



Idaho Cleanup Project Overview

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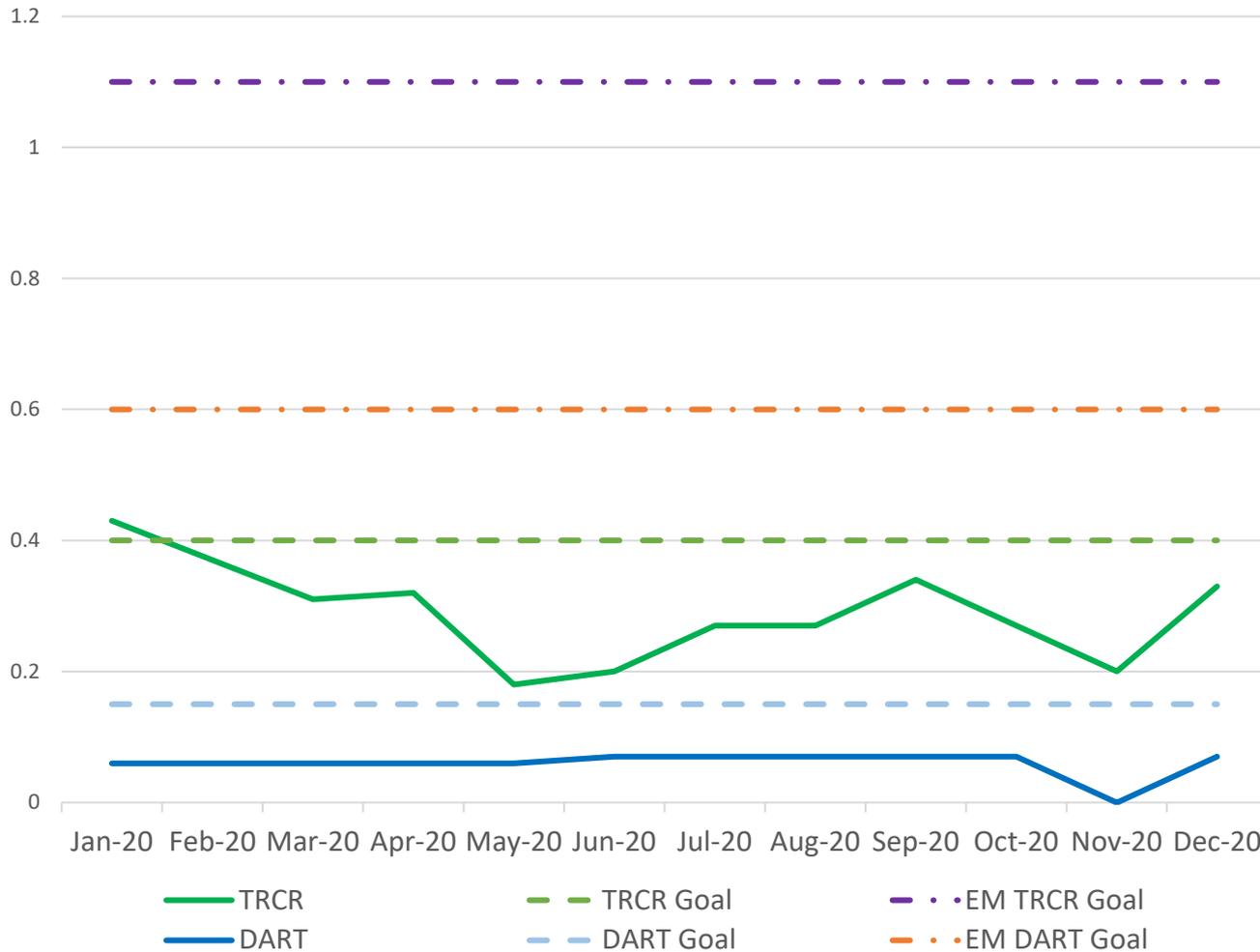
EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Idaho Cleanup Project

Fluor Idaho Safety Performance

ICP Core Injury Rates



Contractor Injury Goals

- DART Goal < 0.15
- TRCR Goal < 0.40

December 2020

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

November 2020

- Eight First Aid Cases, One DART Case
- One ORPS Reportable Event

October 2020

- Five First Aid Cases, No Recordable Injuries or DART Cases
- Two ORPS Reportable Events



Waste Type	Origin	Volume Remaining	Amount Shipped	Ultimate Destination	Applicable Agreements
Buried Waste 	Site operations, Rocky Flats Plant, other DOE facilities	• 3,311.4 m ³ awaiting shipment	6,461.3 m ³	Waste Isolation Pilot Plant	FFA/CO (CERCLA), Agreement to Implement

WAG-7 Accomplishments

- Since exhumation started in ARP IX on April 25, 2019, 0.42 of 0.69 acres (61%) have been exhumed, as of December 31, 2020

Status

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



Previous buried foundations from ARP I and VI were removed in the ARP IX footprint

COVID-19 Impacts

- Exhumation operations paused on March 25 and resumed June 16



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Balance of CERCLA Cleanup Activities

Accomplishments

- WAG 1 – Test Area North (TAN) Groundwater
 - In Situ Bioremediation (ISB) treatment injection to treat residual TCE source occurred Dec 15
 - New ISB treatment well will be drilled in FY21
- WAG 3 – INTEC /Idaho CERCLA Disposal Facility (ICDF)
 - Cost estimate being developed for preliminary siting and design documents for new ICDF landfill cell
- WAG 7 – RWMC
 - Organic Contamination in the Vadose Zone (OCVZ) system rebound test began 8/3/20 to determine if system has met vadose zone cleanup goals. Since 1996, 257,730 lbs. of organic vapors have been removed
 - Completed the abandonment of 52 wells in the SDA in preparation for SDA cap construction
- WAG 10 – Site-wide Activities
 - Submitted Final CERCLA Five Year Review to Agencies Jan 25

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



Vapor Vacuum Extraction Treatment System extracts VOCs from the vadose zone beneath the SDA



Vapor Vacuum System being shut down to begin OCVZ rebound test

COVID-19 Impacts

- CERCLA field work continues with minimal COVID-19 impacts



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Waste Type	Origin	Volume Remaining	Amount Shipped	Destination	Applicable Agreements
Transuranic and Mixed Low-Level Waste 	Site operations, Rocky Flats Plant, other DOE facilities	5,212 (CH-TRU)	45,603 (CH-TRU)	WIPP	Idaho Settlement Agreement, Site Treatment Plan
		285 (M/LLW)	14,672 (M/LLW)	Licensed off-site disposal site	

Accomplishments

- Completed certification on 10% of remaining inventory
- Initiated the treatment of sludge waste in ARP VII and the treatment facility

Status

- Sludge treatment/repackaging in ARP VII and AMWTP continues
- RCRA closure underway for Retrieval Enclosure
- Disposal of waste including M/LLW and CH-TRU
- CH TRU waste shipments to WIPP ongoing



Sludge (salt) waste being processed in the south boxline at the AMWTP Treatment Facility



Sludge waste being processed on the sorting table in ARP VII

COVID-19 Impacts

- Resumed operations for sludge and RH in June using social distancing, barriers, and cleaning
 - Slower than normal operations
 - Rotating crews around to maintain operations
- CH shipments to WIPP slowed to 3/week
- Certification efforts minimally impacted



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

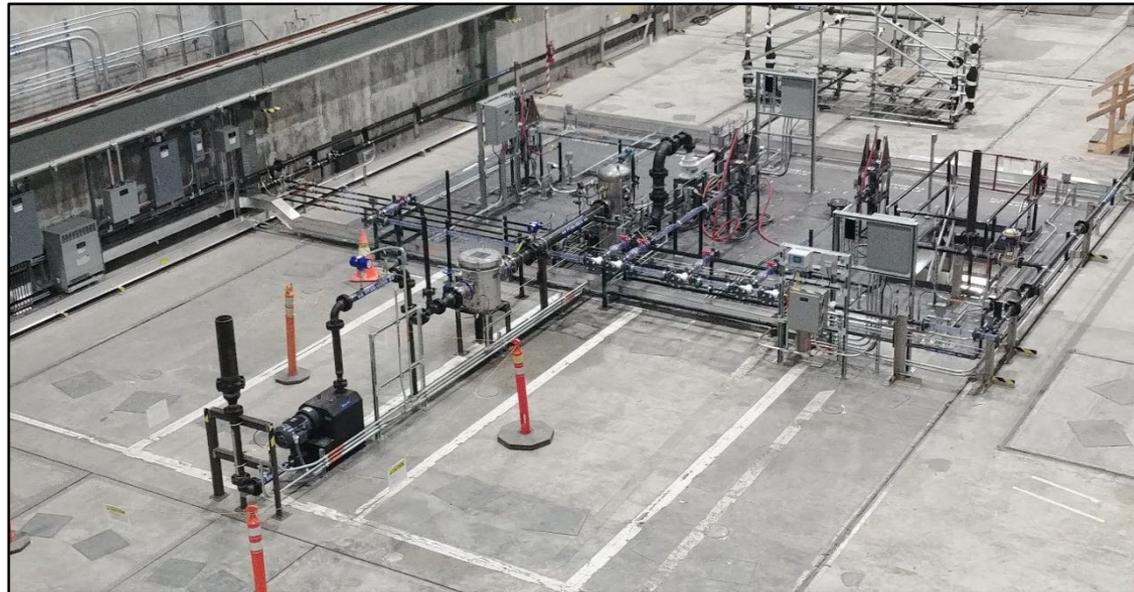
- Submitted the Performance Assessment of calcine bin sets and other regulatory closure documentation to the DOE Low-Level Waste Federal Review Group (LFRG) for review

Status

- Continuing testing of calcine retrieval system
- Testing various canister filling systems
- Updating Analysis of Alternatives (AoA)

COVID-19 Impacts

- Construction and testing at the full-scale mockup have resumed
- Other work (Performance Assessment Analysis, 3116 Determination, Engineering Design) continued via telework



The full-scale calcine retrieval mock-up



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
2/12	EBR-II/T1	CPP-666	FCF/MFC
13/58	EBR-II/T2	CPP-666	RSWF/MFC
2/39	ATR	CPP-666	CPP-603
0/10	PB	CPP-749 1 st	CPP-749 2 nd

Receipts Planned	SNF Type	From	To
0/6	ATR	ATRC	CPP-603

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



Top of Peach Bottom basket during inspection

Status

- Primary focus remainder of contract is transfer of EBR II spent fuel from underwater storage to dry storage at the Materials and Fuels Complex
- Continue planning to remove Peach Bottom fuel at CPP-749 Gen-1 Vaults to Gen-2 Vaults to address risk associated with water intrusion

COVID-19 Impacts

- Ongoing impacts to SNF operations activities



INTEC equipment to transfer EBR-II SNF to the Radioactive Scrap Waste Facility



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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

Accomplishments

- Continued Outage J activities in preparation for confirmatory run and sustained radiological operations
- Completed installation of modified PGF filter bundles
- Completed field construction for canister & wet/dry decon systems; began testing
- Continued field construction for contamination control mods (Can Fill & Vault loading HVAC, vault loading manway, vault tarp system & personnel decon station)
- Commenced outage de-mobilization (vessel & piping re-assembly/re-insulation, installation of shielding blocks, removal of temporary equipment)

Status

- Complete Outage J field construction & integrated testing
- Complete implementation of approved Documented Safety Analysis revisions
- Execute upcoming readiness assessments
- Begin confirmatory run

COVID-19 Impacts

- Completion of Outage J field construction has slipped more than 6 months due to impacts of COVID-19 which will delay start of rad ops
 - Continue with methodical approach to execute field work within protective guidelines; implemented ICP-wide testing
 - Continue 6 X 10 construction work schedule
 - Continue to deal with affects of self quarantine amongst staff

Modified PGF ceramic filter bundles during installation at IWTU



Canister decon robot undergoing testing inside the Can Fill Cell

