

NRC Staff Analysis of Waste Control Specialists' (WCS) September 22, 2009, Comments on Blending

WCS comment	Analysis
NRC's August 27, 2009, letter to EnergySolutions implies that blending to lower the classification of LLW is now accepted. This is a significant departure from established policy. Before such a change is implemented, NRC should conduct a thorough and public review of the matter.	Our August 27, 2009, letter summarizes NRC's current regulations and guidance on blending. Although the staff has made statements that recommend constraints on blending, the staff has also noted that blending is not prohibited by the regulations and NRC's guidance notes that blending to reduce waste classification is appropriate under some circumstances. Thus, there has been no change in policy. On October 8, 2009, the Chairman requested that the staff prepare a vote paper for the Commission addressing the issue of blending. The staff will include stakeholder views in the paper, such as those identified in the WCS letter, and will solicit formal stakeholder input before the paper is completed.
WCS is optimistic that its new disposal facility will be open for disposal of Class A, B, and C waste by non-regional generators, and if this occurs, waste generators across the country may again have continued access to a licensed disposal facility for such waste. Management of waste could continue under the current regulatory framework and negate the need for radical changes in policy. If blending of B/C waste for disposal in Class A were permitted to become national policy, the economic viability of the WCS facility would be compromised. The Commission should evaluate the unintended and adverse consequences such a change could cause.	NRC has not changed its positions on blending of LLW, which are contained in the Concentration Averaging Branch Technical Position (CA BTP). The Chairman has directed the staff to prepare a vote paper that addresses policy issues, among other topics. WCS's views on this issue will be provided by the staff to the Commission for its consideration.
NRC is wavering on its commitment to a fundamental waste management policy to discourage the downblending of waste to change its classification, based on statements made in the August 27, 2009, letter to EnergySolutions. The letter implies that blending to change waste classification will be accepted.	The letter to EnergySolutions describes NRC's current regulations and guidance on blending of LLW. The current guidance discourages blending to lower the waste classification, but acknowledges that it may be acceptable in certain circumstances. In particular, if worker dose reductions or operational efficiencies can be achieved through blending, the constraints recommended in the BTP do not apply. In addition, in an October 16, 2006, letter to Alaron, the staff stated that mixing should not be performed <i>solely</i> to lower the waste classification. The staff also noted that ". . . if waste is mixed in accordance with the guidance in the BTP, resulting changes in waste classification are acceptable [emphasis added]."
NRC notes in its letter to EnergySolutions that 10 CFR Part 20, Appendix G, addressing transfer of waste for disposal and shipping manifests, does not prohibit deferring waste classification until after the material is shipped from a generator to a processing facility. WCS has several concerns with this statement.	<ul style="list-style-type: none"> a. The staff agrees the NRC regulations, including 10 CFR Part 20, Appendix G, are silent on blending of LLW of any kind. NRC regulations require the classification of waste when it is to be shipped for disposal, not when it is shipped from a generator to a processor.

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<ul style="list-style-type: none"> a. Nothing in Appendix G suggests that waste could or should be blended for the purpose of changing its waste classification. b. The letter implies that only after classification would NRC's established policy of discouraging downblending of waste to change its waste category apply. c. WCS believes that terminology changes should not be introduced with the purpose or effect of overriding established policy or confusing the public. 	<ul style="list-style-type: none"> b. The CA BTP addresses blending before waste is ready for shipment, even though such classification is not required by NRC regulations. c. The staff agrees. The terms "blending" and "dilution" were addressed in the letter to clarify the difference, since the two terms are sometimes used interchangeably. The letter describes the existing NRC staff position in the CA BTP on blending.
<p>The NRC's Branch Technical Position ("BTP") implements core principles [waste minimization, isolation and containment] by placing bounds on blending of waste streams. Under this policy, waste generators were allowed to mix homogeneous waste streams provided that the purpose was not to change the waste classification. . .</p>	<p>This statement is not a correct interpretation of the staff's position. While the CA BTP recommends certain constraints on blending, which have the effect of minimizing changes in waste classification, the regulations are silent with respect to blending. Further, the BTP does contemplate the mixing of waste to lower the classification under certain circumstances. NRC's October 16, 2006, letter to Alaron, a waste processor, noted that . . . <i>if waste is mixed in accordance with the guidance in the BTP, resulting changes in waste classification are acceptable.</i>" The CA BTP also discusses circumstances where blending is contemplated (when worker dose reductions or operational efficiencies can be achieved).</p>
<p>Over the past ten years, NRC has reaffirmed this position in rulemaking proceedings, regulatory guidance, and correspondence with its licensees. Most recently, the <i>Draft Interim Guidance for Concentration Averaging for Waste Determination</i> would only allow blending of waste if no "extreme measures" were taken to accomplish this task. Extreme measures were defined as "deliberate blending of lower concentration waste streams with higher activity waste streams to achieve waste classification objectives." Consequently, blending of Class A with Class B/C LLW for the purpose of reclassifying the waste as Class A LLW would be an extreme measure and prohibited under the guidance issued on December 16, 2005.</p>	<p>This position quoted is from <i>draft</i> guidance issued for public comment, which was later revised to a significantly different position, as noted below. Further, guidance cannot impose binding restrictions—only regulations are binding. And in this case, the guidance is for another NRC program different from commercial LLW generation, processing and disposal. After consideration of public comments on this draft document, revised guidance on blending was published in NUREG-1854, "NRC Staff Guidance for Activities Related to U.S. Department of Energy Waste Determinations." This final guidance states that "Extreme measures [should not be taken and] may include . . . deliberate blending of lower concentration waste streams with high activity waste streams <i>solely</i> to achieve waste classification objectives, <i>although blending may be needed for waste management purposes</i> [emphasis added]. Thus, this guidance is a) not binding because it is guidance; b) generally consistent with the BTP guidance above; c) not applicable to the commercial LLW program, because it is from another program; and d) not current, because it was in draft guidance.</p>
<p>NUREG-1854, <i>Draft Interim Guidance for Concentration Averaging for</i></p>	<p>The quoted statement is from a different NRC program, not the LLW</p>

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<p><i>Waste Determination</i> to support the <i>NRC Staff Guidance for Activities Related to U.S. Department of Energy Waste Determinations</i> also . . . proscribe[s] “extreme measures” that involve the “deliberate blending of lower concentration waste concentration waste streams with higher activity waste streams solely to achieve waste classification objectives.”</p>	<p>program. The staff acknowledges that the quote is similar to a statement in a comment resolution appendix of the CA BTP. At the same time, the CA BTP specifies conditions (worker dose reductions and operational efficiencies) under which the recommendations for constraining blending in the BTP do not apply. Thus, if these other circumstances are applicable, a waste would not be blended solely to reduce its waste classification, but to achieve these other objectives as well.</p>
<p>Texas regulations specifically prohibit intentional dilution of waste for the purpose of changing waste classification.</p>	<p>The staff is aware of the Texas regulation that prohibits dilution that reduces the waste class. Texas Administrative Code provision 30 TAC §336.229, “Prohibition of Dilution,” states the following:</p> <p style="padding-left: 40px;">“No person shall reduce the concentration of radioactive constituents by dilution to meet exemption levels established under the Texas Health and Safety Code, Chapter 401, §401.106, or change the waste's classification or disposal requirements. Radioactive material that has been diluted as a result of stabilization, mixing, or treatment, including, but not limited to, Resource Conservation and Recovery Act (RCRA) Land Disposal Restrictions (LDR) treatment, or for any other reason, shall be subject to the disposal regulations it would have been subject to prior to dilution.”</p> <p>It is not clear whether the term “dilution” means mixing of waste with clean material (which NRC staff defines as dilution) or mixing of waste with waste (which NRC staff defines as blending). Staff will obtain clarification from the Texas Commission on Environmental Quality in considering impacts on Agreement States of any new positions on blending.</p>
<p>Utah regulators have expressed concerns regarding changes to the BTP established policy that would have the effect of circumventing Utah’s prohibition of disposing of Class B/C LLW in Utah. A petition for rulemaking was introduced in Utah that would explicitly prohibit processing of <i>material</i> that would otherwise by Class B/C LLW to change its ultimate waste classification, as well as the processing of waste at other locations if intended to circumvent existing laws regarding disposal of Class B/C LLW.</p>	<p>The staff has sought the views of the Agreement State regulators on this issue, particularly those that host disposal sites and processing facilities, and any consideration of a change in NRC’s position on blending will factor in the States’ views. The staff is also following the petition for rulemaking in Utah.</p>
<p>Coordination with Agreement States should be undertaken before making any fundamental changes in policy.</p>	<p>The staff will continue to coordinate with Agreement States on this issue and use an open, transparent, and consultative process for any</p>

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<p>Existing NRC policy, established in the BTP and reiterated and reinforced in numerous subsequent NRC pronouncements, <i>prohibits</i> blending/dilution of radioactive material for the purpose of changing its waste classification.</p>	<p>changes, as suggested by WCS.</p> <p>This statement is an incorrect interpretation of NRC guidance. First, current NRC staff guidance allows for blending to change the waste classification in certain circumstances. Second, NRC guidance cannot prohibit licensee actions, since guidance does not have the force of regulations. Third, NRC guidance does not have to be used by Agreement State in their regulatory program, unlike NRC regulations which are subject to Agreement State compatibility requirements. Almost all waste processing and disposal facilities are regulated by Agreement States in the U.S.</p>
<p>WCS therefore requests that . . . any changes to the policy will be accomplished only through future rulemaking that would solicit and consider the views of the many affected stakeholders.</p>	<p>Although the existing staff position allows for some blending to lower the waste class, the staff is preparing a vote paper for the Commission that will identify policy issues related to blending, as well as other issues. The staff expects to solicit the views of stakeholders before the completion of that paper and to identify those views in the vote paper. The Commission will decide if a rulemaking is appropriate.</p>