

WM2013 Conference Panel Report

PANEL SESSION 101: Waste Incidental to Reprocessing and Lessons Learned – EFCOG Workshop (Part 1 of 2)

Co-Chairs: **Virginia Dickert**, *Savannah River Remediation, LLC*
Mark Mahoney, *Savannah River Remediation, LLC*

Panel Reporter: **Kent Rosenberger**, *Savannah River Remediation, LLC*

Panelists:

1. **Steve Thomas**, *Savannah River Remediation, LLC*
2. **Kim Hauer**, *Savannah River Remediation, LLC*
3. **Sherri Ross**, *US Department of Energy – Savannah River*
4. **Bob Petras**, *Savannah River Remediation, LLC*
5. **Linda Suttora**, *US Department of Energy – Headquarters*
6. **Keith Quigley**, *Vista Engineering Technologies*
7. **Dan Sullivan**, *US Department of Energy – West Valley*
8. **Susan Eberlein**, *Washington River Protection Services*
9. **Jay Rhoderick**, *US Department of Energy – Headquarters*
10. **Chris McKenney**, *US Nuclear Regulatory Commission*
11. **Scott Saunders**, *Washington River Protection Services*

Approximately 30 people attended this panel session which focused on the lessons learned from the implementation of the DOE Order 435.1/DOE Manual 435.1-1 Waste Incidental to Reprocessing and the National Defense Authorization Act for Fiscal Year 2005 (NDAA) Section 3116 processes at various U. S. Department of Energy sites. The session entailed each panel representative discussing the activities at their respective site and their lessons learned relative to implementation of the programs.

Following the panelist discussions, the panel and other participants developed a set of key themes associated with program implementation. The key themes included:

1. Need for constant communications
2. Level of conservatism in evaluations
3. Modeling of impacts
4. Need for knowledge retention
5. Implementation of a project management approach
6. Institutionalization of the Performance Assessment and Waste Determination/WIR into Operations
7. Including senior project advocate(s) at DOE-HQ to champion efforts
8. Early involvement of senior management in all participating agencies
9. Need for improved process timeliness

The session had a positive response from panelists and attendees who are interested in building upon the present success of the processes and who look forward to additional process improvements.

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Summary of Presentations

Steve Thomas discussed the experiences and lesson learned related to NDAA Section 3116 implementation at the Savannah River Site. He discussed several key topic areas including:

- The process is as much a legal process as a technical one so involve your legal staff early in the process
- The need for a focused core staff for continuity
- A need to balance risk as you should be protecting catastrophic consequences
- The need to define “reasonable assurance”
- An acknowledgement that the transparency of the process has not slowed progress
- The need for a Waste Determination change control process
- The value of allowing technical staff from various agencies the ability to interact

Kim Hauer discussed his impressions of the NDAA Section 3116 process at the Savannah River Site from the perspective of one who had only worked in the area for less than two years. He discussed his observations and lessons learned including:

- The need to be thinking of the real risk to present workers versus the potential risk long times in the future in making decisions
- An observation that the process must be working or not so many people would want to say they were involved in the process
- The need for all parties to understand their roles and responsibilities
- The need to utilize project management principles for communications and risk management
- The need to interface with facility operations and projects to ensure smooth implementation of the process in the operating facilities
- The need to celebrate successes to recharge the team

Sherri Ross provided her observations of the process at the Savannah River Site from the federal perspective. She discussed her observations and lessons learned including:

- The ability of technical staff and management to interact and communicate has greatly evolved and various forms of communication can be utilized
- The hybrid modeling approach, detailed barrier analyses and increased stakeholder involvement are a direct result of the NDAA Section 3116 process
- The depth of technical review by the Nuclear Regulatory Commission (NRC) is a positive
- The need to be flexible with resources and schedules
- The tank farm monitoring process is still early in its implementation and will evolve

Bob Petras discussed the implementation of the DOE Order 435 Waste Incidental to Reprocessing (WIR) process at the Savannah River Site. He discussed that after the July 2003 lawsuit stopped the WIR process sites were still generating waste and had to store it. A team was established and used the Hanford secondary waste concept to develop a WIR citation procedure that was approved in 2010. The SRS team then helped West Valley revise their process. Teaming occurred with SRS, Hanford, Idaho and West Valley such that the WIR citation process is now consistent among the various sites.

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Linda Suttora provided a DOE Headquarters program perspective on the NDAA Section 3116 implementation. She observed that stakeholders need to recognize there are differences between the sites. One example she gave was that although Idaho and Savannah River both were closing tanks, the differences in the tank design, residual waste material and the natural systems made the approaches very different. She also observed that although the public processes were entered cautiously, the openness forced the technical staff and management to think hard about all their assumptions and positions to be able to justify and communicate information.

Keith Quigley discussed the experiences and lesson learned related to NDAA Section 3116 implementation at Idaho. He discussed the success of implementing a project management approach to tank closure that defined fixed tasks and schedules versus treating the closure as a program. He indicated the importance of forming a strong project team that had ownership of the process and a clear vision of the goals and including the regulators in the process. He also reiterated the sentiments of Ms. Suttora that all sites are different.

Dan Sullivan discussed the experiences and lesson learned related to the DOE 435 WIR process at West Valley. He indicated that while there have been successes with the WIR process for Low Level Waste, they have not had success for Transuranic Waste. He discussed their waste evaluation flow sheet for the WIR process. He noted several lessons learned including the need for a strong DOE-HQ advocate, success of holding NRC scoping meetings, success of using teleconferences to clarify comments and importance of close coordination with DOE General Counsel. He stated that the use of a cross-walk between DOE and NRC performance objectives was valuable. He concluded that West Valley has had two successful WIR Evaluations and that their citation process works well.

Susan Eberlein discussed the experiences and lesson learned related to the DOE 435.1 WIR process at Hanford. She indicated that Hanford issued an Environmental Impact Statement in November 2012 for their tank farms. She indicated that they incorporated the scoping meeting process similar to Savannah River and it has been successful in bringing together their regulators and the NRC. She stated the NRC brought valuable technical knowledge to the meetings. She stated that the State of Washington is ambivalent to the NDAA Section 3116 but that DOE-HQ wants Hanford to prepare documents that are “3116- Like”. She said Hanford is working to include facility operations and regulators into their process as it is developing.

Jay Rhoderick provided a DOE Headquarters program perspective on the NDAA Section 3116 implementation. He observed that there was a need for a robust self-regulatory process and as an example the Environmental Protection Agency was vital for the Waste Isolation Pilot Plant. He indicated that it is important to maintain institutional knowledge and lessons learned interactions are a good start. He stated that Performance Assessments are a long process that cannot be short changed because no one can afford a failure. He is concerned about the ability to maintain the process institutional knowledge going forward at both the federal and contractor levels.

Chris McKenney provided a Nuclear Regulatory Commission (NRC) perspective on the NDAA Section 3116 implementation. He observed that the NRC technical staff continuity is good but that situation is different for their project managers. He observed that there has been an order of magnitude increase in the quality of the Performance Assessments (PAs) since the beginning of the NDAA Section 3116 process and that it was evident that comments from one PA were being

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incorporated in future PAs. He identified the availability of contractor code information and intermediate results as valuable information during reviews. He observed that it is important to keep General Counsel staff involved on a continuous basis. He commented that common visualization tools and scoping tools would be valuable for future evaluations. He closed by stating there may be general PA research topics that could benefit from leveraging various organization funding/input for the good of all.

There were ongoing questions and discussions during all of the panelist presentations. The size of the panel and the interactions between panelists and attendees was a positive indication of the interest in the NDAA Section 3116 and DOE 435 WIR processes and their ongoing success.