

**American Environmental Health Studies Project  
Bellefonte Efficiency & Sustainability Team  
Citizens to End Nuclear Dumping in Tennessee ▪ Friends of the Earth  
Nuclear Information and Resource Service ▪ Nuclear Watch South  
Sierra Club ▪ Southern Alliance for Clean Energy  
Tennessee Conservation Voters ▪ Tennessee Environmental Council**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION (NRC)  
BEFORE THE COMMISSIONERS

In the Matter of:	)	License Nos. IW023 and XW013
ENERGYSOLUTIONS	)	Docket No. 11005711(import)
	)	and No. 11005710 (export)
(Radioactive waste import/export	)	
Licenses for Italian nuclear waste)	)	June 19, 2008

**Hearing Petitioners' Response to Commission Order Requesting Views on How to Proceed after Federal District Court Decision<sup>1</sup> on EnergySolutions v. Northwest Compact**

The Nuclear Regulatory Commission is requesting our response to the court decision which ruled that the Northwest Compact and Utah cannot stop EnergySolutions from bringing Italy's nuclear waste into their region.

Our initial response continues to be a request that NRC deny the import/export license applications (IW023 and XW013).

If NRC decides not to immediately deny the applications, we encourage NRC to wait until the conclusion of the appeal process to resume consideration of the applications. We understand that the Northwest Compact is appealing the decision and that the State of Utah is considering an appeal. Thus continuing to hold the applications in abeyance will prevent waste that has no final destination from coming into the country.

We continue to call on NRC to hold a formal public hearing in Nashville, TN on the application to import Italy's nuclear waste. Since the waste would be processed in Memphis and Oak Ridge, Nashville is a centralized location that would enable concerned citizens and members of our organizations from both processing areas to participate. Residents and members near ports of entry and transport routes also wish to actively participate. We continue to seek a formal hearing, with a format that maximizes the ability of the public and the NRC to gain official information on the license applications including amounts and characteristics of the waste, clarity on the intent and effect of the activities and answers the many questions we have including those posed in our previous documents requesting a hearing. We are concerned

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<sup>1</sup> US District Court Central Utah Division, May 15, 2009 Memorandum Decision and Order Granting in Part and Denying in Part Motions for Partial Summary Judgment In Case No.2:08-CV-352 TS EnergySolutions, LLC vs. Northwest Interstate Compact on Low Level Radioactive Waste, the State of Utah and Rocky Mountain Low-Level Radioactive Waste Compact. Judge Ted Stewart.

about both the specifics of this Italian nuclear waste proposal and with the dangerous precedent that NRC approval will set. Clearly many other countries would like to export their waste out and if the United States welcomes this large amount, can it later refuse it from other countries? Is there a legal, international precedent being set with this case?

Hearings could answer some of these broader questions as well as clarification of others specifically required to be answered in the NRC regulations 10 CFR 110.

New questions have arisen since the application was first submitted and uncertainties are becoming more likely to materialize. Would approval of these licenses allow Italian waste that is not currently in Italy to come to the US? Now that NRC has categorized DU (Depleted Uranium) as Class A waste, would Italy's DU from reprocessing (RepU), which is might be considered a form of DU, which is now stored in France be eligible to come directly to the US or via Italy to the US under this license or an amendment to it?

The ports of entry and transport routes have not been officially disclosed or designated which is also of concern. On May 26<sup>th</sup> 2009 it was reported<sup>2</sup> that EnergySolutions publicly stated that it is unlikely to use the port of Charleston and that other ports are more likely. Charleston was indicated in the application as an intended port for the Italy waste. Will this require an amendment to the license? Are there other changes or possible changes in the application about which we have not been notified? When will we know the routes for the radioactive wastes and materials?

### **Background:**

Fourteen organizations requested a hearing on the EnergySolutions import/export license application to the US Nuclear Regulatory Commission to bring in to the US 20,000 tons, 1 million cubic feet of Italy's low and intermediate level radioactive waste.

The State of Utah and the Northwest Interstate Compact on Low-Level Radioactive Waste Management oppose bringing the Italian radioactive waste into their region (Alaska, Hawaii, Washington, Oregon, Montana, Utah, Idaho, Wyoming) for disposal at the Utah EnergySolutions radioactive waste disposal site. The Rocky Mountain Compact (CO, NV, NM) supports the Northwest and Utah.

NRC suspended the import/export application process while this dispute was reviewed by the federal district court in Utah. The court ruled in May 2009 and we are now aware that the decision will be appealed. Judge Stewart ruled that the State of Utah and the Northwest Compact cannot prevent foreign nuclear waste from coming in to the Utah EnergySolutions disposal site because the site is not a "regional disposal facility" under the compact. Further, the judge ruled that the only authority the compacts have is that which is expressly stated in the Low Level Radioactive Waste Policy Act, despite Congress having approved compacts which

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**The State** Newspaper, Columbia, SC, Tuesday, May 26, 2009, *Foreign waste unlikely in S.C. Italian company says other ports of entry better fit than Charleston* By SAMMY FRETWELL - [sfretwell@thestate.com](mailto:sfretwell@thestate.com) ; <http://www.thestate.com/local/story/801035.html>

were passed by each party state's legislature, with varying interpretations and assertions of authority.

If the US is going to continue with the Compact system, the rules, spirit and intent of the law should be respected.

Many observers of the Compact system and many communities previously targeted with new "low-level" radioactive waste disposal sites, have long suspected that once new disposal sites were open anywhere, the supposedly protective rules and provisions, the previously made promises, would fall away (under any number of schemes), opening the sites up to the nuclear power waste from all over the country. Citizens in South Carolina had to work for decades to get their state into a compact that is now finally asserting its authority to exclude out-of-compact waste. The possibility continues that exceptions will be made even though that site has known leakage problems.

Now the threat of out-of-compact waste is global. No country in the world has found a way to isolate the long-lasting nuclear power and weapons radioactive waste from the environment for its entire length of its hazard. Companies providing processing and disposal services to the US nuclear industry are now seeking to increase their income by bringing nuclear waste from around the world into the US and transporting it through many states in violation of those states' laws, resolutions and positions. <sup>3</sup> We find this dangerous to the welfare of our people and thus unacceptable.

In this case, we support the position of the Northwest Compact (supported by the State of Utah and Rocky Mountain Compact) asserting its authority to exclude "low-level" radioactive waste from their compact region. As stated in our request for hearing, we have additional concerns and opposition to the import, transport, processing, unrestricted release and supposedly restricted recycling of the radioactive wastes and materials before they are sent to Utah.

The root concerns of our organizations is that the imports threaten public health and safety, common defense and security, set dangerous legal precedents and that there is very little, if any, opportunity for democratic, public interest influence over important radioactive waste decisions. We are concerned that our members' health, livelihoods and communities will be negatively impacted.

We oppose the unnecessary importation of large amounts of radioactive waste into the US through US ports (most likely in Louisiana and South Carolina in the Southeast but not confirmed); for transport on US roads, rails and waterways; for "processing" in Tennessee with possible deregulation and disposal in unlicensed facilities in that state; for further transport for disposal in Utah; and for transport to Japan or other destinations of the processed radioactive metal for "recycling" into the metal supply.

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<sup>3</sup> Louisiana has a law against transport of nuclear waste through the port of New Orleans. The South Carolina House of Representatives passed a resolution against the Italy waste importation. Utah, the Northwest and Rocky Mountain Compacts expressed opposition to the import.

We support the efforts of Utah and the Northwest Compact seeking to assert their authority to exclude out-of-compact waste and we are disappointed that the court ruled against them. This judgment demonstrates the unreliability of commitments made to the public about “low-level” radioactive waste. It further opens the door to potentially much more radioactive waste potentially coming into the US from foreign sources, when the US cannot guarantee isolation and protection from the domestic radioactive waste being generated now, nor from a proposed new generation of nuclear reactors and license extensions.

EnergySolutions is involved in numerous foreign countries (including the UK, Canada, Italy) in the cleanup of very large nuclear power and weapons facilities. The 20,000 tons of Italian nuclear waste is a major concern and the precedent for other countries sending their waste is even more alarming. In addition to EnergySolutions, there are other processors that could import nuclear waste to the US such as Studsvik, an international corporation participating in large nuclear decommissioning projects in other countries (including the UK, Sweden, Germany).

If the US Nuclear Regulatory Commission narrowly processes the EnergySolutions Import/Export application<sup>4</sup>, the larger policy ramifications will not be reviewed and weighted. We continue to contend that the application should be denied on the grounds of NRC’s specific health, safety and security requirements but also ask NRC to evaluate the larger picture as well. Especially because this license involves such a large amount of radioactive material, NRC should confirm for itself whether these requirements would be met, and not defer to unsubstantiated promises from other agencies.

The NRC is currently considering changing its Import Export application policy and procedures. Until that is completed, with full public input, such major applications should be held in abeyance.

In this case, the NW Compact Committee is asserting its authority to prevent out-of-compact waste from being brought into the region for disposal but that authority is being overturned by a technicality over an inexact or nonexistent definition of “regional disposal facility under the Compact.”

We need a hearing in Tennessee now more than ever because all of the “processing” will take place in that state. Residents of states in the region through which it will be transported deserve a chance to get full information and present their concerns. A hearing is needed to be sure NRC is fully informed from all perspectives.

Not all of our groups have express detailed “low-level” radioactive waste policies but we are attaching (Att. 1) the Sierra Club’s national policy addressing the issue in the US.

Sincerely,

HEARING PETITIONERS

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<sup>4</sup> Under 10 CFR 110

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## **Sierra Club Conservation Policies**

### **"Low-Level" Radioactive Waste**

**<http://www.sierraclub.org/policy/conservation/lowradio.aspx>**

#### I. Goals

1. The public policy goals regarding "low-level" radioactive waste should be the termination of production of fuel cycle wastes and the isolation of such wastes in the safest and least environmentally damaging way achievable.
2. Congress and the Nuclear Regulatory Commission (NRC) should exclude from their definition of "low-level radioactive waste" any waste having a hazardous life\* greater than a 100-year institutional control period.

a. Wastes with a hazardous life of less than one year shall be stored at the place of use or distribution until the end of that hazardous life.

b. Wastes with a hazardous life between one and 100 years shall be stored in specifically licensed facilities. Such waste shall not contain more than 10 nanocuries per gram of transuranic elements. Deliberate use of dilution to reduce the concentration of radioisotopes is unacceptable,

c. Wastes with a hazardous life greater than 100 years should be treated as "high-level" wastes.

#### II. Technology

1. "Low-level" wastes, as presently defined by the NRC, should be isolated by technology that results in zero-release of radioactivity over the hazardous life and one that minimizes inadvertent intrusion. Reliance cannot be placed on continuation of the present hydrogeology of sites. This is particularly true because global climate change will alter sea level and water tables. It is therefore essential that the waste be enclosed in a multi-barrier, water-impermeable system using materials with proper chemical and environmental stability. Whatever substances are used must be rigorously characterized regarding stability, impermeability and resistance to the radiation levels and chemicals that will be encountered.
2. Federal sponsorship of generator-funded research and development should be provided for new engineered, site-specific waste isolation techniques. These techniques shall have the necessary water impermeability and structural resistance to seismic and other events to ensure isolation of the stored wastes for their full hazardous lives.
3. Sea, freshwater or space disposal of radioactive wastes should be completely prohibited.

#### III. Institutional Issues

1. Monitoring and the possibility of corrective action should be maintained prior to and for as long as socially possible after site closure.
2. Source and volume reduction of radioactive waste streams should be required, providing that reduction techniques and policies do not result in release of radioactivity to the environment or other adverse environmental and health impacts.

3. Siting and technology choice processes should provide full public participation through public notification of meetings, open meetings, access to documents, and procedures in conformity with the Federal Administrative Procedures Act. There should be opportunity for full litigative participation in all licensing actions.
4. State health, siting and other laws more stringent than federal law or compact provision should not be preempted.
5. Compact commissions, if any, and state waste management authorities or personnel should be prohibited from accepting private donations or grants. Petition and recall procedures should be provided for compact commissioners.
6. An environmental and health impact statement should be required for each radioactive waste storage, treatment or isolation facility. Pre- licensing baseline health studies and ongoing health monitoring studies should be required at all radioactive waste storage, treatment, and isolation sites.
7. Compliance with compact, federal and state guidelines and regulations should be facilitated by the enactment of strong, clearly defined penalties and disincentives for compliance failure by generators, processors, transporters, and radioactive waste storage and isolation facility builders and operators. During facility operation, the site operator should assume liability by means of rebuttable presumption in law.
8. No state should be required to take title to, possession of, or liability for radioactive wastes in the absence of full authority to regulate their generation.

#### IV. Financial Issues

1. The full cost of LLW isolation and monitoring should be borne by the generators of the waste. An extended care fund, paid for by charges imposed on generators, should cover the costs of site cleanup, decommissioning and active long-term monitoring, storage and health/environmental studies.
2. A long-term liability fund, paid for by charges imposed on generators, should compensate for personal injury and property damage in the event of leakage and provide the maximum third party liability insurance. During operation, cleanup, and decommissioning, the site operator should assume full liability through means of rebuttable presumption in law.
3. A fair and equitable mechanism for shared liability should be established among party states.
4. Disposal fees should be based on volume, radioisotope concentrations, and hazardous life of the wastes.

#### V. NRC policy on 'Below Regulatory Concern'

The Sierra Club urges Congress:

1. to repeal provisions of the Low-Level Radioactive Waste Policy Amendments Act of 1985 that require establishment of deregulation of some "low-level" nuclear wastes;
2. to remove federal preemption over radiation standards and radiological safety regulations so that states may set standards and regulations that exceed minimum federal ones; and
3. to revoke existing 1986 and 1990 Nuclear Regulatory Commission policy statements on Below Regulatory Concern and Expanded Exemptions of Practices.

The Sierra Club recommends that radioactive material and wastes that the NRC, Department of Energy or other agencies classified as radioactive materials or low-level radioactive waste as of January 1, 1989, shall continue to be classified as radioactive materials or low-level radioactive waste, to be isolated only in facilities licensed specifically for that purpose. The Sierra Club recommends that radiation- generating practices of licensees, including brokers, not be deregulated.



\*Hazardous life -- the time required for the concentration of radioactive materials within a package to decay to the maximum permissible concentrations given in 10 CRF 20, App. V, Table 11.

Adopted by the Board of Directors, March 16-17, 1991 [replaced polices of May 1983 and December 1984]

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#### Incineration of Combustible Low-Level Radioactive Waste

The Sierra Club finds that present incineration technologies for Combustible Low-Level Radioactive Waste (CLLRW) have not been demonstrated to provide adequate protection for human health and the environment. Until improved incineration methods are proven safe, we propose that alternate procedures, based on three subgroups of CLLRW, be instituted to reduce the dispersal of significant amounts of radionuclides into the environment. The three groups are Short Half-Life Radioactive Waste (SHLRW), Long Half-Life Radioactive Waste (LHLRW), and Biological Radioactive Waste (BRW). Because of the biohazard, only BRW may be incinerated.

1. SHLRW is characterized as containing radionuclides with half-lives equal to or less than tritium (12.3 years). It can be highly compacted and consists mainly of such dry materials as mops, protective clothing, paper and rags. This waste should be compacted, placed in above-ground storage, and remain in unleachable and noncombustible packages until the curie burden has decayed to a nonhazardous level.
2. LHLRW contains radionuclides of half-lives greater than tritium, shows little compactability, contains by far the largest curie burden, and consists primarily of ion-exchange resins (used to decontaminate reactor and fuel pool coolant), chelated sludges, and filters. These wastes should be reclassified as high-level radioactive wastes and isolated accordingly. They shall be stored at the site of origin, without leaching or volatilizing to the environment, until final isolation.
3. BRW contains both short and long half-life radionuclides, has the smallest curie burden by orders of magnitude, contains mainly animal carcasses, and is unique in that it provides both biological and radiological hazards during waste management. BRW may be incinerated provided the following specific conditions are achieved:
  - a. Double or triple chamber controlled air combustion incinerators are employed near the site of generation;
  - b. Only biological materials, containing no chlorinated hydrocarbons, are burned;
  - c. All tritium is condensed, captured, and placed in monitored surface storage as in 1 above; and
  - d. All particulates and carbon-14 shall be captured, placed in unleachable packages, and treated as high-level waste as in 2 above. Until these conditions are met, BRW shall be separated into short and long half-life groups. Both groups will be packaged for storage in gas-tight containers and sterilized. The short half-life groups shall be treated as in 1, the long half-life as in 2.

*Adopted by the Board of Directors, May 2-3, 1987*



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*Nuclear Information and Resource Service et al  
June 19, 2009*