

November 18, 2010

The Honorable Jim Matheson
United States House of Representatives
Washington, D.C. 20515

Dear Congressman Matheson:

Thank you for your letter of June 10, 2010, regarding the blending of low-level radioactive waste (LLW). As we shared with you in June, I waited to respond to your letter until after the Commission was briefed on the Nuclear Regulatory Commission (NRC) staff's April 7, 2010, blending policy paper and had the opportunity to vote on the matter. The Commission issued its direction to the staff regarding blending of LLW on October 13, 2010; a copy is enclosed for your information. Also enclosed are responses to your specific questions regarding blending.

The Commission approved the staff's recommended Option 2 to clarify the agency's position on blending of LLW. This decision clarifies the agency's position on blending of waste streams so that it is more risk-informed and performance-based, with the principal consideration being whether a final blended waste form could be disposed of in a way that provides adequate protection of public health and safety. This option will be implemented through a combination of rulemaking and issuance of new guidance. The Commission's direction to the staff also noted that entities wishing to pursue large-scale blending should be encouraged to wait until the revised guidance is published in final form.

The Commission has directed the staff to ensure that communications during the rulemaking process are responsive to the heightened public interest in blending. The staff will also consider additional opportunities for stakeholder involvement and education in the development of the rule, such as additional public meetings or extensions of the public comment period on the rule.

Thank you for this opportunity to share with you our approach to the blending of LLW, and I assure you that we are cognizant of our statutory and regulatory obligations. If you need

any additional information, please contact me or have your staff contact Ms. Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosures:

1. U.S. Nuclear Regulatory Commission
Response to June 10, 2010 Information
Request
2. Staff Requirements Memorandum –
SECY-10-0043 – Blending of Low-
Level Radioactive Waste

Identical letter sent to:

The Honorable Jim Matheson
United States House of Representatives
Washington, D.C. 20515

The Honorable Edward J. Markey
United States House of Representatives
Washington, D.C. 20515

The Honorable Bart Gordon
United States House of Representatives
Washington, D.C. 20515

**U.S. Nuclear Regulatory Commission (NRC) Response to June 10, 2010,
Information Request**

1. How does blending alter the characterization now bestowed on Class B and Class C waste?

Response:

Waste is classified according to its concentrations of certain radionuclides. Blending, as discussed in the NRC staff's policy paper is the mixing of waste that contains Class B or C concentrations with waste that contains Class A concentrations to produce a mixture that is within the Class A concentration limits. It is the concentration in the waste at the time it is prepared for disposal that is important to protecting public health and safety.

2. Would a landfill designed only for a 100 year radioactive decay rate qualify for storage of blended waste?

Response:

Such a landfill (i.e., a licensed low-level waste (LLW) disposal facility) could qualify for disposal of blended waste that meets Class A concentration limits. After 100 years, there will have been sufficient radioactive decay of Class A waste so that a member of the public would not receive an unsafe dose. As a result of the Commission's October 13, 2010, decision on LLW blending, a safety evaluation should be conducted and a demonstration should be made that such waste meets the 10 CFR Part 61 concentration limits and performance objectives. These actions will ensure adequate protection of public health and safety.

3. Will the public lose confidence in the NRC waste disposal licensing process when a Class A disposal site is actually receiving Class B and C waste?

Response:

Waste must meet the concentration limits of Class A waste in order to be disposed of in a Class A disposal facility. In other words, a disposal facility that is licensed only for Class A waste would not be disposing of Class B or C waste. As noted above, waste classification is determined by a waste's radionuclide concentrations at the time of shipment for disposal. It is important to note that the Class B and C wastes contain the same types of radionuclides as Class A, including long-lived radionuclides. The only difference is that Class B and C wastes contain higher concentrations of certain radionuclides.

Recognizing the level of public interest in this topic, the NRC will continue to adjust its level of public involvement and communication appropriately. The Commission's October 13, 2010, decision is based on substantial public input, a policy paper that addresses all of the issues raised by stakeholders, and conformance of the agency's LLW blending position with the agency's overall policy for using risk-informed, performance-based regulation. The NRC's decisions are based on protection of public health and safety, and the agency believes that these factors will contribute to public confidence.

4. Would facilities licensed only for Class A waste need to be relicensed if the radioactivity level of stored material increases due to blending?

Response:

The Commission is developing a rule that will require a site-specific analysis be performed for large volumes of blended waste. Currently, all operating LLW disposal sites are regulated by the states in which they are located. Those regulatory entities will be responsible for conforming appropriately with NRC's final rule and will therefore decide whether a license amendment may be needed for safe disposal of blended waste.

5. If the NRC decides to permit blending, how would this affect states, like Utah, that do not allow Class B or Class C waste to be disposed of in their LLRW sites?

Response:

Waste must meet the concentration limits of Class A waste in order to be disposed of in a Class A disposal facility. A disposal facility that is licensed only for Class A waste would not be disposing of Class B or C waste.

In its direction to NRC staff regarding blended waste, the Commission stated that the staff should work closely with the states to provide maximum flexibility in drafting the proposed rule, while still ensuring that blended waste is disposed of safely. This will ensure that state views are considered during rule development.

6. Is the only purpose of Option 2 to allow disposal of Class B and C waste in the Clive, Utah, site, by mixing it with large volumes of Class A waste and then claiming that the "average concentration" is Class A for disposal purposes?

Response:

Option 2 in the staff's policy paper is intended to implement the agency's policy to use risk-informed, performance-based regulatory approaches in its programs. Option 2 will establish a more specifically defined basis and criteria for determining when blending is acceptable. It will also provide a clear and explicit regulatory pathway for the disposal of large quantities of blended Class A waste.

While a recent proposal for large-scale blending includes potential disposal at Clive, Utah, the NRC's proposed regulatory framework will be general and will apply to any other proposals that might be made in the future for other disposal facilities.

From the information provided by licensees, the NRC staff understands that blending, whether under the rulemaking in Option 2 or the existing guidance, not only allows for disposal of some waste that would otherwise be Class B or C, but may also provide other benefits, such as operational efficiencies and worker dose reductions.

7. The newly licensed low-level radioactive waste disposal site in Texas is authorized to take Class B and C waste. Why would downblending be a permissible or preferable option when we have an appropriately licensed facility specifically for Class B and C waste?

Response:

The Commission considered the issue of LLW blending and has determined that it can be performed safely, if appropriate controls are utilized. Given that the agency's role is to set the standards for safe disposal rather than advocate particular business practices, the Commission has not taken a position on whether blending is preferred over other LLW management alternatives. With respect to disposal of Class B or C waste, although the Waste Control Specialists (WCS) facility in Texas is licensed for disposal of these wastes, it can currently only accept waste from generators in the states of Texas and Vermont.

October 13, 2010

MEMORANDUM TO: R. W. Borchardt
Executive Director for Operations

FROM: Annette L. Vietti-Cook, Secretary **/RA/**

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

The Commission has approved the staff's recommended Option 2 to revise the Commission's current position on blending to be risk-informed and performance-based. As described in SECY-10-0043, Option 2 will be implemented through a combination of rulemaking and the issuance of guidance.

After the staff develops the revised Branch Technical Position regarding the circumstances under which the large scale blending described in SECY-10-0043 is acceptable, it should be reviewed by the Advisory Committee on Reactor Safeguards (ACRS). Following ACRS review, the guidance should be published for public comment.

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 while also ensuring that the rule provides a clear requirement for a site specific analysis to ensure that blended waste is disposed of safely.

The sense of the Commission is that entities wishing to pursue large scale blending should be encouraged to wait until the revised Branch Technical Position (BTP) is published in a final form. However, until such time as the BTP revision is in final form, licensing actions received by NRC for large scale commercial blending facilities should be reviewed on a case-by-case basis. Any new policy issues that arise during this interim time period should be communicated to the Commission.

The staff should not include waste at Greater-Than-Class-C (GTCC) concentrations 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 staff should develop a clear standard for determining homogeneity and should obtain stakeholder input on the approach as part of the revised BTP. 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. The staff should also consider whether limits on mathematical averaging are appropriate.

The staff should provide clear guidance indicating the approach that should be used in conducting performance assessments for this type of waste. The staff should also consider whether any performance assessment information should be included as part of the rule instead of being contained in guidance.

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 also 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.

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
CFO
OCA
OPA
Office Directors, Regions, ACRS, ASLBP (via E-Mail)
PDR