



OFFICE OF
RIVER PROTECTION
United States Department of Energy

Waste Treatment and Immobilization Plant Rebaseline Update

William Hamel, Assistant Manager/Federal Project Director,

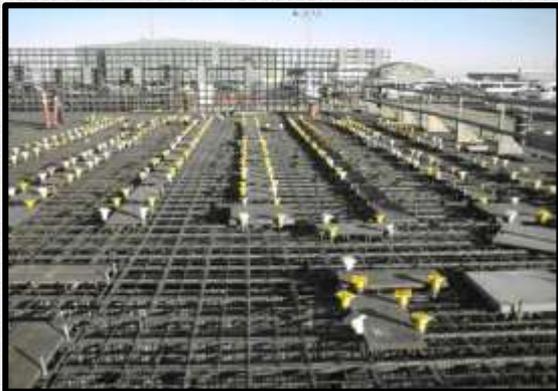
Presented by: **Waste Treatment and Immobilization Plant**

March 1, 2017

- **Waste Treatment and Immobilization Plant (WTP)/Direct-Feed Low-Activity Waste (DFLAW) Baseline Change**
- **Summary Status of High-Level Waste (HLW) and Pretreatment (PT) Baseline Change Plans**
- **Status of Technical Issues Resolution**
 - Preventing potential hydrogen buildup (T1, T3)
 - Preventing Criticality (T2)
 - Ensuring control of the pulse-jet mixers (PJM) (T4)
 - Protecting against possible erosion and corrosion (T5)
 - Ensuring an adequate ventilation system (T8)



Physical Progress at WTP



➤ **WTP 2016 Performance Baseline Change Proposal (BCP)**

- Approved by Chief Executive for Project Management (S2) on December 15, 2016
- Adds DFLAW work scope specific to WTP
- Completes Low-Activity Waste (LAW) Facility, Balance of Facilities, and Analytical Laboratory (collectively referred to as LBL)/DFLAW construction, startup and cold commissioning (Critical Decision [CD] 4a)
- Removes hot commissioning from the WTP Project's Performance Baseline (remains WTP contract requirement)
- All U.S. Department of Energy (DOE) External Independent Review major findings successfully addressed and closed; working on closure of several minor findings

➤ **WTP Contract modification negotiated and approved concurrent with BCP approval (Modification 384)**

Incremental Total Project Cost: \$12.263B ➡ \$16.813B

Completion date as soon as December 2022



	Project Schedule	Contract	BCP	Amended Consent Decree
LAW Construction Substantially Complete	Nov 2017	Jun 2018	*	Dec 2020
Start LAW Cold Commissioning	Jun 2020	*	*	Dec 2022
Complete LAW Cold Commissioning	Nov 2020	*	*	*
CD-4a ¹	Apr 2021	Sep 2021	Aug 2023	*
Complete LAW Hot Commissioning	Jun 2021	Jan 2022	*	Dec 2023

* Dates not specified in referenced document.

¹ The WTP Project defines CD-4a, “Approve Start of Initial Waste Treatment,” as the successful completion of cold commissioning, an operational readiness review, and approval to startup the LAW Facility consistent with DOE O 425.1D.



Key WTP Risks

- Budgeting
- Permitting
- LAW feed availability
- Meeting the Documented Safety Analysis approval schedule
- Component obsolescence and aging equipment



DOE will update the WTP Performance Baseline in three phases:

- Phase 1: LBL/DFLAW (completed)
- Phase 2: HLW Facility
 - Production engineering ongoing
 - Completing design engineering studies and safety basis update
 - Facility Completion Plan will outline path to full production and rebaseline
 - Utilize rebaseline and contract modification process used for LBL/DFLAW
- Phase 3: PT Facility
 - Complete technical issue resolution
 - Complete conceptual design with standard high-solids vessel (SHSV)
 - Complete design engineering studies and safety basis update
 - Utilize rebaseline and contract modification process used for LBL/DFLAW

Note: Phase 2 and Phase 3 may be combined.



WTCC Subcontract Established to Support DFLAW Completion

- Bechtel/AECOM created Waste Treatment Completion Company (WTCC) to focus on starting LAW treatment as soon as 2022
- Approach developed to achieve DOE's vision for sequenced approach to completion of WTP
- WTCC to manage facility construction, startup, and commissioning
- WTCC is a subcontractor – Bechtel remains the prime contractor for WTP



*... safely and efficiently
construct, start-up and
commission
the Hanford Waste Treatment
Plant to meet
contract, regulatory and
customer requirements*

