# **Advanced Mixed Waste Treatment Project**









## **AMWTP Mission And Location**

Bechtel BWXT Idaho is committed to safely, compliantly, and efficiently managing and operating the Advanced Mixed Waste Treatment Project. We retrieve, characterize, process, package and ship 65,000 cubic meters of historically managed stored transuranic nuclear waste for shipment to permanent disposal sites outside of Idaho. AMWTP also supports the receipt and treatment of transuranic waste from other DOE sites for shipment to the Waste Isolation Pilot Plant.









## **AMWTP Process**

Storage/ Retrieval



Characterization

- Assay
- Radiography
- Head gas sampling

### **Treatment**

- Supercompaction
- Liquids treatment
- Sizing

## Payload/ Shipping



- TRU waste
- MLLW waste

Disposal Options



**WIPP** 



Commercial Disposal



Nevada Test Site





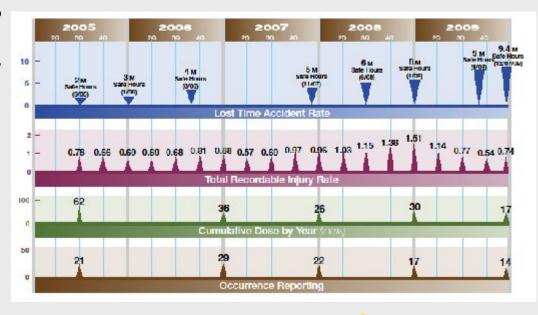




# **Outstanding Safety And Compliance Performance**

AMWTP and BBWI incorporate safety in all work processes, facility designs, and operating procedures. Our excellent safety record demonstrates this commitment.

- More than 6 years and 9.8 million hours without a lost-time accident and a lost-workday rate of zero
- AMWTP Winter Safety Plan has become the complex-wide example of excellence in effective winter planning
- ALARA (as low as reasonably achievable) dose reduction program reduced employee dose by more than 50 percent through 2009
- Improved reliability of operations, reducing incidents that require occurrence reporting to DOE (events that could adversely affect health and safety or the environment)
- Excellent relationships with regulators that have confidence in project, enabling:
  - Permitting of additional waste areas
  - Agreeing to allow offsite waste into Idaho to be treated at AMWTP
- Three successive years of WIPP and NTS audits with no findings
- Five years without an Idaho Department of Environmental Quality finding or notice of violation









# **Project Success**

The Idaho Settlement Agreement requires the U.S. Department of Energy to ship 65,000m³ of stored radioactive transuranic waste out of Idaho no later than Dec. 2018. Through Feb. 16, 2010, AMWTP had dispositioned more than 58% of this waste inventory.

3,101m3 BBWI (2000-2002) 28,885m3 AMWTP

TRU Dispositioned or Certified For Shipment To WIPP 31,986m<sup>8</sup>

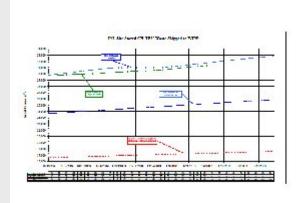
To Go 26,798m<sup>3</sup>

As of Feb. 16, 2010

ARRA Mixed Low-Level Waste Shipments 1,1/3ms

3,930

**47%** of all waste shipments to WIPP are **from AMWTP** 



AMWTP is nearly three years ahead of the Idaho Settlement Agreement Schedule



Baseline Wixed Low-Level waste Shipmente 5,043m²

Completed

58% of

stored Inventory



AMWTP transuranic waste shipments arriving at WIPP







# **Four Discussion Issues**









# **Emerging Issue: Safety**

## Safety Challenge: Attaining a Zero Accident Workplace

### Facts

- DOE Environmental Management work is significantly safer then comparable industries
- · Although accidents and injuries have reduced, still not zero
- · People are still getting hurt
- · Safety targets often not set to zero

- Safe for a day, a month, a year and beyond
- ISMS and VPP
- Safety always
- Leading indicator metrics









## **Emerging Issue: People**

### People Challenge: Retaining, Motivating Workers On Closure Contract

#### **Facts**

- Key resources exit before completion, decreasing safety, compliance and production performance
- · Progress perceived as working yourself out of a job
- · Completion dates are well known by workers
- · Many other opportunities available

- · Retraining of workers to other project demands
- Planning for next assignments
- · Worker incentives at completion
- Open communications















# **Emerging Issue: Technology**

### **Technology Challenge: Implementing Improvements In Production Environment**

### **Facts**

- Developing and implementing technology improvements in a fast-paced production/clean-up environment
- Minimal budgets
- Not a problem until front and center

- Chief Scientist position is integrated with production
- · Efforts based on project risk analysis
- Product driven technology development with start to finish schedules



Six drum overpack waste packaging



Box cutting robotic saw upgrade



Shaker table



Robotic shearing tool







# **Emerging Issue: Small Business**

### **Small Business Challenge: Meeting Aggressive Small Business Goals**

### **Facts**

- · Goals become more aggressive each year
- Inconsistent in selection of North American Industrial Classification System (NAICS) codes for workscopes
- Non-competitive situation arise
- Several positive changes to date

- Uniform standard for small business
- Small business opportunity goals
- · Mentor-Protégé relationships



Bechtel/Northwind successful Mentor-Protégé relationship







# **AMWTP: TRU Success**







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