

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER MAGWOOD
SUBJECT: SECY-09-0090 – FINAL UPDATE OF THE
COMMISSION'S WASTE CONFIDENCE DECISION

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below _____ Attached X None _____

/RA/
William D. Magwood, IV
SIGNATURE

8/13/2010
DATE

Entered on "STARS" Yes X No _____

Commissioner Magwood's Additional Comments on SECY-09-0090: Final Update to the Commission's Waste Confidence Decision

I approve publication of the final update and rule, with modifications I believe are necessary to reflect the current status of the high-level-waste-repository program.

Since 1984 the Commission's Waste Confidence Decision and Rule have comprised the NRC's generic environmental analyses of the storage of spent nuclear fuel at, or away from, reactor sites after the expiration of reactor operating licenses. This process has complied with the direction from the United States Court of Appeals for the District of Columbia Circuit that the Commission should determine whether there is reasonable assurance that an offsite disposal solution will be available by the expiration of the plants' operating licenses and, if not, whether there is reasonable assurance that commercial spent fuel can be stored safely at nuclear power plant sites after plant operations have ended. For more than twenty-five years, the Commission has consistently found that spent fuel can be stored safely for decades after the expiration of a reactor's operating license and that a deep geologic repository will be available at some point in the future. But the uncertainties generated by the significant political challenge of siting a high-level waste disposal facility make it difficult for the Commission to base its considerations on a specific schedule by which a repository would be available. Therefore, I join with my fellow Commissioners in finding that a specific "target date" should be removed from Waste Confidence Finding 2.

Technical analysis performed by the NRC staff, which benefits from practical experience with dry cask storage facilities that have been deployed at many nuclear power plant sites across the country, confirm the safety of storing spent nuclear fuel for at least 60 years beyond expiration of a plant's license. With this analysis, the staff proposes to extend the period of safe storage (found in Waste Confidence Finding 4) from at least 30 years beyond licensed life to at least 60 years. I support this proposal and believe that the analysis is more than adequate to support this extension. I also recognize that the removal of a specific target date from Waste Confidence Finding 2 may cause some to question whether the Commission is endorsing the indefinite storage of spent nuclear fuel—it is not. Rather, Finding 2 reflects the Commission's confidence that disposal capability will be available when necessary. The Commission's Waste Confidence decision is anchored in the knowledge that the technologies exist to respond in a timely fashion to any Federal imperative to shift from storage of spent fuel and high-level waste to disposal of spent fuel and high-level waste. However, the Waste Confidence decision remains bounded by the safe-storage period discussed in Finding 4. Finding 4 is still limited to at least 60 years of storage beyond licensed life for operation, which means that, as it has done before, the Commission may need to revisit its Waste Confidence Decision in the future to ensure that it continues to have reasonable assurance in continued safe and environmentally sound storage and the eventual availability of a facility that can accept U.S. commercial high-level wastes for final disposition.

As a result, I join with my colleagues in recommending that the agency publish a final rule that revises 10 CRF 51.23 and Waste Confidence Findings (2) and (4). I suggest the following modifications:

- 1) I recommend that § 51.23, “Temporary storage of spent fuel after cessation of reactor operation—generic determination of no significant environmental impact” be changed to read:

- (a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of commercial high-level waste and spent fuel when necessary.

- 2) I recommend that Waste Confidence Finding 2 be revised as follows:

The Commission finds reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of commercial high-level radioactive waste and spent fuel generated by any reactor when it is necessary.

- 3) I recommend that Waste Confidence Finding 4 be revised as follows:

The Commission finds reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and either onsite or offsite independent spent fuel storage installations.

I understand that, apart from the Waste Confidence Findings, some of my colleagues have proposed an additional long-term project to extend the scope of the Commission’s confidence in the long-term storage of spent nuclear fuel to well beyond the 60 years after plant operation that is contemplated in the final rule and supported by the staff’s current technical assessments. This project would take the form of a rulemaking supported by an Environmental Impact Statement (EIS) that would engage the public in the development of alternatives and consideration of impact and support the development of a potential update to the Commission’s Waste Confidence Findings and Rule in the future. The proposed EIS would be initiated under the Commission’s discretionary authority under 10 CFR 51.20(a)(2).

This long-term rulemaking and EIS would be separate from the final rule that I have discussed above. The final rule and update stand on their own and I support their publication (as modified in this vote) even if the Commission declines to approve a long-term rulemaking and EIS. The expanded scope of the long-term rulemaking and the additional public participation that accompany an EIS will allow the Commission to consider a more robust Decision and Rule that could support disposal options other than mined geologic disposal and that could expand the timeframe for safe storage of spent fuel and commercial high-level wastes well beyond the 60 years after licensed life contemplated in the current Decision and Rule.

It is important to stress that in launching a consideration of the storage of spent fuel and commercial high-level wastes over the very long-term future, the Commission is sailing boldly into *mare incognitum*. Current policies and technologies are unlikely to provide reliable paths with which the agency can confidently chart its course. It is, therefore, my view that the Commission should pursue this effort in a comprehensive manner.

In this light, I recommend that the staff develop a plan for the long-term rulemaking and EIS for Commission consideration that casts a wide net. The staff should consider not only the potential long-term storage of today's spent nuclear fuel and commercial high-level wastes, but also the potential ramifications of the future availability of advanced nuclear fuel cycle technologies and their concatenate waste management strategies. For example, some approaches would enable short-lived species to be separated from spent fuel and stored until they decay—thereby reducing the performance requirements of a future repository. Spent fuel treatment and recycling options such as this are being explored by researchers in many countries and consideration of the long-term storage of the products associated with these processes would help inform future Commission decisions.

Staff should assess how the proposed project to develop a long-term rulemaking and EIS might reflect the potential application of advanced spent fuel management technologies. Moreover, as part of developing a plan for this effort, staff should assess potential future strategies and, based on their assessment, recommend to the Commission the appropriate time period to be considered in the analysis.

I look forward to the staff's views on how best to design such an expansive project. I believe the Commission must receive a complete plan for its consideration in time to inform the development of FY 2013 performance budget.

<u> /RA/ </u>	<u> 8/13/2010 </u>
William D. Magwood, IV	Date