



Idaho Cleanup Project Overview

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Idaho Cleanup Project

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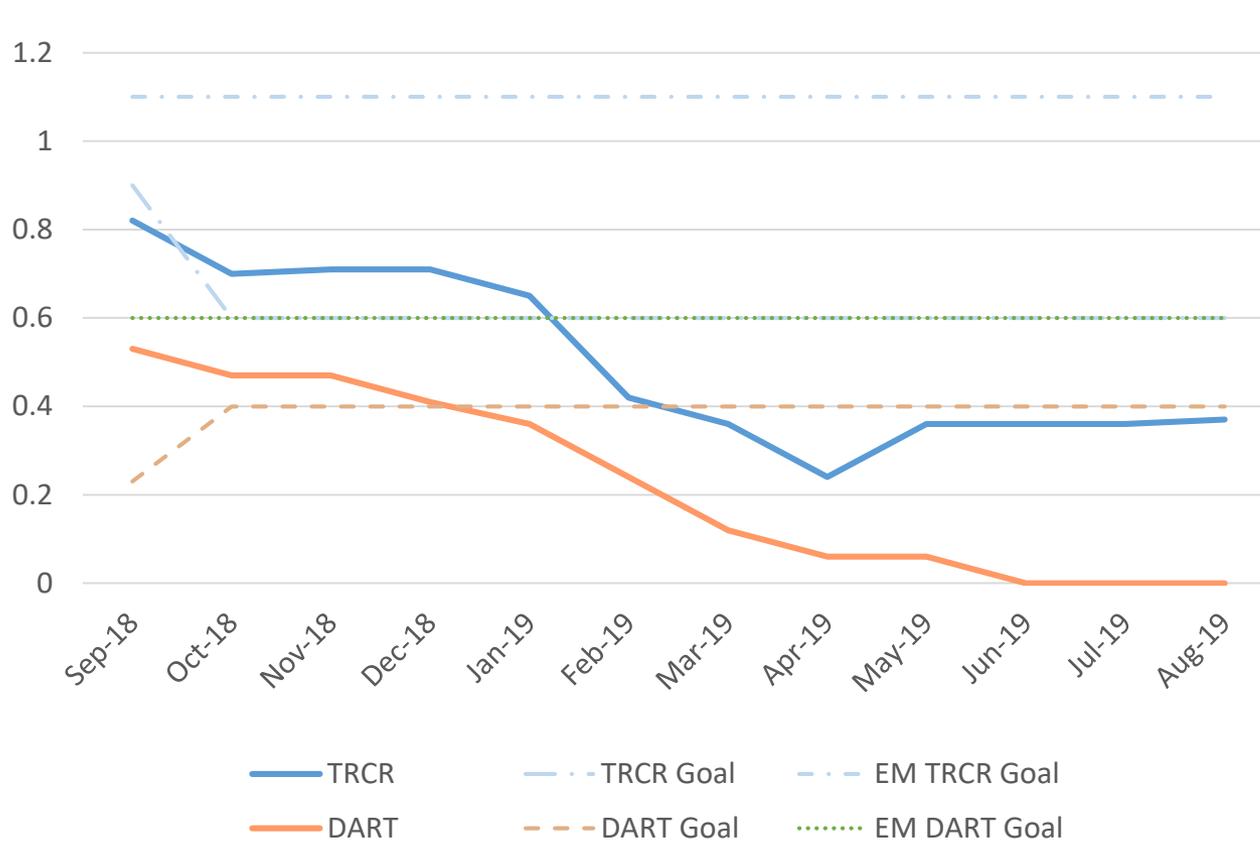
EM Environmental Management

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Fluor Safety Performance

ICP Core Injury Rates



Company Injury Goals Changed in December 2018

- DART Goal increased to 0.40;
- TRCR Goal decreased to 0.60

June 2019

- Two First Aid Cases, No Recordable Injury, and No Restricted Cases
- 2 ORPS Reportable Events

July 2019

- Three First Aid Cases, No Recordable Injuries, and No Restricted Cases
- 1 ORPS Reportable Event

August 2019

- One First Aid Case, no Recordable Injuries, and No Restricted Cases
- No ORPS Reportable Events



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

Accomplishments:

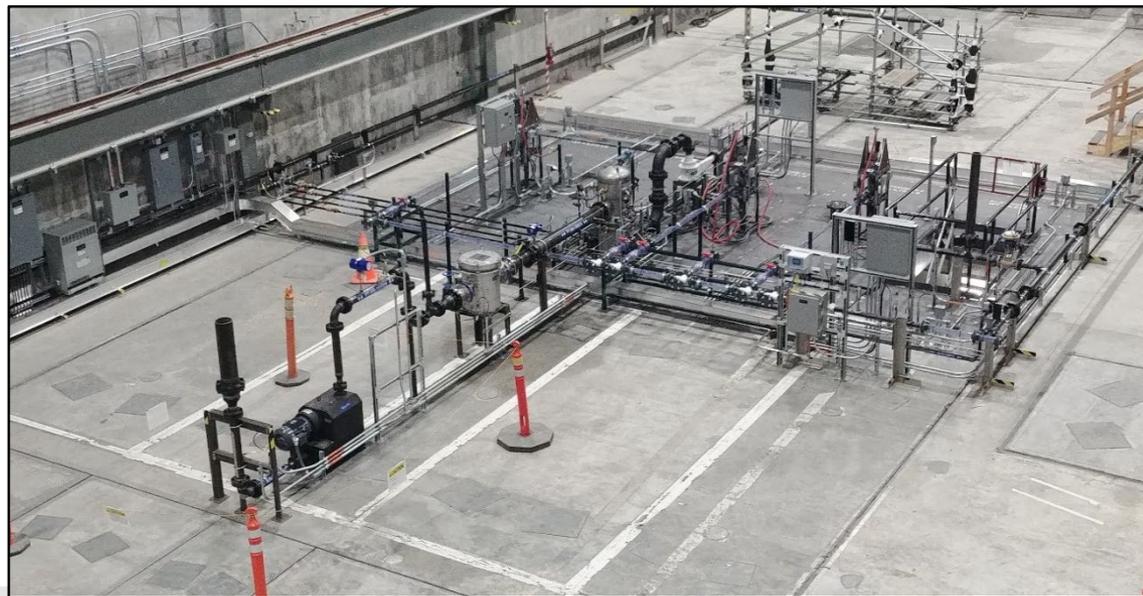
- Continued work on the Performance Assessment of calcine bin sets and other regulatory closure documentation.

Status:

- Continuing testing of calcine retrieval system.

Issues:

- Calcine disposition currently requires a geologic repository.
- HLW interpretation may allow for other disposition options.



Full-scale retrieval mock-up

Path Forward:

- Continue testing and developing calcine retrieval and transfer system.



Waste Type	Origin	Mass Remaining	Amount Shipped	Ultimate 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)	Geologic repository	Idaho Settlement Agreement

Accomplishments:

Transferred/Planned	SNF Type	From	To
9/9	EBR-II/T1	CPP-666	FCF/MFC
0/5	EBR-II/T2	CPP-666	RSWF/MFC
32/28	ATR	CPP-666	CPP-603
2/2	NR	CPP-666	NRF
Receipts Planned	SNF Type	From	To
14/15	ATR	ATRC	CPP-603



EBR-II fuel elements arrayed in a diver fuel assembly

Status:

EBR-II Type 2 SNF Transfers. Contractor and Federal readiness reviews for Type 2 transfers of EBR-II SNF to RSWF planned in 1st Qt. FY20.

CPP-749 Remediation. Negotiating contract language to implement Phase 2 mitigation activities to address water seepage/condensation at CPP-749.

Activities to begin in 1st Qt. FY20.

TMI-2 ISFSI. Commence TMI-2 Aging Management Program Plan Development and Implementation (subject to the conditions of license renewal as approved by the NRC). Activities to begin in 1st Qt. FY20.

Issues:

- None.



Waste package loading at RSWF, MFC-771 4



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Waste Type	Origin	Volume Remaining	Amount Shipped	Ultimate Destination	Applicable Agreements
Transuranic and Mixed Low-Level Waste 	Site operations, Rocky Flats Plant, other DOE facilities	5,666* (CH-TRU) 597* (MLW)	45,396 (CH-TRU) 14,451 (MLLW)	WIPP Licensed off-site disposal site	Idaho Settlement Agreement, Site Treatment Plan

See Separate Waste Disposition Presentation



Waste Type	Origin	Volume Remaining	Amount Shipped	Ultimate Destination	Applicable Agreements
Buried Waste 	Site operations, Rocky Flats Plant, other DOE facilities	<ul style="list-style-type: none"> • 3,241 m³ awaiting shipment • Estimated 728 m³ left to exhume 	6,057 cubic meters	Waste Isolation Pilot Plant	FFA/CO (CERCLA), Agreement to Implement

Accomplishments:

- Since exhumation started in ARP IX on April 25, 2019, .063 of .69 acres have been exhumed, as of October 1, 2019.
- Since 1996, 256,371 lbs. organic vapors removed, as of 8/25/2019

Status:

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



Exhuming targeted buried waste at ARP IX

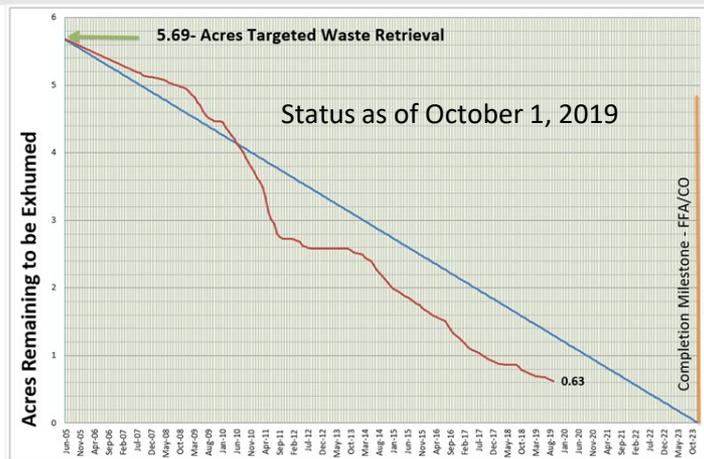
Status as of September 30, 2019

Path Forward:

- ARP IX exhumation will continue

Issues:

- Degraded drums as well as encountering concrete and steel remnants of previous ARPs continue to challenge the efficiency of ARP IX exhumation.



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Balance of CERCLA Cleanup Activities

Accomplishments:

- WAG 1 – TAN Groundwater
 - Next In Situ Bioremediation (ISB) Injection planned for October, 2019 to treat residual TCE source.
 - Treated approx. 31,169,496 gallons of TCE contaminated water through Pump and Treat Facility (Oct 2018 –Sept 2019).
 - Completed work during September 2019 to re-seal portions of the Tank Farm Recharge Control Zone. This work repaired portions of the seal-coat that peeled up after application in 2017.
 - Completed closure and characterization of CPP-142 (a shallow injection well at INTEC) .

Status:

- WAG 1 – TAN Groundwater
 - ISB, NPTF treatment continues on track to meet Remedial Action Objectives by 2095.
- ICDF
 - Continue to receive CERCLA waste from D&D projects including NRF, MFC and AMWTP.
- WAG 10 – Site-wide Activities
 - Continue routine groundwater monitoring, Institutional Controls and Operations and Maintenance.



Excavation of CPP-142 Shallow Injection Well

Path Forward:

- WAG 10
 - Ongoing field activities include:
 - Continue WestBay Well rehabilitation.
 - New Site Identifications at MFC.



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



Integrated Waste Treatment Unit

See Separate IWTU Presentation



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