

National TRU Program & WIPP Waste Acceptance Criteria

Waste Management 2017

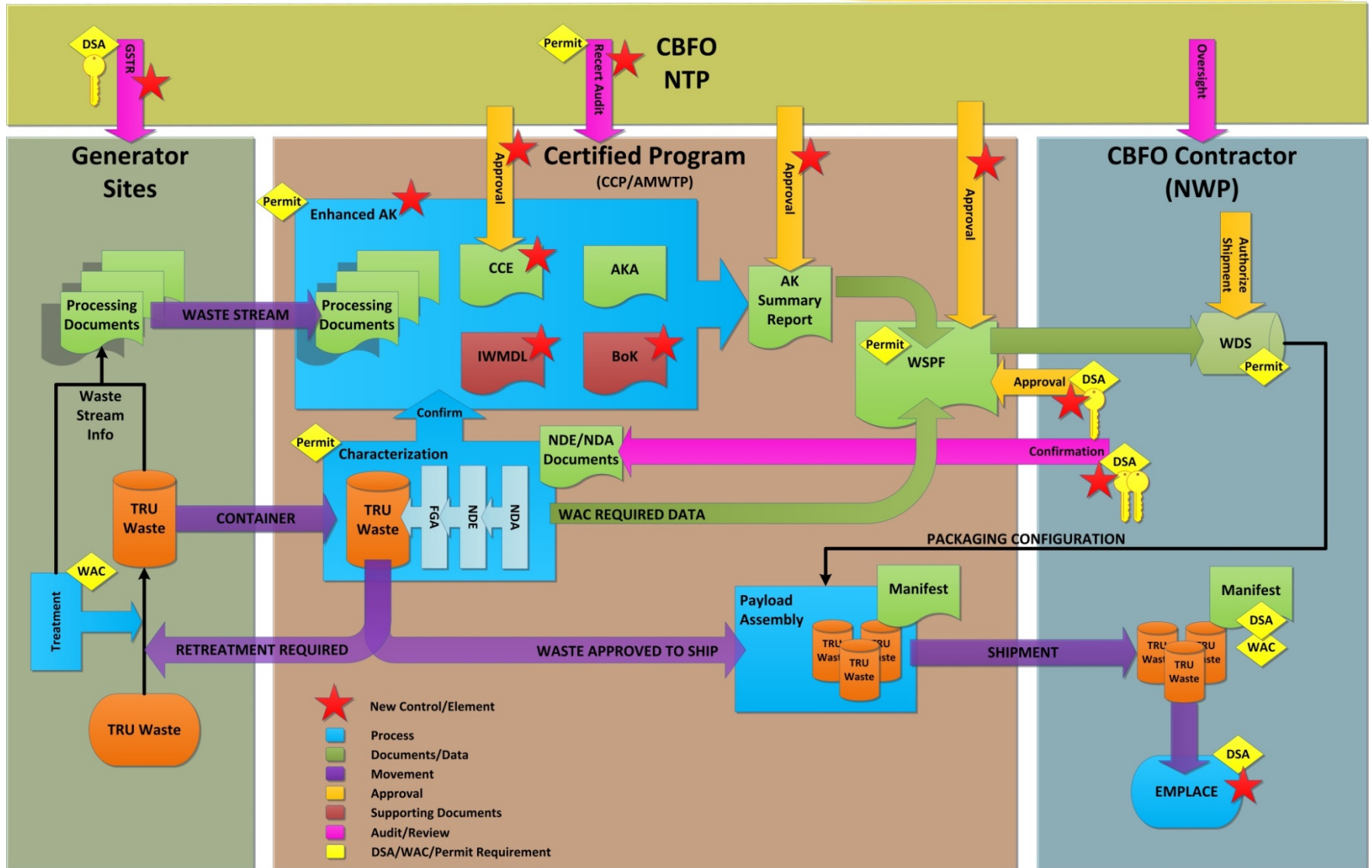
018 Panel: US DOE WIPP: Lessons Learned and Return to Operations
Following 2014 Operational Incidents

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- **2016 Corrective Actions**

- In response to the Accident Investigation Board Report from 2014
- Enhancements required for the new WIPP Documented Safety Analysis (DSA)
- Required to re-open WIPP and to resume shipments to WIPP
- Includes new WIPP Waste Acceptance Criteria (WAC)
 - enhanced acceptable knowledge (AK)
 - oxidizer limitations – extensive testing completed, document drafted
 - new program reviews at generator sites for TRU program activities prior to introduction in WIPP Certified Programs
- Includes new DOE and contractor oversight

Enhanced NTP



Basis of Knowledge (BoK) for Oxidizing Chemicals

“This Basis of Knowledge document identifies and lists oxidizing chemicals and sorbents documented in the AK for TRU waste streams currently in WCPs, and was developed based on bounding test conditions. Tests were performed for CBFO, by conducting scoping studies on the identified oxidizing chemicals and sorbents to inform Quality Level 1 (QL1) testing and conducting a series of QL1 tests to obtain data supporting the development of a documented basis of knowledge specific to disposal in the WIPP.”

- Oxidizing chemicals are only a concern for nuclear safety in the WIPP repository from emplacement to closure – limiting oxidizers reduces the risk of the spread of a fire in the repository near the waste beyond the analyzed accidents in the new WIPP DSA (BoK is an initial condition in the DSA and therefore, in the WIPP WAC)
- The BoK evaluation is independent of the waste stream’s hazardous waste determination (generator site responsibility)
- CBFO has initiated the process for implementing the BoK
 - CBFO Plan – in development
 - WIPP Certified Programs (WCP) implementing procedures – in development

Regulator Involvement

- **New Mexico Environment Department**

- Administrative Order
- Settlement Agreement

- **EPA**

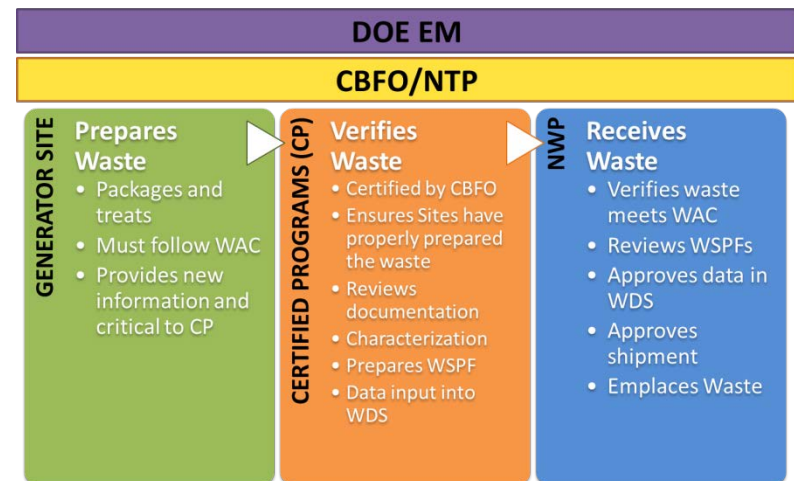
- Continued Compliance Inspections
- New Baseline Inspection at LANL

- **Defense Nuclear Facility Safety Board**

- Integrated in corrective actions
- Post-readiness evaluations
- Board briefings

- **DOE Independent Oversight**

- New NTP Oversight at HQ
- Office of Enterprise Assessments
- Office of Safety, Security, and Quality Assurance



Program Re-certification

- WIPP Certified Programs
 - Re-certify under new WIPP WAC
 - Implement enhanced AK, including oxidizer screening
 - Submit chemical compatibility analyses by waste stream for CBFO approval

- New Oversight
 - Generator Site Technical Reviews
 - CBFO field observations
 - HQ reviews and field observations
 - More procedure approvals as pre-requisites

DOE Site	DOE Office	WCP	CH or RH	WCP Owner	Transportation Certified Program
ANL	ASO	CCP	RH	NWP	CCP
Hanford	RL	CCP	CH	NWP	CCP
INL – AMWTP	ID	AMWTP	CH	Fluor ID	CCP
INL – ICP	ID	CCP	RH	NWP	CCP
LANL – TA54	EM-LA	CCP	CH & RH	NWP	CCP
LANL – TA55	NA-LA	CCP	CH	NWP	CCP
LLNL	LSO	CCP	CH	NWP	CCP
ORNL	OR	CCP	CH & RH	NWP	CCP
SNL	NNSA	CCP	RH	NWP	CCP
SRS	SR	CCP	CH	NWP	CCP

2017 Milestones

- **WIPP has re-opened**

- waste receipt limitations
 - low receipt rates
 - only contact-handled (CH) packages at first
 - funding focused in major project areas
 - continued need for sites to store waste
 - surface storage project



- **TRU Waste Certified prior to New WAC**

- Over 25,000 containers
- Stored at generator sites
- Must meet new requirements



Future NTP Plans

- Return to pre-incident baseline shipping rates when new ventilation systems are operational
- Assess TRU waste streams that do not pass oxidizer screening
- Re-establish RH TRU waste disposal in casks
- Complete legacy TRU waste missions
- Shift to newly-generated TRU waste missions
- Extend WIPP infrastructure life

Questions and Answers

- ANL – Argonne National Laboratory
- AMWTP – Advanced Mixed Waste Treatment Project
- ASO – Argonne Site Office
- INL – Idaho National Lab
- INL- ICP – Idaho National Lab – Idaho Cleanup Project
- LANL – Los Alamos National Laboratory
- LLNL – Lawrence Livermore National Lab
- ORNL – Oak Ridge
- SNL – Sandia National Laboratory
- SRS - Savannah River Site