



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

**EM Office of Field Operations Update
To
Environmental Management Advisory Board
Site Specific Advisory Board Chairs**

Ken Picha

Acting Associate Principle Deputy Assistant Secretary
Office of Field Operations

September 2018

Washington

- Hanford Site
- Richland Operations Office
- Office of River Protection

EM Sites

Idaho

- Idaho National Laboratory

New York

- West Valley
- Separations Research Process Unit
- Brookhaven

California

- Energy Technology Engineering Center
- Lawrence Livermore

Kentucky

- Paducah

Ohio

- Portsmouth

Nevada

- Nevada National Security Site

Utah

- Moab

South Carolina

- Savannah River Site

New Mexico

- Los Alamos
- Sandia
- Carlsbad

Tennessee

- Oak Ridge

EM has 16 sites in 11 states and has reduced its footprint by 90% to less than 300 square miles

EM to continue focus on risk reduction cleanup activities that are safe, environmentally responsible and cost effective.

Key areas of focus include the following:

- Tank waste remediation at three sites
- Progress on key construction projects
- Safe receipt and management of special nuclear materials including spent nuclear fuel and non-proliferation program returns of US origin nuclear materials
- Management of integrated transuranic, low-level waste and mixed waste programs
- Soil and groundwater remediation
- Facility decontamination and decommissioning

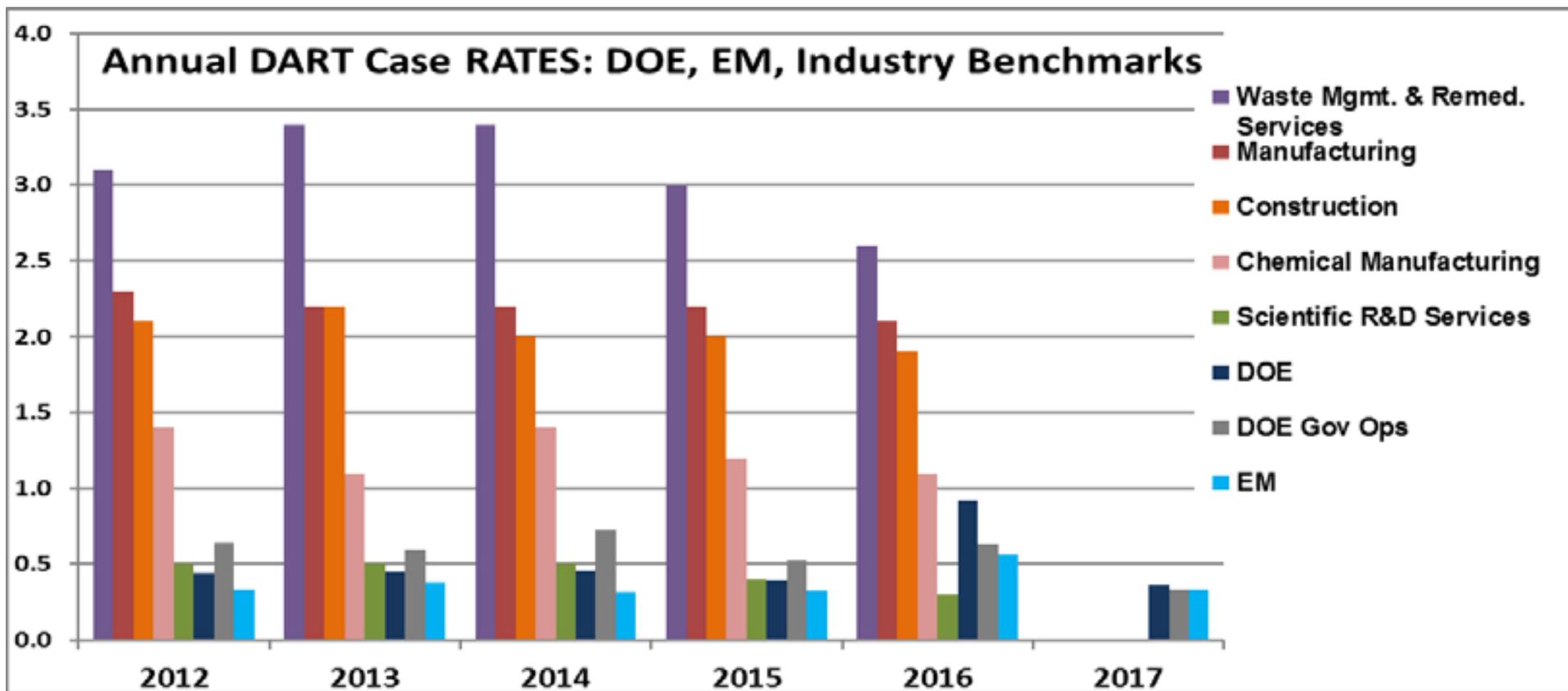


Tank 20 at the Savannah River Site



Waste Emplacement at the Waste Isolation Pilot Plant

EM Safety Performance



Recent Accomplishments

- Los Alamos – safe treatment of nitrate salt drums to ensure they meet WIPP acceptance
- WIPP - Continues to receive shipments; recently received 12,000th shipment
- Oak Ridge – Ground-breaking for Mercury Treatment Facility, enabling further cleanup of Y-12
- SRS – Accepted 30 million gallon Salt Disposal Unit #6; replaced 3rd melter in DWPF
- Hanford – Final cleanup of 618-10 burial ground



SRS manages 36 million gallons of liquid wastes in 43 underground storage tanks (8 closed). Over past year:

- Contractor resumed vitrification operations in Defense Waste Processing Facility after replacing the failed vitrification melter
- Remotely repaired a key component for managing volume in tanks farms, the 3-H Evaporator



SRS 3H evaporator leak



3-H evaporator after repair

Facility D&D Accomplishment

EM made significant progress in demolition at two of our sites in New York
West Valley Demonstration Project
Vitrification Facility



Separations Process Research Unit
Building H-2



Poplar Creek K-633 (ETTP)



Y-12 Biological Facility Progress



Removal of highly-radioactive sludge from K Reactors Area underway:

- Filling of first container began June 12, 2018
- First container shipped to T Plant on June 25, 2018
- Three containers filled and shipped to-date
- Approximately 24 total containers to be shipped
- Construction and installation of the sludge removal system was a \$311 million capital line item project—completed \$21 million under cost and 16 months ahead of schedule



LANL Treatment of the Remediated Nitrate Salts

- ❑ Treatment of 60 remediated nitrate salt drums completed
- ❑ Treatment of 27 unremediated nitrate salt drums



Technicians at the glove box inside WCRRF

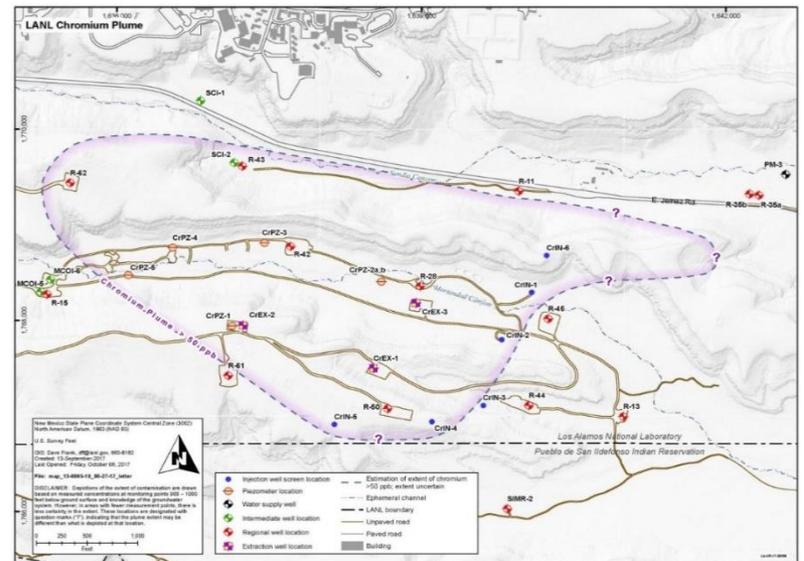


Treated RNS drums being transported to Area G

- Continuing to receive shipments of foreign and domestic research reactor spent fuel and other materials
- Began processing Office of Science HFIR fuel earlier in 2018
- Continued safe storage of plutonium and other materials; demonstrated ability to downblend plutonium oxide for disposition at WIPP



- Continued operation of Hanford 200-W groundwater treatment system
- Continued mitigation of Chromium plume at LANL
- Cleanup of old coal-fired ash piles at SRS
- In February achieved milestone of over 9 million tons of material disposed at Moab



Challenges

- Infrastructure – Much of complex constructed over 50 years ago; challenge to maintain
- Commissioning – One of a kind facilities; transition from construction to testing/operations
- Quality Assurance – Lack of NQA-1 vendors; commercial grade dedication
- Regulatory challenges – Meeting milestone dates

