



Featured Site: DOE- Savannah River

Roy Schepens

Salt Waste Processing Facility



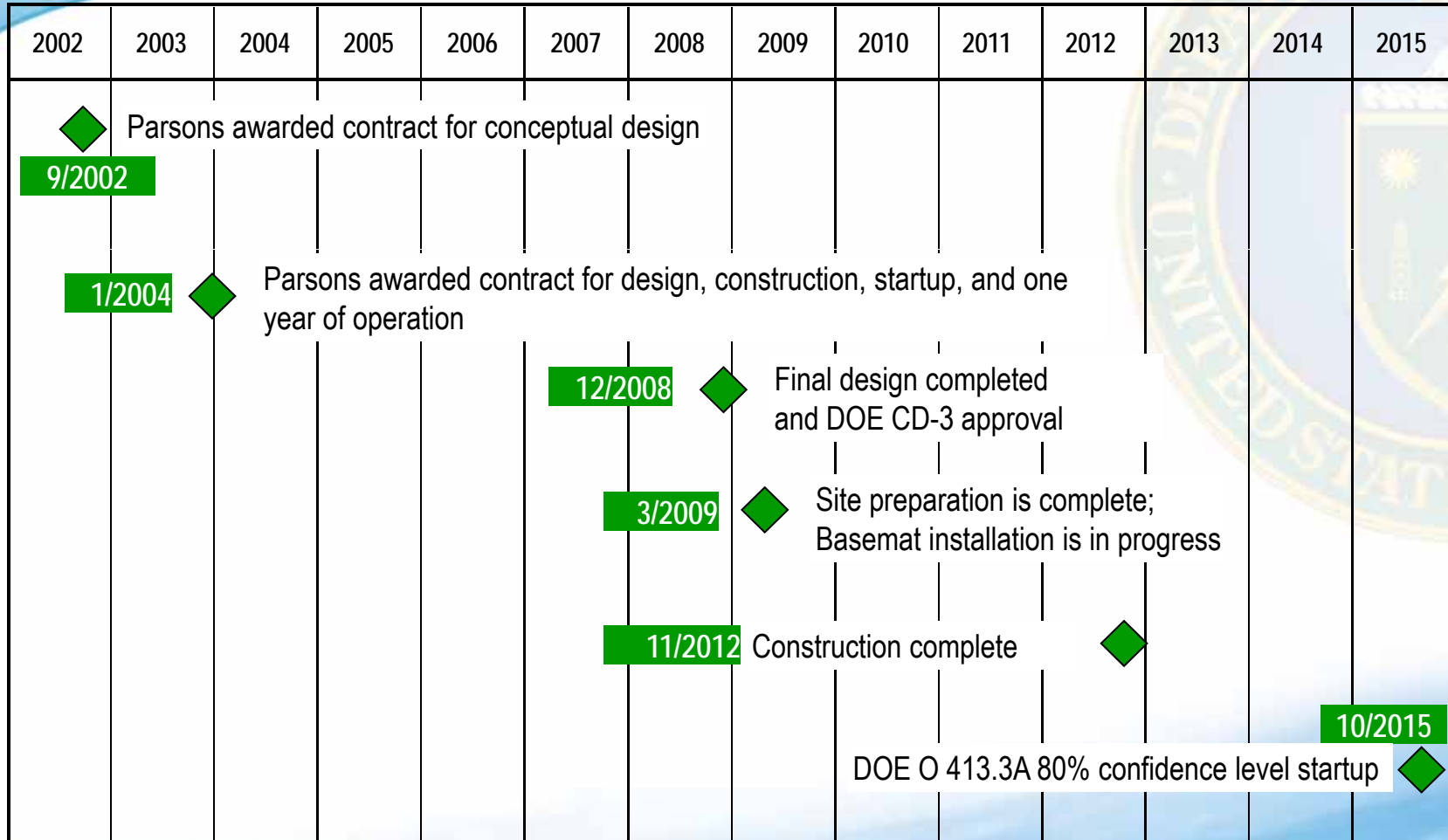


Parsons Infrastructure and Technology

- Safety of our workforce is Parsons 1st priority
- Process over 33 million gallons of stored high-activity radioactive salt waste, reducing a significant hazard to the public and environment at SRS
- Support DOE's highest SRS priority to close tank farms; reduce risk and complete the DOE EM cleanup mission
- December 2010: Two contactors weighing ~ 90 tons each were transported from Nashville on 215-ft-long "super" trucks reaching SRS on 12/3/10; a specialty crane was used to transfer the contactor modules from the trucks to their final location inside SWPF at SRS on 12/6/10



Salt Waste Processing Facility



SWPF is on track for early completion 12 months ahead of schedule



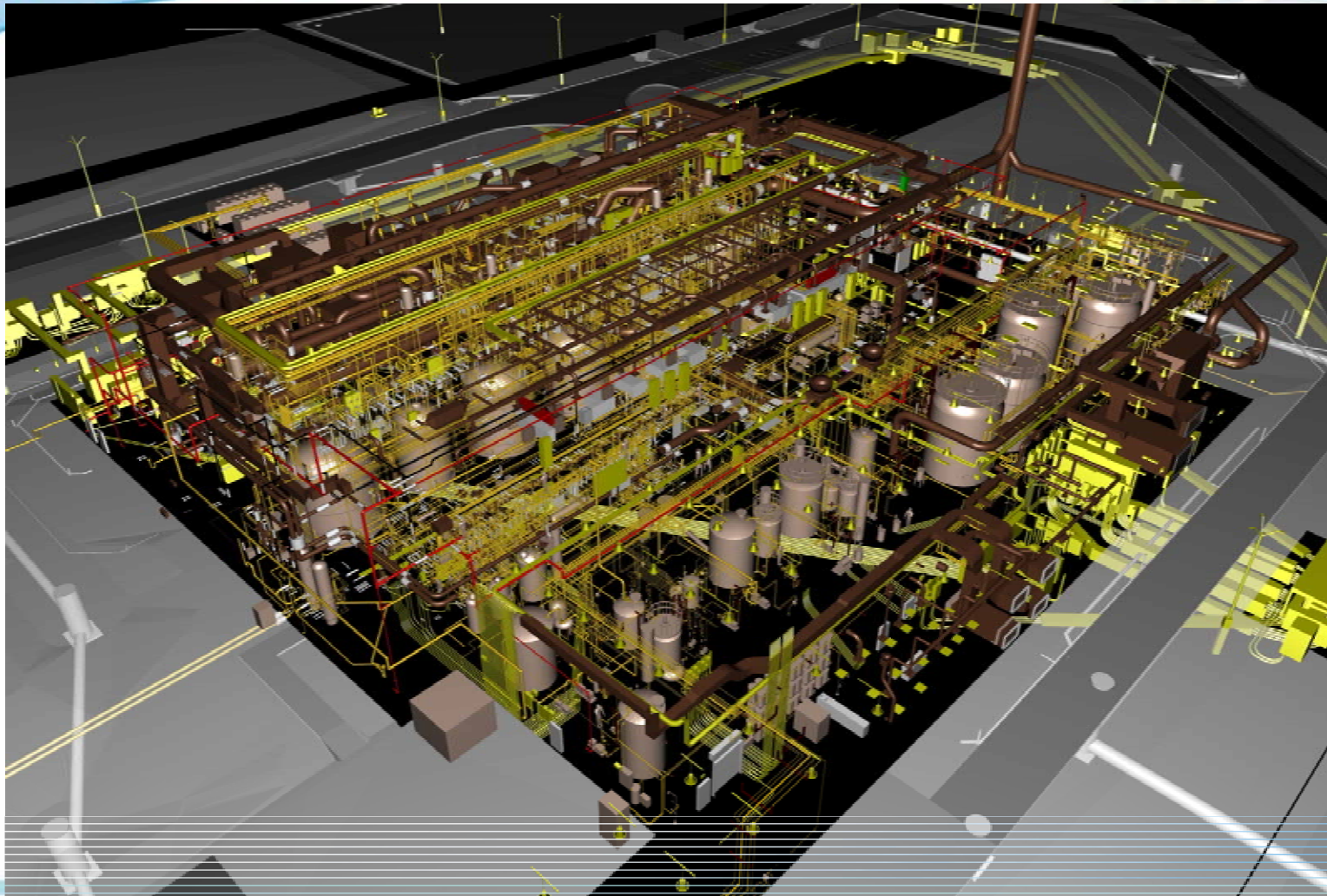
SWPF Project Progression

SRS J-Area



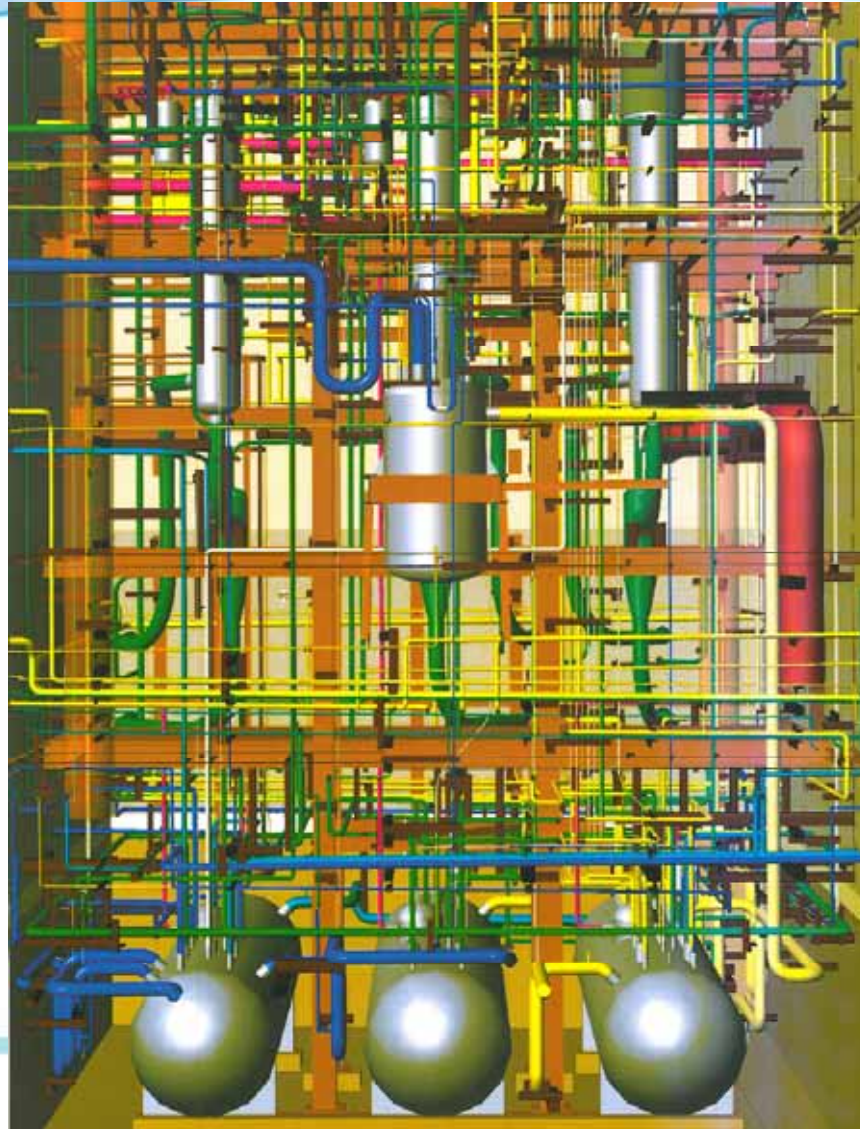


SWPF 3D Model





Elevation View of the ASDT Dark Cell





Salt Waste Processing Facility

Programmatic Requirements Summary

- Hazard Category-2 Non-Reactor Nuclear Facility to process ~37 Mgal of SRS Liquid and Salt Cake Waste
- Design Life of 40 Years
- Design Processing Throughput \approx 9.4 Mgal/yr
- Operational in October 2015 (80% Confidence)
- Hot Commissioning and 1 Year of Operations

Construction Quantities

- 114 vessels, tanks, HXs, filters, engineered items
- Concrete: 45,600 yd³
- Structural Rebar and Steel: 5,500 tons
- Conduit: 115,000 linear feet
- Wire and Cable: 690,000 linear feet
- Piping: 120,000 feet
- 4600 Valves

Physical Design Summary

- 34 acre J-Area Site adjacent to SRS S-Area
- Facility size: 83,300 ft²
- Reinforced Concrete - 8 ft thick base mat for Central Processing Area (NPH Category PC-3)



Project Challenges

- Procurement and Quality Assurance
 - Supplier/subcontractor fabrication performance standards
 - Achieving and maintaining a material backlog
- Engineering
 - Completing the Instrumentation and Controls Design and Distributive Control System Programming
 - Timely Resolution of Oversight Inquiries
- Construction
 - Schedule compression impact on safety and productivity
- Operations
 - Schedule compression and its subsequent impact to System Optimization Testing



SWPF – Integrated Pilot Plant





SWPF – Walls to 116' Elevation





SWPF – Walls to 139' Exhaust HEPA Filter Room



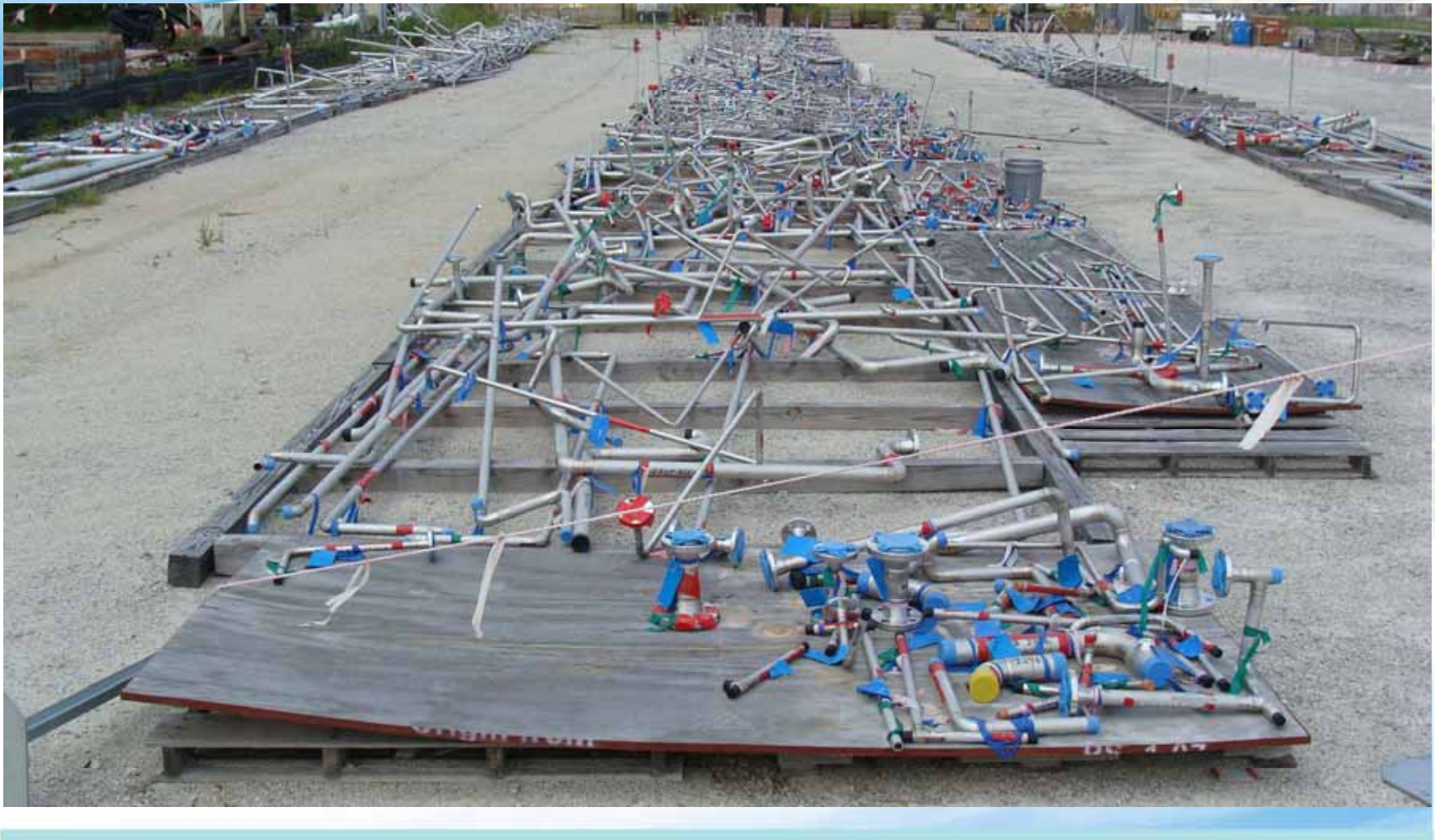


SWPF – Onsite Piping Fabrication Shop





SWPF – Onsite Fabricated Piping





Construction Safety





Unique Features and Qualifications Derived

- Design and construction of a facility meeting nuclear safety, explosive design criteria and natural phenomena hazards
- Nuclear QA audit resources to effectively evaluate supplier competencies
- Fabrication support to suppliers
- Defensible Commercial Grade Dedication upgrades
- Construction/Engineering/QA experience to perform make/buy evaluations for a given procurement
- ANSI/EIA -748 EVMS certification
- DNFSB experience
- Building and testing prototypical first of its kind equipment