

74 FR 30175

6/24/09

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# PUBLIC SUBMISSION

<b>As of:</b> November 05, 2009
<b>Received:</b> October 30, 2009
<b>Status:</b> Pending_Post
<b>Tracking No.</b> 80a4dcc7
<b>Comments Due:</b> October 30, 2009
<b>Submission Type:</b> Web

**Docket:** NRC-2009-0257

Notice of Public Workshop on a Potential Rulemaking for Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium

**Comment On:** NRC-2009-0257-0001

Public Workshop: Potential Rulemaking for Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium

**Document:** NRC-2009-0257-DRAFT-0020

Comment on FR Doc # E9-14820

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RULES AND DIRECTIVES  
BRANCH

## General Comment

PLEASE SEE THE ATTACHED FILE FOR OUR COMPLETE SUBMITTAL

Thank you for the opportunity to provide comments regarding the rulemaking process for depleted uranium (DU) and other unique waste streams. These comments are respectfully submitted on behalf of the Snake River Alliance, Idaho's Nuclear Watchdog and Advocate for Clean Energy. As our Program Director Beatrice Brailsford has indicated in communications with Patricia Bubar, the Alliance will be submitting additional comments as soon as Ms. Brailsford's unexpected computer difficulties have been resolved.

The Snake River Alliance is closely monitoring this rule making process, since the finalized rule will directly impact how the proposed Areva uranium enrichment facility will deal with the waste it will potentially produce here in Idaho. The outcome of this rule will directly impact whether DU will be stored in Idaho and we are therefore concerned about risks to public safety and the integrity of Idaho's environment and natural resources associated with potential storage. More broadly, all stakeholders have an interest in ensuring that the NRC determines an appropriate disposal pathway for DU that adequately addresses its widely acknowledged unique characteristics associated with the long life and increasing threat posed by this waste over extended periods of time that go beyond the scope of scientific predictability.

It is our position that the current classification of depleted uranium as low-level waste (LLW) is inappropriate, and we are pleased that the NRC is creating a more robust and meaningful rule regarding the disposal of DU. Nevertheless, we believe the NRC should consider creating a different classification system for DU and other "unique" waste streams, and hope that this possibility is being seriously considered within this rulemaking process. We also believe that disposal in a deep geologic repository is the only responsible conclusion of this rulemaking procedure.

SUNSI Review Complete

Template = ADM-013

E-RIDS = ADM-03

Add: C.Grossman (ejg2), B.Traynham (bnt1)

P. Yadav (ppr)

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## Attachments

**NRC-2009-0257-DRAFT-0020.1:** Comment on FR Doc # E9-14820



# Snake River Alliance

IDAHO'S NUCLEAR WATCHDOG  
& CLEAN ENERGY ADVOCATE

[www.snakeriveralliance.org](http://www.snakeriveralliance.org)

October 30<sup>th</sup>, 2009

Chief, Rulemaking and Directives Branch  
Division of Administrative Services  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Mail Stop TWB 5B01M  
Washington, DC  
20555-0001

**RE: Federal Register Notice, June 24<sup>th</sup>, 2009, pgs 30175-30179—Notice of Public Workshops on a Potential Rulemaking for Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium.**

To Whom it May Concern;

Thank you for the opportunity to provide comments regarding the rulemaking process for depleted uranium (DU) and other unique waste streams. These comments are respectfully submitted on behalf of the Snake River Alliance, Idaho's Nuclear Watchdog and Advocate for Clean Energy. As our Program Director Beatrice Brailsford has indicated in communications with Patricia Bubar, the Alliance will be submitting additional comments as soon as Ms. Brailsford's unexpected computer difficulties have been resolved.

The Snake River Alliance is closely monitoring this rule making process, since the finalized rule will directly impact how the proposed Areva uranium enrichment facility will deal with the waste it will potentially produce here in Idaho. The outcome of this rule will directly impact whether DU will be stored in Idaho and we are therefore concerned about risks to public safety and the integrity of Idaho's environment and natural resources associated with potential storage. More broadly, all stakeholders have an interest in ensuring that the NRC determines an appropriate disposal pathway for DU that adequately addresses its widely acknowledged unique characteristics associated with the long life and increasing threat posed by this waste over extended periods of time that go beyond the scope of scientific predictability.

It is our position that the current classification of depleted uranium as low-level waste (LLW) is inappropriate, and we are pleased that the NRC is creating a more robust and meaningful rule regarding

the disposal of DU. Nevertheless, we believe the NRC should consider creating a different classification system for DU and other “unique” waste streams, and hope that this possibility is being seriously considered within this rulemaking process. We also believe that disposal in a deep geologic repository is the only responsible conclusion of this rulemaking procedure and we urge the NRC to seriously consider that outcome. Each of these points will be addressed in more detail below, in addition to various other concerns and comments regarding rules for the disposal of depleted uranium.

### **The Unique Characteristics of DU Make Low-Level Waste Sites Inappropriate for Disposal**

The NRC erred when it decided to formulate guidelines for depleted uranium disposal in a low-level waste disposal facility. That decision did not take into account the hundreds of thousands of years over which DU grows more radioactive. Because LLW disposal requirements assume only a 100-year time in which the waste remains a threat to public safety, the characteristics of DU clearly exceed the scope of LLW regulations. Any adequate rule will necessarily:

- Require modeling that extends beyond 10,000 years in site assessment criteria. While workshop comments include the assertion that modeling beyond 10,000 years is difficult, this indicates less that that modeling should ignore this issue and more that DU requires highly stringent rules and methods of evaluation than the LLW category provides.
- Evaluate the potential impacts of climate change and geologic activity on any given disposal sites viability. As Dr. Arjun Makhijani indicated in his comments at the first workshop, climate modeling in particular has been absent from the current considered relevant factors surrounding DU’s disposal and must be incorporated in future modeling relevant to any site assessments. Since a site’s suitability requires it to be a dry site and since climate changes would clearly have an impact on the long-term potential for a currently dry site remaining dry over the extended life of this waste stream, this essential point should be a priority of any finalized rules and guidelines.
- Acknowledge the potential inadequacy of any hard cover requirement for a near surface disposal site given the potential for erosion over a time-frame where DU increases in radioactivity and poses the greatest danger in its millionth year. The potential for erosion of a hard cover must be addressed and reflected in any regulation.
- Until the NRC is able to provide a clear description of “other unique waste streams,” it must not attempt to formulate rules governing their disposal. Instead, the NRC should focus on re-evaluating its decision that shallow land burial is adequate for depleted uranium disposal.
- The NRC must, as part of this rulemaking, prepare an environmental impact statement that fully evaluates DU disposal in a deep geologic repository. It is only through disposal in a deep geologic repository that the unique characteristics and subsequent threats posed by depleted uranium can adequately be addressed. Additionally, any current disposal of DU in LLW sites should immediately be halted, and future disposal should be limited to a deep geologic repository.

### **Continued Production of DU Waste Should Be Limited**

Because the United States does not have a deep geologic repository for commercial waste streams, any additional production of DU should be severely limited. It would be irresponsible and inappropriate for the NRC to license any new enrichment facilities at least until this rule-making process is complete and even then a demonstrated need for new enrichment must be proven prior to the NRC granting a license that would result in the further production of DU. Currently, assertions that the expanded manufacturing of enriched uranium is necessary are based on the tenuous premise that a “nuclear renaissance” will massively increase demand for enriched uranium. This premise is severely undercut by the following factors:

- The current economic downturn and the exorbitant costs associated with the construction and operational viability of a new fleet of U.S. reactors has resulted in significant financing delays and even cancellations of several proposed “next generation” nuclear reactors
- Recent production slow-downs at various current reactors throughout the United States indicate that the industry is not, in fact, growing.
- Given the extent to which the nuclear industry relies on subsidization from the federal government for the financing of any new construction of nuclear reactors, uncertainty over which energy sources will be prioritized and supported in upcoming federal climate legislation destabilizes and mitigates the viability of increased nuclear energy production.
- Current supplies of fuel for reactors via the “Megatons to Megawatts” down-blending program operated by USEC remain adequate to meet the fuel requirements of U.S. reactors. There is every indication that this program will be extended beyond 2013 and unless the need for additional supplies of enriched uranium are verifiably demonstrated, the burdens associated with the disposal of depleted uranium outweigh the risks associated with the licensing, funding, construction and operation of any proposed U.S. enrichment facility.

### **Delays in the Completion of De-conversion Facilities Should be Assessed in terms of the Impact on Potential Storage of DU**

Beyond issues associated with what would constitute adequate disposal of depleted uranium and the imperative of halting further licensing of proposed enrichment facilities, the Snake River Alliance would appreciate an assessment in the NRC’s rule making determinations regarding the potential impacts of delays in the construction of de-conversion facilities that are a must-take step in the ability to dispose of DU. How long can we expect any new enrichment facilities to store waste on-site while de-conversion facilities are built? If de-conversion facilities are delayed or never constructed how will the NRC address the disposal of DU? Is it appropriate to license new enrichment facilities given the uncertain time-frames associated with the completion of de-conversion facilities?

## Conclusion

As the workshops on this rule making procedure have indicated, depleted uranium is uniquely difficult to regulate and poses a series of insurmountable uncertainties and risks that will require extensive reforms to the way its disposal has been handled in the past and the criteria by which its disposal is currently being evaluated. At this time, we remain gravely concerned with that the outcome of this rulemaking process will potentially allow shallow-land disposal and we will continue to insist that the models being used for site assessment criteria are missing key factors that should be included in the final rules governing the final disposal methodology associated with DU. Based on the unique characteristics of and time-frames associated with DU, it is clear that a deep geologic repository would be the only adequate disposal method. Because an appropriate repository for commercial waste does not exist and because no de-conversion facilities are operational, DU will, by necessity, be stored indefinitely on the sites at which it is produced. For all of these reasons we remain adamant that the NRC should not license new enrichment facilities until this rule is complete and the uncertainties addressed in these comments are adequately resolved.

Sincerely,

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