



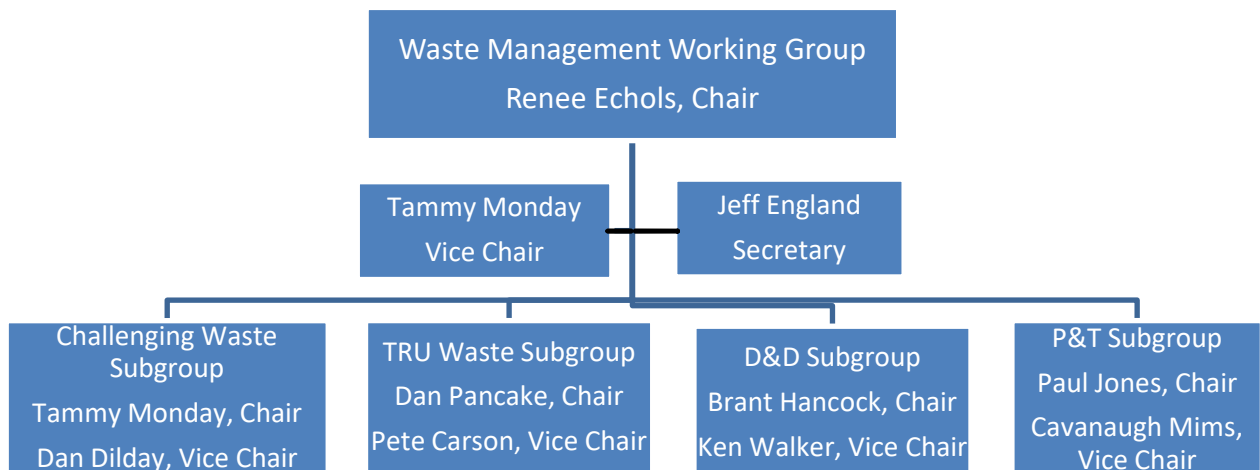
## Waste Management Working Group FY2024 Annual Work Plan

### Working Group Mission and Scope

The Waste Management Working Group (WMWG) is chartered to leverage the expertise and experience of contractors for the benefit of the Department of Energy (DOE). The purpose of the WMWG is to seek out and promote the best management and operating practices, cost effective technologies and disposal options for all radioactive waste streams generated at DOE facilities whether destined for DOE owned or commercial disposal facilities. The WMWG is focused on complex wide integration and technology information sharing that supports cost effective and efficient waste disposition options. This enhances complex wide communication and maintains a priority on safety, environmental stewardship, and security. The scope of the working group includes cradle-to-grave waste management that begins at waste generation and goes through final disposition.

The WMWG focuses on DOE complex waste management program support through work performed under four technical Subgroups:

1. Challenging Waste Subgroup
2. Packaging & Transportation (P&T) Subgroup
3. Decontamination & Decommissioning (D&D) Subgroup
4. Transuranic (TRU) Waste Subgroup



## Working Group Main Focus Areas in 2024

- a. Provide continued technical support concerning Waste Classification issues across the DOE Complex. The WMWG membership has the technical expertise to provide recommendations on waste classification to the appropriate disposition level that is compliant with DOE Order 435.1 and other applicable regulation. This effort focuses specifically on the application of risk-based classification versus origin based. The WMWG supports the management of radioactive wastes that are currently managed as High-Level Waste (HLW) and Transuranic (TRU) wastes to the appropriate risk-based classification and will provide DOE with information for primary and alternative disposition pathways that are safe, compliant, and cost effective.
- b. Complete the FY23 commitment to the TRU waste community to share waste minimization best practices that have demonstrated success for reducing waste volumes shipped to the Waste Isolation Pilot Plant (WIPP) and most efficiently utilizes this vital resource. Examples of lessons learned would include characterization, treatment and packaging efforts that have been successful in volume reduction (or minimal volume increases). A central document repository has been established and input will be solicited from each Generator Site to make available to users.
- c. Provide a platform for discussion and information sharing related to WIPP certification of waste streams that may encounter non-conforming items (e.g., nitric acid rags, batteries, etc.). Expand Point-of-Generation Characterization Support that will include working with generator sites and the Central Characterization Project (CCP) to identify areas of common challenges in packaging (e.g., liquid waste streams and small quantity site wastes that require treatment and Basis of Knowledge [BoK] evaluations).
- d. Provide support to the DOE Environmental Management National TRU Program Office assessments of current TRU waste management strategies across programs.
- e. Provide support to DOE's Carlsbad Field Office (CBFO) and CCP for procurement and deployment of Shielded Container Assemblies (SCAs) for remote handled (RH) TRU wastes. Support will include technical and operations support to sites using SCAs.
- f. Support efforts by CBFO and the WIPP prime contractor to resume the emplacement of RH TRU waste using horizontal borehole emplacement and SCAs, as identified in the RH TRU Disposition Alternatives Analysis.
- g. Continue to collect challenging waste inventory information and provide a collaborative forum to discuss the most effective means for characterization, treatment, and disposition of these waste streams. Information sharing can ensure sites do not create new treatment capabilities for waste streams that already have a disposition pathway.. Continue information sharing for reactive waste stream disposition options (e.g., sodium).
- h. Continue to provide subject matter expertise to DOE related to EPA's list of emerging contaminants (e.g., PFAS, 1-4 Dioxane, etc.). Continue technical assistance and input on data gaps for characterization and providing commercial capabilities to DOE decisionmakers.
- i. Restart efforts to provide collaboration and information sharing for Decontamination & Decommissioning (D&D) activities undertaken by DOE offices of Environmental

Management (EM), Science, and the National Nuclear Security Administration (NNSA). Provide expertise and best practices to improve collaboration between sites and DOE organizations especially for projects that share responsibility by multiple DOE offices. Provide a platform for discussions on the impacts of D&D waste management and mission critical waste management activities (e.g., NNSA pit mission work).

- j. Continue to provide a platform for collaboration between D&D planning and waste management organizations to adequately plan for challenging wastes to be generated from D&D activities (e.g., hazardous/mixed wastes such as Mercury and Beryllium).
- k. Provide continued support to DOE technical groups including the Low-Level Waste Disposal Facility Federal Review Group (LFRG) and the National TRU Program (NTP).
- l. Provide technical support for the completion, response to comments, implementation and training associated with DOE Order 435.1 and future revisions (Radioactive Waste Management) with a focus on LLW disposal technical standards, etc.
- m. Provide continued technical consultation and support to DOE Packaging and Transportation (P&T) organizations. Efforts will include providing technical comments on issues pertaining to waste packages, radiation clearance surveys on commercial transport equipment and vehicles, and support to the Contractors Transportation Management Association (CTMA). A P&T Lessons Learned Program will be established to provide expertise and best practices on Issues such as the inconsistency of procedures and risk associated with blocking and bracing, and new vehicle auto braking that can result in load shifts during transport.
- n. Provide technical support to DOE Nuclear Energy (NE) and EM for spent nuclear fuel and High Level Waste missions, as needed.

## WMWG Planned Activities for FY 2024

Activity	Benefit	Deliverable/Key Milestone(s)
<b>1.0</b>		
1.1 The EFCOG Chair or representative will provide technical support to and attend scheduled meetings of the NTP User Group, Contractors Transportation Management Association (CTMA), and the Low-Level Waste Disposal Facility Federal Review Group (LFRG).	In providing technical and regulatory consultation to these groups allows the WMWG to stay abreast of the issues facing DOE and provide immediate advice and longer-term assistance on selected issues.	1.1.1 Attendance at each of these meetings, and report on EFCOG progress in addition to the expectation of requests for additional EFCOG assistance on specific issues.
<b>2.0</b>		
2.1 Provide technical support for the completion, response to comments, implementation and training associated with revision to DOE Order 435.1 (Radioactive Waste Management). Specific focus will be in the areas of LLW Disposal, and Consolidation.	EFCOG contractor members benefit directly by providing consultation to DOE in setting requirements for radioactive waste generation, treatment, storage, and disposal.	2.1.1 Provide technical comments on the draft revision when requested.  2.1.2 Provide continued training for DOE O 435.1 as needed to DOE sites.
<b>3.0</b>		
3.1 Develop and document a minimum of two additional Best Practices and/or technical recommendation documents.	Best practices are a good way to share information with the goal to improve program performance around the complex.	3.1.1 Post best practices on any work done with subgroups.
<b>4.0</b>		
4.1 Provide support to DOE EM on waste classification efforts.	Significant schedule and cost benefits can be realized from utilizing risk-based standards versus origin based.	4.1.1. Provide technical support, document reviews, and public review comments in support of DOE waste classification initiatives. Specific, support can be provided for tank wastes (i.e., wastes managed as HLW but are LLW/MLLW and TRU (may fall below 100 nCi/g)).

Activity	Benefit	Deliverable/Key Milestone(s)
<b>5.0</b>		
<p>5.1 The Challenging Waste Subgroup will focus on the identification and resolution of challenging LLW, MLLW, TRU and HLW (i.e., tank waste) streams. Support DOE EM 4.2 organization by assistance with the identification and resolution of challenging waste streams.</p>	<p>Continue to expand collaboration between DOE, site prime contractors, and commercial treatment and disposal companies (TSDFs) through WMWG group meetings, workshops, etc. to facilitate sharing of information that is useful. Improved communication is important and allows site waste managers to be informed what capabilities are commercially available.</p>	<p>5.1.1 Facilitate collaborative discussions between generators on disposition options for challenging waste streams. The subgroup's performance and necessity will be measured by how it effects a decrease in inventory of challenging waste streams around the complex.</p> <p>5.1.3 Continued focus on PFAS requirements. Provide support and technical information to DOE on characterization and treatment capabilities available in the commercial marketplace.</p> <p>5.1.4 Participate in NNSA's Community of Practice/Challenging Waste User Group meetings to ensure the groups are sharing challenge and success stories between DOE and contractor organizations.</p>
<b>6.0</b>		
<p>6.1 Provide technical support and consultation for Disposal or Closure Authorization and future DOE LLW disposal activities at other DOE (e.g., Paducah, Oak Ridge, Idaho, and Hanford ).</p>	<p>The LFRG is responsible to review technical documents required by DOE Order 435.1, that provide DOE authorization of LLW disposal in DOE owned LLW disposal facilities. The WMWG provides technical and regulatory resources to LFRG and DOE with subject matter experts with extensive Performance Assessment, Composite Analysis, key technical basis document preparation, and Operational experience to authorize and operate LLW Disposal Facilities.</p>	<p>6.1.1 Expect to provide specific recommendations and draft wording for Disposal Authorization Technical Basis Documents, definitions, and guidance. Continue to provide expertise for reviews, e.g., Paducah, Oak Ridge, Idaho, and Hanford.</p>

Activity	Benefit	Deliverable/Key Milestone(s)
<b>7.0</b>		
7.1 Focus D&D subgroup activities on waste generation issues and sharing best practices.	D&D efforts across the complex have generated best practices and lessons learned that can be shared. DOE's Nation-Wide D&D Indefinite Delivery Indefinite Quantity contracts may also provide insight into contracting best practices.	7.1.1 Collect information developed by the DOE OREM Mercury Technology Demonstration Initiative Program and provide input on disposition pathways for problematic waste streams (e.g., mercury and beryllium waste streams).  7.1.2 Share information on D&D planning and how that informs waste management for upcoming extensive D&D at Lawrence Livermore National Lab.
<b>8.0</b>		
8.1 Provide technical support to NNSA/DOE Nevada Field Office (NNSA/NFO), EM Nevada (EM-NV), and the Radioactive Waste Acceptance Program (RWAP) for disposal guidance for the Nevada National Security Site (NNSS).	Enhanced reviews of waste acceptance criteria, waste profiles, and independent assessments for waste generator compliance to the NNSS are intended to provide Nevada stakeholders with increased confidence in waste disposal operations at NNSS .	8.1.1 Continue to support DOE EM, NNSA NFO, and RWAP on waste profile reviews, stand-alone waste verifications, the RWAP information sharing plan and other comments in support of EM-NV.  8.1.2 Provide reevaluation of DOE contamination limits vs 49 CFR limits for commercial vehicles entering/exiting the NNSS.

Activity	Benefit	Deliverable/Key Milestone(s)
<b>9.0</b>		
<p>9.1 Complete the deployment of the lessons learned repository. Continue support of the DOE EM NTP and the NTP User group to ensure subgroup does not duplicate or contradict these lead organization's efforts.</p>	<p>Provide a forum for TRU waste generators, including EM and NNSA leadership, to share information and lessons learned. Supplement activities by NTP User's group if needed. Be responsive to the Defense Nuclear Facility Safety Board (DNFSB) and DOE EA interests and concerns specifically for characterization at the point of generation.</p>	<p>9.1.1 Work with EM HQ and generator sites to complete documentation for waste minimization and lessons learned.</p> <p>9.1.2 Support all RH TRU generator sites, and the CBFO-NTP in RH TRU disposition using SCAs and supporting resumption of RH TRU transportation and emplacement practices at WIPP.</p> <p>9.1.3 Identify and highlight point-of-generation support for waste streams that present unique and difficult characterization, transportation, and/or packaging challenges.</p> <p>9.1.4 Support DOE EM with coordinated communication addressing generator site input to assessments and enterprise-level policy.</p>
<b>10.0</b>		
<p>10.1 Packaging &amp; Transportation Subgroup to provide DOE with technical support in areas where their expertise is needed.</p>	<p>Provide support on an ongoing basis in areas where members expertise provides value.</p>	<p>10.1.1 Discuss PCB registration issue with MCEP carriers, which stems from discussion that EPA has found carriers in 2 regions were not additionally registered for hauling TSCA PCB wastes.</p> <p>10.1.2 Support evaluation of blocking and bracing for RAM packages and the current auto braking of trucks. The forces of the newer auto braking have caused some shifting of RAM packages on receipt.</p> <p>10.1.3 Support NNSS RWAP on re-look at DOE vs DOT contamination release criteria. A study suggesting potential wording changes to help resolve the differences between the contamination limits may be requested that could be included in future NNSS WAC revision.</p>

## **FY 23 Sunset Tasks**

### **Completed Tasks**

None all tasks are ongoing

### **Cancelled Tasks**

None

## **Other Working Group Activities**

The WMWG holds two to three annual working meetings as well as conducts monthly conference calls that provide opportunities for communication, consultation, and direction with DOE Liaisons/Sponsors and our EFCOG membership. The face-to-face meetings will be conducted in concert with other planned conferences/meetings to minimize travel and other costs. The overall management of the WMWG has, and is expected to continue, to take a considerable amount of time primarily performed by the Chair, Vice Chair, Secretary and Subgroup Chairs. It is critical to the successful performance of the WMWG for the planning and coordination to be done in an effective and efficient manner. The resulting reports and best practices will be of benefit to DOE, its contractors, and the EFCOG organization, and thus provide tangible value to the waste management community.

## **Reporting and Communications**

The WMWG Chair, Vice Chair, and Secretary develops an agenda for each meeting or conference call distributed to DOE sponsors/liaisons and the WMWG membership. During these meetings, members use slide presentations to inform participants about specific Work Plan initiatives or waste management activities at their sites. The WMWG Secretary ensures all working meetings and monthly conference calls are documented with the identification of action items. The convention has been, and will continue to be, all white papers, reports, and best practices will be prepared and transmitted to all DOE and EFCOG involved parties prior to publishing on the EFCOG website for review and approval. In addition, meetings and conference calls with the DOE Liaisons will occur on an as needed basis to ensure each task is proceeding successfully toward resolution, and to allow course correction as needed. It is anticipated that new tasks or ad hoc tasks may be added as emerging issues occur and are recommended by the WMWG, a task scope developed, and approval is received by DOE EM 4.2 or designee(s).

The EFCOG Annual Report will contain a final year-end report from the WMWG describing the accomplishments and changes that have occurred due to emerging issues.