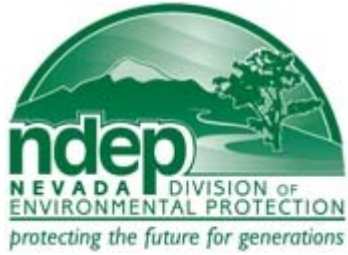


# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

Presented by Jeff MacDougall, Ph.D., C.P.M.  
Spring 2009 NTS Generator Workshop

Approved for public release and posting to the U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office web site at  
<http://www.nv.doe.gov/emprograms/environment/wastemanagement/wastegenerator.htm>.



# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHO WE ARE
- WHAT WE DO
  - OVERSIGHT
  - REGULATORY
  - ACTIVITIES
    - Joint Oversight (Non-regulatory)
    - MLLRW Disposal (Regulatory)
    - WARP Participation
    - Generator Audits
  - ISSUES and CHALLENGES



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHO WE ARE
  - Bureau of Federal Facilities (10 staff members)
    - Tim Murphy, Bureau Chief
  - LLRW/MLLRW Group
    - Jeff MacDougall, Supervisor
    - Kevin Campbell
    - Dennis Nicodemus
    - John Wong
    - Ted Zaferatos (not on WARP)
  - Based in Las Vegas
  - Other staff oversees UGTA, NTS remediation (ER), RCRA



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHO WE ARE
  - In 1989 NDEP entered into negotiations with DOE and DOD to fund state oversight of NV federal facilities remediation
  - Staff dedicated to federal facilities cleanups creates continuity of cleanup actions and decisions
  - Funding considerations are addressed through federal cost recovery basis
  - These conditions led to the creation of the Bureau of Federal Facilities (BFF) in 1990



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO
  - BFF conducts both “regulatory (and non-regulatory) oversight” of existing federal facilities in Nevada
    - DOE sites: Nevada Test Site, Tonopah Test Range, Central Nevada Test Area, and Shoal Site
    - Implements existing state regulations for storage, treatment and disposal of solid and hazardous wastes, underground storage tanks, water pollution control, and corrective actions



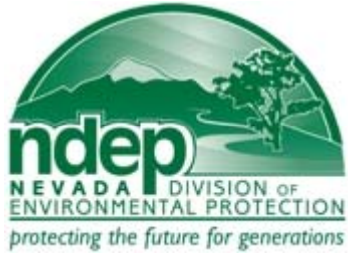
# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO
  - Federal Facility Funding Agreements
    - The Agreement in Principle (AIP) supports oversight of ongoing DOE programs and activities at NTS such as environmental monitoring and waste management
    - Original intent – to support “non-regulatory” oversight and environmental monitoring. DOE’s intent was to gain public confidence through enhanced oversight
    - Fees normally assessed by NDEP for these activities are waived as long as activities are fully funded under the AIP
    - To establish “state oversight” NDEP negotiated an AIP amendment granting non-regulatory oversight of DOE LLRW disposal operations at NTS



# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- **WHAT WE DO – Oversight**
  - Agreement in Principle (2007): Attachment X defines NDEP's responsibilities (non-regulatory) in NSO's Joint Oversight Program with respect to LLW disposal at NTS
    - **Review Waste Profiles** for Compliance w/r to:
      - NTSWAC
      - Applicable State and DOE Regulations and Orders
    - **Generator LLW Program/Site Evaluations** Complex-wide
      - Accompany NNSA/NSO and Contractor
      - Contributing WARP team member
    - **LLW Oversight** at NTS Areas 3 and 5
      - Disposal Operations
      - Waste Management Activities



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO – Oversight
  - Under the AIP, DOE has formally agreed to address NV concerns regarding DOE self-regulated LLRW disposal operations at NTS



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO – **Regulatory**
  - Upon becoming regulated by NDEP in 1987, DOE was entitled to “Interim Status” for existing MLLRW disposal facilities at NTS
  - To continue disposal operations, DOE has maintained compliance with Interim Status regulations and submitted application for existing MLLRW facilities (Pit 3)
  - Interim Status Permit issued December 2005 and allows disposal of offsite MLLRW. Expires December 2010
  - Over the horizon - expanded MLLRW disposal operations?



# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- **WHAT WE DO - Regulatory**
  - NRS 459, NAC 444, & Permit NEV HW0021 (approved waste analysis plan) establishes NDEP's REGULATORY role with respect to MLLRW disposal at NTS
    - **Evaluate** off-site generator's mixed waste profiles for compliance with applicable Federal and State regulations, including 40 CFR, NRS & NAC, and applicable permits
    - **Monitor** NSO's management/disposal of MLLRW in Area 5 Pit 3
      - Permit NEV HW0021
      - 20,000 m<sup>3</sup>
      - December 2010



# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO - **Activities**
  - *WARP*: NDEP Focus During Profile Reviews
    - Detailed, thorough **WASTE GENERATING PROCESS DESCRIPTIONS** (Profile Section B.3)
    - Accurate **ESTIMATES OF WASTE VOLUMES**
    - Specific descriptions for **WASTE COMPOSITION** (Profile Section C.9)
    - Any and all information (i.e., data, AK, etc.) which SUFFICIENTLY SUPPORTS the **CHEMICAL (RCRA) and RADIOLOGICAL CHARACTERIZATION** attributed to the waste.
    - Reported **INVENTORY AND ACTIVITIES OF RADIONUCLIDES** (Profile Sections D.5 and D.7)



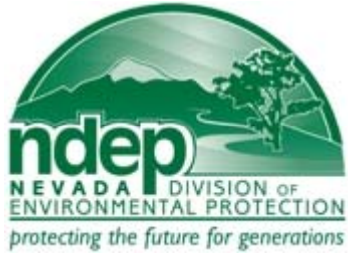
# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- WHAT WE DO - **Activities**
  - *AUDITS*: NDEP Focus During Generator Facility Evaluations
    - General condition of waste processing and storage areas.
    - Acumen/attitude of key personnel and subject matter experts.
    - Personnel's specific knowledge, awareness and demonstrated proficiency w/r to waste management and NTSWAC criteria and requirements.
    - Ability of personnel to function as a team and present a waste certification program that ensures only COMPLIANT wastes are offered for NTS disposal.
    - Adequacy of internal assessment/self-evaluation procedures.



# NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- Miscellaneous Issues/Challenges
  - What represents a legitimate Deviation Request?
  - “Blanket” profiles that are too wide in scope
  - Packaging technology changes (e.g. HMPP)
  - Unclear DOE nexus for the waste stream
  - Container void space and landfill subsidence
  - Waste characterization - completeness
  - Check profiles against WAC requirements



## NDEP'S ROLE IN LLW/MLLW DISPOSAL AT NTS

- “We’re from the State, and we’re here to help”
  - It’s true!
  - Good working relationship is very important
  - All parties benefit from this relationship
    - Protection of the environment
    - Protection of human health
    - Accountability enhanced
    - Program strengthened
    - Best use of resources and taxpayer \$\$\$