

Acceptance of Classified Excess Components for Disposal at Area 5



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Weapons Dismantlement and Disposal (WDD) - Scope

- Department of Energy (DOE) tasked WDD working group to disposition the large inventory of legacy classified weapon components scattered across the complex
 - Key Issue: There is no complex-wide cost-effective classified weapon disposition strategy
 - The methods differ based on immediate site needs
 - Only a small portion of the inventory has been dispositioned and it has not always been in a cost-effective manner



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High Risk Personal Property (HRPP)

Why is it so hard: HRPP is specially designed or prepared property, export controlled property, nuclear weapon components or weapon like components, and proliferation sensitive property

- In April 2010, NNSS requested a waiver from the Office of Defense Nuclear Nonproliferation (NA-20) to permit the long-term burial of HRPP within the Radioactive Waste Management Site (RWMS)
- On October 5, 2010, NA-20 approved the burial of HRPP currently in RWMS, but required future HRPP follow 41 CFR 109-1.53



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HRPP

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- NNSS believed that the regulations in Subpart 109 with respect to “disposition” of HRPP were not technically operative until HRPP leaves DOE possession and control
 - Is it property?
 - Is it offsite disposal?
- NNSS is located on land which is in the sole possession of the agency and will never be released to the public
- A letter of concurrence was issued July 14, 2011, from the NA-20 organization to permanently bury HRPP at DOE Owned and Controlled sites. The letter does not apply to pits, canned subassemblies, neutron generators, and detonators unless they have been demilitarized



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What's Happened

- HRPP letter allowing permanent disposal of classified items without sanitization at NNSS – July 14, 2011
- Revision 9 of the NNSS WAC includes classified, non-radioactive, non-hazardous waste disposal – February 29, 2012
- First non-rad, non-hazardous classified items received for disposal (180 cubic feet) – March 20, 2012 (exemption for disposal)
- Submitted Solid Waste Disposal Site permit modification for classified, non-radioactive, non-hazardous waste disposal – April 16, 2012
- Received permit modification for the Mixed Waste Disposal Unit to accept non-radioactive hazardous classified waste – April 3, 2012
- Macroencapsulation equivalency letter submitted to State of Nevada for review – Concurrence on Concept April 12, 2012

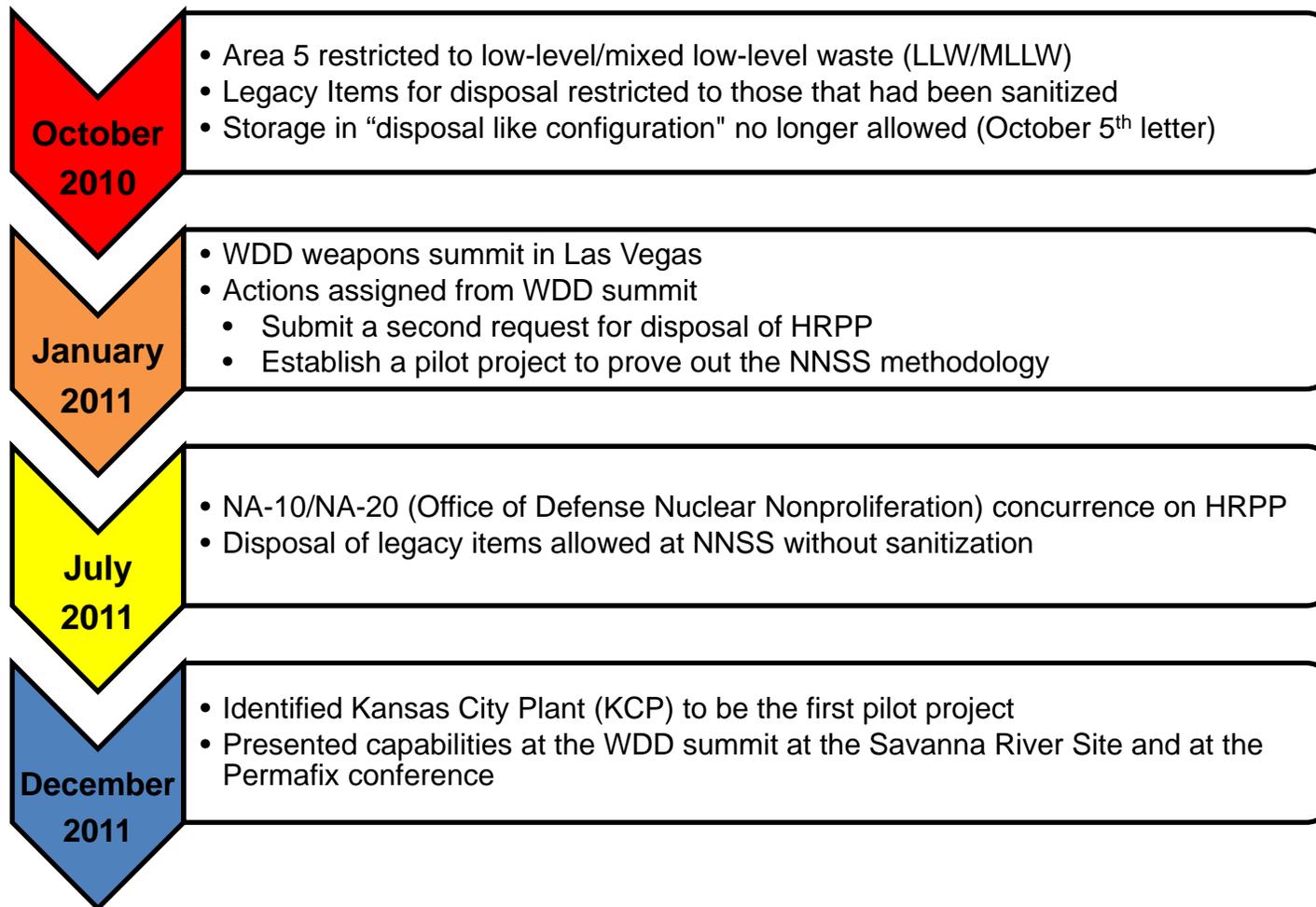


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Timeline of Classified Disposal at Area 5



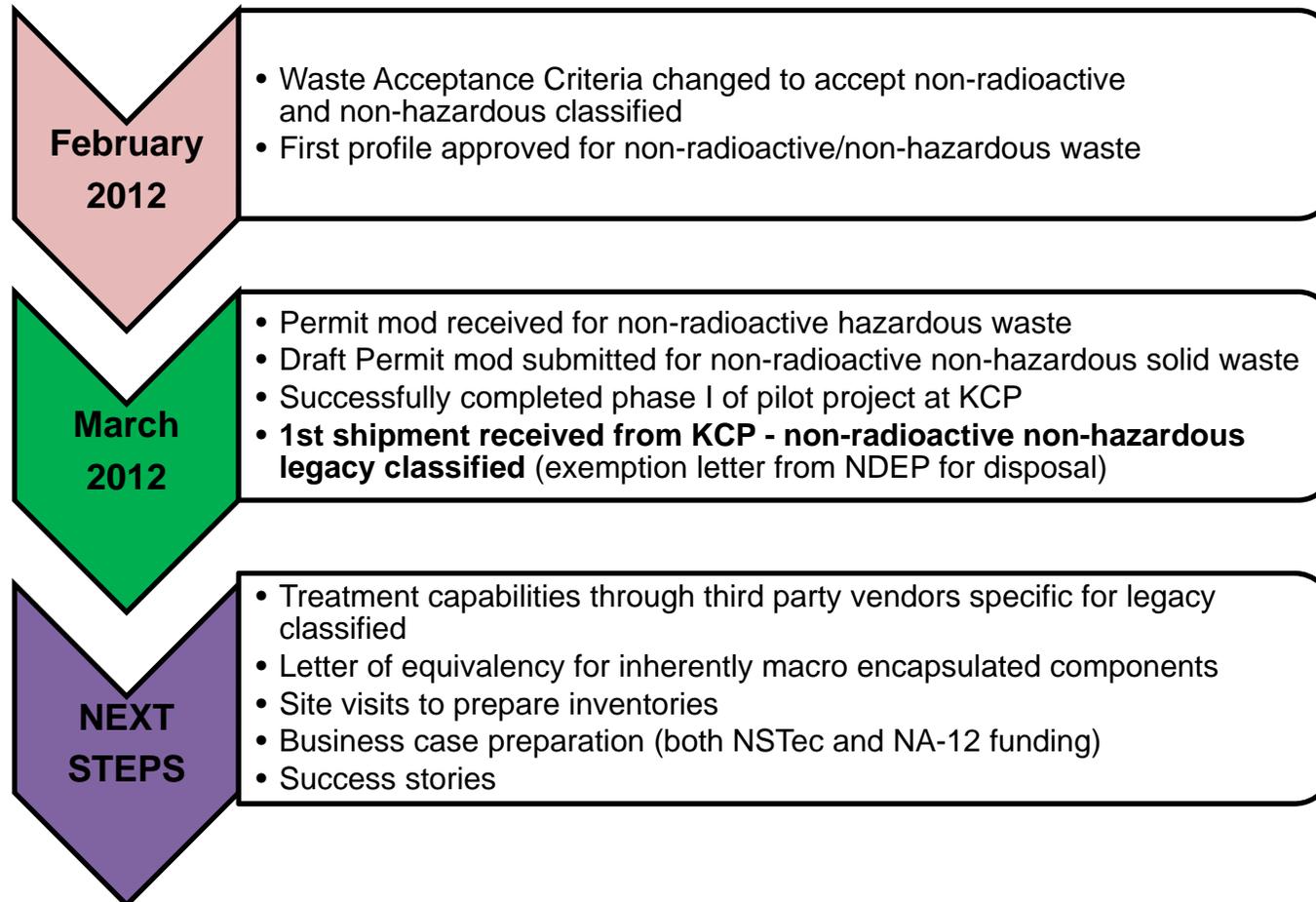
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Timeline of Classified Disposal at Area 5

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DOE Complex Needs

- *Establish weapon component definition and how it relates to the property regulation involving HRPP*
 - COMPLETE: Letter issued July 14, 2011 – Concurrence to permanently bury HRPP at DOE owned and controlled sites after dismantlement and demilitarization operations; concurrence does not include pits, canned subassemblies, neutron generators, or detonators unless these items have been demilitarized and/or sanitized
- *Establish a complex-wide legacy weapon disposition strategy that is applied consistently and in a compliant and cost-effective manner*
 - Need support from Headquarters



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Complex Issues/NNSS Solutions

- *The variability in components and methods required to dispose them are complicated and expensive*
 - NNSS will provide treatment capabilities that allow components to be dispositioned without disassembly
- *Items are not packaged in U.S. Department of Transportation (DOT) approved containers*
 - NNSS will supply containers in which items can be placed to meet DOT requirements
- *Generator Facilities are not approved for radiological or Beryllium (Be) work*
 - NNSS has a DOE approved Be program and can repack Be and radiologically contaminated items if necessary



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Complex Issues/NNSS Solutions

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- *Generating sites are not qualified to perform the repackaging operation (NNSS WAC Certification Program)*
 - NNSS will act as the generator and “supply” the certification program in these cases via the Waste Generator Services Group
- *Additional characterization information or component processing required*
 - NNSS will assist in the characterization if needed
- *Lack of funding*
 - Efficiencies gained through infrastructure reduction will provide necessary funding



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NNSS Needs

- Three key items are needed for the NNSS to become a “one-stop-shop” for legacy and newly retired weapon components
 1. **Non-radioactive/non-hazardous disposal:** Solid waste permit modification submitted includes non-radiological/non-hazardous classified waste in existing permit for asbestiform and hydrocarbon burdened waste at Area 5 – **Submitted April 16th**
 2. **Non-radioactive/hazardous disposal:** Mixed waste permit modification includes non-radiological hazardous waste in existing Resource Conservation and Recovery Act (RCRA) permitted disposal cell – **Complete (April 3, 2012)**
 3. **Non-radioactive/hazardous treatment:** Existing commercial treatment contracts will be used



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Current Status

Location	Funding	Items	Program/Disposition	Comments/Status
Sandia California	\$400k from WDD SEPT 30, 2012	26 legacy items	Waste Disposal – Clean out of LLNL Facility	– SNL will characterize, package and ship items NEEDS TREATMENT
Sandia California/New Mexico	\$213k to Defense Experiments and Stockpile Stewardship (DESS) SEPT 30, 2012	Trainers/depleted uranium parts	Supports National Center for Nuclear Security/ DESS program and disposal	– Finalize needed units list NEEDS TREATMENT
Sandia New Mexico	Funded via Sandia Albuquerque SEPT 30, 2012	4,000 lbs. of used canisters	Waste disposal	– Sandia National Laboratory will characterize, package and ship items
Honeywell Kansas City PHASE I - 180 ft3	\$57k MARCH 30, 2012	Non rad components	Waste disposal – Clean out of old Kansas City facility for move by 2014	– NNSS packed March 13 and 14 – KCP shipped week of March 19 th – NNSS disposed on March 20 th
Honeywell Kansas City PHASE II/PHASE III	Funded from KCP SEPT 30, 2014	Radioactive and non-radioactive hazardous components	Waste disposal – Clean out of old Kansas City facility for move by 2014	– Finalize needed units list – Characterize units for shipment to NNSS NEEDS TREATMENT



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Exploring Explosives/Thermal Batteries

- Multiple sites have requested support for DOT class 1.3/1.4 explosives (Pantex, Sandia, Livermore, etc.)
- NNSS currently has a permit for explosives but is limited to those generated on site
 - Would require modifications to explosive ordnance disposal unit (EODU) permit
 - Would require modifications to air permit
- Are the inventories across the sites at a level that would justify modifying the NNSS permit?



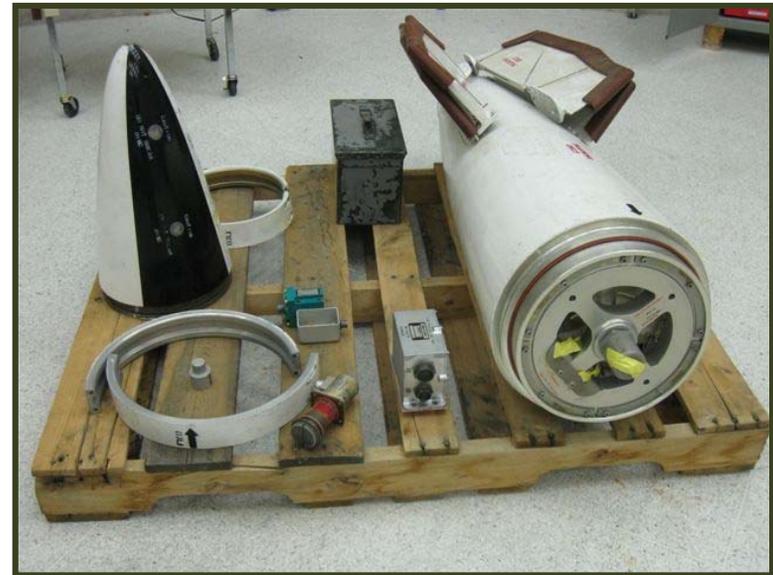
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WDD Inventory/Cost Savings

- NNSSS can help DOE complex reduce infrastructure costs from storing legacy/retired classified or export controlled items in warehouses
- NNSSS staff visiting other DOE sites needs HQ support
 - Identify point of contact for each site
 - Support NNSSS in obtaining inventories
 - Provide accurate infrastructure costs
 - Provide square footage of warehouse space currently used for storing legacy/retired items



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Conclusion

- Things have changed
 - NNSS can take non-radioactive hazardous and non-hazardous CLASSIFIED components
 - Sanitization is not required prior to disposal
 - Some items meet the definition of macro encapsulation without further treatment
 - Working to establish a complex-wide legacy weapon disposition strategy that can be applied consistently and in a compliant and cost- effective manner
- Ask for help if you have questions or need clarification
(Information sheets available)



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Questions



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