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

Hanford Advisory Board – Tank Waste Committee
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

- Independent contractors
- Alignment only through contract language and interface control document

- Initial alignment aimed at WTP and WRPS
- Addressed institutional hurdles
- Strategy for requirements and program consistency
- Reinvented Interface Control Document Program
- Supported development of DOE Hanford Framework

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

- 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 completion of individual contract scopes

Focused on establishing processes and policies

Focused on workforce motivation toward Startup and Operations

Focused on integrated delivery of DFLAW
One System Charter Implemented

- Integrated Flowsheet
- Reference Plan
- Integrated Schedule
- Strategic Plan
- Risk & Opportunity Plan
- Tech Roadmap
- Performance Metrics

Cross-cutting Programmatic Management Tools
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 Organization Interfaces

EPC – Engineering, Projects and Construction

ESH&Q – Environment, Safety, Health & Quality
Managing the Direct-Feed Low Activity Waste Program

**DFLAW Program Sponsor**
Strategy and Decisions

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

**DFLAW Program Executive**
Management, Integration and Reporting

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

**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

**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
Direct-Feed Low Activity Waste Program Scope and Status
Example: Immobilized Low Activity Waste Transporters Scope Diagram

Performance Assessment / Waste Incidental to Reprocessing
DOE HQ Disposal Authorization

- Waste Treatment Plant
- Tank Operations Contract
- Mission Support Contract
- Plateau Remediation Contract
Example: ILAW Transporter P6 Level 2 Schedule
Development/Process/Output

Integrated Schedule Process

DFLAW Program Plan - One System P6

DFLAW
Management and Communication Tool
Visibility, Focus, and Consistency
Priorities
Key Milestones
Critical Decisions
Interfaces

Level 1 Summary

Level 2

Framework

Strategic Plan Gap Analysis

Support

Level 6

Level 5

Level 4

Level 3

TDC

Level 2

WTP

Level 1

Level 0

LBL Completion

Integrated Permitting

Commissioning

Infrastructure Support

DFLAW Conceptual Design

LAWPS
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