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

OFFICE OF THE
SECRETARY

October 13, 2010

COMMISSION VOTING RECORD

DECISION ITEM: SECY-10-0043

TITLE: BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

The Commission (with Commissioners Svinicki, Apostolakis and Ostendorff agreeing and Chairman Jaczko and Commissioner Magwood agreeing in part) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of October 13, 2010.

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

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
EDO
PDR

VOTING SUMMARY - SECY-10-0043

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. JACZKO	X	X			X	8/17/10
COMR. SVINICKI	X				X	8/31/10
COMR. APOSTOLAKIS	X				X	8/27/10
COMR. MAGWOOD	X	X			X	8/30/10
COMR. OSTENDORFF	X				X	8/17/10

COMMENT RESOLUTION

In their vote sheets, Commissioners Svinicki, Apostolakis and Ostendorff approved and Chairman Jaczko and Commissioner Magwood approved in part the 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 October 13, 2010.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

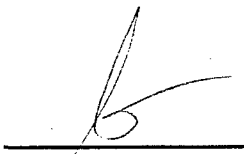
FROM: Chairman Gregory B. Jaczko

SUBJECT: SECY-10-0043 – BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

Approved __X__ Disapproved __X__ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached __X__ None ___



SIGNATURE

8/17/10

DATE

Entered on "STARS" Yes __X__ No ___

Chairman Jaczko's Comments on SECY-10-0043
"Blending of Low-Level Radioactive Waste"

I agree with the staff that the clarity of the agency's blending positions could be improved, should be performance-based and risk-informed, and should be clearly specified in regulation and guidance. At this early stage, however, I cannot specifically approve or disapprove the concept of large scale blending of waste until staff has had the chance to evaluate the technical issues raised below. And in terms of the *process* for addressing this issue, I disapprove staff's recommendation to accomplish this by adding the blended waste issue to the ongoing rulemaking for unique waste streams that will partially revise 10 CFR Part 61.

I agree with the staff that the idea of "blending" should refer to mixing of higher and lower concentrations of contaminated material in a homogeneous mixture, not mixing with clean materials, as well as disposal in a licensed disposal site, not release to the general environment. Waste classified as Greater-Than-Class-C (GTCC) should not be included in the scope of this rulemaking; GTCC waste is a Federal responsibility and these volumes should not be made into a State responsibility, even if the waste has been blended into a lower classification.

The approaches for evaluating homogeneity and conducting performance assessments will both be essential to determining whether blended waste is acceptable for disposal. Large-scale blending should only be allowed for wastes that can be blended into a homogeneous mixture. Staff should develop a clear standard for determining homogeneity and should obtain stakeholder input on the approach. The staff should evaluate homogeneity in the context of the volumes of waste an intruder could encounter in reasonably foreseeable inadvertent intruder exposure scenarios, and also evaluate it in relation to mathematical averaging. Staff should also consider whether limits on mathematical averaging are appropriate.

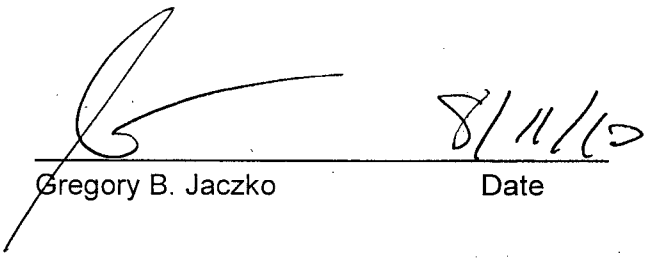
The agency staff has significant expertise in conducting and reviewing performance assessments. Staff should provide clear guidance indicating the approach that should be used in conducting performance assessments for this type of waste. Staff should also consider whether any performance assessment information, such as the period of performance, should be included as part of the rule instead of being contained in guidance.

Given that the staff has indicated that there may be a safety concern with disposal of large quantities of this waste, large-scale blending should not be performed by licensees or processors until a rulemaking has been completed. As a larger issue, I am concerned that we are addressing various important waste issues, each of which has safety implications, in a piecemeal fashion. In the Staff Requirements Memorandum for SECY-08-0147 on depleted uranium, the Commission directed the staff to undertake an initial step of partially revising Part 61 to require a site-specific analysis and to issue interim guidance so that waste would not be disposed of unsafely in the interim. Staff was also directed to budget for a comprehensive revision to risk-inform the 10 CFR 61 waste classification framework. Now, with respect to the

blending issue, staff is proposing to issue additional interim guidance and add blended waste to the unique waste stream rulemaking that is underway.

The unique waste stream rulemaking is not scheduled to be finalized until the end of 2012. I think it is likely that the rulemaking may take longer, especially if the controversial issue of blended waste is added to the rulemaking scope. Staff is also budgeting in FY11 and FY12 to begin the larger rulemaking to update Part 61. This is an inefficient and ineffective way to use our resources, as well as the resources of stakeholders. Therefore, staff should instead proceed to completely update Part 61 and its associated guidance, and include the issues of blending and unique waste streams in that effort.

Finally, I commend the staff for its excellent work on this issue. The paper was comprehensive and well written, and the outreach performed to stakeholders during its development was outstanding.



Gregory B. Jaczko Date

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

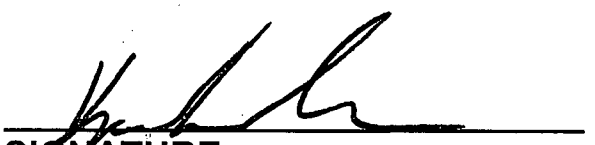
FROM: COMMISSIONER SVINICKI

SUBJECT: SECY-10-0043 – BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached XX None ___



SIGNATURE

08/31/10

DATE

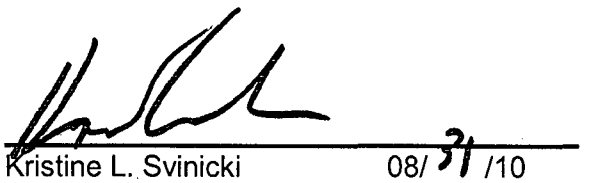
Entered on "STARS" Yes ✓ No ___

Commissioner Svinicki's Comments on SECY-10-0043
Blending of Low-Level Radioactive Waste

I approve the staff's recommended Option 2, to revise the blending positions to be risk-informed and performance-based. Option 2 will be implemented through a combination of rulemaking and issuance of guidance. I have considered carefully the possible schedule impacts that may occur under this option, which will add the proposal to require a site-specific intruder analysis to the rulemaking for unique waste streams currently under development. Although the staff does not believe that the addition of blended waste to the regulatory basis will require significant resources or time to complete, time and resource impacts are always a possibility. In light of this potential, I looked carefully at Option 1, under which NRC would merely update the Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP) and issue a Regulatory Issue Summary that documents the staff position laid out in recent letters to industry. However, in my view, Option 1 does not sufficiently clarify the issue and could lead to inconsistent treatment of low-level radioactive waste depending on where the waste is generated, processed, and/or disposed of, because guidance lacks the potential compatibility requirements of a rule. Also, the agency's existing positions on blending are not risk-informed and performance-based. In light of these disadvantages to Option 1, I approve Option 2 as the path forward.

I join Commissioner Ostendorff in supporting also the staff's proposal to issue interim guidance before the rulemaking is completed regarding the circumstances under which the large scale blending described in the staff's paper would be considered acceptable. I join both Commissioners Ostendorff and Apostolakis in supporting a review by the Advisory Committee on Reactor Safeguards of this guidance, prior to its publication in draft form for public comment. I also agree that the staff should work closely with the Agreement States in developing the proposed rule language and associated compatibility categories.

Finally, I join my colleagues in complimenting the staff on the exceptional clarity of the writing in SECY-10-0043, the care taken in communicating these complex issues, and the noteworthy stakeholder outreach conducted in development of the paper.



Kristine L. Svinicki 08/31/10

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Apostolakis

SUBJECT: SECY-10-0043 – BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

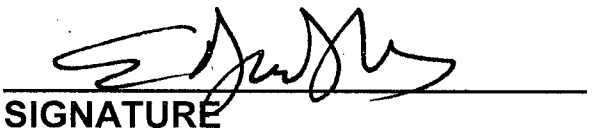
Approved __X__ **Disapproved** _____ **Abstain** _____

Not Participating _____

COMMENTS: **Below** _X_ **Attached** ___ **None** ___

I thank the staff for providing a complete and thorough analysis of the options, which I found very useful as I developed my vote on the issue. I approve the staff's recommendation (option 2) that improvements could be made to the current low-level radioactive waste blending or mixing position if it were to be risk-informed and performance-based, consistent with the agency's overall policy for regulation. I strongly support the staff's effort to use risk information to better our regulatory processes while ensuring protection of public health and safety and the environment. I agree with Commissioner Ostendorff that staff should work with the Advisory Committee on Reactor Safeguards as the rule and implementation guidance are developed. I encourage staff to continue to engage stakeholders during development of the proposed rule and supporting guidance.

I look forward to reviewing staff's draft proposed rule in a future Commission paper.



SIGNATURE

8/27/10

DATE

Entered on "STARS" **Yes** _X_ **No** ___

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MAGWOOD

SUBJECT: SECY-10-0043 – BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

Approved X Disapproved X Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached X None ___

SIGNATURE

30 August 2010
DATE

Entered on "STARS" Yes X No ___

Commissioner Magwood's Vote on SECY-10-0043 "Blending of Low-Level Waste

First of all I would like to commend the staff for providing the Commission with a clear and comprehensive analysis on a very complicated topic of the blending of low-level radioactive waste. The paper was well written and addressed the various issues regarding the Commission policy on blending and stakeholders input. I am disapproving the Staff's recommendation to adopt Option 2 not because it fails to address the current low-level waste challenges or Performance Assessment is not the appropriate tool to use to address this issue. Rather adding the blended waste issues to the ongoing rulemaking for unique waste streams will complicate the ongoing rulemaking. I agree with staff that our current position on blending needs to be clearer and more concise. I also agree with staff that LLRW blending guidance would be improved if it were risk-informed and performance-based, consistent with NRC's overall policy for regulation. Therefore, I recommend that staff should proceed with option 1 until large scale blending is addressed in the comprehensive rulemaking to update Part 61.

I believe that if staff can make small modifications to risk inform our current Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP) and issue a Regulatory Issue Summary to document staff's position (which was communicated in the staff response to three letters from industry representatives in late 2009), will help to alleviate stakeholders misunderstanding of the current NRC position on blending. Although the CA BTP guidance recommends constraints on blending through the use of the "factor of 10" provision, which limits mixing of homogeneous waste streams to batches of waste that are within a factor of 10 of the average concentration after mixing, it also acknowledges that blending is appropriate without the constraints of the CA BTP if it results in operational efficiencies or worker dose reductions. In the interim if large-scale blending for the purpose of changing classification is to be proposed by the licensee, staff could review such an application using a case-by-case analysis. The advantage of revising the current guidance is that the licensees and Agreement States are familiar with the current averaging provisions in the CA BTP and use them extensively, and issuing guidance uses fewer resources to update the agency policy than doing a limited rulemaking to address blending issues. Therefore, I disapprove the staff's recommendation to include the issues of blending in the limited rulemaking for unique waste streams. I recommend that staff address the issues that relate to blending as part of the larger rulemaking to update Part 61.

8/30/10

William D. Magwood, IV Date

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER OSTENDORFF

SUBJECT: SECY-10-0043 – BLENDING OF LOW-LEVEL RADIOACTIVE WASTE

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached X None ___

SIGNATURE

8/17/10
DATE

Entered on "STARS" Yes X No ___

Commissioner Ostendorff's vote on SECY 10-0043 "Blending of Low-Level Waste"

I approve of the staff's proposal to risk inform the Commission's current position on blending through rulemaking, with further clarification being provided via guidance (described as Option 2 in SECY 10-0043). The staff's paper was well thought out and provided a comprehensive overview of the issues surrounding the policy issue of blending. The staff's early outreach with stakeholders ensured that all views on this important issue were fully represented in the paper. My views on this issue have also been informed by the June 17, 2010 Commission meeting and my visits to the WCS disposal site in Texas and the Studsvik waste processing facility in Tennessee. I thank the NRC staff and stakeholders for providing valuable background on this issue.

In SECY 10-0043, the staff points out that blending is neither prohibited nor expressly addressed in NRC regulations, and that the NRC has previously released guidance on blending without distinguishing it from dilution. Further, the staff has indicated in some guidance such as the concentration averaging branch technical position, that blending is permitted under certain circumstances, and, in other areas the NRC has indicated that mixing which alters the waste classification should not occur. Our stakeholders have requested clarity on this issue given the ambiguity of the NRC's current position on blending and since the branch technical position has not been updated since 1995. Further, while low-level waste is being stored safely and securely, it has long been the position of the Commission that disposal of low-level waste is favored over storage. The Barnwell low level waste disposal site was the sole disposal facility for Class B and C waste for 36 states. With its closure, there is a near-term need for solutions which mitigate the impact of this lack of availability of low level waste disposal capacity. For these reasons, I believe it is important that the Commission provide direction on the issue of blending at this time.

The staff's proposed risk-informed approach to blending is appropriate and consistent with the NRC's overall risk-informed and performance based approach to regulation. Waste that has been blended from Class B/C to Class A into a homogenous mixture is not distinguishable from other Class A waste. Plainly put, as one stakeholder expressed, "it does not matter what the waste to be disposed of was, but what it is." That being said, I do recognize that, as proposed by the staff, disposal criteria for blended waste will be necessary to ensure its safety. In particular, the blended waste may be close to the Class A concentration limits, and the underlying assumptions in Part 61 did not presume that all Class A waste was at the limit. Given the need to ensure that such waste is safely disposed of, I approve of the staff's proposal to require in regulation a site-specific analysis before blended waste is disposed.

Stakeholders have raised a number of complex technical issues regarding blended waste, including the need for homogeneity, radiological impacts to workers, waste stability, and intruder protection. The staff's proposal rightly recognizes the need for guidance in these areas. To facilitate the timely disposal of low level waste while ensuring that blended waste is disposed of safely, I support the staff's proposal to issue interim guidance before the rulemaking is completed regarding the circumstances under which the large scale blending described in the

staff's paper is acceptable. Given the disparity of technical perspectives currently available, the ACRS should review the staff's guidance. Once reviewed by the ACRS, this guidance should be published for public comment given the level of stakeholder interest in the proposed rule.

While a clear blending policy in theory may move the nation forward with regard to waste disposal, progress will not be made without the support of our Agreement State partners. It is critical that the rule provide maximum flexibility for the Agreement States so that individual Agreement State solutions can be developed within the context of the rule. While issues such as the methods used to complete a site-specific analysis and homogeneity are important, I believe these issues are best left to guidance. In this way, the NRC's regulations will provide a clear and consistent regulatory framework for safety while providing the Agreement States the flexibility to implement rule requirements in a manner that is consistent with other state laws or policies. Clearly, this was the intent of the Commission's 1997 Policy Statement on The Adequacy and Compatibility of Agreement State Programs, which states that regulatory programs should provide flexibility to accommodate local needs and that program elements determined to have significant transboundary implications be limited to a small number. The staff should work closely with the Agreement States to ensure maximum state flexibility in drafting the rule language and determining the appropriate compatibility category of the rule.

Another necessary part of the staff's approach, given the level of stakeholder input, will be comprehensive communications. The staff should ensure that communications as part of the rule are tailored to the heightened public interest in blending and appropriately educate our stakeholders on the risks of blending. The staff should consider additional opportunities for stakeholder involvement and education in development of the rule, such as additional public meetings or extension of the public comment period on the rule.

Moreover, I believe documenting the Commission's current position on the topic of blending through rulemaking contributes to clarity, openness, and reliability of NRC regulations. Careful coordination with our agreement state partners and clear and frequent communication with our stakeholders will be crucial throughout this process.