

September 14, 2006

The Honorable Pete V. Domenici
Chairman, Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The U.S. Nuclear Regulatory Commission appeared before your Committee on August 3, 2006. As a result of that hearing, you forwarded questions that were submitted for the hearing record by Senator Jeff Bingaman. The Commission's responses to those questions are enclosed. Under separate letter, Commissioner Gregory B. Jaczko intends to provide additional views.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

/RA/

Rebecca L. Schmidt, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Senator Jeff Bingaman

NRC RESPONSE TO POST-HEARING QUESTIONS FROM SENATOR JEFF BINGAMAN

QUESTION 1. The Nuclear Waste Policy Act defines a “repository” to include “both surface and subsurface” areas, but section 4(a) of S. 2589 would exclude any “surface facility” that is not “necessary for initial operation of the repository” from consideration as part of the license application. The Commission has said, both in Chairman Diaz’s June 30 letter and in Mr. Virgilio’s statement, that this provision can be read to “place certain surface facilities outside the NRC’s jurisdiction.”

1(A) Please identify the types of facilities that this provision may exclude from the Commission’s jurisdiction.

ANSWER:

Because the terms “necessary for initial operation,” “infrastructure activities,” “safety upgrades,” and “site preparation” are not defined within S. 2589, the Commission is unable to determine what additional facilities might also not be necessary for initial operation. Under this provision, the Department of Energy would make such determinations. Section 4(a) provides that an application for construction authorization shall not be required to contain information regarding any surface facility other than those necessary for initial operation of the repository. Facilities other than those necessary for initial operation would result from some of the infrastructure activities discussed in Section 4(b) of S. 2589. Examples of “infrastructure” activities given in Section 4(a)(B)(3)(A) include, but are not limited to:

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- (I) safety upgrades;
- (ii) site preparation;
- (iii) rail line construction and facilities to facilitate rail operations; and
- (iv) construction, upgrade, acquisition, or operation of electrical grids or facilities, other utilities, communication facilities, access roads, rail lines, and non-nuclear support facilities.

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1(B) Would the provision enable the Department to exclude plans to construct spent fuel storage facilities from the license application on the grounds that interim storage facilities are not “necessary for initial operation of the repository”?

ANSWER:

Yes, one possible reading of section 4(a) is that information about any surface facilities the Department of Energy decides it does not need for initial operation of a repository at Yucca Mountain, such as interim facilities for surface storage, or “aging” of spent fuel, could be excluded from the license application under Section 4(a) of S. 2589.

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1(C) How might this provision affect the Commission's statutory responsibility to protect the health and safety of the public?

ANSWER:

If the Department of Energy determines, under Section 4(a) of S. 2589, that interim storage or "aging" of spent fuel is not essential to operations of a repository, then the Nuclear Regulatory Commission may not have full jurisdiction over some of the surface facilities.

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QUESTION 2. Section 4(b) of S. 2589 authorizes DOE to “undertake infrastructure activities” at the repository without NRC’s prior approval.

2(A) How does this provision compare with the NRC’s “limited work authorization” rule for nuclear power plants? The limited work authorization rule requires an NRC licensing board to make a preliminary safety determination and environmental findings and the NRC regulatory staff to approve the activity before the applicant can begin work, does it not? Where are the similar protections in Section 4(b)?

ANSWER:

The Nuclear Regulatory Commission’s (NRC) “limited work authorization” rule, 10 CFR 50.10(e), does contain the provisions paraphrased in the question. Section 4(b) of S. 2589 does not contain similar provisions and authorizes the Department of Energy to undertake certain activities without NRC review or approval. Of course, section 50.10(e) of NRC’s regulations does not apply to Yucca Mountain. The current NRC regulations for Yucca Mountain contemplate some work at the site (see 10 CFR 63.2, definition of “commencement of construction”) without NRC approval, but not as much work as the bill would allow.

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2(B) Would section 4(b) enable the Department to construct spent fuel storage facilities at the repository before applying to the Commission for a license to receive and possess spent fuel at the site?

ANSWER: Yes. If the Department of Energy (DOE) determines that spent fuel storage facilities are necessary or appropriate to support construction or operation of a repository at the Yucca Mountain site, or to transport wastes to the site, DOE may designate such facilities as “infrastructure activities,” and construct them pursuant to Section 4(b)(3). During the hearing on S. 2589, DOE said that the bill was not intended to allow DOE to build unregulated storage facilities, but the bill’s language does not make DOE’s stated intent clear.

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QUESTION 3. As I understand it, the NRC generally regulates transportation packaging and security, and the Department of Energy regulates shippers and routing.

3(A) How does Section 7 affect this division of authority?

ANSWER:

The Nuclear Regulatory Commission's (NRC) role for Yucca Mountain shipments is the review and approval of spent fuel and high-level waste shipping packages, as required under Section 180(a) of the Nuclear Waste Policy Act of 1982, as amended (NWPA). We have also developed requirements calling for advance notification of State and local governments prior to the transportation of spent fuel and high-level waste under Section 180(b) of NWPA.

Adoption of Section 7 would not affect these provisions of the Nuclear Waste Policy Act, and therefore, Section 7 does not appear to affect the existing division of authority between the NRC and the Department of Transportation (DOT). Since the Department of Energy (DOE) plans to take title and possession of the spent fuel at commercial reactor sites prior to shipment to Yucca Mountain, DOE would be responsible for safety and security of the shipments outside of NRC regulatory oversight (except for use of NRC certified package designs). DOE has stated its intention to follow NRC's security regulations for its shipments to Yucca Mountain.

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The DOE's stated policy is also to follow the DOT regulations governing shippers, carriers, and routing. Shipping routes are selected by the shippers or carriers in accordance with DOT regulations. The NRC has a role in reviewing and approving the security of selected shipping routes for commercial spent fuel shipments, but not for shipment of DOE-titled spent fuel.

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3(B) Does the Atomic Energy Act give the NRC the authority, and does it have the expertise, to regulate shipping routes?

ANSWER:

While the Nuclear Regulatory Commission (NRC) has broad authority to regulate shipment of commercial radioactive material under the Atomic Energy Act (AEA), including the routing of NRC-licensed materials, this authority does not extend to shipments by or for the Department of Energy (DOE).

To avoid duplication with Department of Transportation (DOT) regulations, NRC requires, under a memorandum of understanding (MOU), that its licensees follow DOT regulations for routing and carrier safety. In implementing this MOU, the NRC has exempted public and contract carriers making commercial shipments from the requirement to have an NRC license, with the exception of carriers shipping spent fuel and special nuclear materials. In these cases, public and contract carriers are granted a limited general license under 10 CFR 70.20b as a way of ensuring that physical protection measures are being implemented during spent fuel shipments.

This has resulted in a system in which highway routes for commercial spent fuel shipments are selected by shippers and carriers based on DOT safety requirements, and subsequently reviewed and approved by NRC for implementation of its security requirements. The DOT has not implemented routing requirements for rail shipments. However, rail routes used for

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commercial (not DOE) shipments of NRC-licensed materials are reviewed and approved by NRC for compliance with NRC security requirements. Thus, NRC's primary expertise and experience in reviewing shipping routes for NRC licensed material is focused on security concerns.

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QUESTION 4. Under current law, the NRC can license new nuclear power plants, even though a nuclear waste repository is still not available, on the basis of the Commission's "waste confidence" rule, which says that the Commission has a reasonable assurance that a repository will be available soon. Section 9 requires the Commission to "deem" that sufficient disposal capacity will be available "without further consideration."

4(A) Does the Commission support Section 9?

ANSWER:

The NRC does not object to this provision of the legislation.

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4(B) The Court decision that gave rise to the Commission's waste confidence rulemaking found "no implication that Congress intended that the NRC ignore new knowledge or analysis in its licensing decisions." Minnesota v. NRC, 602 F.2d 412, 419 (D.C. Cir. 1979). Section 9 would require the Commission to ignore new knowledge or analysis on the availability of waste disposal capacity in its reactor licensing decisions, would it not?

ANSWER:

Section 9 of S. 2589 would direct the Commission 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 related facilities. In its 1990 Waste Confidence decision, the Commission concluded that spent nuclear fuel can be safely stored without significant environmental impact for at least 100 years, if necessary. Spent nuclear fuel is being managed safely today and the Commission has every expectation that it can and will be managed safely in the future with at least the same level of protection as is in place today.

"Waste Confidence" is a consideration in the Commission's environmental review when deciding whether to permit the construction or operation of a new reactor or related facility. It is not unusual for Congress to specify the bounds of environmental reviews. Moreover, Congress has the authority to impose such bounds. Of course, the NRC would retain the authority to inform Congress of all relevant new knowledge or analyses.

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- 4(C) How can the Commission discharge its statutory responsibility to ensure adequate protection of the health and safety of the public if it is forbidden to consider whether there is reasonable assurance that adequate waste disposal capacity will be available in the foreseeable future?

ANSWER:

The NRC has a statutory responsibility only with respect to facilities within its jurisdiction, and that jurisdiction does not include all nuclear facilities. Congress has chosen to assign responsibility for some decisions on nuclear activities to other agencies, and even to Congress itself. The Commission has expressed confidence that spent fuel and high-level waste produced by nuclear facilities can be safely disposed of and safely stored until disposal is available. In its 1990 Waste Confidence decision, the Commission concluded that spent nuclear fuel can be safely stored without significant environmental impact for at least 100 years, if necessary. Spent nuclear fuel is being managed safely today and the Commission has every expectation that it can be and will be managed safely in the future with at least the same level of protection in place today.

The Commission does not read Section 9 of S. 2589 as forbidding all future consideration of the availability of future disposal capacity. Instead, Section 9 appears to apply only in the context of decisions about permitting construction of new reactors or related facilities. For example, the issue of safe disposal of spent nuclear fuel and high-level waste will be considered in the licensing proceeding for a geologic repository.