



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

Waste Disposition

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Stored Waste Disposition

- What is the Waste: Transuranic (TRU) and Mixed and Low Level Waste (M/LLW), principally from Rocky Flats, Argonne National Laboratory, Mound, and other smaller generators stored in retrievable configurations at the Transuranic Storage Area (TSA) and at the Radioactive Scrap and Waste Facility (RSWF).
- Potential Risks: Waste contains long lived transuranic isotopes which pose a risk to the workers and the environment. Retrieval of the waste and shipment for disposal in a deep geologic repository (i.e. the Waste Isolation Pilot Plant or WIPP) ensures that humans and the environment are protected from the waste for the thousands of years that it remains harmful.
- Settlement Agreement: Requires removal of estimated 65,000 cubic meters of stored transuranic waste from the State of Idaho by December 31, 2018.
- How treated/disposed: Repackaged, treated to remove prohibited conditions, characterized and certified to meet waste acceptance criteria for WIPP or M/LLW disposal facilities as appropriate.

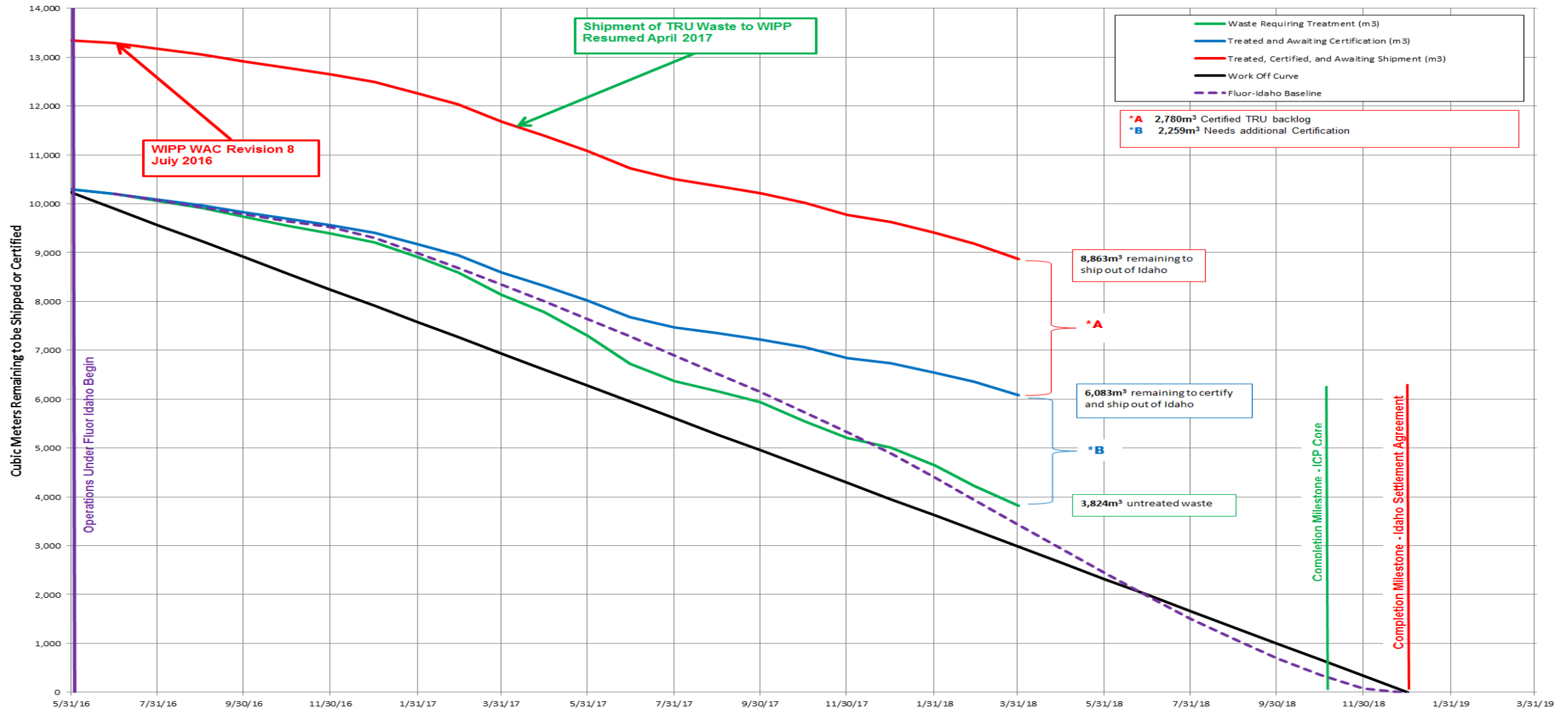
Stored Waste Disposition

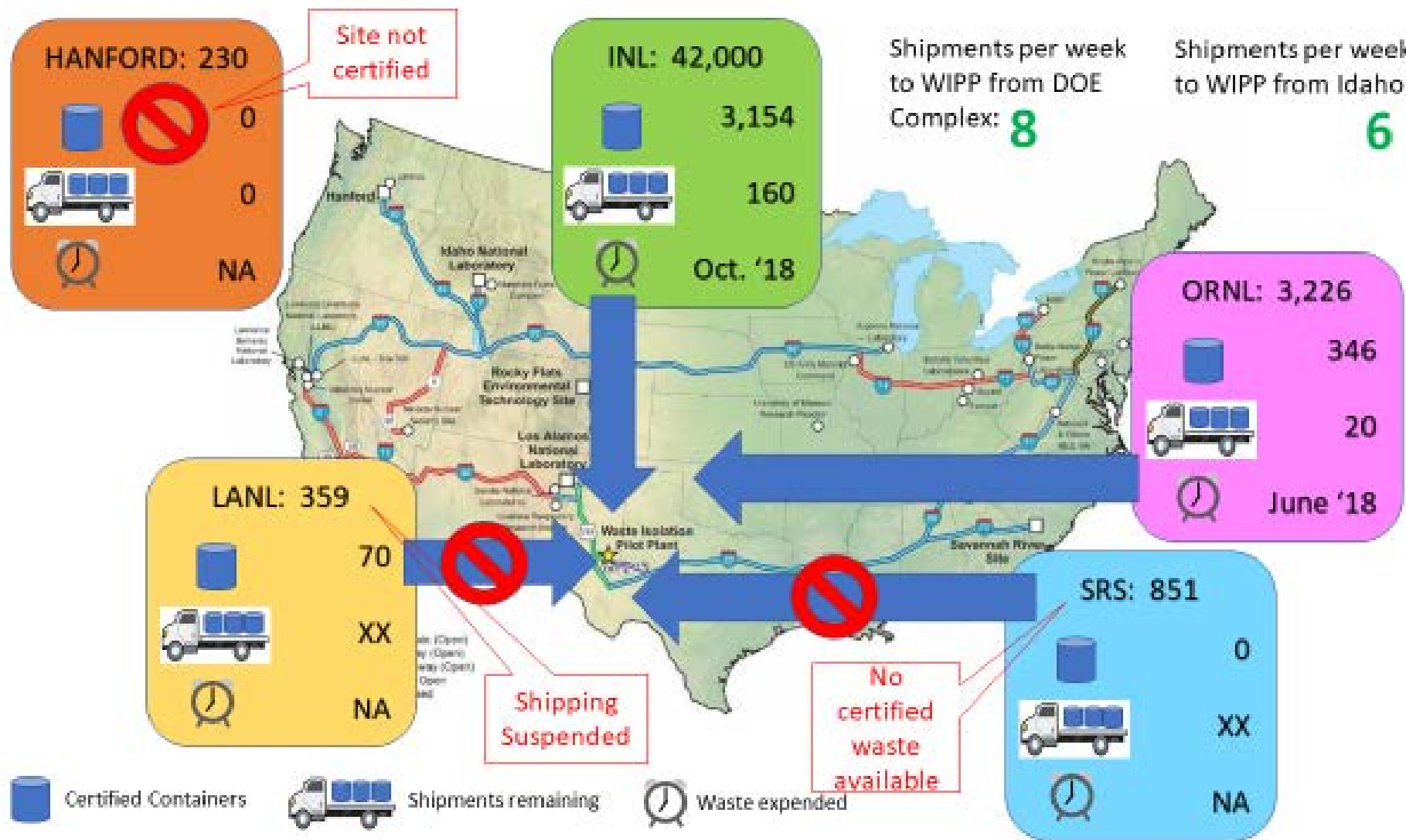
- Current Budget: (Annually)
 - Advanced Mixed Waste Treatment Project (AMWTP) - Contact-handled Transuranic waste characterization, treatment, certification, and shipping
 - Accelerated Retrieval Project (ARP) support to AMWTP - Processing sludge waste, large items, roaster oxide conditioning
 - Mixed Low-Level Waste (MLLW) - Processing mixed low-level waste for offsite disposal
 - Remote Handled-Transuranic (RH-TRU) - Processing remote-handled transuranic waste
 - Radioactive Waste Management Complex (RWMC) Infrastructure
 - Total ~ \$185.5M

Stored Waste Disposition

- Progress from Carlsbad Field Office visit the week of March 26, 2018
 - Waste stream BNINW216 was approved, adding 943 containers to shippable inventory.
 - An approval plan for waste stream BNINW218 was developed to add another 100 containers to shippable inventory by June 1, 2018.
 - Carlsbad Field Office management committed to a systematic review the week of April 30, 2018 of the Enhanced Acceptable Knowledge process to improve review and approval durations.
 - Carlsbad Field Office management and DOE-Idaho Field Office management committed to develop a national priority list and to establish resources to support the priorities.
 - Carlsbad Field Office management and DOE-Idaho Field Office management committed to improving communications with scheduled site calls, inclusion in certified program discussions, and continued site representative communications.
 - The Advance Mixed Waste Treatment Project will be given equal status as a certified program at Idaho with the Central Characterization Project which holds the certified program at all other DOE sites.
 - Next focus is waste stream BN510, compacted waste, which is important to continue shipping.

Settlement Agreement TRU Production Status



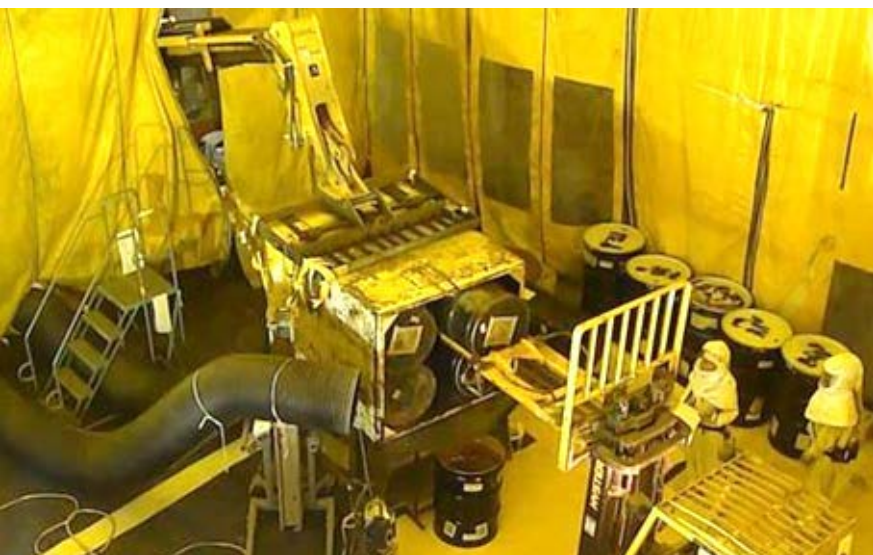


CH TRU Treatment



Above: Retrieval Containment Enclosure (RCE) completed retrieval of stored waste in Feb, 2016

Below: Unloading drums from M-III/IV bins in the RCE



Final box retrieved from the RCE

Key Activities:

- Continue removal of soil from the soil berms in the RCE as fill in work.
- Re-utilized the RCE to safely unpack M-III bins, PCB contaminated waste.
- Re-utilize the ARP V and VII facilities for waste repackaging and oversize item removal (slides to follow).
- Began treating roaster oxides in ARP IX.
- Starting up ICE 3 in the Retrieval Enclosure Facility to process over-sized boxes.

Upcoming Activities:

- Continue waste treatment in support of the 2018 milestone.

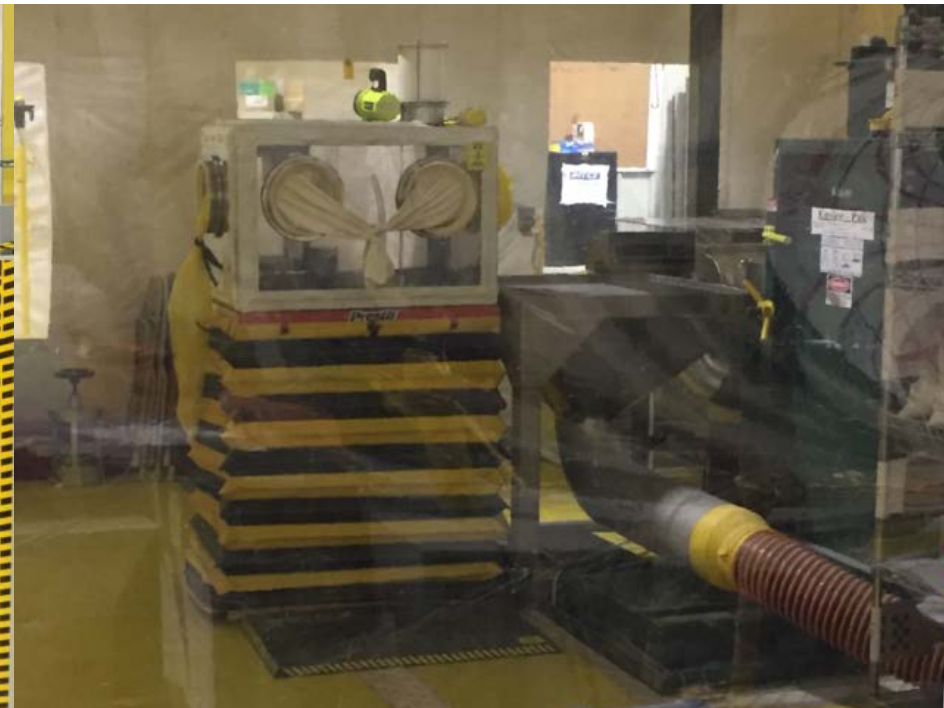
Additional CH-TRU Waste Treatment Areas

Key Activities:

- Assay, absorption, treatment of small waste streams to meet the Waste Acceptance Criteria for the disposal facility.
- Multiple “tent” structures are on site to support small waste stream treatment.



Exterior of treatment tent inside of building WMF-635



Glovebox inside of treatment tent in building WMF-635

CH-TRU Treatment of Sludge Waste in ARP V



Key Activities:

- Sludge waste repackaging in ARP V is on hold due to 4/11/2018 drum event.

Upcoming Activities:

- Accident investigation has started.

CH-TRU Waste Repackaging in ARP VII

Key Activities:

- Large Item repackaging continues in ARP VII.

Upcoming Activities:

- Complete waste repackaging and return facility to CERCLA for D&D.



Excavator removing large item from waste box.



Crews decontaminate the large items for disposal as M/LLW.



Waste Treatment in ARP IX



Excavator bucket raking Roaster Oxides to ensure treatment



Drum of Roaster Oxide waste in the treatment trough

Key Activities:

- Roaster oxide waste is treated/conditioned and repackaged for disposal.

Upcoming Activities:

- Turn over facility to complete the targeted waste exhumation.

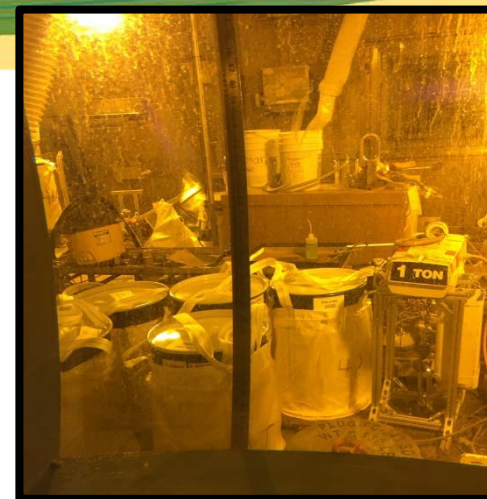
Remote-Handled Transuranic Waste Disposition

Key Activities/Actions:

- Repackaging suspect RH-TRU waste as discovered at AMWTP.
- Waste stream approval by EPA and CBFO is required prior to certification and transport for disposal. CBFO's current priority is on CH-waste. Fifteen ISA waste stream documents are submitted and pending CBFO approval.
- Treatment of Navy's 102 Cans of Pieces, Parts, and Fines continues. Need waste determination from DOE-HQ.



Left:
RH-TRU Waste
container encased in
lead bricks



View Inside CPP-666 Hot Cell



Right:
Ensuring no
prohibited items
or conditions
exist in RH-TRU
laboratory
waste in CPP-
666 hot-cell

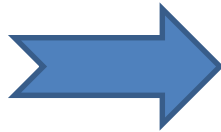


Right:
Hot-cell operations
sort through
suspect RH-TRU
waste in CPP-659

Dashboard Legend



Ahead of schedule, under budget, better than expected.



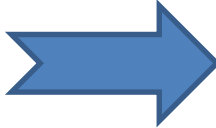

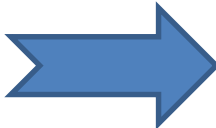
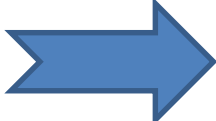


On schedule, on budget, performance as expected.



Behind schedule, over budget, performance less than expected.

TRU Waste Program Dashboard

Key Questions	Dashboard Indicator	Comments
Schedule Performance		Project will miss the milestone to ship all waste out of Idaho. Risk not treating all waste by 12/31/18.
Cost Performance		Cost performance slightly over budget.
Impact on employment/economic development		Project will continue at a similar level of effort this year.
Affect on agreements		Project will miss the milestone to ship all waste out of Idaho.
Impact on safety and environment		No ongoing safety issues; Safety goals are being met.
Impact on cleanup DOE-wide		No impact on DOE-wide cleanup.