



# Idaho Cleanup Project Overview

---

**Connie Flohr, Manager**  
Idaho Cleanup Project

**Jim Malmo, Assistant Manager**  
Waste Disposition Project

**Joel Case, Assistant Manager**  
Facility and Materials Disposition

April 29, 2021



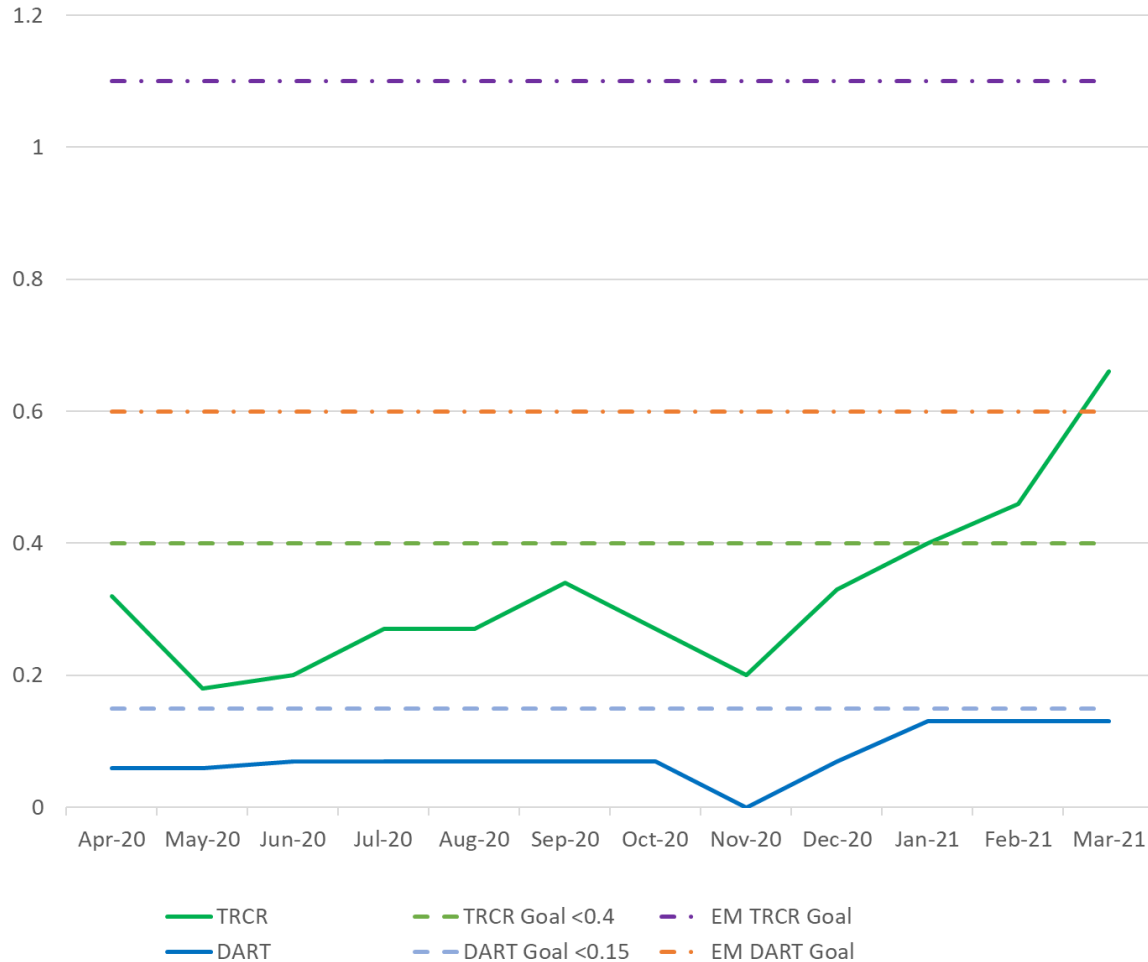
**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

# Fluor Idaho Safety Performance

ICP Core Injury Rates



## January 2021

- Eight First Aid Cases, Two Recordable Injuries
- One ORPS Reportable Event

## February 2021

- Five First Aid Cases, One Recordable Injury
- Three ORPS Reportable Events

## March 2021

- Five First Aid Cases, Three Recordable Injuries
- Two ORPS Reportable Events


- **Fluor Idaho COVID-19 Safety Pause 3/10**
- **Fluor Idaho Safety Stand-down 3/22-23**



**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

**Idaho Cleanup Project**

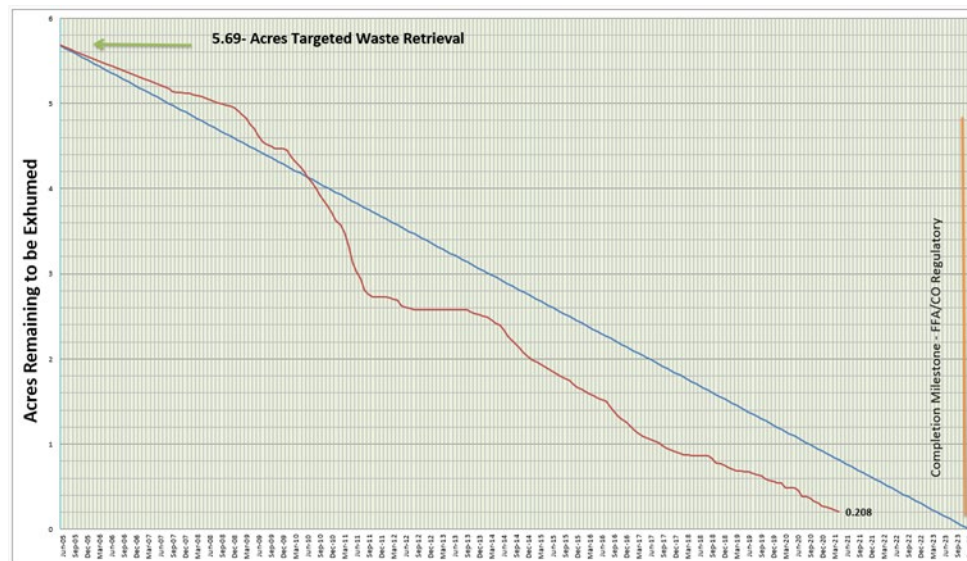
Waste Type	Origin	Volume Remaining	Amount Shipped	Ultimate Destination	Applicable Agreements
Buried Waste 	Site operations, Rocky Flats Plant, other DOE facilities	• 3,444.9 m <sup>3</sup> awaiting shipment	6,496.7 m <sup>3</sup>	Waste Isolation Pilot Plant	FFA/CO (CERCLA), Agreement to Implement

## Accomplishments

- ARP IX: 0.48 of 0.69 acres (69.7%) have been exhumed (as of April 2, 2021)

## Status

- ARP IX exhumation is ongoing
- Cap design is final and posted at <https://ar.icp.doe.gov>



ARP IX Exhumation



**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project



# Balance of CERCLA Cleanup Activities

## Accomplishments

- **WAG 1: Test Area North (TAN) Groundwater**
  - Preparations are underway to drill new ISB treatment well in spring 2021 as required by 5 year review
- **WAG 3: INTEC /Idaho CERCLA Disposal Facility (ICDF)**
  - Initiated Explanation of Significant Differences (ESD) to Record of Decision to allow ICDF expansion
  - Initiated site characterization studies for new ICDF cell location
- **WAG 10: Site-wide Activities**
  - CERCLA Five Year Review approved by EPA Feb, 2021
  - Continue working with Shoshone-Bannock Tribes to develop environmental monitoring program
- **Deactivation and Decommissioning (D&D)**
  - Working with NRF in preparation to begin D&D work under CERCLA Non Time Critical Removal Action

## Status

- **WAG 1: TAN Groundwater**
  - ISB, New Pump and Treat Facility (NPTF) treatment continues on track to meet Remedial Action Objectives by 2095
- **WAG 3: INTEC/ICDF**
  - Continue to receive CERCLA waste from D&D projects including NRF, INTEC and AMWTP
- **WAG 10: Site-wide Activities**
  - Continue routine groundwater monitoring, institutional controls and operations and maintenance



Shoshone-Bannock Tribes environmental monitoring technicians observe groundwater sample collection




Collecting water samples from well USGS 109 near the southern boundary of the INL



**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

Waste Type	Origin	Volume Remaining	Amount Shipped	Destination	Applicable Agreements
Transuranic and Mixed Low-Level Waste 	Site operations, Rocky Flats Plant, other DOE facilities	5,171 (CH-TRU)  257 (M/LLW)	45,630 (CH-TRU)  14,700 (M/LLW)	WIPP  Licensed off-site disposal site	Idaho Settlement Agreement, Site Treatment Plan

## Accomplishments

- 176m<sup>3</sup> sludge treated
- 29 shipments to WIPP
- 47m<sup>3</sup> M/LLW shipped offsite

## Status

- Continue processing sludge waste
- Certify and ship CH TRU waste to WIPP
- Continue RCRA closure of retrieval enclosure
- Continue M/LLW shipments
- Continue RH processing and certification

Year	Planned WIPP Shipments
FY21	150
FY22	257
FY23	390
FY24	469
FY25	477
FY26	466
FY27	403
FY28	330
Totals	2942



AMWTP Pad 1 RCRA  
Closure Core Sampling



Bulk sodium found inside a pipe during  
treatment of RH waste



**EM** Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

Waste Type	Origin	Volume Remaining	Amount Shipped	Destination	Applicable Agreements
High-Level Waste 	Reprocessing of spent nuclear fuel	4,400 cubic meters	None	Disposition out of state	Idaho Settlement Agreement, Site Treatment Plan

## Accomplishments

- Received and responded to comments on the Performance Assessment of calcine bin sets and other regulatory closure documentation from the DOE Low-Level Waste Federal Review Group (LFRG)

## Status

- Continuing engineering and design of calcine retrieval system components, including the vacuum crawler and remote cleaning arm.
- Planning to demonstrate retrieval in Bin A in mockup
- Updating Analysis of Alternatives (AoA)
- Initiated technology development study of cold crucible induction melter (CCIM) vitrification technology



Articulating Arm



Articulating Arm in Bin set




**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project



Waste Type	Origin	Mass Remaining	Amount Shipped	Destination	Applicable Agreements
Spent Nuclear Fuel 	DOE, research and commercial reactors	243.57 Metric Tons Heavy Metal (EM-only)	153 TRIGA elements 0.03 MTHM (for reuse)	Disposition out of state	Idaho Settlement Agreement

## Fiscal Year 2021 Plans

Transferred/Planned	SNF Type	From	To
6/12	EBR-II/T1	CPP-666	FCF/MFC
13/38	EBR-II/T2	CPP-666	RSWF/MFC
4/22	ATR	CPP-666	CPP-603
0/5	PB	CPP-749 1 <sup>st</sup>	CPP-749 2 <sup>nd</sup>

Inspections	SNF Type	Where
5/5	Peach Bottom	CPP-749 1 <sup>st</sup>



Working over a well at the outdoor fuel storage facility

## Status

- Primary focus on remainder of EBR II spent fuel transfers
- Equipment problems have delayed ATR transfers to CPP-603
- Peach Bottom fuel at CPP-749 Gen-1 Vaults to Gen-2 Vaults to begin this fiscal year
- Delivery of additional cask expected June 2021



CPP-603 IFSF Fuel storage array



**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

Waste Type	Origin	Volume Remaining	Amount Shipped	Destination	Applicable Agreements
Sodium-Bearing waste	De-Con of reprocessing facilities	~900,000 gallons	None	Disposition out of state	Idaho Settlement Agreement, Site Treatment Plan, Notice of Non-Compliance/Consent Order



**Integrated Waste Treatment Unit**

See separate IWTU Update



**EM Environmental Management**

safety ❖ performance ❖ cleanup ❖ closure

**Idaho Cleanup Project**