



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# Integrated Waste Treatment Unit Update

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# Integrated Waste Treatment Unit

## Key Activities/Actions:

- Current outage is 95 percent complete
- Continued update of operating procedures and training of operators in accordance with lessons learned from testing.
- Prepare test plan for follow-on simulant run.
- Resolve outstanding issues identified during post simulant run engineering inspection.

## Upcoming Activities:

- Complete facility modifications to address wall scale formation and off-gas filter material transfer issues.
- Commence next simulant run to verify effectiveness of modifications.
- After next simulant run, begin Outage F and engineering evaluation to confirm modifications were effective.
- Plant reheat is planned this month, followed by a 60,000-gallon waste simulant processing campaign.

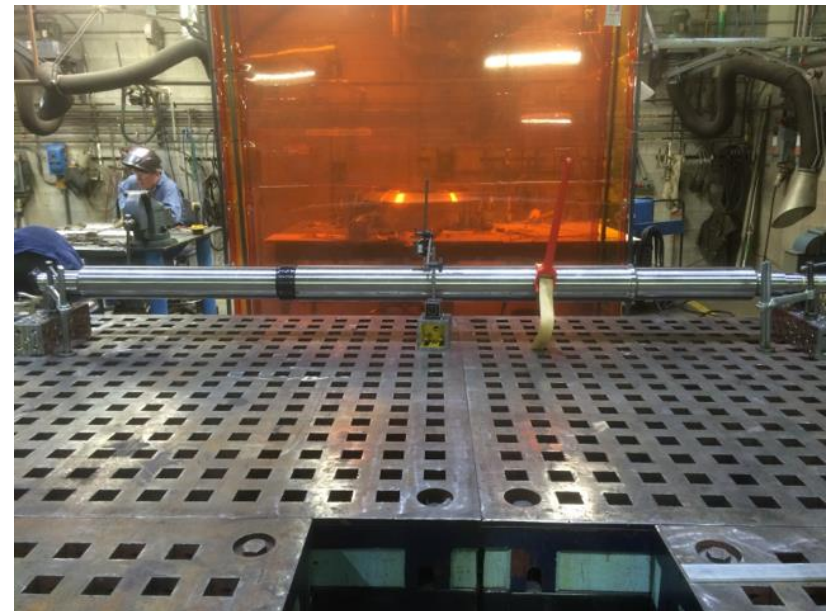
# Status of IWTU Adjustments

1. “Bark” (wall scale) Formation in the Denitration/Mineralization Reformer (DMR): Chemical analysis has determined this occurred during the second half of the simulant run. Adjustment: Changing DMR bed material from bauxite to alumina, adjusting operating parameters.
2. Carbon Reduction Reformer (CRR) Refractory Lining: Adjustment: All CRR penetrations have been removed. Repairs to refractory lining completed in June. Curing of the material will follow into heat-up for the next simulant run.



## Status of IWTU Adjustments

3. Off-Gas Filter (OGF) Material Transfer: Adjustment: Completed installation of larger transfer jet and air flow upgrades to gas cannons.
4. Off-Gas Blowers: Improper vendor heat treatment determined as cause of shaft deflections. Adjustment: Vendor will replace all four blower shafts and complete testing prior to start of Test Instruction-103.



- The next simulant run will verify whether modifications to the system and operating procedures have solved problems identified.
- Results of the next simulant run will determine path forward.
- Agreement with the State establishes Sept. 30, 2016 as milestone date to begin treatment of radioactive waste.

