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USNRC

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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

February 29, 2008

Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555
Attention: Rulemaking and Adjudications

Re: 73 FR 7765, Regarding Importation of Italian Low-Level Radioactive Waste

To Whom It May Concern:

I am writing to respond to the call for comments that the Nuclear Regulatory Commission issued regarding importation of low-level radioactive waste (LLRW) from Italy to the United States (*see* 73 FR 7765, Feb. 11, 2008). I have worked nearly my entire career (over 40 years) in the nuclear power industry – first in the nuclear navy, then as an inspector in Region II for the NRC and private industry. As a result, I am intimately familiar with the various technical, health, environmental, and political questions posed by the processing and disposal of LLRW.

Given my experience, my review of the application by EnergySolutions to import the LLRW that you are considering, the questions that the NRC has posed to EnergySolutions regarding that waste, and the answers that EnergySolutions has provided, I strongly urge the NRC to deny the import license that EnergySolutions is seeking. Policy makers are in danger of allowing this private company to commit the United States to accepting radioactive waste from foreign countries without due regard to our health, safety, or disposal capacity. To my knowledge, the United States has never before accepted permanent transfer of so many curies from foreign LLRW. It further seems appropriate for the NRC to take note that Italy has failed to properly dispose of radioactive and other waste for decades, and of Italy's lack of any disposal site for LLRW and other nuclear waste. Given that accepting such waste will deplete this country's extremely limited ability to dispose of its own waste, and also given that the processing EnergySolutions would perform may not currently be permitted by the governing NRC guidance, the NRC should not approve the application unless it receives satisfactory answers to some troubling questions regarding EnergySolutions' import license.

Foreign LLRW Should Not Be Disposed Of In The United States:

First and foremost, the NRC should be concerned about the scarcity of licensed disposal capacity for America's domestic needs. As the NRC is well aware, the disposal facility in Clive Utah – where the Italian waste would be permanently kept – is the *only* disposal site for LLRW for 36 states. It has been estimated that the site has only two decades of capacity for the waste from those states; transferring waste to Clive from abroad will deplete that capacity even sooner.

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It *can not* be argued that health, safety, and environmental quality of the United States is bettered by importing waste but not returning it to the country of origin. This is especially so for the waste from Italy, given that both the origin within Italy and the type of waste to be imported is uncertain. Additionally, the return criteria should be based on the ratio of the amount of radioactivity (curies) imported and exported. Radioactivity is a key objective measure of a waste shipment's impact on the United States. Other criteria, such as mass and volume are controlled by the conditions of the foreign generator and of the U.S. processor. Significantly, EnergySolutions continually mixes references to volume and weight. For instance, the December 5, 2007 letter from EnergySolutions to the NRC includes, at the Response to Question No. 7, contains two references to numbers "by weight" and one reference to a number "by volume." But the Response does not make clear why one measure or the other is relevant to the point EnergySolutions is making. In my professional opinion, this switching back-and-forth makes it difficult for readers to keep track of the relevant metric. To eliminate any questions that EnergySolutions' application may raise in this regard, the NRC must insist on finding out the number of curies that EnergySolutions will import from Italy, in addition to the volume and weight.

Risk of Downblending:

The plan that EnergySolutions proposes indicates the possibility another hazard: a risk of "downblending." Of course, given the impending closure of Barnwell to 36 states and the limited disposal capacity of Clive, downblending Italian waste will deplete the precious remaining LLRW disposal capacity remaining in the United States.

EnergySolutions' answers to the NRC raise the possibility that it may engage in downblending. In its December 5, 2007 to the NRC, the company states that it will "meter flowable Class B or C materials, such as carbon slurry, into the incinerator with the resultant ash being Class A material." *See* Response to Question 4. EnergySolutions further claims that "No Class B, Class C, or GTCC materials will be shipped to Utah." *Id.* Though it claims (again in the same Response) that it will follow the Branch Technical Position,[1] this statement raises questions regarding how the company can both follow the BTP and at the same time take in Class B or C waste and ship to Utah Class A waste. In my professional opinion, the NRC should not approve until fully satisfied that the BTP and the spirit behind it is being fully complied with.

Indeed, in EnergySolutions' January 11, 2008 letter to the NRC, at Response No. 4, EnergySolutions asserts "[t]hose materials destined for incineration and metal melting are not received in final form for disposal and therefore waste classification at this point in the process would be premature." In my expert opinion, the implication of this statement is that EnergySolutions may import Italian waste that, if immediately classified, would constitute B or C (or even GTCC) waste, but by waiting to classify the waste until after processing, will create waste that it can label as "Class A" that is fit for disposal at Clive. The NRC should investigate whether EnergySolutions in fact plans to act in this manner, and whether such actions are appropriate. The company's answers appear to indicate that it may violate guidelines based on

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[1] *Issuance of Final Branch Technical Position On Concentration Averaging And Encapsulation, Revision In Part To Waste Classification Technical Position* (Jan. 17, 1995).

the BTP, such as in Utah and in Tennessee. This risks incurring public concern that higher-level waste (B/C) may be diluted to avoid regulatory safeguards.

As a further possible indicator that EnergySolutions' plan for the Italian waste may constitute some sort of downblending, I note the license amendment filed with the Tennessee Department of Environment and Conservation (TDEC) on January 18, 2008 by an EnergySolutions subsidiary (Duratek). According to the application, EnergySolutions is "requesting authorization to perform blending of resins." Significantly, EnergySolutions filed its application with TDEC just a few months after EnergySolutions filed its September 14, 2007 import application with the NRC. This raises questions that should prompt the NRC to review the Tennessee license application closely before approving import of the Italian waste.

EnergySolutions states, in Response 4 of its January 11, 2008 letter, that it "will receive and process the material in accordance with our Tennessee Radioactive Materials License." But given that EnergySolutions has applied to amend its Tennessee license, the NRC should investigate closely the terms of the new license. And while EnergySolutions' application to TDEC claims that the company intends to follow the BTP, the NRC must further confirm whether the claim EnergySolutions makes is accurate. If the NRC determines that EnergySolutions' application to TDEC would violate the letter or the spirit of the BTP, then the NRC has all the more reason to reject EnergySolutions' application.

Thank you for considering my views on this important topic.

Sincerely yours,

Marty Carson

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