

Prepared Remarks by Lawrence E. Nanney, Director  
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to the

U. S. Nuclear Regulatory Commission  
Regarding Blending of Low-level Radioactive Waste (SECY-10-0043)

June 17, 2010

Mr. Chairman and members of the Commission, thank you for the opportunity to present our views on this issue here today.

I represent a state that hosts several licensed processors of low-level waste, which conduct a variety of processing operations for a broad spectrum of LLW generators from all across the nation. Predominant among those generators are the nation's nuclear power stations, themselves licensees of the NRC.

As the Agreement State agency in Tennessee, the Division of Radiological Health, in the Department of Environment and Conservation, licenses the two waste processors that are at the center of this issue of blending. EnergySolutions and Studsvik have both previously presented their cases, and will do so again later today. Through differing business models, these processors offer different technological and philosophical approaches to solving the same problem.

NRC staff has addressed, in the blending paper, various advantages and disadvantages associated with these competing processes. We have chosen not to endorse one process over the other. Our only interest and sole responsibility lies in protecting the workers in the facilities that we license, the health and safety of the public, and the environment of Tennessee.

EnergySolutions approached the Division with preliminary plans for developing a methodology to blend ion exchange resins and similar waste materials having varying radioactivity concentrations into a homogeneous mixture, which it hopes to dispose at its licensed disposal site in Clive, Utah. Those discussions have centered on "blending", and not "dilution", in the context that these terms are used by the NRC.

During our initial discussions with representatives of EnergySolutions, it was clear that they wanted the Division to license them for conduct of this activity on a commercial scale. They presented a rationale to support the position that this was already within the scope of the Branch Technical Position on Concentration Averaging and Encapsulation.

The Division was not convinced that this was the case, and told EnergySolutions that we had no interest in licensing a process that lacked commercial viability, by which we meant that it must have both a customer base to support it and a pathway for disposal of the processed wastes.

The Division requested that EnergySolutions pursue confirmation regarding both of these “viability” aspects of their proposal. We also authorized them to do some limited R&D work to identify any technical obstacles to producing a LLW form acceptable for disposal. It was made clear that the satisfactory resolution of each of these issues was prerequisite to any consideration of authorization for commercial operation.

Since the NRC's reactor licensees constitute a major customer base for Tennessee's LLW processing facilities, whether they will be allowed by the NRC to utilize the services of offsite waste processors to blend LLW in preparation for disposal is key to the first viability issue. That was not at all clear from our reading of the Branch Technical Position. We note that subsequent NRC correspondence has confirmed the applicability of the BTP to offsite processors, but that can be undone in a moment, depending on what action the Commission takes regarding the various options presented in the blending paper.

Regardless of which option the Commission chooses, the Division would like the NRC to clarify those aspects of its position that may affect the ability of its reactor licensees to utilize blending as proposed by EnergySolutions. That would provide part of the answer to the question of commercial viability.

In regard to the issue of a clear pathway for disposal of blended waste, the Division notes the staff recommendation in Section 4.5 of the blending paper, regarding how the current blending proposal might move forward, pending completion of whichever option may be selected by the Commission. Having a viable pathway for disposal of the resulting wastes, as well as clarity and finality in the NRC's position, is critical to our goal of protecting public health, safety, and the environment.

In Section 8.0 of the blending paper, NRC staff noted, regarding Option 1 - Maintaining the Status Quo, “This option could lead to inconsistent treatment of LLRW that could vary according to where the waste is generated, processed and/or disposed. Waste blended and classified in accordance with the requirements of the State in which the generator is located may not be accepted for disposal at a site in another State that has adopted different waste classification and blending criteria.”

The Division notes that the foregoing situation, ascribed to Option 1, is not unique to that option. In fact, something very similar to that is a reality of life that waste processors deal with on a daily basis, and is something that may well continue regardless of the option selected.

Tennessee's waste processors receive, process, and either return or dispose LLW generated in both sited and unsited states and compact regions. In each case involving disposal, the waste processor must ensure compliance with applicable, often varying, and sometimes inconsistently applied disposal site, state, and compact requirements regarding waste forms and import/export policies. Decisions that are made in those states and compacts, as well as those made by the NRC, have a profound impact on waste processing in Tennessee.

The sited states and compacts bear the primary responsibility for implementing requirements for disposal sites within their jurisdictions. We believe those requirements should be based on considerations that serve the best interests of public health and safety, however, it is unclear in some cases how existing requirements are connected to that goal. For example, we agree with the NRC's stated view on the reason and timing for classifying waste for disposal, however, some who have commented on that, in regard to the blending issue, seem to be basing their rationales on criteria other than scientific analysis of factors affecting health and safety.

For EnergySolutions' blending proposal to move forward, a LLW disposal site must be willing and able to receive those blended wastes, and there is only so much that the NRC can do to influence that course of events. While it is not the responsibility of the NRC to standardize all requirements for LLW disposal across the nation, the Division believes that the NRC can play a key role in improving uniformity, through this effort to clarify its position on this issue.

The Bureau of Environment, in the Tennessee Department of Environment and Conservation, has a statement of core values, which includes in part the following: "We strive ... to solve problems through a scientific and evidence-based approach that respects diverse opinions and provides opportunities for input ...". We commend the effort of the NRC to bring clarity where it is lacking, and we encourage the NRC to pursue this effort in a manner consistent with these core values.

We believe that the NRC has appropriate resources, processes, and trained staff, and is the right agency to address this issue. We concur with the NRC's policy of moving toward risk-informed, performance-based regulation, and are, ourselves, moving in that direction. By making this decision on the basis of scientific analysis of the evidence, through a rulemaking process that allows for public input under the National Environmental Policy Act, the NRC will provide both a sound rationale for the decision, and a basis that can lead to increased national uniformity.

To summarize, two competing processing technologies are at the center of this blending issue. The choice of which, or both, or neither of these technologies will be proven viable lies with the Commission and its licensees, as well as with the sited states and compacts, and their regulatory agencies. To the extent that the resolution of this blending issue is grounded in a well-reasoned discussion of the associated health and safety considerations that underlie the Commission's decision, it is our hope that sited states and compacts may find encouragement to conform their disposal requirements toward those same health and safety goals.

Again, I thank you for the opportunity to present these views.