



# **NNSA Waste Management Program**

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# Background



- Prior to 1998 all NNSA Newly Generated Waste (NGW) Programs were managed by the Office of Environmental Management
- Beginning with Kansas City Plant (KCP) in 1998 and ending with Y-12 and Lawrence Livermore National Laboratory (LLNL) in 2006 EM re-engineered the WM programs to NNSA (Defense Programs)
- In 2007 the management responsibility was transferred within NNSA from Readiness in Technical Basis and Facility Operations (RTBF) to the Office of Environmental Projects and Operations (EPO) (April 2, 2007 Memo)
- EPO began oversight responsibilities in FY 2008
- All NNSA sites except Savannah River Site are participating in the NNSA Waste Management Program
- At some sites NNSA manages legacy and newly generated wastes



# Mission and Vision



## *Mission*

- Ensure all wastes generated and/or accepted by NNSA sites are managed cost effectively and in a timely manner
- To meet all internal and external regulatory requirements

## *Vision*

- Minimize the wastes generated at NNSA sites
- Management and disposition of generated wastes are accomplished in a way that produces no discernable impacts on worker, public health, or the environment, nor impedes the NNSA mission.
- Employ waste minimization and pollution prevention practices and principles to the maximum extent possible.



## Program Objectives and Expectations



- **There is effective integration and interaction between the NNSA mission activities and regulatory compliant, cost-effective waste management processes at NNSA sites through programmatic oversight and direction.**
- **Sites will continue to implement, to the maximum extent possible, waste minimization and pollution prevention practices**
- **Activities under the waste management program are performed in accordance with all internal and external regulatory requirements**
- **Sites shall maximize the amount of waste disposed of within one year of the generation date**
- **Ongoing Environmental Management legacy operations, regulatory, and compliance requirements will not be impacted by the operational oversight of the NNSA waste management program by EPO.**
- **Benchmarking will be utilized, where appropriate, across the DOE complex to identify and promote the implementation of cost-effective waste management practices and waste disposition efficiencies to achieve best in class waste management program operations.**



# Waste Management Activities



- Waste Management is primarily a Level of Effort Program making it difficult to plan and track work.
- Waste management activities associated with program management, waste operations, and facility operation are classified into four functional categories (i.e., Operations, Facilities, Projects, and Program Management) for internal tracking and reporting purposes
- P2/Waste Minimization has been and remains a driver for efficient and cost effective NGW program operations. P2 programs have evolved to be part of day to day operations and are an important component of site environmental management systems



# Program Description





# Management of Program



- NA-56 hosted a July 2008 meeting in ABQ with the NNSA sites to discuss the WM program's path forward
- Developed a program management plan setting forth the program requirements, scope, organizational structure and program management processes and approach for execution the WM program.
- Implemented the preparation of Annual Site Execution Plans (SEPs) for WM activities
  - Opportunity for sites to communicate with EPO on the planned scope, costs, schedules, performance measures, and volumes of waste.
  - EPO will use the SEPs as a management tool to track progress
- Began monthly federal staff phone calls in Oct. 2008 as a way to communicate on a regular basis with the sites



## Management of Program (Con't)



- Implemented Quarterly Performance Reviews on WM activities.
  - SEPs are the baseline against which the QPRs are measured
  - Completed Reviews in December 2008 and February 2009
- Continue coordination with Defense Programs on funding requirements
- As part of the FY 2011-2015 Programming Process each of the NNSA sites has been asked to complete a cross-cut of their site's waste management program
  - Regardless of funding source and responsible program all wastes are handled through one office
  - Gain a better understanding of what activities, wastes, and funding are included in each site's waste management program over the next 5 years
  - Will support resource requirements and planning as NNSA funding priorities change.



# FY 2009 Estimated Generation Volumes



Site	TRU (m <sup>3</sup> )	MLLW (m <sup>3</sup> )	LLW (m <sup>3</sup> )	Hazardous (Metric Tons)	Sanitary (Metric Tons) <sup>1</sup>	Other (Metric Tons) <sup>1,2</sup>
SNL	.2	19.8	74	463	4917	<b>6839</b>
Pantex	0	2	120	210	2500	36
LLNL	13	63	756	<b>1222</b>	0	202
KCP	0	.3	.2	72	1065	567
Nevada	19	1	13	44	<b>8711</b>	11
Y-12	0	<b>183</b>	6560	54	0	0
LANL	<b>158</b>	6.0	<b>7150</b>	115	0	0
Total	189	274	17946	2180	19576	7468

<sup>1</sup> Suspect amounts; unable to compare between sites because definitions of “Sanitary” and “Other” differ in State regulations.

<sup>2</sup> Other includes non-hazardous/industrial, recycle (plastics, wood, components, tooling, non-regulated and regulated waste recycle)

**NOTE: Waste Volumes and funding are relatively stable from year to year**



# NNSA Waste Management Funding



- The total NNSA funding is approximately \$115M
- 85% (Approx. \$96M) of this funding is at Y-12, LLNL, and LANL
- Funding includes costs for storage, treatment, transportation, and disposition
- Three different funding mechanisms: Direct Funding through defense programs, indirect funding, and chargebacks
  - Each site's funding structure is based on the mission needs and resources available



## Challenges



- New videography requirements for TRU waste certification may impact costs and schedules at small TRU generating sites
- Accounting/visibility of WM funding associated with “Other NNSA Programs” and “Work For Others”
  - NNSA WM operations and facilities are responsible for all activities at their respective sites
- Adequately maintaining systems and facilities to accomplish the required waste activities within a constrained budget
- Accurate Forecasting; Ensuring that waste management activities adequately support changing mission needs in NNSA as well as changing waste sources.



Questions?