



## Waste Treatment Plant Project

---

Bill Elkins  
*Project Director*

Office of River Protection



**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

[www.em.doe.gov](http://www.em.doe.gov)



Bechtel National, Inc.



Washington Group International



# WTP Year in Review Video



# Building the World's Largest and First-of-a-Kind Nuclear Waste Processing Plant

## WTP Focus is on Worker Safety

- Changing behaviors to eliminate safety events
  - Training all supervisors in Safety Leadership
  - Forging Safety Alliance with Building Trades
  - Applying for Voluntary Protection Program Star Status
- Personally involved workforce
- Expanded and enhanced case management practices

**Goal is Zero Accidents**

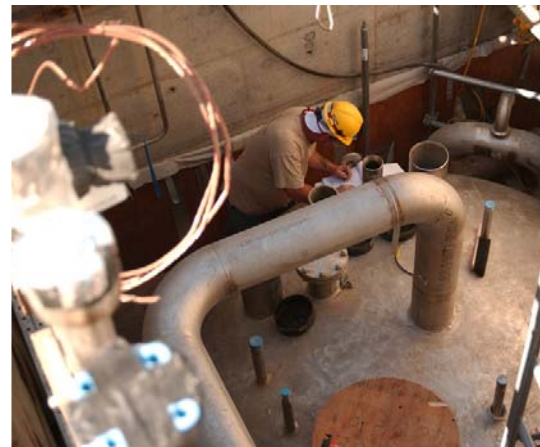




**2006** Evaluating and Validating

**2007** Implementing change and building momentum

**2008** Sustaining progress and restoring confidence



# Restoring Credibility and Confidence

- Nuclear Safety and Quality
  - Strengthened focus on procedures, training, and rigor of operation



- Cost and Schedule Baseline
  - Prepared new bottom-up estimate and schedule
  - Validated by industry experts, Army Corp of Engineers, DOE
- Technical Baseline (Process Flow Sheet)
  - In-depth review by team of industry experts
    - 28 process, operational, reliability, or capacity considerations
    - Improvement actions

# Strengthening Nuclear Safety and Quality Culture

*Developed a structured approach to Culture Change*



- ✓ Behaviors
- ✓ Procedures
- ✓ Training
- ✓ Oversight and Assessment

- Developed and implemented additional quality analysis tools and metrics
- Increased employee communications to instill
  - Questioning attitude
  - Balanced priorities
  - Discipline of operations
  - Procedure adherence
- Implemented comprehensive one-step issue reporting system

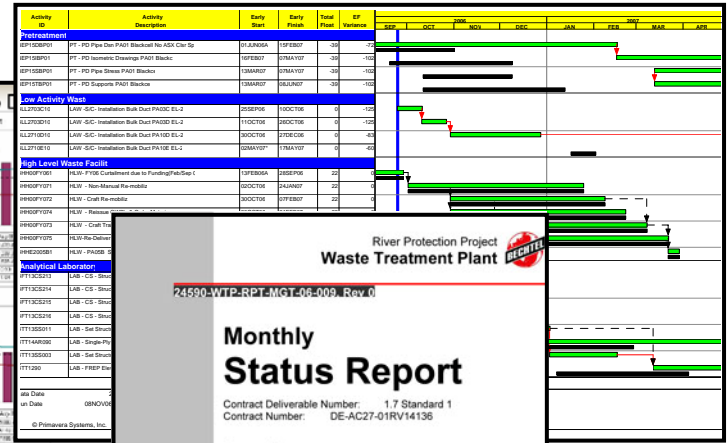
# Implementing an Earned Value Management System

- Defense Contract Management Agency review completed December 2006
- Final certification targeted for Fall 2007



WTP Project Review

25 October



River Protection Project  
Waste Treatment Plant

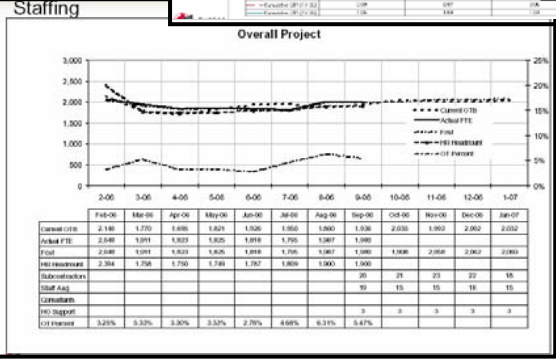
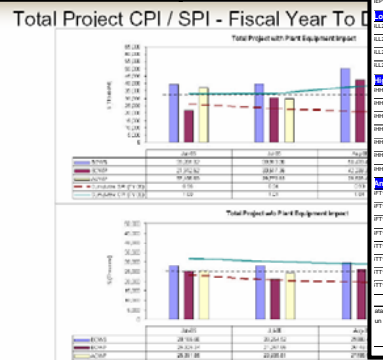
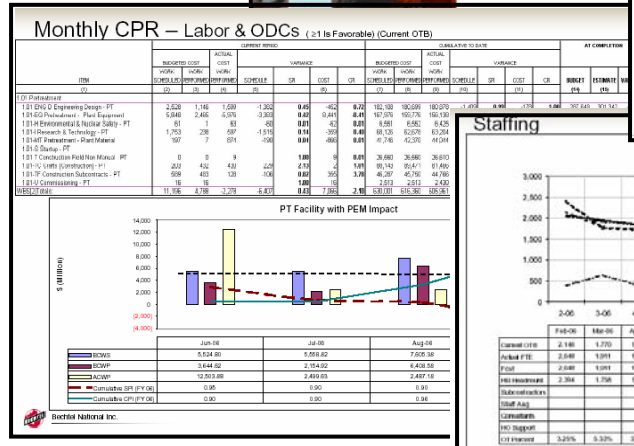
24590-WTP-RPT-MGT-06-009\_Rev.0

## Monthly Status Report

Contract Deliverable Number: 1.7 Standard 1  
Contract Number: DE-AC27-01RV14136

Prepared By:  
Bechtel National, Inc.

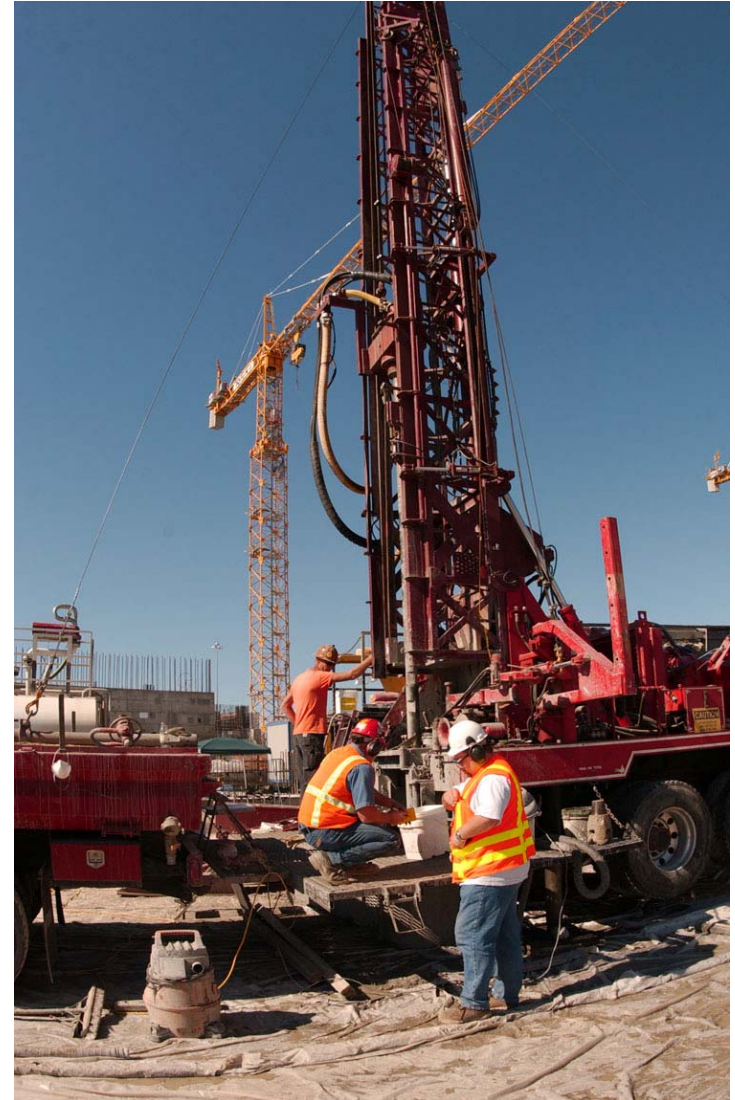
September 2006





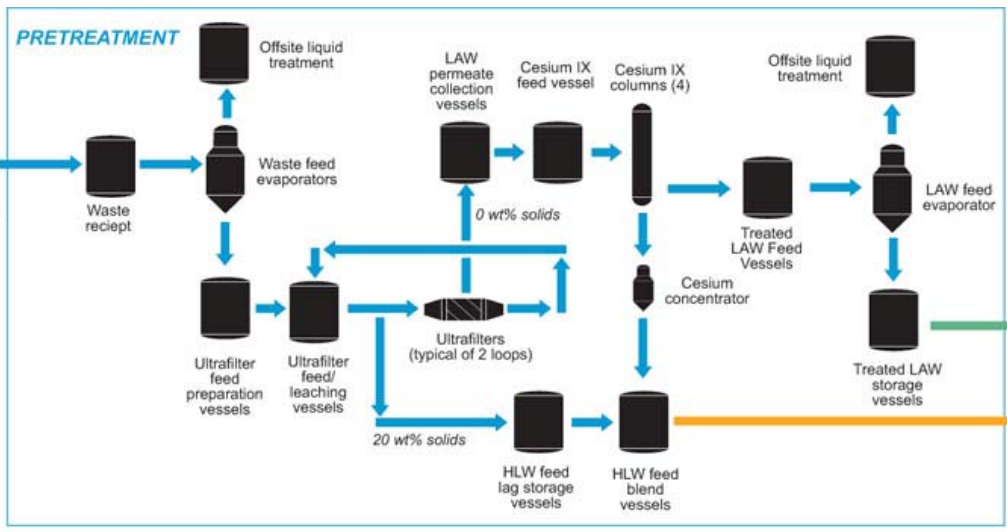
# Confirming Seismic Ground Motion Criteria

- Data collection complete
- Analysis and certification by Secretary of Energy - June 2007





# Addressing Technical Considerations

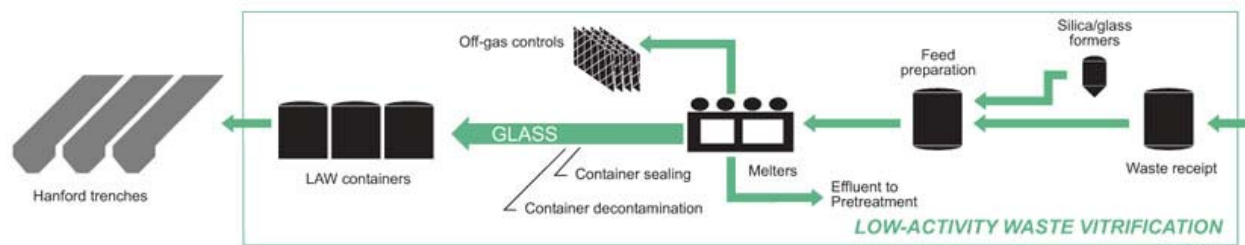
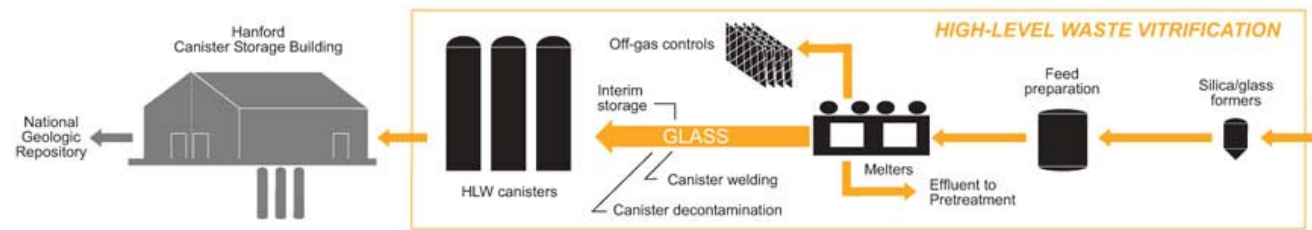


## Process Improvements

- Resolution actions approved
- Modifications underway

## Throughput Enhancements

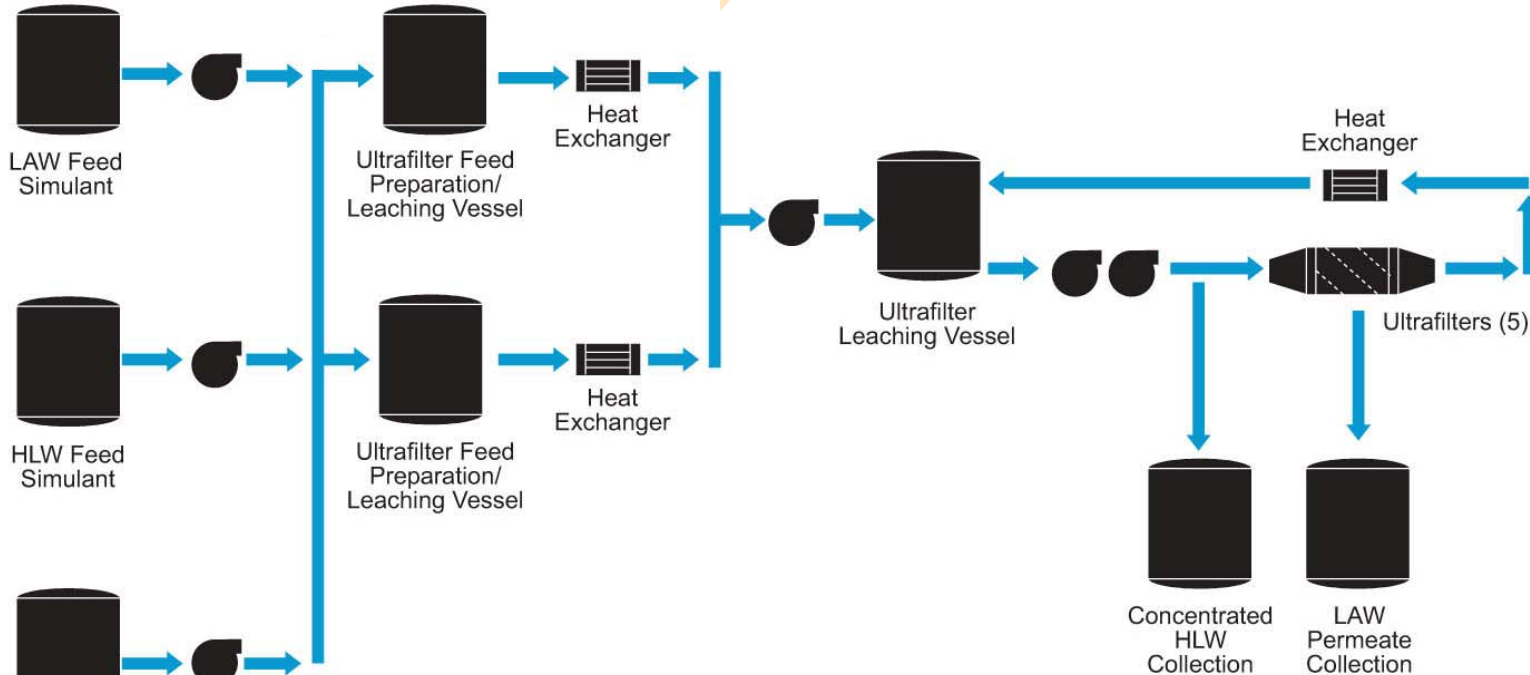
- Recommendations complete
- Acceptance expected 5/07



# Addressing Technical Considerations

**Design and Construct Integrated Test Platform**

**Demonstrate leaching and ultra-filter capabilities**



- ✓ **Confirm plant throughput estimates**
- ✓ **Provide valuable data for plant operations**



# Continuing Physical Progress



High-Level  
Waste Facility

Low-Activity  
Waste Facility

Pretreatment Facility

Analytical  
Laboratory

Balance of Facilities

**Project 37% Complete**



# Low-Activity Waste (LAW) Facility



2006



# Low-Activity Waste Facility

87% Engineered

63% Procured

48% Constructed



2007



# Analytical Laboratory (LAB)



**2006**



# Analytical Laboratory

70% Engineered

49% Procured

27% Constructed



2007

# Balance of Facilities (BOF)

## Chiller Compressor Plant



**2006**



# Balance of Facilities

77% Engineered

41% Procured

58% Constructed



Chiller/Compressor Plant

BOF Switchgear Building

Glass Former Facility Foundation

Steam Plant

Fuel Oil Storage Facility

2007

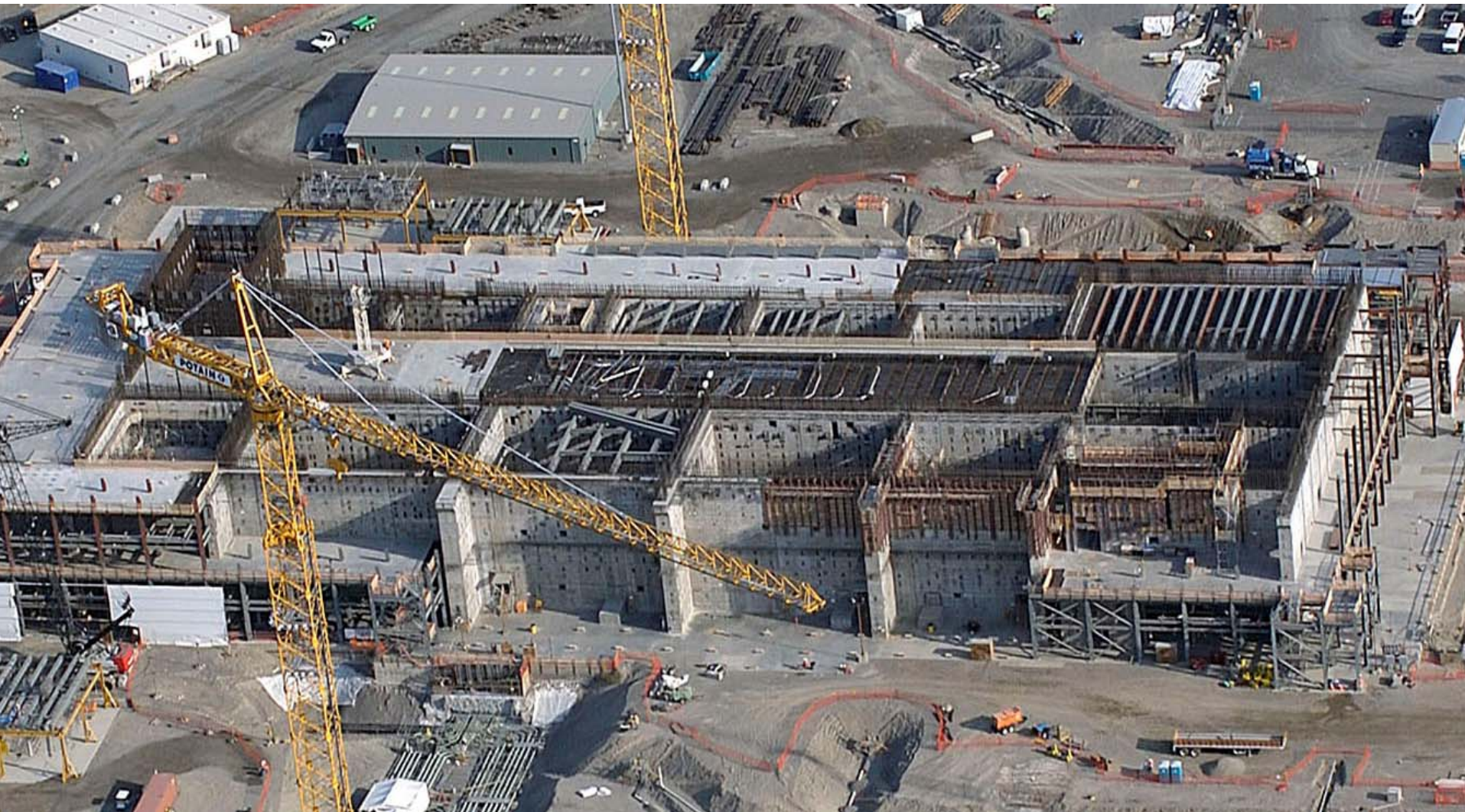


# Pretreatment (PT) Facility

63% Engineered

37% Procured

24% Constructed



**Addressing technical and seismic considerations**



# High-Level Waste (HLW) Facility

75% Engineered

40% Procured

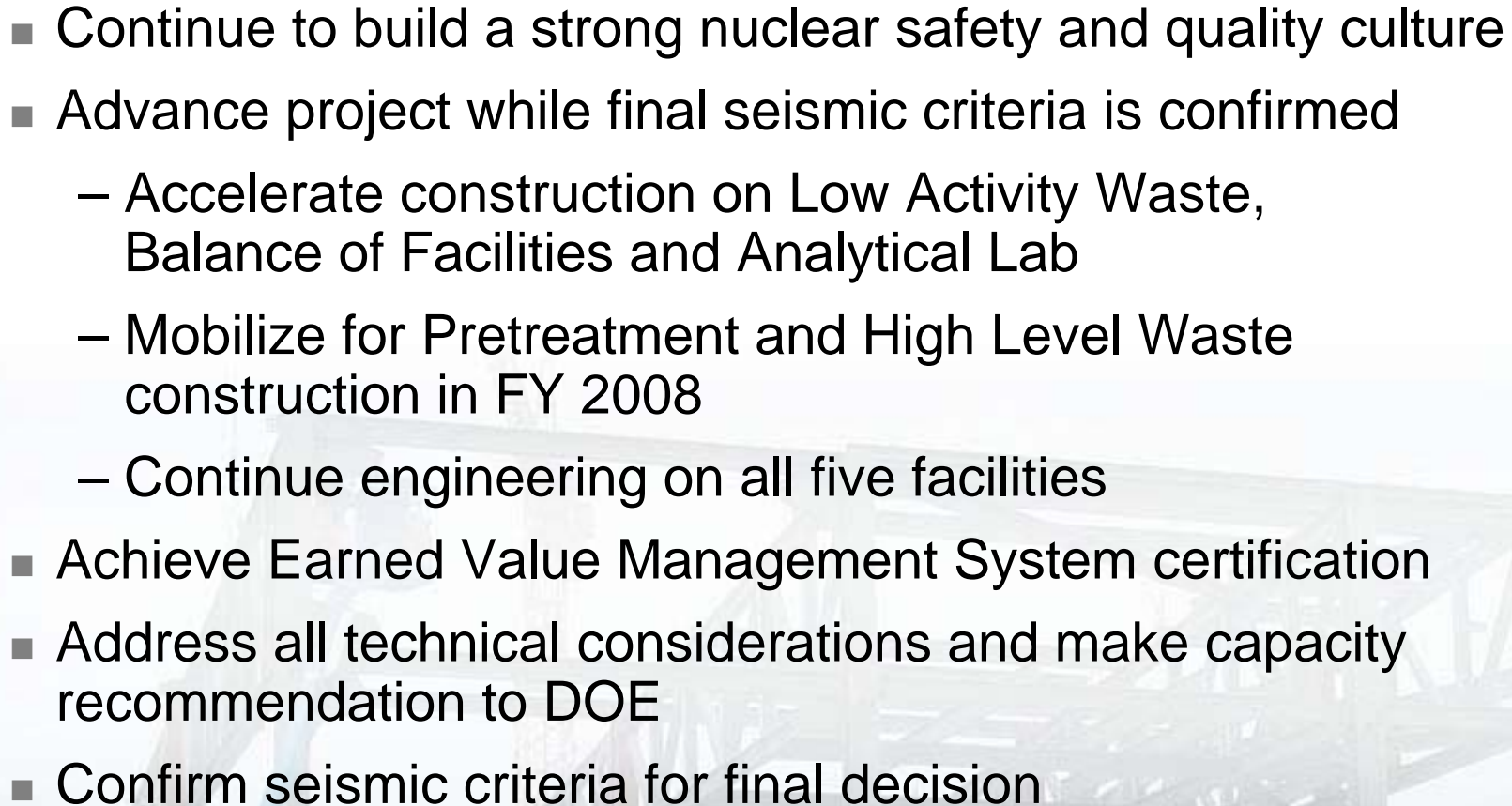
17% Constructed



**Addressing seismic considerations**



## Building the Momentum

- Continue to build a strong nuclear safety and quality culture
  - Advance project while final seismic criteria is confirmed
    - Accelerate construction on Low Activity Waste, Balance of Facilities and Analytical Lab
    - Mobilize for Pretreatment and High Level Waste construction in FY 2008
    - Continue engineering on all five facilities
  - Achieve Earned Value Management System certification
  - Address all technical considerations and make capacity recommendation to DOE
  - Confirm seismic criteria for final decision
- 





2008  
Prove and  
Progress