WIPP Update
National TRU Program
Improvements

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Discussion Topics

- **Key Concepts**
  - Governing Documents
  - Data Collection
  - Verification
  - Tracking/Auditing

- **Program Enhancements**
  - Why will future event be prevented?

- **Roles and Responsibilities**

- **Walk through Roadmap**

- **Way forward**
  - Program Updates
  - Document Updates
  - Certification
Governing Documents

- HWFP – Hazardous Waste Facility Permit
  - Lists RCRA requirements

- DSA – Documented Safety Analysis
  - Nuclear Safety related requirements (Chapter 18)
  - Adds 4 Key Elements for NTP

- TRAMPAC – Transportation/Payload Control
  - Compiles all NRC/DOT transportation requirements

- WIPP WAC – Waste Acceptance Criteria
  - Compiles all above requirements
• eAK – Enhanced Acceptable Knowledge
  • Compiles all data associated with waste stream

• CCE – Chemical Compatibility Evaluation
  • Compares all chemicals and materials in waste
    • Better identifies incompatibilities
    • Uses specific EPA Method

• BoK – Basis of Knowledge
  • Guide for waste Sites
  • More thorough review – Based on actual testing
  • Provides guidance for resolving potentially ignitable waste that was previously remediated

• AKA – Acceptable Knowledge Assessment
  • All eAK, CCE information for previously certified containers
• Characterization to confirm AK
  • NDE – Non-destructive Examination
    • Verifies no unauthorized items in waste using non-invasive, visual techniques.
    • RTR (Real Time Radiography)
    • VE (Visual Examination)
  • NDA – Non-destructive Assay
    • Verifies container meets the WAC radiological parameters
  • FGA – Flammable Gas Analysis
    • Verifies headspace gas meets NRC limits
• IWMDL – Interface Waste Management Document List
  • Lists all Generator Site documents that must receive specific approval by CP and CBFO for **ANY** change.

• WSPF – Waste Stream Profile Form
  • Summary of key waste data by waste stream to meet Permit

• WDS – Waste Data System
  • Tracks WAC important data – record of waste from characterization to disposal
  • Automated WAC verification
  • Provides vehicle to place HOLDS on waste

• GSTR – Generator Site Technical Review (CBFO/NWP)
  • Independent program review of sites’ waste processing

• Recertification Audit
  • Primary audit on Characterization Program
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<tr>
<th>Issue</th>
<th>Then</th>
<th>Now</th>
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| Repackaging and Treatment | • Review of site operations by CP and DOE  
                          • Site informed CP of changes | • All sites must be recertified – Ensures all new requirements in place prior to resumption of waste remediation and shipping to WIPP  
                          • IWMDL – Prevents creating a procedure that allows mixture of incompatible components  
                          • Clear list of procedures  
                          • Every technical change reviewed and approved – Prevents future change that adds an incompatibility  
                          • No processing until procedure approved – Prevents use of incorrect procedures |
| Training and Qualification| • Resumé based  
                          • No formal qualification program in place | • New qualification program and cards – Ensures NTP oversight personnel are specifically certified to know ALL requirements and expectations |
## Program Enhancements

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<thead>
<tr>
<th>Issue</th>
<th>Then</th>
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<tr>
<td>AK process</td>
<td>• Compiled documents</td>
<td>• Enhanced AK — <strong>Significantly increased rigor/detail</strong></td>
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<td></td>
<td>• Incompatible components reported to site</td>
<td>• Reverification of previously certified waste — <strong>Ensures this waste meets new requirements prior to shipment to WIPP</strong></td>
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<td>• High reliance on no liquids</td>
<td>• Includes commercial product names — <strong>Ensures personnel do not miss some incompatible compounds</strong></td>
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<td>• WSPF only approved by CP</td>
<td>• Review of National Lab experts — <strong>Higher pedigree of review</strong></td>
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<tr>
<td></td>
<td></td>
<td>• CCE</td>
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<td>• Uses specific EPA method — <strong>More rigor. Adds more objectivity when looking for incompatibilities</strong></td>
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<td>• Uses IWMDL and checks revision delta for every waste/packaging procedure — <strong>Ensures ALL waste was not prepared incorrectly</strong></td>
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<td>• Checks compatibility of ALL constituents — <strong>More comprehensive</strong></td>
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<td>• BoK — <strong>Prevents receipt of ignitable waste</strong></td>
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<td>• Extra review on chemical— <strong>Stops primary cause</strong></td>
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<td>• Provides resolution for remediation</td>
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<td>• WSPF reviewed/approved by CBFO (DSA) — <strong>Higher pedigree</strong></td>
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<tr>
<td>Management and Oversight</td>
<td>• Review of CP documents and procedures</td>
<td>• NTP Oversight Office at HQ – Provides more program rigor</td>
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<td></td>
<td>• Site visits with oversight personnel</td>
<td>• CBFO restructured – Separates program and oversight responsibilities</td>
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<td>• GSTR</td>
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<td>• DSA Key Element – higher pedigree to ensure this control remains in place and robust</td>
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<td>• Focus on Operations – Physically observes CONOPS to ensure Site is following procedures correctly</td>
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<td>• Separate from QA recertification – Independent review with independent group of assessors</td>
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<td>• No shipments until complete – Prevents shipment until each site program has been verified to meet new requirements</td>
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Roles and Responsibilities

DOE EM

CBFO/NTP

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<tr>
<th>GENERATOR SITE</th>
<th>CERTIFIED PROGRAMS (CP)</th>
<th>NWP</th>
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<tr>
<td>Prepares Waste</td>
<td>Verifies Waste</td>
<td>Receives Waste</td>
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<td>• Packages and treats</td>
<td>• Certified by CBFO</td>
<td>• Verifies waste meets WAC</td>
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<td>• Must follow WAC</td>
<td>• Ensures Sites have properly prepared the waste</td>
<td>• Reviews WSPFs</td>
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<td>• Provides new information and critical to CP</td>
<td>• Reviews documentation</td>
<td>• Approves data in WDS</td>
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<tr>
<td></td>
<td>• Characterization</td>
<td>• Approves shipment</td>
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<td>• Prepares WSPF</td>
<td>• Emplaces Waste</td>
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<td>• Data input into WDS</td>
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Way Forward – Update Program

• Program Self Assessment
• New CBFO Organization approved
• Enhanced Implementation Plan
• BoK incorporated
• New NTP Qualification Program
Way Forward – Update Documents

• New WAC

• New NTP Description Document

• In-Process review team in place

• Update Procedures at CP and Sites

• Developing shipping plan
Way Forward - Certification

- NTP personnel complete qualification
- Complete NTP Independent Implementation Review (equivalent to DOE O 425.1D)
- Recertification Audit at each site
- Complete GSTR at each site