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Low-Level Radioactive Waste Regulatory Program

**Comment On:** NRC-2014-0080-0015  
Low-Level Radioactive Waste Regulatory Program; Draft Programmatic Assessment Results

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Comment on FR Doc # 2015-05851

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## Submitter Information

80 FR 13451

**Name:** Daniel Shrum

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## General Comment

Please see the attached comments sent on behalf of

Daniel B. Shrum  
Senior Vice President  
Regulatory Affairs  
EnergySolutions LLC

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## Attachments

CD15-0094; EnergySolutions LLC Comments on Low-Level Radioactive Waste Regulatory Program Draft Programmatic Assessment Results 04-13-2015

SUNSI Review Complete

Template = ADM - 013

E-RIDS= ADM-03

Add= S. Dambek (SKD)

m. Wong (mewt)

April 13, 2015

CD15-0094

Cindy Bladey  
Chief, Rules, Announcements, and Directives Branch  
Office of Administration  
US Nuclear Regulatory Commission  
Mail Stop: OWFN-H-08  
Washington, D.C. 20555-0001

**Subject: Comments on Low-Level Radioactive Waste Regulatory Program Draft  
Programmatic Assessment Results**

Reference: Docket ID NRC-2014-0080

Dear Ms. Bladey:

EnergySolutions is submitting the comments contained in the attachment to this letter in response to the subject notice. We appreciate the opportunity to comment on the NRC's update to the Low-Level Radioactive Waste (LLRW) Draft Programmatic Assessment Results. As requested, we have provided comments regarding the finalization of the task list and provided guidance on how we think the program should be focused.

We commend the NRC's diligence to create a thoughtful and strategic planning process, and we appreciate the staff's ongoing efforts to consider public input in the development of the program. It is our opinion that the program activities could benefit from further refinement before finalization.

The scope of the assessment program should be narrowed, eliminating tasks that are not designated as high priority. Additionally, we suggest staff re-order activities to reflect their overall importance or priority with respect to current actions, or provide details regarding the relative importance (if any) of the numbering of tasks. Such refinement would help staff to focus efforts and resources on what is achievable within the foreseeable planning horizon.

EnergySolutions has previously commented on the importance of promulgating a rule to provide standards for the disposal of Low Activity Waste (LAW), and we continue to stress the importance of prioritizing this rulemaking in light of the anticipated higher levels of LAW resulting from numerous planned decommissioning activities. Developing a rule that defines conditions for LAW to be disposed of in RCRA sub-title C

or D facilities should be expedited to accommodate the long lead time associated with completing a final rulemaking.

Beyond the refinement of program activities, we provide comments on the individual tasks that we believe require further consideration. Details regarding our vision of the program and activities are included in the enclosure.

Thank you again for the opportunity to comment. Questions regarding these comments may be directed to me at (801) 649-2109 or [dshrum@energysolutions.com](mailto:dshrum@energysolutions.com).

Sincerely



Dan Shrum  
Apr 13 2015 10:17 AM

Daniel B. Shrum  
Senior Vice President  
Regulatory Affairs

## COMMENTS ON LOW-LEVEL RADIOACTIVE WASTE REGULATORY PROGRAM PROGRAMMATIC ASSESSMENT

The *Federal Register* notice requesting comments on the Programmatic Assessment posed several questions to which we provide answers below. We describe specific activities that warrant further consideration with particular attention to activities related to low activity waste. A listing of the tasks with our recommendations as staff moves to finalize the program activities is included in the attachment.

In addition to requesting comments on the updated task list, the FR notice solicits comments on any tasks that NRC did not adequately consider. While we do not propose adding any tasks to the list, we do believe that there are several tasks that deserve further consideration, especially the tasks related to Low Activity Waste (LAW) disposal. Each of these is discussed in more detail below.

**Task 2. Update Waste Classification Tables** — A decision to update the waste classification tables should be driven by advances in the science of radiobiology, in particular, the updates to the ICRP organ dose weighting factors. The ongoing Site-Specific Assessment rulemaking includes a proposal to allow the use of a Performance Assessment to determine the appropriate limitations for any given disposal site. This site-specific approach is superior to any improvements that could be made to the generic waste classification tables in § 61.55. This rulemaking was undertaken to address any shortcomings related to any given isotope; and it does so more elegantly than could any generic revisions.

Because the updates to the organ dose weighting factors affect many portions of the NRC's regulations, changes to reflect these scientific advances should be made throughout the regulations as appropriate. We believe they are best addressed through the recently initiated effort to revise 10 CFR Part 20. We propose that conforming changes should be made elsewhere within Title 10 of the *Code of Federal Regulations*, including Part 61.

**Task 4. Perform scoping study of the need to review/expand byproduct material financial assurance to account for life-cycle cost** — Though the primary subject of the activity title is byproduct material, the activity description explicitly references radioactive sealed sources, with consideration of additional byproduct material on only an as-needed basis. If the primary materials of concern are radioactive sealed sources, then the broader term "byproduct material" should be removed, and the task title should be modified to reflect the emphasis on radioactive sealed sources.

Furthermore, it is our opinion that this task should be excluded from the finalized program. The low level waste compacts are currently in the process of addressing issues regarding the financial assurance for disposal of sealed sources. We believe that this item should be excluded from the programmatic assessment. It can be taken up at a later date after the compacts have completed their review if necessary. This would allow staff to focus its resources and energy on completing higher priority tasks.

**Task 5. Clarify the regulatory authority of greater-than-Class C (GTCC) waste disposal and develop licensing criteria for a GTCC disposal** — We would like to reiterate previous comments sent in response to the previous draft of the assessment

expressing our opinion that actions related to GTCC waste are not timely and should be excluded from the finalized program. While we agree that the development of a regulatory regime for licensing the disposal of GTCC waste will be necessary at some point, it is not timely for the NRC to invest resources in the pursuit of such regulations absent progress by the U.S. Department of Energy in its efforts to identify a disposal pathway. Undertaking this activity will require a significant effort that could only be completed in the near term at the expense of higher priority activities. For a more detailed description of our rationale for this position, we refer you to the comment letter dated September 10, 2014. We recommend excluding this activity from the finalized assessment program.

#### ***Comments on Activities Related to Low Activity Waste***

Current decommissioning activities will produce vast quantities of LAW, especially in the forms of slightly contaminated concrete and steel, and it is likely that a number of additional facilities will undergo decommissioning in the near future. Though 4 of the 14 tasks within the proposed final assessment program are related to the treatment of LAW, only 1 of these activities is designated as high priority and is currently in progress. We urge the NRC to escalate the priority of all tasks related to LAW disposal to high priority in the finalized assessment program, and take action now to address gaps in the regulatory process which will impact operations related to facility decommissioning. For example, the State of Texas has independently identified a new category of LAW that, by default, can go into a RCRA subtitle C landfill. That individual states are establishing new LAW waste categories highlights the importance and urgency for NRC to develop a regulatory framework that encompasses all LAW activities. Immediate action is needed due to the anticipated long lead time for a rulemaking.

**Task 6. Finalize internal procedure/Standard Review Plan for 10 CFR 20.2002 requests** – While we agree that finalization of the current guidance, *Review, Approval, and Documentation of Low-Activity Waste Disposal in 10 CFR Part 20.2002* should be a high priority, this guidance lacks supporting technical basis and does not adequately address all the regulatory gaps associated with LAW disposal. As we have commented previously, the 20.2002 process has evolved into a *de facto* licensing scheme for LAW disposal. This was not the original intent of the rulemaking, yet LAW is continually accepted at sites not licensed for the disposal of radioactive waste using this alternative, exemption-based approach to LAW disposal. The NRC should not support a culture of licensing by exemption. LAW disposal should be addressed through sound regulation and a well-conceived licensing process.

The reliance on 10 CFR 20.2002 in the absence of LAW disposal regulations is problematic because it has resulted in *de facto* LAW disposal sites and unclear standards for the analysis of repeat disposals at the same site. The guidance criteria for measuring the performance of sites with repeat LAW disposals is vague, which introduces uncertainty as to what the standard is for measuring the performance at these sites. Updating the guidance can help address these shortcomings, but it is not a suitable substitute for a rulemaking for LAW disposal. We address this topic in greater detail in

our previous comment letter on the LLW Strategic Assessment. We continue to support all of the points made in that letter.

**Task 11. Promulgate rule for disposal of LAW** — Because the current guidance for LAW does not adequately address the issue of a LAW disposal stream, a rulemaking is needed that provides for disposal of LAW at sites regulated under the *Atomic Energy Act*. This rulemaking can be modeled after 10 CFR Part 61 with appropriate changes made to reflect the lower hazard of LAW. The rulemaking would provide for more efficient disposal practices, and the promulgation of this rule should be of very high priority to the NRC and should be reflected as such in the assessment program.

**Task 10. Coordinate with other agencies on consistency in regulating LAW and determine the impact of LAW disposal from radiological dispersal devices (RDD)** — The promulgation of a rule for disposal of LAW, or completion of Task 11, would require coordination with other agencies regarding consistency in regulating LAW, in conducting assessments of the current practices in other countries for LAW disposal, and in understanding the impacts of increased LAW disposal resulting from decommissioning activities. As completion of this task is required for Task 11, we recommend incorporating this task into Task 11, which is a larger undertaking to establish appropriate regulations and guidelines for LAW disposal.

**Unintended Consequences** – We also have considered the question posed in the FR notice regarding the potential for unintended consequences as a result of finalizing the list of activities. We believe that there is a risk that the NRC will find its effort diluted if it continues to track such a long list of items, many of which do not – and should not – have any real prospect of being acted on in the near future. In order for the assessment to be an effective planning process, the outcome should represent what the staff best projects it should be spending its limited resources on. It is not productive, rather it is counterproductive, to attempt to manage a long list of topics including those that are not of sufficiently high priority to receive any attention in the coming decade.

**Updated Task List** – Our comments on the updated task list are attached.

## Attachment 1

### LLW Programmatic Assessment: Summary of Tasks Evaluated by NRC Staff

#### *High Priority Activities*

- Complete and Implement Site-Specific Analysis Rulemaking – **High Priority**
- Update Waste Classification Tables – **Defer to Part 20 Rulemaking**
- Implement the Updated Concentration Averaging and Encapsulation Branch Technical Position (BTP) – **High Priority**
- Perform scoping study of the need to review/expand byproduct material financial assurance to account for life-cycle cost – **Eliminate**
- Clarify the regulatory authority of greater-than-Class C (GTCC) waste disposal and develop licensing criteria for a GTCC disposal facility – **Eliminate**
- Finalize internal procedure/Standard Review Plan for 10 CFR 20.2002 requests – **High Priority**
- Update NUREG/BR-0204, Rev 2 (July 1998), “Instruction for Completing NRC’s Uniform Low-Level Radioactive Waste Manifest” – **High Priority**

#### *Medium Priority Activities*

- Develop guidance that summarizes disposition option for low-activity waste (LAW) – **Eliminate**
- Update and consolidate LLW guidance into one NUREG – **Eliminate**
- Coordinate with other agencies on consistency in regulating LAW and determine the impact of LAW disposal from radiological dispersal devices (RDD) – **High Priority: This item should be maintained and incorporated into an undertaking to establish appropriate regulations and guidelines for the disposal of low activity waste.**
- Promulgate rule for disposal of low-activity waste (LAW) – **High Priority: This item should be maintained and incorporated into an undertaking to establish appropriate regulations and guidelines for the disposal of low activity waste.**

#### *Low Priority Activities*

- Develop procedures for Import/Export Review – **Eliminate**
- Examining the need for guidance on defining when radioactive material becomes LLW – **Eliminate**
- Develop and implement the national waste tracking system – **Eliminate**