

# Nevada Test Site (NTS) Mixed Low-Level Waste (MLLW) Disposal



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Low-Level and Mixed Low-Level Waste  
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# NTS MLLW Regulatory Update

- Nevada Division of Environmental Protection (NDEP) approved MLLW verification plan for disposal of off-site generated MLLW
  - U.S. Department of Energy (DOE) to continue operating the Mixed Waste Disposal Unit (MWDU) under interim status until December 2010 with a volume limit of 20,000 cubic meters
  - DOE's intent is to expedite the unit's closure



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# NTS MLLW Regulatory Update

(continued)

- NDEP agreed to lift the moratorium on accepting off-site generated MLLW under Resource Conservation and Recovery Act (RCRA) “Interim Status” effective December 2005
  - Lifts the off-site MLLW disposal prohibition
- First shipment received April 11, 2006



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# NTS MLLW Acceptance Readiness

- Nevada Site Office took steps to prepare for the acceptance of MLLW from off-site generators
  - Upgraded and improved the MWDU (Pit 3)
  - Completed required real-time radiography readiness assessment
  - Completed staff training
  - Issued revision 6-02 to the NTS Waste Acceptance Criteria (available online at [http://www.nv.doe.gov/library/publications/emrwap/DOENV\\_325\\_Rev6-02.pdf](http://www.nv.doe.gov/library/publications/emrwap/DOENV_325_Rev6-02.pdf))



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# Acceptable Wastes

- NTS does not treat MLLW
- Acceptable waste forms must meet the U.S. Environmental Protection Agency (EPA) Land Disposal Restriction treatment standards
  - May include incinerator ash, stabilized waste, debris, macroencapsulated debris and soil
- Waste failing to meet the Waste Isolation Pilot Plant's Waste Acceptance Criteria requirement of 100 nanocuries per gram transuranic content are, by definition, low-level waste/MLLW
  - Waste may be sent to NTS for disposal if it meets NTS Waste Acceptance Criteria, Revision 6-02



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# Acceptable Wastes

(continued)

- Examples of waste forms that ***will not be accepted:***
  - Free liquids and some EPA “D” and “F” listed waste
- Laboratories and treatment facilities must have completed DOE Consolidated Audit Program audit or equivalent audit/assessment



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# Waste Notification and Profile

- Untreated Waste
  - Pre-Treatment Notification to the Nevada Site Office required to allow for on-site verification at treatment facility (during treatment), if required
- Waste Profiles
  - Finite amount of waste per profile since the Nevada Site Office closely tracks waste volumes
  - Terminated after 365 days unless re-certified by generator



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# Verification

- Physical verification required for a minimum of 5% of each waste stream – of which, 10% will undergo chemical verification
- At generator/treatment site
  - Visual inspection - open containers and verify contents
  - Chemical screening - fingerprint analysis to identify ignitable, corrosive, and reactive wastes
  - Sampling – split sample with generator and/or treatment facility



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# Verification

(continued)

- At NTS
  - Real-Time Radiography
  - NTS will not open containers



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# Commercial Generators

- Waste must be DOE-owned
- Duratek approved as low-level waste generator - July 2005
- Perma-Fix approved as MLLW and low-level generator - April 2006



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# NTS MLLW Challenges

- MWDU at the NTS is currently under-utilized
  - As of January 25, 2007, NTS has received 8,104 cubic feet of MLLW since NDEP lifted the off-site generated prohibition in December 2005
  - Currently approved generators total 5-year forecast is 178,562 cubic feet – only 25% of the 706,000 cubic feet permitted by NDEP



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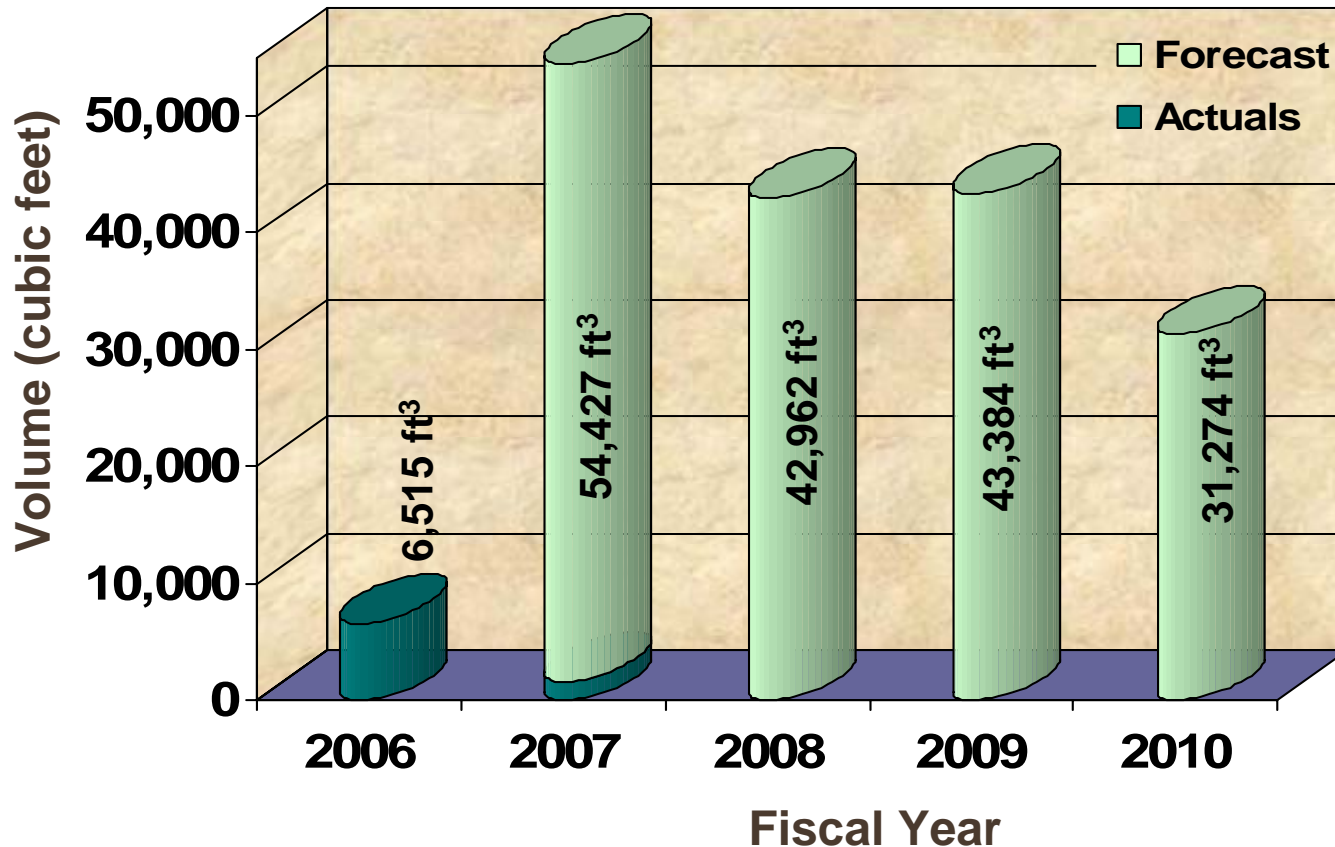
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# NTS MLLW Challenges

(continued)



5-year  
forecasted  
total is  
178,562 ft<sup>3</sup>  
(5,056 m<sup>3</sup>)  
– only 25%  
of the  
available  
capacity



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# NTS MLLW Challenges

(continued)

- NTS MLLW Summit identified that only 50% of the capacity CAN be utilized by December 10, 2010
  - Dependent on DOE headquarters mandating substantial programmatic changes to low-level waste policies
- Less than four years remain until permanent closure of the NTS MWDU is required



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# NTS MLLW Challenges

(continued)

- Monthly Federal Low-Level Waste Conference Call initiated
- Federal Project Directors interested in participating in the next conference call should contact Jhon Carilli at (702) 295-0672



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# Bottom Line

- NTS is now accepting MLLW – operation limited to receipt of 20,000 cubic meters, or until December 2010 – whichever occurs first
- NTS is committed to providing optimal support to generators
  - Review forecasted volumes; update as needed
  - Clock is ticking!



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# Points of Contact

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