

# PUBLIC SUBMISSION

<b>As of:</b> November 09, 2009
<b>Received:</b> November 06, 2009
<b>Status:</b> Pending_Post
<b>Tracking No.</b> 80a52ca0
<b>Comments Due:</b> November 06, 2009
<b>Submission Type:</b> Web

**Docket:** NRC-2009-0440  
Environmental Assessment and Draft Finding of No Significant Impact

**Comment On:** NRC-2009-0440-0001  
Issuance of Environmental Assessment and Draft Finding of No Significant Impact for Modification of Exemption from Certain U.S. Nuclear Regulatory Commission Licensing Requirements for Special Nuclear Material for EnergySolutions LLC, Clive, UT

**Document:** NRC-2009-0440-DRAFT-0001  
Comment on FR Doc # E9-24208

10/07/09  
74 FR 51622 (2)

## Submitter Information

**Name:** Christopher Thomas  
**Address:** 68 S. Main Street  
**Organization:** HEAL Utah

## General Comment

Please see the uploaded file for comments submitted by HEAL Utah.

## Attachments

**NRC-2009-0440-DRAFT-0001.1:** Comment on FR Doc # E9-24208

RECEIVED

2009 NOV -9 AM 11: 57

RULES AND DIRECTIVES  
BRANCH  
11-9-09

SONSI Renew Complete  
Template = ADM-013

E-RIDS = ADM-03  
Call = N. Devaser (NSd1)

November 6, 2009

Chief, Rulemaking and Directives Branch  
Division of Administrative Services  
Office of Administration, U.S. Nuclear Regulatory Commission  
Mail Stop: TWB-05-B01M, Washington, DC 20555-0001

**Reference ID: Docket ID NRC-2009-0440; Federal Register published October 7, 2009. See page 51622.**

Submitted online at <http://www.regulations.gov>

To Whom it May Concern:

I am writing on behalf of the Healthy Environment Alliance of Utah (HEAL Utah) and our supporters to express several concerns and suggestions regarding EnergySolutions' request of the Nuclear Regulatory Commission (NRC) for an amended order related to Special Nuclear Material (SNM).

HEAL Utah is a public interest group dedicated to protecting public health that works on nuclear power, nuclear waste, and toxic waste issues. HEAL Utah is supported by nearly 600 active contributing members and maintains an email distribution list of over 4,000. We have worked on many issues involving radioactive waste disposal in Utah, including the disposal of foreign nuclear waste, Class B and C nuclear waste, waste from the Fernald, Ohio, cleanup, disposal of significant quantities of depleted uranium, and the high-level waste Private Fuel Storage (PFS) proposal.

Please consider the following comments:

1) The Federal Register notice states:

*Upon consideration of EnergySolutions' request, the NRC is considering similar conditions to those proposed by EnergySolutions that restrict: the areal density of highly water soluble SNM in disposal embankments at the Clive, UT site; and the amount of water which should be present during receipt, on-site storage, movement, emplacement, and disposal of K-25 waste.*

If and when the NRC issues an amended Order, additional public comment should be sought on the exact language of the amended Order at that time.

2) Because SNM appears to be an active and growing segment of EnergySolutions' business, the NRC should now require EnergySolutions to seek a license under 10 CFR 70, rather than granting further iterations of an exemption from that same part.

3) NRC has artificially narrowed the scope of the proposed action to the exclusion of other viable alternatives to the proposed action. At the very least, one additional action must be considered, which is decontaminating the K-25 pipes of U235 deposits prior to disposal. Without consideration of such an alternative, the proposed action does not satisfy the requirements under the National Environmental Policy Act (NEPA).

4) EnergySolutions' Nuclear Criticality Safety Evaluation (NCSE) does not appear to take into account the possibility that the climate at Clive may change over the thousands of years that the U235 will persist. For instance changes to the climate may result in much higher annual precipitation than expected. This error must be fixed before the NRC can issue an amended order, given the critical interactions between water and the water-soluble U235-bearing waste.

5) Similarly, the NCSE does not appear to evaluate a situation in which U235-bearing compounds migrate through the landfill and pool at the bottom of the landfill near the clay liner. As EnergySolutions' NCSE states: "In order for the uranium to reconcentrate in the disposal embankment, the uranium would need to be mobilized in water. The uranium would then need to be immobilized at some point to reconcentrate." Higher-than-expected precipitation combined with immobilization at the clay barrier seems to provide such a criticality scenario that must be evaluated before the NRC can issue the requested exemption.

6) The idea that highly mobile U235 surface contamination of metal pipes can be regulated as a "concentration" by weight of waste strains credulity. The U235 contamination on the K-25 pipes is highly water-soluble and the pipes will be subject to precipitation. The NRC and EnergySolution must change their approach to this waste stream or simply not allow larger amounts of water-soluble U235 to be disposed.

7) EnergySolutions' NCSE should be subject to an independent evaluation and report and such report should be made publicly available and referenced in a future Federal Register notice on the proposed action.

8) EnergySolutions admits in the NCSE that:

*Over geological time, it can not be guaranteed that the surface contamination will not separate from the piping material or polyurethane foam. However, in order for migration of uranium to occur, solutions of  $UO_2F_2$  would have to form.*

*Solutions of  $UO_2F_2$  are not expected to occur during normal operation of the Clive Site due to minimal precipitation amounts for both rain and snow.*

As discussed earlier, it is not reasonable to assume that the low precipitation observed today will persist thousands of years into the future, when the surface contamination could migrate away from the pipes. Such a situation would pose the risk of a criticality.

9) EnergySolutions' NCSE further admits that: "The contents of each gondola will be disposed of in one or more separate areas or disposal embankments. In the course of time it can not be guaranteed that the original configuration will be maintained." That the waste configuration at the time of burial cannot be maintained presents a fatal flaw that would need to be rectified prior to NRC issuing the requested exemption.

10) Without the additional assurances sought in these comments, among others, the NRC should deny EnergySolutions' request on the grounds that the requested exemption is not "in the public interest" as required under 10 CFR 70 Part 17(a)

Please do not hesitate to contact me if you wish to discuss any of these issues further.

Sincerely,

Christopher Thomas  
Policy Director, HEAL Utah