



Idaho Cleanup Project Overview

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Idaho Cleanup Project

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Accomplishments – Since June CAB

- ✓ Resumed sodium bearing waste processing at IWTU
- ✓ Idaho share of WIPP shipments is 71% on 3 year running average (55% required)
- ✓ Completed 10 of 10 Peach Bottom transfers
- ✓ Completed demolition of Accelerated Retrieval Project (ARP) structures

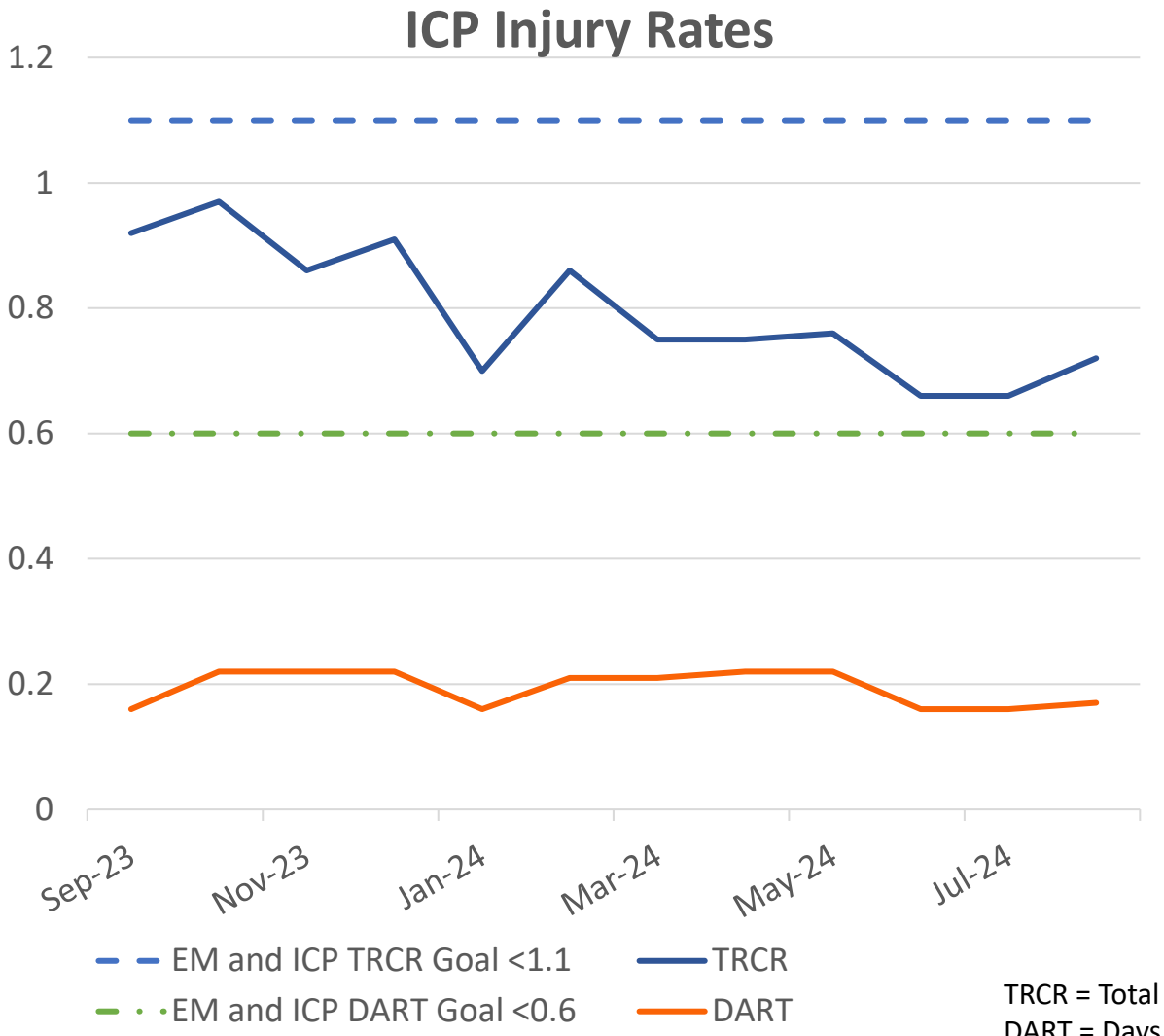
IWTU – Integrated Waste Treatment Unit
WIPP – Waste Isolation Pilot Plant

Site Priorities

- Continue sodium bearing waste processing operations
- Prepare for Subsurface Disposal Area (SDA) cap construction
- Maintain TRU waste shipping and continue waste certification
- Continue Naval Reactors demolition efforts at S1W and A1W prototypes
- Continue progress for line items projects
  - Calcine Disposition Project (CDP)
  - SNF staging facility
  - ICDF additional cell and evaporation ponds

ARP – Accelerated Retrieval Project
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CDP – Calcine Disposition Project
ICDF – Idaho CERCLA Disposal Facility
SDA – Subsurface Disposal Area
SNF – Spent Nuclear Fuel
TRU – Transuranic

ICP Safety Performance



May 2024
- No First Aid Cases
- One Recordable Injury
- 1 ORPS Reportable Event

June 2024
- 3 First Aid Cases
- No Recordable Injuries
- No ORPS Reportable Events

July 2024
- 3 First Aid Cases
- No Recordable Injuries
- 4 ORPS Reportable Events

August 2024
- 9 First Aid Cases
- 1 Recordable Injury
- One ORPS Reportable Event

TRCR = Total Recordable Case Rate
DART = Days Away, Restricted or Transferred
ORPS = Occurrence Reporting and Processing System

INL Puzzle Traffic Accident

- On Wednesday, September 4th, a white SUV and INL motorcoach collided
- 29 passengers on motorcoach
  - Mostly minor injuries; however, the driver and 4 passengers transferred by ground ambulance to a local hospital
- White SUV driver transferred by ground ambulance to a local hospital (no passengers)
- No fatalities





Principal Idaho Waste Streams

Waste Type	Origin	Volume Remaining	Amount Shipped	Ultimate Destination	Applicable Agreements
High-Level Waste (Calcine) 	Reprocessing of spent nuclear fuel	4,400 cubic meters	None	Out of State	Idaho Settlement Agreement, Site Treatment Plan
Spent Nuclear Fuel 	Site, research and commercial reactors	243.57 Metric Tons Heavy Metal (EM-only)	153 TRIGA elements 0.03 MTHM (for reuse)	Out of State	Idaho Settlement Agreement
Transuranic and Mixed Low-Level Waste 	Rocky Flats Plant, other DOE facilities, INL operations	4,879* cubic meters 382* cubic meters	47,326 cubic meters 14,762 cubic meters	Waste Isolation Pilot Plant Licensed off-site disposal facilities	Idaho Settlement Agreement, Site Treatment Plan
Sodium-Bearing waste 	Decon. of SNF reprocessing facilities	~730,000 gallons	None	Out of State	Idaho Settlement Agreement, Site Treatment Plan, Notice of Non-Compliance/Consent Order
Buried Waste 	Rocky Flats Plant, other DOE facilities, INL operations	591 cubic meters awaiting shipment	9,630 cubic meters	Waste Isolation Pilot Plant	FFA/CO (CERCLA), Agreement to Implement

*Settlement Agreement volume; does not include newly-generated waste

CERCLA Activities

Accomplishments for FY 2024

- ✓ Completed demolition of ARP II, ARP III, ARP VII, ARP VIII and WMF-698
- ✓ Commenced construction of expansion for the ICDF landfill and evaporation ponds

Scope for FY 2025

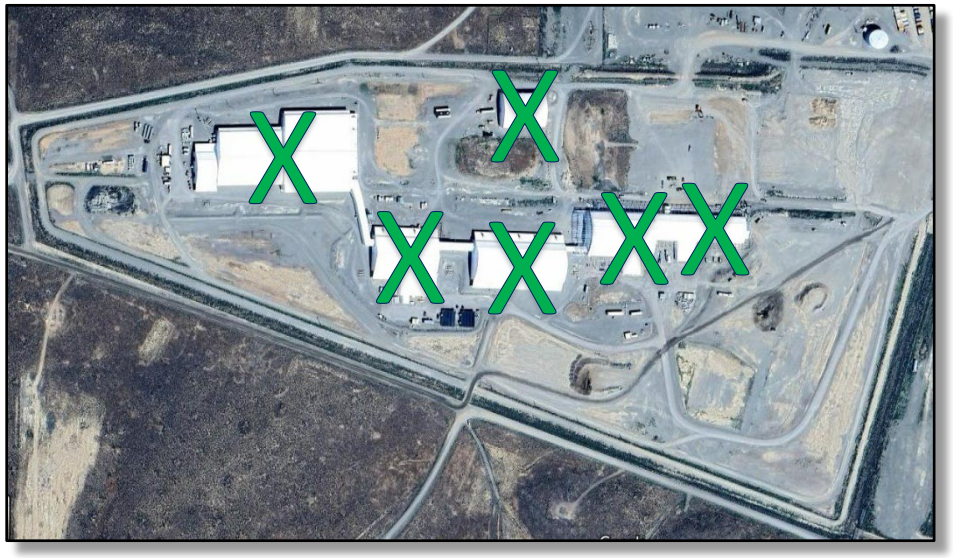
- ✓ Completed demolition of ARP IX
- Continued construction of expansion for the ICDF landfill and evaporation ponds

Regulatory Milestones

- SDA cap completion 2028
- CERCLA cleanup objectives by 2095

Challenges/Opportunities

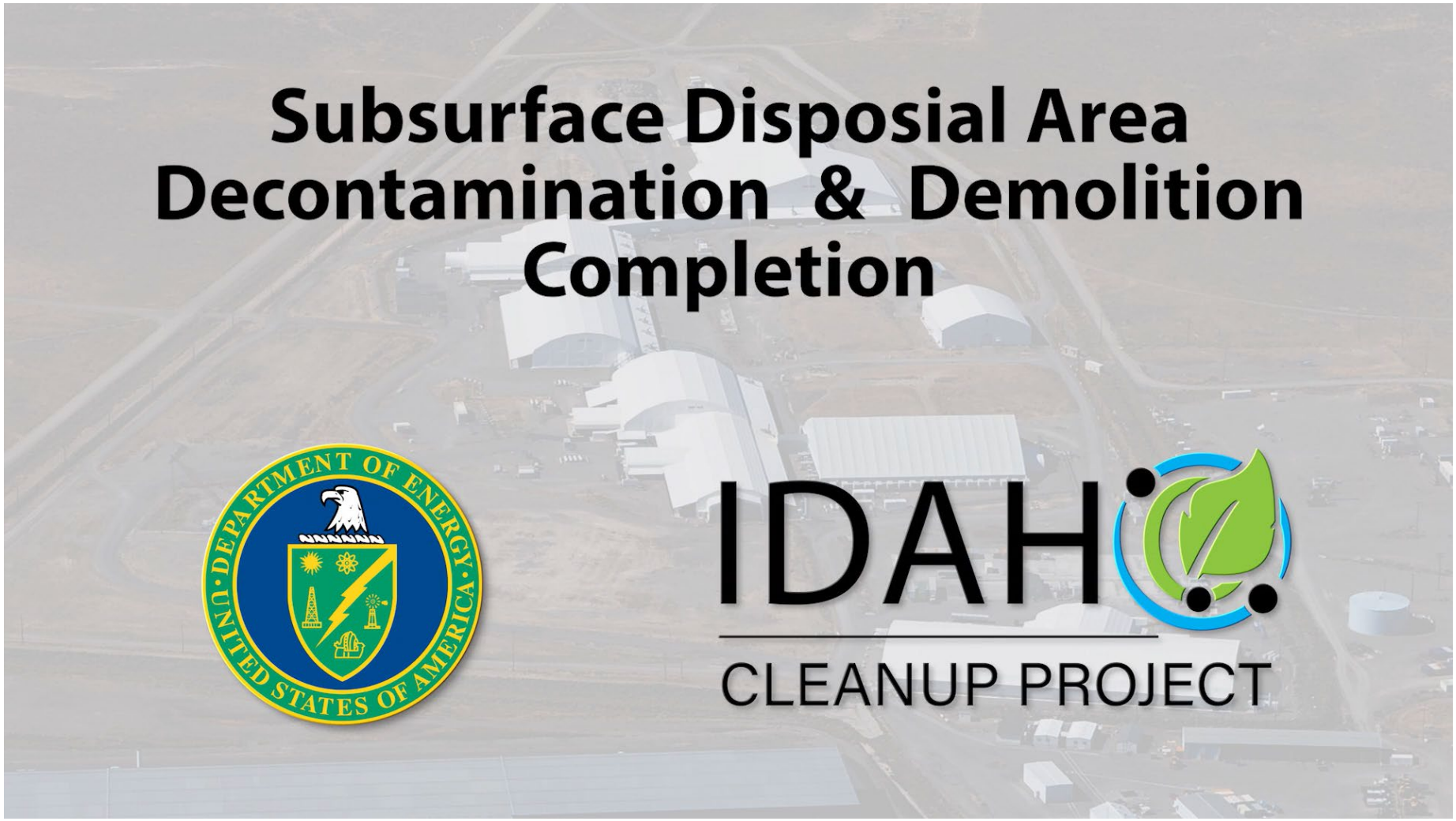
- Treatment of TCE in the TAN groundwater plume



ARP demolitions at the subsurface disposal area

ARP – Accelerated Retrieval Project
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
ICDF – Idaho CERCLA Disposal Facility
SDA – Subsurface Disposal Area
TCE – Trichloroethylene

Subsurface Disposal Area Demolition Video



RWMC Closure

Accomplishments for FY 2024

- ✓ 367 TRU shipments to WIPP
- ✓ Met annual requirement to certify 425 m^3 of TRU waste for shipment to WIPP

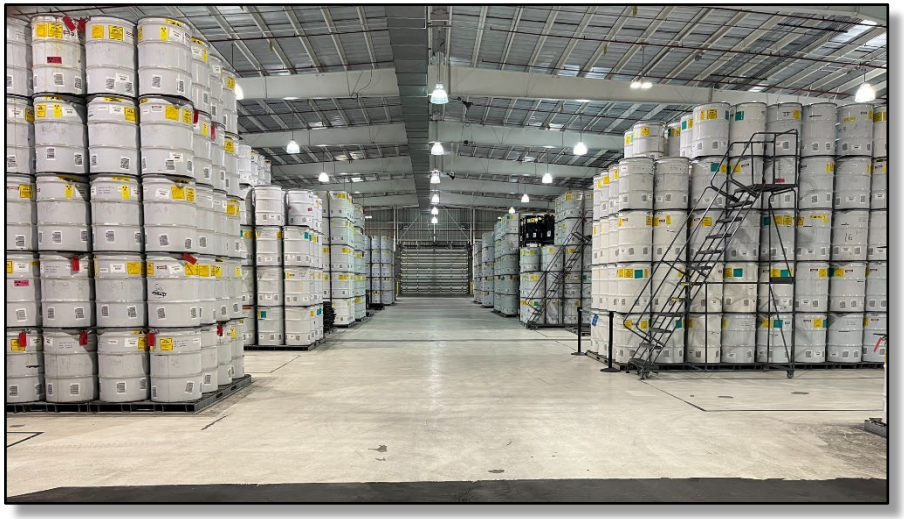
WIPP Shipments	
Year	Completed/Planned
FY23	348/390
FY24	367/469

Scope for FY 2025

- Continue TRU waste certification and shipping

Regulatory Milestones

- Contact handled TRU
  - Certify 900m^3 in FY 2025
  - Certify 650m^3 in FY 2026
- Remote handled TRU
  - Certify 6m^3 in FY 2026
  - Certify 3m^3 in FY 2027
  - Certify remaining volume in FY 2028



Drums awaiting shipment – Type II storage facility

Opportunities/Challenges

- Treatment/Certification of waste
- Maintaining TRU shipping commodities
- Container integrity issues/ultrasonic testing

SDA – Subsurface Disposal Area
TRU – Transuranic
WIPP – Waste Isolation Pilot Plant

Naval Reactors Demolition

Accomplishments for FY 2024

✓ Turnover of A1W on November 2, 2023

✓ Continued demolition at S1W and A1W

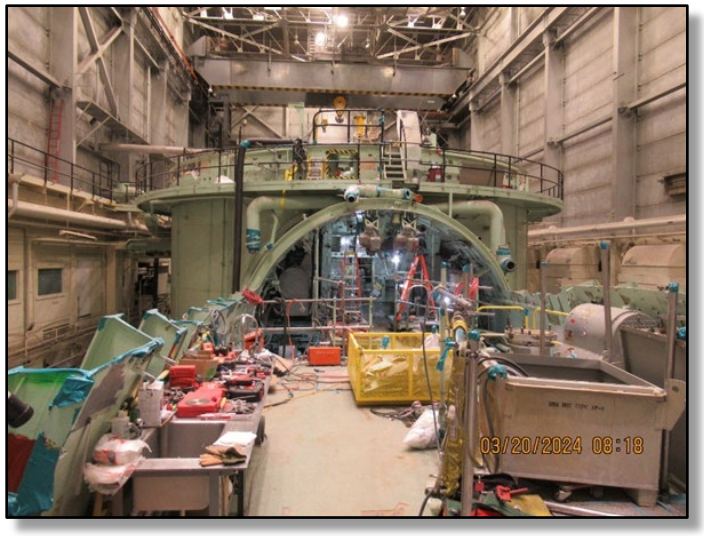
✓ 533 tons of metals recycled

Scope for FY 2025

- Turnover of S5G and preparations for demolition efforts
- Continued demolition of S1W and A1W
- S5G Engineering Evaluation/Cost Analysis (EE/CA) consultation

Opportunities/Challenges

- Integrate resources between demolition sites



S1W facility interior demolition



S1W facility exterior demolition

S1W Demolition Video



SNF Transfer & Packaging

Accomplishments for FY 2024

- ✓ Completed 10 of 10 scheduled Peach Bottom transfers
- ✓ CPP-603 west truck ramp fill-in design complete
- ✓ CPP-603 new large cask insert design complete
- ✓ CPP-603 received 4 High Load Chargers (HLC) of ATR SNF

Scope for FY 2025

- Complete Peach Bottom transfers (10 scheduled for FY25)
- Progressing towards Idaho SNF Staging Facility CD-1
- ATR Receipts
- New CPP-603 transfer car insert installed
- CPP-603 west truck ramp filled
- Receive Core Car from NRF

Regulatory Milestones

- 1/1/2035: SNF removed from Idaho

Opportunities/Challenges

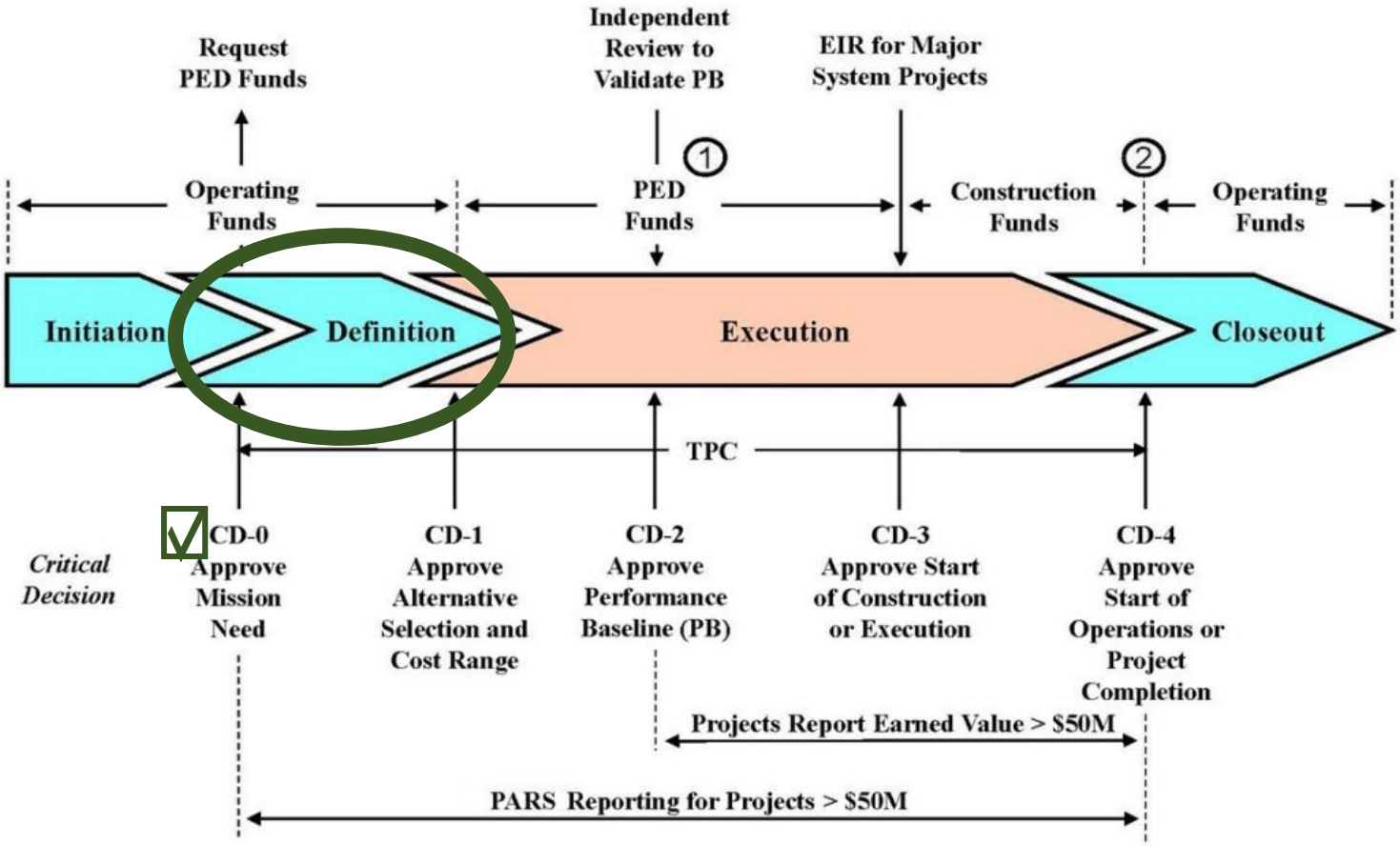
- Finalizing Idaho integrated SNF management plan



Peach Bottom transfer

Project Status – SNF Staging Facility

Project Definition/Preparing for CD-1

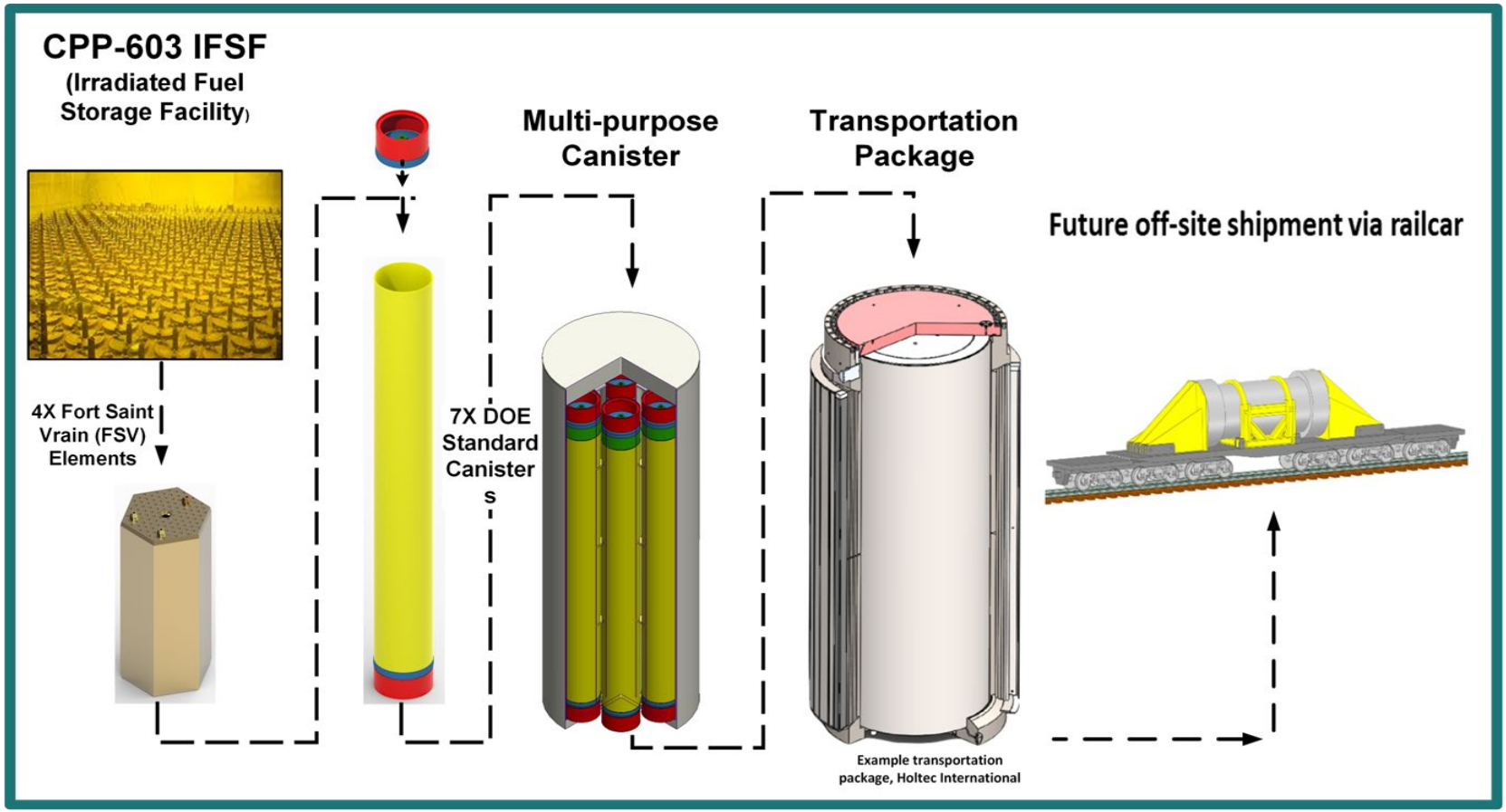


SNF Staging Facility



Staging Facility future location

SNF Packaging



CPP-603



CPP-603



West truck ramp

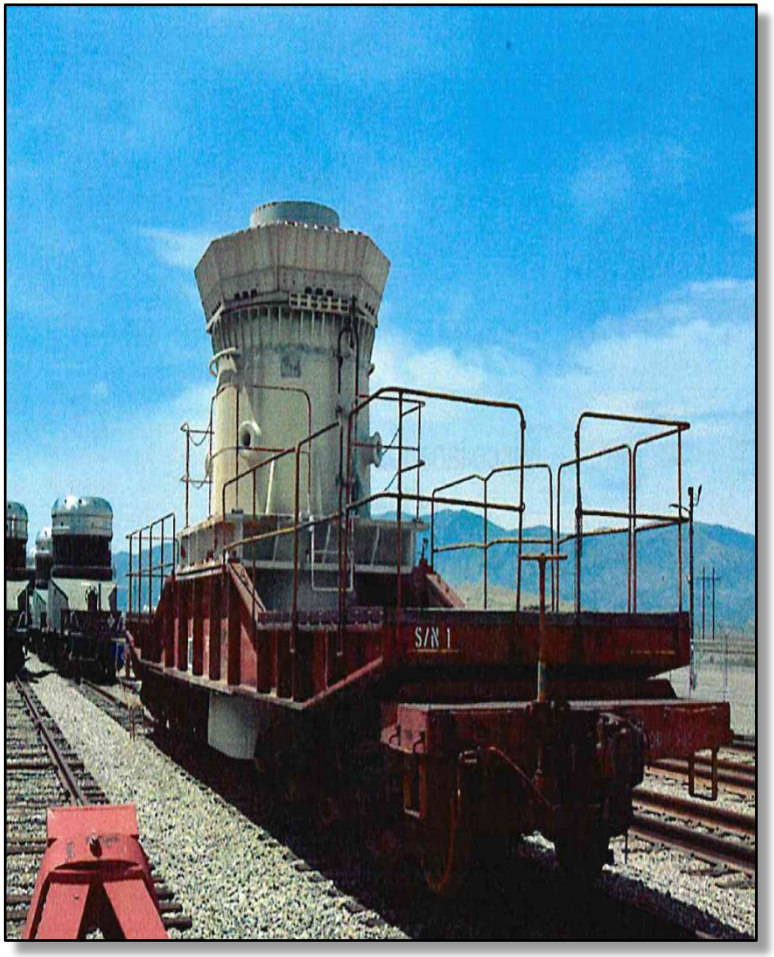


Fuel storage



Permanent containment structure

S1W Core Car



Core Car cask



Retrieval and Shipping Container (RSC) mockup

Calcine Disposition

Accomplishments for FY 2024

- ✓ Initiated technology validation studies
- ✓ Approved Mission Need Statement
- ✓ Preliminary siting study completed
- ✓ CD-0 revision approved September 2024

Scope for FY 2025

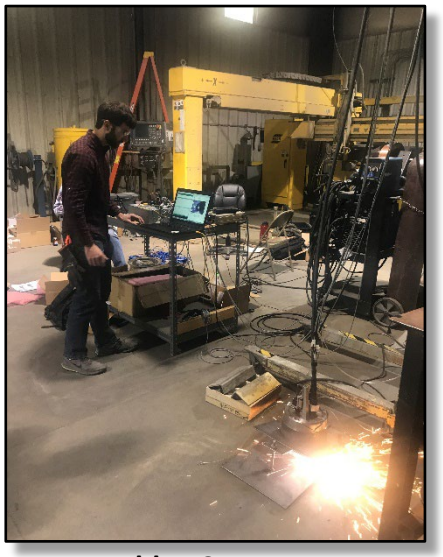
- Conclude technical exchanges with NRC and update NDAA Section 3116 Draft Basis Document
- Receive Phase 1 technology validation study reports
- Initiate vendor preconceptual design investigations

Regulatory Milestones

- Revised STP milestones
  - Define project (CD-0): 3Q FY 2025
  - Identify and develop technology: 2Q FY 2027
  - Decision document/ROD amendment: 2Q FY 2028
  - Schedule for milestones: 1 year after CD-1 approval
- "Road ready" by 12/31/2035

Opportunities/Challenges

- Engagement with labs/industry



Welder-Cutter Test



Glass Lab Demonstration

Integrated Waste Treatment Unit

Accomplishments for FY 2024

- ✓ Completed PSB II floor slabs & wall concrete pours
- ✓ Completed unplanned outage to resolve PGF bypass
- ✓ Completed plant start up / heat up and resumed SBW treatment

Scope for FY 2025

- Continue SBW treatment operations
- Commence future outage planning
- Complete PSB II construction
- Continue new storage vault construction
- Procure additional product storage canisters

PSB – Product Storage Building
PGF – Process Gas Filter
SBW – Sodium Bearing Waste



Crews removing used PGF bundles



Crews installing new PGF bundles

Integrated Waste Treatment Unit (continued)

Regulatory Milestones

- Treat 15% of sodium bearing waste annually (3 year running average)

Opportunities/Challenges

- Continue evaluation of operational strategies to counter DMR high differential temperature and agglomerate formation
- Continue monitoring and evaluation of Hg removal efficiencies/loading of GAC media
- Continue to refine storage projections

DMR – Denitration Mineralization Reformer
GAC – Granular Activated Carbon
Hg – Mercury
PGF – Process Gas Filter



Construction crews pouring walls on PSB II



Construction crews removing wall forms on PSB II

Key Upcoming Activities

- Idaho CERCLA Disposal Facility (ICDF) construction
- Integrated Waste Treatment Unit (IWTU) continued processing of sodium bearing waste
- Turnover of S5G prototype reactor for demolition