

DOE Order 435.1 Radioactive Waste Management Revision Status

Linda Suttora, DOE HQ, EM-41

Steve Thomas, SRR

EM Waste Processing Technical Exchange

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EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

What is DOE Order 435.1 and WHY SHOULD I CARE?

- DOE has authority to regulate its own radioactive waste management (generation, treatment, storage, disposal) under the Atomic Energy Act. This self-regulation is conducted through DOE Order 435.1
- Radioactive waste management requirements and practices significantly impact DOE operations and constitute a departmental priority
- Radioactive waste is managed at 36 DOE facilities under the direction of different program offices: EM, NNSA, NE, SC, and LM.
 - HSS is responsible for independent oversight of DOE compliance with radioactive waste management requirements.
 - EM is the Office of Primary Interest for the DOE O 435.1 revision.
- Revising the Order allows DOE to streamline the requirements and incorporate lessons learned and best practices



History

- DOE Order 5820.2A issued in 1988
- DNFSB 94-2 Required DOE to conduct a complex-wide review (CWR) of LLW vulnerabilities, completed 1996
- Provided input into DOE Order 435.1 development
- Additional structured process of workshops and inclusiveness of Field and contractors to develop
- Issued Order, Manual, Guidance, Technical Basis, and training program in 1999
- 2010 Complex-Wide Review of all waste types



Where We are Now

Update DOE O 435.1

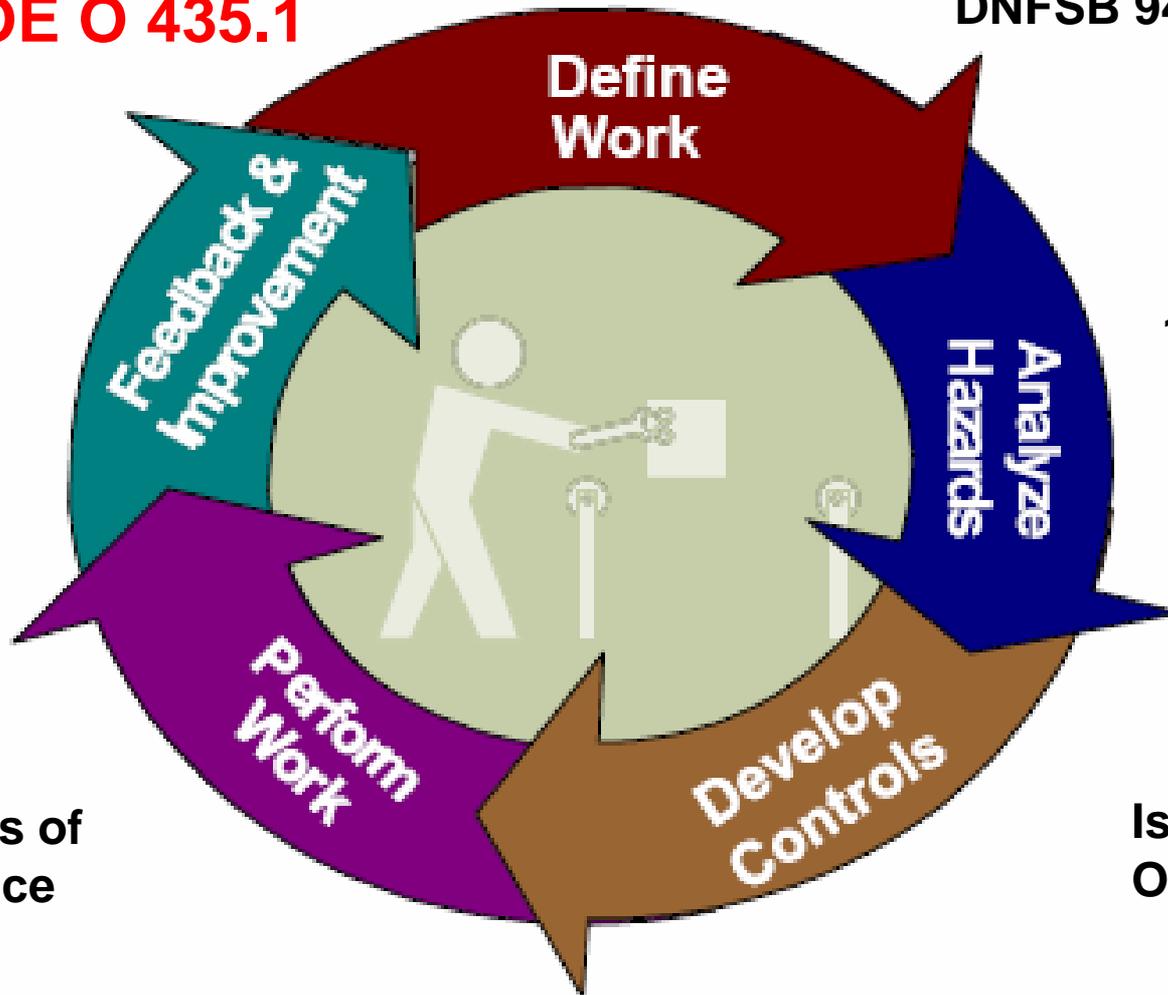
DNFSB 94-2

2010 CWR

1996 CWR

**>10 years of
experience**

**Issue DOE
O435.1 1999**



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CWR Example Results

- Best Practices
 - The effective management, planning and integration of the TRU program
 - The Low-Level Waste Disposal Facility Federal Review Group (LFRG) success in developing and implementing a review process for disposal of LLW and TRU waste and HLW tank closure performance assessments across the complex
- Areas of improvement
 - Improve the effectiveness of the commercial treatment, storage, and disposal exemption process
 - Ensure the performance assessment requirements have been included in the legacy management process for sites being closed
 - Clarify the radioactive waste management oversight responsibilities of the various Program Offices
 - Ensure the integration of DOE Order 435.1 and CERCLA closure requirements.

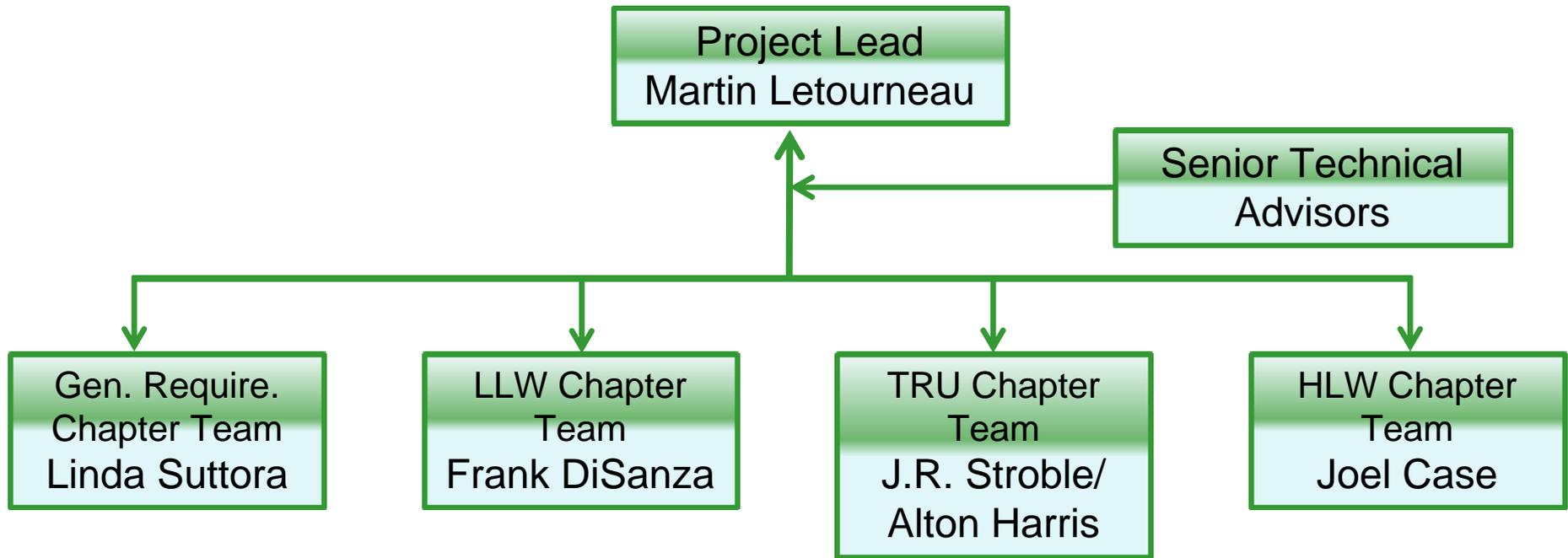


Other Inputs

- Recommendations from 2001 review/update (2001)
- Needs assessment from CD-0/1 package (July 2008)
- Recommendations from General Requirements meeting (Nov 2009)
- Additional recommendations from Core Teams and the Senior Technical Advisors
- Other Federal and/or International regulations and standards



435.1 Update Project Team



- Each team has members reviewing the existing order, guidance, and technical basis against the CWR and other comments received over previous 10 years
- Teams provided criteria to use for recommending changes – needs major re-work, needs tweaking, if it ain't broke don't fix it



Chapter Team Representation

- Experts from each waste type
- Federal and contractor resources
- Representation from Headquarters and the Field
- Representation across program offices
 - EM, NNSA, NE, LM, SC
- Representation from field sites and area offices across the complex
 - NTS, SRS, ID, ORP, RL, ORNL, LANL, CAO, Sandia



435.1 Revision Workshops

- April 2010 – Portland, OR
 - Bin inputs (CWR and other)
 - Define work activities, roles and responsibilities and schedule for each letter requirement
 - Document in a Work Plan
- October 2010 – Salt Lake City, UT
 - Identify cross-cutting issues
 - Dump everything on General Requirements Chapter! (OK nearly everything)
 - Adjust team membership
 - Plan path forward



Input Disposition Considerations

- Does the input belong in the DOE O 435.1 directives package?
 - Relates to radioactive waste management functions, safety concerns, hazards covered by DOE O 435.1
- Can this input be addressed through revisions to the DOE Order 435.1 directives package in a timely manner?
 - Consider legal/political sensitivity, technical complexity
- Will addressing this input provide sufficient benefit to the department?
 - Consider improved safety or cost-effective implementation
- Would it be more appropriate for another DOE entity to address this input (e.g., waste-type specific Corporate Board)?



Review and Approval Process

- Chapter team lead reviews and approves update recommendation package
- Federal Project Director reviews and approves update recommendation package
- Feedback provided by Senior Technical Advisors before, during, and at end of writing
- All work to comply with DOE Order 251.1 the “*Order on Orders*”



DOE Order 251.1C Highlights

- Phase out Manuals (e.g., DOE M 435.1, but replace the Order with something similar to existing manual)
- Order contains all requirements for Federal employees
- Contractor Requirements Document contains requirements for operations contractors and should be pull-out section from order into contract
- Emphasis on performance-based requirements



Status of DOE Order 435.1 Revision

- First draft of all chapters, guidance, and technical bases due to Project Lead December 20, 2010
- External interfaces
 - Stakeholder Workshop – November 2010
 - Meetings to keep stakeholders informed – TBD 2011
- NRC revision of all or parts of 10 CFR Part 61
 - Joint DOE/NRC Workshop to discuss status of relevant requirements – March 2011
 - NRC held public meetings to discuss specific Part 61 issues
 - Blending
 - Depleted uranium
 - Barriers
- Revised order expected to enter RevComm Process end 2011 – standard mechanism to provide DOE comments

