



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 16, 2006

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-06-0066

TITLE: REGULATORY AND RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR FUEL  
RECYCLING PROGRAM

The Commission (with Commissioners Merrifield, Jaczko, and Lyons approving in part and disapproving in part and Chairman Diaz and Commissioner McGaffigan approving) acted on the subject paper as recorded in the Staff Requirements Memorandum (SRM) of May 16, 2006.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in cursive script, appearing to read "Annette L. Vietti-Cook".

Annette L. Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Diaz  
Commissioner McGaffigan  
Commissioner Merrifield  
Commissioner Jaczko  
Commissioner Lyons  
OGC  
EDO  
PDR

VOTING SUMMARY - SECY-06-0066

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. DIAZ	X				X	4/18/06
COMR. McGAFFIGAN	X				X	4/25/06
COMR. MERRIFIELD	X	X			X	4/4/06
COMR. JACZKO	X	X			X	4/19/06
COMR. LYONS	X	X			X	4/7/06

COMMENT RESOLUTION

In their vote sheets, Commissioners Merrifield, Jaczko, and Lyons approved in part and disapproved in part and Chairman Diaz and Commissioner McGaffigan approved staff's recommendation and provided some additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on May 16, 2006.

NOTATION VOTE

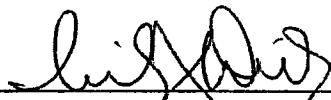
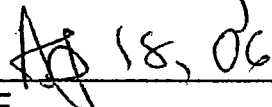
RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: CHAIRMAN DIAZ  
SUBJECT: **SECY-06-0066 - REGULATORY AND  
RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR  
FUEL RECYCLING PROGRAM**

Approved  Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_  
Not Participating \_\_\_\_\_

COMMENTS:

See attached comments.

  
\_\_\_\_\_  
SIGNATURE  
  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes  No \_\_\_\_\_

### **Chairman Diaz's comments on SECY-06-0066**

Consistent with my vote on COMEXM-06-0003, I approve the following staff recommendations:

1. Initiate interactions with DOE and international entities through participation in workshops and meetings domestically and internationally, as appropriate, on the safety and safeguards aspects of the spent fuel recycling program.
2. Resource reallocations for FY2006 of one additional FTE (for a total of 2 FTE) and \$100,000.

Due to the uncertainty of DOE's schedule for this project, and recognizing that funding for these activities in FY07 will result in other activities within the President's budget to be deferred or cancelled, the staff should evaluate the funding for this project as part of the FY2008 budget process. NRC resource commitments should be tied to DOE's program decisions. Also, the staff should work with DOE to have the NRC support for this effort covered under a reimbursable agreement.

I encourage the staff to begin considering the specialized expertise that will be needed for these future reviews when hiring into current open positions.

NOTATION VOTE

RESPONSE SHEET

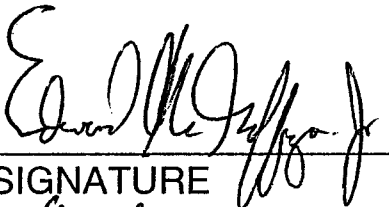
TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER MCGAFFIGAN  
SUBJECT: **SECY-06-0066 - REGULATORY AND  
RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR  
FUEL RECYCLING PROGRAM**

Approved  <sup>w/comments</sup> Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS:

Approved, subject to attached comments.

  
\_\_\_\_\_  
SIGNATURE

April 25, 2006  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes  No \_\_\_\_\_

## Commissioner McGaffigan's Comments on SECY-06-0066

I approve the staff's recommendations for addressing the regulatory and resource implications of the Department of Energy (DOE) spent nuclear fuel recycling program, subject to the following comments. I agree with my fellow Commissioners that a reasonable amount of resources should be expended on this effort until the Administration's Global Nuclear Energy Partnership (GNEP) has further matured. When I wrote my original COMEXM-06-0003, I was under the impression that DOE was farther along in its thinking than has become apparent since then. I agree that staff should interact with DOE and international entities on the safety and safeguards aspects of the GNEP. However, most of the effort should be focused on the development of a conceptual design for a licensing process for GNEP-related facilities to which the staff has committed in this paper, and on draft legislation to revise Section 202 of the Energy Reorganization Act of 1974 and to make any other necessary changes to facilitate NRC licensing of these facilities, which I explain further below. The staff should provide draft legislation to the Commission by September 2006 and a conceptual design for a licensing process one year later. This effort should require no more than 1 FTE and \$100,000 in the last half of FY2006, and 4 FTE and \$200,000 in FY2007.

Section 202 of the Energy Reorganization Act of 1974 defines NRC regulatory authority over DOE activities. Currently, the NRC does not have regulatory authority for, and would not license, any DOE reprocessing facility used to demonstrate the advanced recycling technology selected, or any DOE facility used to reprocess commercial spent nuclear fuel. Similarly NRC would not have regulatory authority over the DOE fuel fabrication facility for the burner reactor or over the DOE vitrification/interim waste storage facilities for the actinide/high-level waste streams coming from the DOE reprocessing facility.

In 1974, all existing or planned reprocessing facilities for commercial spent fuel were under private sector control and subject to NRC licensing. In Section 202, Congress explicitly gave NRC authority over the Clinch River Breeder Reactor and other DOE demonstration nuclear reactors, such as the burner reactor included in GNEP. It may have been an oversight on Congress' part not to include demonstration reprocessing facilities or fuel fabrication or vitrification/interim waste storage facilities or Congress simply may not have expected such facilities to be operated in the future by ERDA/DOE. If commercial spent fuel is going to be taken from an NRC-licensed facility, be processed at DOE fuel cycle facilities, and then be returned to NRC-licensed facilities, i.e., burner reactors, a geologic repository or other waste facilities, then NRC should license demonstration scale DOE fuel cycle facilities. When confronted with a similar issue in the late 1990s, namely licensing of the mixed oxide (MOX) fuel fabrication facility for disposing of excess weapons-grade plutonium, Congress explicitly added the facility (with a design capacity of 70 MTHM/year) to Section 202's list of NRC regulated facilities. Congress recognized then that since the MOX fuel would be introduced into NRC-regulated commercial reactors, NRC licensing would be the most efficient approach compared to a mix of DOE self-regulation and NRC licensing.

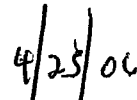
I believe that Congress should make a similar choice for the GNEP facilities once they reach a demonstration scale (say similar to the scale of the proposed weapons-grade plutonium MOX facility). I am not arguing for NRC licensing of small scale DOE pilot reprocessing or fuel fabrication/vitrification facilities. Those can remain under DOE self-regulatory control (although I continue to believe that NRC regulation of DOE civilian facilities, as proposed in the mid-1990s under Secretary O'Leary, would be beneficial to DOE). The staff should prepare draft legislation for Commission approval that would give NRC licensing authority for demonstration scale DOE reprocessing, fuel fabrication, vitrification and interim waste storage facilities.

In drafting the portion of the proposed legislation that addresses reprocessing facilities, the staff should ensure that they identify any impediments in existing law to NRC licensing of these facilities under a one-step hearing process similar to Part 52 for advanced reactors. Other issues requiring statutory changes should also be identified. The "Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990," (Public Law 101-575) may provide some guidance on the scope of issues to be considered by staff. In 1990, Congress modified the definition of "production facility" in Section 11v. to exclude uranium enrichment facilities, except when referring to the export of uranium enrichment facilities. Public Law 101-575 also addressed adjudicatory hearing requirements, insurance and decommissioning, and Price-Anderson coverage for uranium enrichment facilities, which would otherwise have been licensed as Part 50 production facilities.

The conceptual design of a licensing process should be consistent with NRC's proposed legislation. As I stated in COMEXM-06-0003, I believe that the conceptual design should be modeled after Part 52, with consideration of a one-step construction authorization and operating license (COL) hearing process, a design certification process and an early site permit process. The development of a conceptual design of a licensing process is an inter-office undertaking, with perhaps NMSS in the lead, but NRR, NSIR, RES and OGC all having significant roles. The Advisory Committees on Reactor Safeguards and Nuclear Waste could also help in defining the issues most important to licensing, inspecting, and ultimate decommissioning of reprocessing facilities (and related fuel-cycle facilities).

The staff should consider all aspects of the "full recycle" option of the GNEP in its conceptual design. The licensing process design should be comprehensive in scope, and should address, for example, reactor and other fuel cycle facility safety regulations, environmental reviews, domestic and IAEA safeguards, import and export controls, and waste management.

  
Edward McGaffigan, Jr.

  
(Date)

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER MERRIFIELD  
SUBJECT: **SECY-06-0066 - REGULATORY AND  
RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR  
FUEL RECYCLING PROGRAM**

Approved ✓ Disapproved ✓ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS:

*See attached comments*

  
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*4/4/06*  
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DATE

Entered on "STARS" Yes \_\_\_ No \_\_\_



Comments from Commissioner Merrifield on SECY-06-0066:

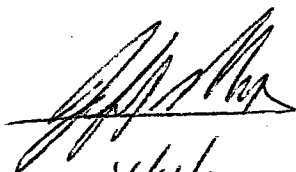
I approve in part and disapprove in part the staff's plans concerning the implementation of a potential Department of Energy (DOE) spent nuclear fuel recycling program. Specifically, I approve the staff committing a reasonable number of resources following DOE's program until it is better understood. By reasonable, I mean on the order of magnitude of 1 FTE and \$100,000 as planned for FY2006. It may be necessary to fund an equivalent activity in following years. However, I do not approve spending the staff proposed resources in FY 2007 and FY 2008 until we better understand the DOE program. Neither do I believe it is appropriate for the NRC staff to be planning public meetings on elements of DOE's program either at the same time as or before DOE has determined the direction of the program. Staff should develop a simplified, generic conceptual licensing process where the specific schedule is directly tied to major DOE program decisions.

I want to state for the record, without prejudging any licensing decision, I am supportive of the concept of reprocessing and the concept of a nuclear fuel recycling program. However, given all the uncertainty in the DOE program, I am not supportive in committing large NRC resources in this area until the program is better defined. DOE can initiate the total program under its own authority. If it is the will of Congress for NRC to regulate this activity, there is time for the NRC to develop appropriate, reasoned regulations and regulatory guidance in a timely manner.

I recognize that DOE is responding to directions from the Congress on a program that has been designated a priority by the President. DOE has been given a very aggressive schedule to select a site and begin construction. While the NRC is an independent regulatory agency we will nonetheless do our part to review a program identified as a national priority. But this program has considerable uncertainty concerning both the site selection and specific technology to be implemented in multiple major facilities to be constructed on the site. The first activities will, in all likelihood, be done under DOE authority. Therefore, NRC does not need to rush into developing regulatory guidance. NRC needs to closely follow DOE's activities, but definitely not lead or dictate DOE's decisions by prematurely developing new regulatory requirements or lead the public discussions on a matter not yet determined by DOE. At the appropriate time, NRC will need to develop and implement regulations and associated guidance.

My principal concern is the impact on NRC resources and existing NRC programs. Because of the size of our program and the fact that a majority of our budget is fee based, the Commission has highly encouraged the staff to be fairly efficient and prudent in the implementation of our programs. One result of this efficiency is that we cannot easily react to large changes in programs. To DOE, with its much larger budget, shifting 12 to 20 FTE and several million dollars on a single issue is not a significant burden. But there is a much bigger impact on taking the same adjustments at NRC. I will provide several examples. At one time, DOE planned, with Congressional encouragement, to place the cleanup activities of the Hanford waste tanks with civilian contractors to be regulated by the NRC. NRC shifted resources around, pulling critical skills from other offices to support this effort. Several years later, DOE decided they would no longer consider using private contractors. I am not saying that the NRC effort was a waste of staff resources or that good results did not come from these interactions, but the NRC may have been better served leaving some of these critical skills in place supporting NRC licensees. Another example is the existing MOX fuel program. This again was a national priority and NRC responded to ensure that regulatory decisions could be reached in a timely manner. But then considerable program delays have occurred, not due to the NRC

regulatory process. DOE has its reasons for delaying the program, but this is another example where the NRC was and is aggressive in meeting the schedule for the activities under our control but the overall process is delayed. The last example I will discuss is the High-Level Waste Repository. This is an issue which has had considerable Congressional focus for years. At one point the repository was to be chosen and licensed (if approved) by the 1980's and then 1990's and now sometime after 2010. All of these programs have the same things in common. They are large DOE efforts which were initiated with considerable Congressional interest and required considerable NRC interaction and, to date, no NRC licensing action has occurred. The NRC is already currently planning for a potential large number of new reactor license applications, which will require considerable NRC staff. We must be prudent in initiating multiple major programs simultaneously.



4/4/06

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

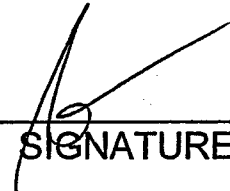
FROM: **COMMISSIONER JACZKO**

SUBJECT: **SECY-06-0066 - REGULATORY AND  
RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR  
FUEL RECYCLING PROGRAM**

Approved  X  Disapproved  X  Abstain  \_\_\_\_\_

Not Participating  \_\_\_\_\_

COMMENTS: **See attached comments.**

  
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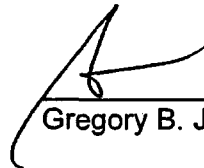
4/17/06

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**Commissioner Jaczko's Comments on SECY-06-0066  
Regulatory and Resource Implications of a Department of Energy Spent Fuel  
Recycling Program**

I approve in part and disapprove in part the staff's proposal to address the Department of Energy (DOE) spent fuel recycling program. Specifically, I concur with Commissioner Lyon's comments reflecting the "slower ramp" toward the staff recommended budget levels.

The DOE recycling program is one component of an apparent re-evaluation of our nation's spent fuel management program in light of the inability of the Department to make progress on a geologic repository. As with other spent fuel disposal programs including the high-level waste program, I believe the Commission should not act too quickly until definite actions are taken by the Department that show a firm commitment to moving forward. The Commission has many important areas that need attention, including vigilant oversight of operating reactors, extensive preparation for new reactor licenses, and comprehensive evaluation of emergency preparedness programs. Until the Department has definite plans for either the high-level waste disposal or spent fuel recycling projects, the Commission should not diminish its focus on those other activities not involving the Department's spent fuel programs.

  
\_\_\_\_\_  
Gregory B. Jaczko                      4/19/06  
Date

NOTATION VOTE  
RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER LYONS  
SUBJECT: **SECY-06-0066 - REGULATORY AND  
RESOURCE IMPLICATIONS OF A  
DEPARTMENT OF ENERGY SPENT NUCLEAR  
FUEL RECYCLING PROGRAM**

Approved in part  Disapproved in part  Abstain \_\_\_\_\_  
Not Participating \_\_\_\_\_

COMMENTS:

I approve in part and disapprove in part the staff's plan for addressing the regulatory and resource implications of spent nuclear fuel recycling programs. Specifically I approve staff to engage with DOE and international entities through participation in workshops and meetings domestically and internationally, as appropriate, on safety and safeguards aspects of the spent fuel recycling program. I agree with a staff proposal of one FTE and \$100,000 for FY2006. Since there are major uncertainties in the DOE plans, including both technologies and milestones, and similar uncertainties in the degree of Congressional support, I do not support the staff's spending proposal for FY2007 and FY2008. I believe the prudent course should be a slower ramp toward the levels recommended by staff, as these uncertainties are reduced by DOE and Congressional actions.

  
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4/7/06  
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DATE

Entered on "STARS" Yes  No \_\_\_\_\_