

PANEL SESSION 75 - Impacts of Updates to DOE's Radioactive Waste Management Order

Co-Chairs: Martin Letourneau, *US DOE*;
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Panelists Included:

- Martin Letourneau, *US DOE*
- Linda Suttora, *US DOE*
- Frank DiSanza, *US DOE*
- J.R. Stroble, *US DOE*

Some 50 to 60 people were present to hear this session on the Impacts of Updates to DOE's Radioactive Waste Management Order. **Martin Letourneau** opened the proceedings with some historical perspective and an overview of the activities to date, including the 2010 Complex-Wide Review (CWR) for DOE waste management practices, which served as a primary input to identify changes needed in the updated Order. The 2010 CWR was a follow-up to the 1996 CWR that was conducted in response to Recommendation 94-2 from the Defense Nuclear Facilities Safety Board. The 1996 CWR and DNFSB 94-2 served as the primary drivers for the development of a new approach for waste management in DOE Order 435.1 which was first issued in 1999.

Fourteen thousand (14,000) responses were obtained for a questionnaire distributed to DOE facilities for the 2010 CWR. The responses captured good practices and areas of improvement based on the 11 years of experience since implementation of DOE Order 435.1. Key findings in the CWR included: significant progress has been made as a result of implementing DOE Order 435.1 and the Low-level Waste Disposal Facility Federal Review Group (LFRG) has improved consistency in performance assessment reviews. Responses to the CWR also identified specific needs for the Order update. The 2010 CWR is available on the DOE EM web site.

The DOE Order 435.1 update is underway and scheduled to be ready for internal DOE reviews by September 2011. A public review process is planned upon completion of the internal reviews. The process being followed to update each Chapter and the Order was described.

The other panel members were the leads for the updates to specific chapters in the Order. Each panel member presented information for specific chapters in the update and summarized recommended changes from the CWR and other input that are being addressed in the update.

Linda Suttora's (DOE EM-41) presentation addressed the General Requirements, which covers generally applicable and cross-cutting requirements for all waste types. Some of the key recommendations and changes being implemented include addressing new requirements such as NDAA Section 3116, recognition of new DOE offices like Legacy Management, consolidating the discussion of the Radioactive Waste Management Basis (RWMB) in General Requirements and strengthening the RWMB requirements to provide a more comprehensive cradle to grave viewpoint. The update is also formalizing the concept of an un-reviewed waste management

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question evaluation, which is a waste management version of a USQ process and the update is providing more specific requirements related to the relationship between EM and the long term stewardship transition to the Office of Legacy Management.

Martin Letourneau (DOE EM-41) gave the presentation for Joel Case (DOE ID), lead for the high-level waste (HLW) chapter, who was not able to attend. Key changes in the HLW chapter include updating the definition of HLW to be consistent with the Nuclear Waste Policy Act of 1982 and also clarifying the definition of specific terms in the act and linking it closer to terminology in NDAA Section 3116. References to the Office of Civilian Radioactive Waste Management have been deleted. He noted that disposal of HLW remains an issue that will be addressed through other DOE policies and not in DOE Order 435.1. There are also discussions about moving the HLW definition discussion to a section on waste classification (potential rule making for classification discussions, just an idea or possibility at this point).

J. R. Stroble (DOE Carlsbad) gave the presentation for Transuranic (TRU) Waste Requirements. Key changes that are being made include adding a specific requirement that the Remote- and Contact-Handled TRU Waste Packaging Instructions must be used, formalizing the concept of a once-through philosophy, including a specific discussion regarding management of classified waste and updating examples.

Frank DiSanza (DOE NNSS) gave the presentation for Low-Level Waste Requirements (LLW). Key changes that are being made include moving discussions related to concentration averaging into General Requirements and developing requirements for a systems analysis to consider combinations of barriers as a holistic system. Performance assessment related requirements were also added for key areas such as, adding specific language for comparison of probabilistic results to the deterministic standard, adding more specific guidance for the conduct of sensitivity and uncertainty analyses including a specific 10,000 year time period for sensitivity and uncertainty analysis, and adding the need for a qualitative analysis for peaks that occur after 10,000 years.

Public Comment and/or Questions:

There were active discussions and comments for each speaker; a few key points are highlighted here.

Comment – In a graded approach it would be helpful to be able to combine the strategic plan and RWMB into a single document for a small site.

Response – This will have to be judged on a case-by-case basis depending on the number and scope of activities involved.

Question – Is DOE reconstituting the National Low-level Waste Management Program?

Response – No, using Corporate Boards, LFRG, and other means for information exchange.

Question – What is being done for long-term stewardship and institutional controls?

Response – Legacy Management and EM are working to establish policies and protocols for information transfer.

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Question – What is happening with the Exemption for Commercial Disposal?

Response – Eliminating specific exemption requirement (Field Element Manager will sign off and inform DOE HQ and provide cost-benefit discussion).

Comment – Hanford Tank EIS is trying to classify some HLW as TRU?

Response – WIPP must review any basis for Tank Waste being classified as TRU and has the authority to veto any request.

Comment – Small sites that generate one or two TRU waste items every 3-5 years, can you videotape packaging and maintain?

Response – Specific instructions have been prepared that are intended to apply to all sites that must be followed. Comment – Like the “one-touch” philosophy

Question – What is happening in the area of non-defense TRU?

Response – Trying to find a path forward, but still prohibited at WIPP. One possibility is to consider such waste as GTCC-like, but no solution yet.

Question – What is being considered for blending?

Response – Blending is mixing of two wastes, not mixing of waste and clean material. Current approach is to use blending when it makes sense from an operational perspective and does not pose undue risks.

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