



The Secretary of Energy
Washington, DC 20585
March 7, 2006

The Honorable John D. Dingell
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Dingell:

The report on H.R. 2419, the FY 2006 Energy and Water Development Appropriations Act, addresses an approach for the disposal of nuclear waste that would result from technological revisions to the current nuclear fuel cycle. The full implications of applying this approach under current law would have to be defined in the context of concrete initiatives implementing the program described in the report.

The responses to your questions are enclosed. If you have any questions, please contact me or Jill L. Sigal, Assistant Secretary for Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

A handwritten signature in black ink, appearing to read "Sam", written over a horizontal line.

Samuel W. Bodman

Enclosure

cc: The Honorable Joe Barton
Chairman, Committee on Energy and Commerce

The Honorable Ralph M. Hall
Chairman, Subcommittee on Energy and Air Quality

The Honorable Rick Boucher
Ranking Member, Subcommittee on Energy and Air Quality

**DEPARTMENT OF ENERGY REPOSSES TO
QUESTIONS RAISED IN THE NOVEMBER 10, 2005 LETTER FROM
CONGRESSMAN DINGELL AND CONGRESSMAN BOUCHER
REGARDING REPORT LANGUAGE PROVIDING FOR
DEVELOPMENT OF A SPENT FUEL RECYCLING PLAN**

- Q1.** Does the Administration support the policy set forth in the report language, including:
- (a) the expenditure of \$50 million for the purpose of developing one or more “integrated recycling facilities”;
 - (b) the requirement that the Department of Energy (DOE) conduct a competition to select one or more sites for such a facility (or facilities); and
 - (c) the proposal to grant \$20 million to “site offerors”?

A1(a). The Energy and Water Development Appropriations Act makes \$50 million, not derived from the Nuclear Waste Fund, available for nuclear waste disposal activities to carry out the purposes of the Nuclear Waste Policy Act of 1982 (NWPA). The Conference Report explains that the \$50 million not derived from the Nuclear Waste Fund should be used to develop a spent nuclear fuel recycling plan. The Department supports the policy to develop and ultimately deploy integrated recycling facilities that would carry out the purposes of the NWPA. The Department believes that integrated recycling facilities can result in treatment of spent fuel to reduce the volume, heat content and the radiotoxicity of the material to be disposed of in the repository at Yucca Mountain. The Department supports the commitment of \$50 million to develop integrated recycling facilities.

A1(b). An integrated recycling process would likely include several types of facilities such as a reprocessing facility, an advanced fuel cycle facility that includes fabrication capabilities, and a reactor to burn the reprocessed fuel. The Department is proceeding with the research and development on such facilities and currently plans to initiate work on an engineering scale reprocessing facility in the near future. The Department has experience

conducting a competitive process for site selection for a facility. The Department believes a competitive process can be very useful in identifying and assessing alternative sites. The Department is evaluating the benefits of using a competitive process to select the site(s) for some or all of the Department facilities necessary to develop and deploy an integrated recycling process.

A1(c). The Department currently is considering the feasibility of making the \$20 million available to “site offerors” in the near future.

Q2. Does DOE currently have statutory authority to select a site for, construct, and operate an “integrated recycling facility,” pursuant to the Nuclear Waste Policy Act, the Atomic Energy Act, or any other law? If so, please identify such existing authority and how it would authorize DOE to implement the policy set forth in the report language. If not, please identify what specific additional statutory authority would be needed.

A2. The Department has sufficient authority under sections 31 and 32 of the Atomic Energy Act of 1954 (AEA) to undertake research and development activities on integrated recycling facilities such as an engineering scale reprocessing facility. Analysis of Departmental authority for actions after the completion of research and development activities is premature. The specific details of a particular action are needed before the analysis can be undertaken.

Q3. If the Department currently has statutory authority to select a site for, construct, or operate an “integrated recycling facility”:

- (a) Does such authority bar location of such a facility in any specific location, such as the State of Nevada?
- (b) Does such authority require licensing of any such facility by the Nuclear Regulatory Commission (NRC)?

(c) Would the Department's exercise of such authority be subject to the requirements of the National Environmental Policy Act (NEPA)? If so, at what point in the process proposed by the report language would such requirements be triggered? Would the Department be required to evaluate alternatives to the proposed action?

- A3(a).** No statutory bar exists on the siting of "integrated recycling facilities" at any site, including sites located in the State of Nevada. Provisions in the NWPA limit the authority of the Department to undertake interim storage of spent fuel that is subject to Standard Contracts under the NWPA. These limitations, however, do not apply to the acceptance and storage of spent fuel in connection with research and development activities done under the AEA or in connection with the operation of an integrated recycling facility.
- A3(b).** Section 202 of the Energy Reorganization Act identifies the types of DOE facilities subject to licensing by the NRC. Section 202, in general, does not cover research and development activities such as an engineering scale reprocessing facility.
- A3(c).** The Department's action to construct and operate an integrated recycling facility would be subject to the requirements of the National Environmental Policy Act (NEPA). DOE anticipates announcing the initiation of its NEPA process in the near future. DOE plans to issue an Advance Notice of Intent to Prepare an Environmental Impact Statement for the Global Nuclear Energy Partnership (GNEP) Technology Demonstration Program. This EIS will inform DOE officials and the public of the potential environmental impacts associated with the proposed program to demonstrate the U.S. capability to safely recycle spent nuclear fuel using a proliferation-resistant separation process and the conversion of transuranics into shorter-lived radioisotopes. The proposed technology development

program includes three major projects that would be conducted in new or existing facilities. These projects would demonstrate: (1) a proliferation-resistant process that would separate the usable elements in commercial spent nuclear fuel from its waste elements; (2) the conversion of transuranics; and (3) operation of an advanced fuel cycle facility that includes fabrication capabilities. The EIS will address siting, construction, and operation of these facilities. The EIS will evaluate all reasonable alternative technologies and locations of key elements of the technology demonstration program.

Depending upon the results of this demonstration program, DOE anticipates conducting a programmatic EIS (PEIS) that would address the potential environmental impacts of any commercial-scale adoption of these technologies for the management of spent nuclear fuel from commercial reactors, as well as reasonable alternatives.

Q4. Please provide a list of all DOE sites that would be eligible for the type of integrated recycling facility described by this report language. What other types of Federal sites would be eligible?

A4. Potentially many DOE and other federal sites might be acceptable locations for an integrated recycling facility. Development of a list of potential DOE or other types of Federal sites will be undertaken when a particular proposed action is formulated.

Q5. How would the Department include DOE sites in the competition for siting an integrated recycling facility? Who would speak for the site – the contractor, the community, the Governor of the affected State?

A5. In moving forward with the plan to develop and deploy integrated recycling facilities, the Department will be mindful that the siting of such a facility can involve issues of

significant concern to affected communities and local and State governing bodies. The Department is considering how best to ensure that the concerns of all interested entities are taken into account.

Q6. How realistic are the deadlines set forth in the report language - submission by the Secretary of a "detailed program plan" to Congress by March 31, 2006; initiation of the site selection competition by June 30, 2006; site selection in FY2007; and initiation of construction of one or more facilities by FY2010?

A6. The Department is planning to submit a preliminary program plan by March 31, 2006.

Target dates for implementing milestones necessarily will depend on the particulars contained in the plan.

Q7. What impact would implementation of this report language have on the Department's ability to fulfill its responsibility to construct and operate a permanent repository under the Nuclear Waste Policy Act? Specifically, please describe the impact on budget priorities, personnel, and other resources necessary for the Yucca Mountain repository program.

A7. The development of a spent nuclear fuel recycling plan in FY 2006 will not impact the Department's ability to fulfill its responsibility to construct and operate a permanent repository under the NWPA or its current plans to submit a license application to the NRC for the repository at Yucca Mountain. Were the recycling approach to be implemented successfully, operation of integrated recycling facilities would assist waste disposal by reducing the volume, heat content and the radiotoxicity of the material to be emplaced in the repository. The Department will consider at the appropriate time whether it needs to seek an amendment to the repository license or other licensing action

to take into account the changed circumstances resulting from the development and deployment of integrated recycling facilities.

- Q8.** How would the Department ensure that the \$20 million provided under this report language for “site offerors” (applicants to host an integrated recycling facility) is spent wisely?
- A8.** Any arrangement selected by the Department to provide financial support to site offerors for the development of detailed site proposals would necessarily contain procedures, controls and reports to ensure that government funds are expended in conformity with any governing statutory requirement and implementing funding agreements. For both contracts and financial assistance agreements, the Department has extensive regulations and required procedures in place to monitor performance under the agreements. If additional controls were determined to be advisable, they could be included in such agreements.
- Q9.** Press reports indicate that in a speech before the 2005 Carnegie International Nonproliferation Conference on November 7, 2005, Secretary Bodman proposed that developed nuclear countries offer “cradle-to-grave” nuclear fuel services for other countries who agree to forego plans for enrichment and reprocessing. Does the Secretary’s proposal depend on the U.S. adopting a policy similar to that proposed in the report language?
- A9.** The Secretary’s proposal is not dependent on the development of integrated recycling facilities in the United States. Development of proliferation-resistant recycling technology, however, would be consistent with and supportive of the Secretary’s proposal.

- Q10.** The bill also slashed funding for the Yucca Mountain program conducted pursuant to the Nuclear Waste Policy Act to \$450 million, \$127 million less than the FY2005 funding level and \$201 million less than the Administration's FY2006 request.
- (a). How much money is expected to be contributed by ratepayers to the Nuclear Waste Fund in FY2006?
 - (b). How much of the amount ratepayers contribute will be appropriated from the Nuclear Waste Fund for the Yucca Mountain repository program during FY2006?
 - (c). What, if any, assurance do ratepayers have that the amount of money they contribute to the Nuclear Waste Fund in FY2006 above that which is appropriated to the Yucca Mountain repository for that year will be spent for its intended purpose - and not effectively diverted to other spending priorities?
 - (d). Please describe how the reduction of \$201 million compared to your request will affect the program activities described in your request.

A10(a). The Nuclear Waste Fund is expected to receive approximately \$750 million in fees in FY 2006.

A10(b). \$100 million of the FY 2006 appropriation is from the Nuclear Waste Fund. \$350 million of the FY2006 appropriation is from Defense Nuclear Waste Disposal appropriations. The remaining \$50 million appropriated comes from general Treasury funds.

A10(c). The balance of the fees collected in FY 2006 will be added to the balance in the Nuclear Waste Fund. As required by the NWPA, the Nuclear Waste Fund cannot be used for any purpose other than the nuclear waste disposal activities specified in the Act. In addition, these balances accrue interest that is dedicated to future NWPA waste disposal activities.

A10(d). This program is extremely complex both technically and legally. Any reduction in appropriations from the level requested risks additional delay, but at this time the extent of those delays cannot be predicted on a dollar-for-dollar basis.