Overview
U.S. Department of Energy
Office of Legacy Management
Tribal Interactions
LTS

State and Tribal Working Group Overview

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LM’s Mission

- Protect human health and the environment
- Preserve, protect, and share records and information
- Optimize the use of land and assets
- Sustain management excellence
- Engage the public, governments, and interested parties
Current LM Sites

Anticipated Legacy Management Sites Through FY 2020

- Anticipated Sites in LM Through FY 2020 Requiring LTS&M
  - UMTTRCA Title I
  - FUSRAP
  - UMTTRCA Title II
  - D&D
  - CERCLA/RCRA
  - Other

- Site Category
  - Category I activities typically include records-related activities and stakeholder support
  - Category II activities typically include routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/measurement, records-related activities, and stakeholder support
  - Category III activities typically include operation and maintenance of active remedial action systems, routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/measurement, records-related activities, and stakeholder support

- D/P = Disposal/Processing
- DR = Decommissioned Reactor

Note: Planned transfer dates are subject to change.
UMTRCA: Addresses uranium mill tailings

- Early health studies demonstrated risk to public health due to radon emission
- Many communities impacted by using mill tailings in construction
  - Tailings were given away by mills
  - Perfect for use in concrete
- Uranium mill tailings were a significant issue in the western U.S.
  - Tailings piles were uncovered
  - Liquid waste ponds were unlined
  - Impacts on communities were significant
  - Over 89 percent of volume of waste in DOE’s inventory resulted from uranium mining, milling, and refining
- Large volumes of sandy material with relatively low radioactivity
LM UMTRCA Mill Tailings Sites

- LM currently manages 27 closed uranium mill sites
- UMTRCA disposal cell covers range in age from 10 to 30 years old
- Continue to be effective in isolating contaminants and mitigating radon exposure
- Disposal cells were well designed and constructed
  - Many layered covers of compacted clay and rock armor
    - protect from radon exposure
    - protect against wind and surface water erosion
- Several have vegetative covers to improve the water balance and reduce infiltration of rainwater
Long-Term Surveillance and Maintenance – Monitoring

- Collecting and analyzing samples of groundwater and surface water is the most common type of monitoring at LM sites:
  - Wells plus surface water monitoring locations at all sites: >2000
  - Approximately 8000 samples per year
  - Approximately 19,000 analyses per year

- Other types of monitoring:
  - Plants to measure vegetation density
  - Erosion effects
  - Rock size on cells
  - Subsidence
Legacy Management Tribal Interactions: Locations of Tribes and Alaska Natives
Inupiaq Interactions:
Project Chariot Plowshare Program Site
near Point Hope, Alaska

- LM removed remaining drilling mud contamination
- Village of Point Hope elders toured site during cleanup
  - Conducted surveys
LM Sites on Navajo Nation: Former Uranium Processing Sites
Navajo Nation UMTRCA Sites

Mexican Hat, Arizona, Disposal Site

Monument Valley, Utah, Processing Site

Shiprock, New Mexico, Disposal Site

Tuba City, Arizona, Disposal Site
Navajo Nation
Uranium Mill Tailings Disposal Cell (Rock Cover) at Shiprock, NM
Cooperation with Navajo Nation AML/UMTRCA Program

- LM cooperative agreement
  - Independent oversight
  - Conduct inspections of LM’s sites
- Collaborate on Navajo Nation outreach events
- Provides more complete information for the public
- Increases public confidence
Participation with the Navajo Nation
Internships and Outreach Activities

- Internships
  - Diné College
  - University of Arizona

- Recent interactions
  - Navajo Nation/Hopi Tribe/DOE quarterly meetings
  - Chapter House meetings
  - Western Agency Council meeting
  - Navajo Nation Division of Natural Resource Summit
  - Fairs and public events
Outreach Efforts with Tribal Nations

- Cooperative Agreements are required under UMTRCA for remedial actions at mill sites
  - Agreements with the Aleutian Pribilof Island Association, Hopi Tribe, Navajo Nation; long-standing agreement with Wind River Tribes to be renewed

- University-focused Science and Technology Activities
  - Educational partnership with Diné College in Tsaile, Arizona, for environmental science
  - University of Arizona Native American graduate students support LM’s mission
    - studying long-term effects of disturbance from mining, remediation, and livestock overgrazing
    - evaluating uptake of contaminants in plants

- Native American Internship Program in Grand Junction, CO
What Have We Learned?

- Decisions are better when they include knowledge of the systems and the people
- Tribes have extensive knowledge of the land and its changes through time
- Lessons from recent interactions
  - Lack of progress
  - Lack of trust
  - Long memories on previous promises
  - Federal agencies are viewed as one big group

What are we doing to respect these beliefs? How are we addressing these values in our program to communicate more effectively?
The Future

- Protect public health and the environment
- Preserve societal knowledge of the past
- Educate and encourage students to pursue science and engineering careers
Formerly Utilized Sites Remedial Action Program

Program Highlights

May 3, 2017
What are FUSRAP Sites?
Life-Cycle of a FUSRAP Site

USACE

Remedial Action

2-year Period

Transition (LTS&M)

DOE LM

LTS&M

Completed Status

Active Status

Transition Status

End of Transition

Accepted into FUSRAP

Closeout
Site Transitions

FY16 – Painesville, Ohio, Site (Painesville Site)

FY19 – Attleboro, Massachusetts, Site (Shpack Landfill)

FY17 – Tonawanda, New York, Site (Linde Air)

FY19 – Windsor, Connecticut, Site (Combustion Engineering)

FY19 – Colonie, New York, Site (Colonie Site)

FY20 – Deepwater, New Jersey, Site (DuPont Chambers)

FY20 – Curtis Bay, Maryland, Site (W.R. Grace at Curtis Bay)
Site Transitions

2
FY21 – Middlesex South, New Jersey, Site (Middlesex Sampling Plant)

3
FY22 – St. Louis, MO, Site (Mallinckrodt, St. Louis Downtown Site VPs)

3
FY30 – Hazelwood, MO, Site (Hazelwood ISS, Latty Avenue VPs)

3
FY30 – Berkeley, MO, Site (St. Louis Airport Site)

3
FY 30 – Berkeley, MO, Site VPs (St. Louis Airport Site VPs)

2
FY21 – Hicksville, New York, Site (Sylvania Corning Plant)

2
FY21 – Middletown, Iowa, Site (Iowa Army Ammunition Plant)
Comprehensive Environmental Response Compensation Liability Act

Program Highlights

May 3, 2015
Manage DOE’s post-closure responsibilities and ensure the protection of human health and the environment.
Fernald Preserve

Production, Cleanup, and LTSM
Maxey Flats Project

June 26, 2012
Maxey Flats – 2016
Final cap
Rocky Flats Site, Colorado
Rocky Flats Site
Weldon Spring Facilities

- LCRS Building
- Disposal Cell
- Interpretive Center
- Rental Trailer Offices
- Former Administration Building
- Concrete Pad – Recycled 2015
- Restored Prairie