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July 29, 2010

Ms. Annette Vietti-Cook
Secretary
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: SECY-10-0043 Blending of Low-Level Radioactive Waste

Dear Ms. Vietti-Cook:

This letter supplements Jim Lieberman's letter of June 8, 2010 (ML101670408) and John Greeves' letter of June 13, 2010 (ML101670407) which provided the Commission with views on the blending issues raised in the above SECY paper. As a result of the discussions during the June 17, 2010, Commission meeting, we are both of the view expressed by John Greeves in his June 13, 2010 letter that the Commission should proceed to risk inform Part 61 now rather than limit its current rulemaking to depleted uranium. In our view this would be a minor expansion of the ongoing depleted uranium rulemaking and would not need to be a five year effort.

Our letters supported the adoption of the Staff's option 2 but with an expansion to require performance assessments demonstrating compliance with the performance objectives of Part 61 for all waste streams at low-level radioactive waste disposal facilities. We also recommended a number of other changes to Part 61 which were described in detail in the October 30, 2009, letter (ML093090484) from Talisman International which we sent to the NRC in response to the Federal Register Notice on depleted uranium, 74 FR 30175 (June 24, 2009). The October letter provided specific rule language to require performance assessments demonstrating compliance with the performance objectives of Part 61 for all waste streams and other changes that need to be done as part of the depleted uranium rulemaking to assure quality and consistent performance assessments. These include amending 10 CFR 61.13 to require that the performance objectives be demonstrated by performance assessments with compliance periods of 10,000 years which are periodically updated, amending 10 CFR 61.41 to update the dose methodology used in Part 61, and amending 10 CFR 61.42 to codify the dose standard of 500 millirems/year used by NRC staff and others for intruder protection.

These changes, while focused on depleted uranium, blended waste streams, and "unique" waste streams, go a long way to risk informing Part 61. However, if two additional changes were made to Part 61, it would result in risk informing Part 61 without the need to modify the existing classification tables in section 61.55. Specifically, we recommend for the reasons discussed below that section 61.58 be made a compatibility level B consistent with section 61.55. In addition, we recommend that a new paragraph 9 be added to section 61.55 and made a compatibility level B, consistent with the

compatibility level for 10 CFR Part 20, Appendix G, that addresses the timing of classification decisions.

10 CFR 61.58

In our view, the requirement to have performance assessments done for all waste streams that demonstrate that the performance objectives of Part 61 are met, with periodic updating, will assure that Part 61 is a risk informed, performance based rule. We appreciate that some may argue that one cannot risk inform Part 61 without either removing the classifications system or updating it to reflect more recent knowledge since the development of the EIS for Part 61 in the 1980s and new dose methodology. However, in our view such an effort will take substantial resources and time and is not necessary. It is also not clear that such a result will be useful since the classification system is based on performance assessments for a generic site that will not reflect an actual site.

Thus, we propose continuing with the existing classification system which is referenced in section 3 of the Low-Level Radioactive Waste Policy Amendments Act of 1985 and is needed to establish the boundary between State and Federal responsibility. To the extent that the existing classification system is not sufficiently protective for unique waste streams, the requirement to perform a site-specific performance assessment demonstrating that the site meets the performance objectives of Part 61 will compensate for any weaknesses. If the existing classification would produce overly conservative results, then the regulator can under 10 CFR 61.58 authorize other provisions for the classification and characteristics of waste on a specific basis if it finds reasonable assurance of compliance with the performance objectives in subpart C. For this reason, we recommend that if the performance assessment provisions that we propose are adopted, then section 61.58 be given a higher compatibility level. This would not mean that an Agreement State must always exercise its provisions, but it must have the discretion to do so.

Not all states, have adopted 10 CFR 61.58 as this section is currently a compatibility level D which means the provision is not required for compatibility. The change to compatibility level is important to assure that the performance assessment process compensates for any weakness in the current classification system. In our view, compatibility level B is needed because waste disposal impacting generators across the nation has significant direct transboundary implications. This is the same level that is applied to 10 CFR 61.55.

10 CFR 61.55 a(9)

The blending discussions have raised questions concerning the timing of classification decisions and the different policies of various states. The purpose of classification under Part 61 is to support the disposal process. The waste classification impacts requirements applicable to disposal. From a disposal perspective, what matters for classification is the waste that is being sent to the disposal site. Waste processing may affect the nature of the

waste such that its concentration may be increased or decreased. It is the resulting concentration that is important for classification and disposal. For processed waste its concentration prior to disposal is irrelevant for purposes of Part 61 as that is not the waste concentration that is being disposed.

The NRC regulations reflect this concept in section III of Appendix G of 10 CFR Part 20. Section III addresses the timing of classification decisions in the context of transportation and manifests. Section III A. provides that licensees who transfer radioactive waste to a disposal site or to a waste collector (non-processor or non-packager) shall classify and label each package to identify its classification in accordance with 10 CFR 61.55. However, if the waste is to be sent to a processor for waste treatment or repackaging, section III C. provides that the processor shall classify and label each package to identify its classification in accordance with 10 CFR 61.55.

Some licensees may choose to classify material based on its concentration when it leaves the generator's site to go to a processor. It is our view that such a classification has no regulatory affect given the provisions of Appendix G and more importantly has no impact on disposal safety because the concentration may be modified (increased or decreased) during the treatment process. To clarify this and prevent confusion with multiple classifications, we recommend that a new paragraph (9) be added to 10 CFR 61.55 (a) to read:

(9) For purposes of classification of wastes under this chapter, waste shall be classified when packaged or containerized for disposal. For waste packaged or treated at a licensed waste processor, only the classification made by the processor prior to shipment directly to the disposal site shall be used for purpose of this chapter.

This language would make Part 61 consistent with Appendix G of Part 20. As proposed above, this new paragraph should be made a compatibility level B.

We would be pleased to discuss these comments with the NRC. Questions regarding them should be directed to Jim Lieberman at (301) 299-3607 or jl@lieblet.com and to John Greeves at (301) 452-3511 or greevesj@aol.com.

Respectively submitted,

Jim Lieberman

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John Greeves

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Sent: Friday, July 30, 2010 10:50 AM
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Subject: SECY-10-0043 Blending of Low-Level Radioactive Waste
Attachments: Microsoft Word - blending_letter_to_Commission_Supp_July-29-10 .pdf

Ms. Annette Vietti-Cook

We are sending to you a letter with copies to the Commissioners providing our views on risk informing Part 61 that was discussed during the blending Commission meeting on June 17, 2010. If you have any questions concerning this letter or need more information, please contact us.

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Best Regards

Jim Lieberman

John Greeves

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