One System: Managing the Office of River Protection Mission and Delivering Direct-Feed Low Activity Waste

Hanford Advisory Board
Overview

- One System – leading the way to Direct-Feed Low Activity Waste (DFLAW)
  - Purpose
  - Evolution
  - Organization
- DFLAW Program
- One System Management Tools
One System Strategic Objectives

- Establish prioritized sets of fully integrated activities and timing to integrate Tank Farms and Waste Treatment and Immobilization Plant (WTP)
- Track, coordinate, measure, and report on these activities
- Identify and recommend actions to more effectively and efficiently conduct the transition to startup, commissioning, and operations to include alignment of DOE directives and contracts
- Establish a long-term tank waste disposition integrated flowsheet and technical management involving National Laboratories
- Provide for the integration of Tank Farms and WTP system planning and modeling, with a focus on the waste feed qualification requirements
- Lead the development of interfaces and controls
- Coordinate the establishment of operational skills required for future operators
What is One System?

- An integrated team consisting of Office of River Protection (ORP), Washington River Protection Solutions (WRPS), and Bechtel National, Inc. (BNI) personnel to provide integration between Tank Farms and WTP to meet overall ORP mission needs
- Primary focus to deliver the mission with near-term emphasis on DFLAW operations by 2022
  - Begin treating most mobile (liquid) tank waste at earliest practicable time
  - Provide flexibility and redundancy in tank waste treatment
  - Create opportunities to optimize radioactive operations for WTP and validate Low Activity Waste (LAW) glass performance
  - Reduce commissioning and startup risk for remainder of WTP’s production facilities

One System has established cross-cutting management tools and is integrating 2 DOE field offices, 5 Hanford Site contractors, and 6 National Labs
Direct-Feed Low Activity Waste

- Treating supernate (liquid) portion of the tank waste
- New facility to pretreat waste stream prior to vitrification
  - Filtration to remove solids
  - Ion Exchange to remove cesium
- Enable glass production of 30 metric tons/day of glass
- On site disposal of LAW glass
Evolution of One System

No One System
- Independent contractors
- Alignment only through contract language and interface control document

One System chartered
- Initial Alignment aimed at WTP and WRPS
- Addressed institutional hurdles
- Strategy for requirements and programs consistency
- Reinigrated Interface Control Document Program
- Supported development of DOE Hanford Framework

Focused on completion of individual contract scopes

Focused on Establishing processes and policies

One System Rechartered
- ORP redefined vision
- One System challenged to adopt an integration focus
- One System leadership aligned to vision
- Immediate focus on closing open legacy issues e.g., ICD, definitions, contract alignment etc.

Focused on Workforce motivation toward Startup and Operations

One System Charter Implemented
- Programmatic approach to mission analysis for full integrated management tools
- Integrated flow sheet with risk and opportunity management plan
- Focused on transition to Startup and Operations
- Integrated schedule to measure and monitor performance

Focused on integrated delivery of DFLAW
# One System Charter Implemented

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<tr>
<th>ORP</th>
<th>RL</th>
<th>BNI</th>
<th>WRPS</th>
<th>CHPRC</th>
<th>MSA</th>
<th>ATL</th>
<th>NATIONAL LABS</th>
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**Cross-Cutting Programmatic Management Tools**
U.S. Department of Energy Office of River Protection

One System

Kevin Smith
Manager of Office of River Protection

JD Dowell
Deputy Manager of Office of River Protection

Ben Harp
Assistant Manager
WTP Startup, Commissioning and Integration (WSC)

Tom Brown
Deputy Assistant Manager
WTP Startup, Commissioning and Integration

Briant Charboneau
Director, WSC One System Division

Don Alexander – Scientist
Pam Logan – Detail
Jian-Shun Shuen – Waste Feed Delivery
Dabrisha Smith – Waste Sample Qualification
Wendell Wrzesinski – Chemical Engineer
Kaylin Burnett – Waste Analysis and Planning
Gary Pyles – Waste Disposal
Kate Amrhein – Scientist
Tom Nirider – Flowsheet Integration

Albert Kruger – Chemist
Vacant – Project Budget Integration and Planning
Janet Diediker – Deputy Federal Project Director (FPD) Low Activity Waste Pretreatment System Project
Isabelle Wheeler – Deputy FPD Waste Feed Delivery

Rob Gilbert
Program Manager
WSC Commissioning, Maintenance and Operations Division

Joe Renevitz – Startup Engineer
Cecil Swarens – Startup Engineer
Vacant - Readiness Manager
Washington River Protection Solution One System Organization

One System
Bill Condon, Manager

Flowsheet Integration
- RPP Integrated Flowsheet
- Project Flowsheets

Mission Analysis
- System Planning & Modeling
- Strategic Planning
- Pre-Conceptual Projects

WTP Start-up Integration
- Commissioning & Operations Planning & Integration
- Interface Management Logistics & Infrastructure Integration

Other Key Staff
- Effluent Treatment System

Nuclear Safety & Engineering Program Int.
- Nuclear Safety & Engineering Program Int.
- Engineering Program Integration

Functional Support
- ESH&Q Integration
- Project Int. & Controls

Key
- Direct Staff
- Matrixed Staff

Washington River Protection Solution One System Organization

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One System Organization Interfaces

EPC – Engineering, Projects and Construction
ESH&Q – Environment, Safety, Health & Quality

WRPS
Bill Condon, Manager

DOE-ORP
Briant Charboneau, Director

BNI
Mike Hughes, Manager

Mission Analysis and Planning
DOE-ORP
Kaylin Burnett

Flowsheet Integration
DOE-ORP
Tom Nirider

WTP Startup, Commissioning, and Operations Integration
DOE-ORP
Wendell Wrzesinski

Project Integration and Controls
DOE-ORP
TBD

Manager of Project Integration and Strategy Planning
Tom Wintczak

Flowsheet Integration
Brion Taki

Flowsheet Integration
Brion Taki

LAW/DFLAW EPC Support
Bob Henckel

LAW/DFLAW Program Integration/Transition Planning Support
Richard Garrett

Integrated Strategy and Planning
Lisa McLean
Managing the Direct-Feed Low Activity Waste Program

**DFLAW Program Sponsor**
Strategy and Decisions

**One System Governance Board**
- DOE–ORP Manager – Chair
- WRPS–TOC Project Manager
- BNI–WTP Project Director

**DFLAW Program Office**
Briant Charboneau
DFLAW Program Office Manager
Priorities and Recommendations

**One System Executive Council**
- DOE-ORP Asst. Manager WTP
- DOE-ORP Asst. Manager Tank Farms
- DOE-ORP Asst. Manager WSC
- DOE-ORP One System Division Director
- WRPS-TOC One System Manager
- BNI-WTP One System Manager

**DFLAW Program Execution:**
Management, Integration and Reporting

**One System Staff and Support**
- DOE-ORP Staff supported by WRPS/BNI/MSA/CHPRC/ATL
- Integration Project Management
- Engineering Science
- Strategic Planning
One System – Program Tools

Tools Include:

- Integrated Flowsheet
- Program Status Metrics
- DFLAW Integrated Schedule
- Integrated Permitting Plan
- Technology Roadmap
- DFLAW Risk Management Plan
River Protection Project Integrated Flowsheet

Flowsheet established with Risk and Opportunities defined
Development/Process/Output

Integrated Schedule Process

DFLAW Program Plan - One System P6
Direct-Feed Low Activity Waste Permitting Schedule

Integrated schedule for permits has been established
Summary

One System – leading the way to DFLAW

- A driving force for accomplishing the ORP mission
- Establish and maintain the integrated flowsheet
- Establish and maintain the integrated schedule
- Lead the development and maintain the interfaces and controls
- Coordinate, track, measure, and report on the integrated activities
- Identify and recommend actions to more effectively and efficiently execute our work
Thank you

Questions