that the NRC planned on reviewing 2 COL applications, completing one design certification and completing five Early Site Permits (ESPs) in Fiscal year 2007 (this includes the \$40 million expected in the Fiscal year 2007 Appropriation Bill). Given the already ambitious schedule for Fiscal Year 2007, could you please provide us with your budget projects for Fiscal Year 2008 and Fiscal Year 2009 addressing any additional resources that might be needed to address the increase in COL applications?

ANSWER.

Currently, the nuclear industry has indicated that it expects to submit at least 20 combined license applications to the NRC during FY 2008 and FY 2009. Our budget was developed with the assumption that the first 13 of these applications will arrive in FY 2008. In addition to beginning the review of these 13 COL applications in FY 2008, the NRC expects to review three early site permit applications and two standard design certification applications. The NRC's FY 2007 appropriation, as approved by the House of Representatives in H.R. 5427, includes \$133 million for new reactor licensing activities. Our preliminary estimate for new reactor licensing activities in FY 2008 is \$230-250 million. At this time the FY 2009 resource estimate

for new reactor licensing activities is expected to remain relatively level with the FY 2008 resource estimate, or increase slightly depending on the timing and the number of new applications submitted for review.

RESPONSE TO THE HONORABLE SENATOR GEORGE VOINOVICH

QUESTION 1. In his testimony, Mr. Sproat of DOE stated that he is highly confident that DOE will have a high-quality, docketable license application for Yucca Mountain repository submitted to the NRC no later than June 30, 2008. For the record, can you assure this Committee that the NRC is equally confident in meeting the statutory deadline for completing its licensing proceeding for Yucca Mountain?

ANSWER.

Provided adequate resources are available, NRC is highly confident that it can meet its statutory obligations concerning the length of time it has to review a license application. The licensing procedure's schedule, however, will rely heavily upon receiving a complete, high-quality application from DOE. Also, as in any license application review and associated hearings, unanticipated events could result in delays. For example, submission of additional information, changes to the license application, and the number and type of contentions admitted to the hearings could all impact the review and hearing schedule. A complete, high-quality application would minimize the impact of these types of issues on schedule and budget, and we would make every effort but there is no way to give assurance on how these issues will affect the ability for NRC to meet its statutory deadline.