Introduction

The Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978 (Public Law 95-604) is a federal law that provides for the safe and environmentally sound disposal, long-term stabilization, and control of uranium mill tailings in a manner that minimizes or eliminates health hazards to the public. Uranium mill tailings are the residue that remains from extracting uranium from uranium ore. The tailings are radioactive and might contain other metals or hazardous substances.

Title I of UMTRCA applies to sites where uranium ore milling had ceased and the milling licenses had been terminated as of 1978, when UMTRCA was passed. Congress assigned responsibility for remediating these sites to the U.S. Department of Energy (DOE). Title II of UMTRCA applies to sites where uranium ore was being processed under an active license when UMTRCA was passed, and the site licensee is responsible for reclamation.

UMTRCA sites are remediated to standards established by the U.S. Environmental Protection Agency in Title 40 Code of Federal Regulations (CFR), Section 192. When the U.S. Nuclear Regulatory Commission (NRC) concurs that remedial action is complete and accepts the site-specific Long-Term Surveillance Plan (LTSP), DOE assumes responsibility for each UMTRCA disposal site under a general NRC license for custody and long-term care. Separate general licenses are established for Title I and Title II sites. The general licenses will not expire. UMTRCA disposal sites are managed by the DOE Office of Legacy Management (LM).

UMTRCA Title I Disposal and Processing Sites

Congress designated 22 inactive uranium-ore processing sites for remediation under Title I of UMTRCA in 1978. Many of these sites were abandoned when UMTRCA was passed. Remediation of the 22 sites resulted in the creation of 19 engineered disposal cells that contain uranium mill tailings and associated contaminated material. Tailings and contaminated material from three sites were relocated and placed in other disposal cells. The Title I disposal cells collectively contain approximately 40 million cubic yards of low-level radioactive material. When the licensee for the Moab, Utah, Disposal/Processing Site became insolvent, Congress directed DOE to remediate the site under Title I of UMTRCA.

Remediated UMTRCA Title I sites are regulated under 10 CFR 40.27, “General License for Custody and Long-Term Care of Residual Radioactive Material Disposal Sites,” which requires that monitoring, maintenance, and emergency measures are established in a site-specific LTSP. Usually, title for the land is assigned to an agency of the federal government, and the land is withdrawn from public access. Sites located on tribal land are regulated by NRC; however, tribes retain ownership of the land. DOE obtains a site access agreement with the tribe that allows DOE to fulfill its custodial responsibilities of the DOE-owned disposal cell.

Residual radioactive material was moved from some of the Title I processing sites to off-site disposal locations. Remediated processing sites that do not have disposal cells are not regulated under the NRC general license, but NRC regulates contaminated groundwater that remains (listed below as processing sites) under a DOE-developed groundwater compliance action plan. Compliance strategies range from natural flushing to active remediation. The host state and Native American tribe (when applicable) are invited to comment on groundwater remediation plans.

The NRC general license takes effect for a disposal site when the processing site surface has been remediated and contaminated materials have been encapsulated in a disposal cell. However, if processing-related groundwater contamination is present beneath a disposal site, the site will not be fully licensed until groundwater quality meets the applicable regulations.

All but two of the Title I disposal sites are under the general license. A portion of the cell at the Grand Junction disposal site will be left open to receive additional contaminated materials until it is filled to capacity or until 2031, whichever comes first. Remediation of the Moab processing site is not yet complete.
LM currently manages the following Title I disposal and processing sites:

1. Ambrosia Lake, New Mexico, Disposal Site
2. Burrell, Pennsylvania, Disposal Site
3. Canonsburg, Pennsylvania, Disposal Site
4. Durango, Colorado, Disposal/Processing Sites
5. Falls City, Texas, Disposal Site
6. Grand Junction, Colorado, Disposal/Processing Sites
7. Green River, Utah, Disposal Site
8. Gunnison, Colorado, Disposal/Processing Sites
9. Lakeview, Oregon, Disposal/Processing Sites
10. Lowman, Idaho, Disposal Site
11. Maybell, Colorado, Disposal Site
12. Mexican Hat, Utah, Disposal Site
13. Monument Valley, Arizona, Processing Site
14. Naturita, Colorado, Disposal/Processing Sites
15. Rifle, Colorado, Disposal/Processing Sites
16. Riverton, Wyoming, Processing Site
17. Salt Lake City, Utah, Disposal/Processing Sites
18. Shiprock, New Mexico, Disposal Site
19. Slick Rock, Colorado Disposal/Processing Sites
20. Spook, Wyoming, Disposal Site
21. Tuba City, Arizona, Disposal Site

UMTRCA Title II Disposal Sites

Uranium-ore processing sites regulated under Title II of UMTRCA were active when the act was passed. Uranium mills that started operation after the passage of UMTRCA are also regulated under Title II. These sites were commercially owned and regulated under an NRC or agreement-state license to process uranium ore. The licensee conducts an NRC-approved reclamation of any on-site waste remaining from uranium-ore processing operations. The licensee also provides funding for inspections, monitoring, and maintenance. DOE then develops an LTSP and accepts title to the site for custody and long-term care. DOE manages Title II sites under the provisions of the general NRC license established under 10 CFR 40.28, “General License for Custody and Long-Term Care of Uranium or Thorium Byproduct Materials Disposal Sites.”

LM currently manages six UMTRCA Title II sites. The number will increase as ongoing site reclamations are completed. Ultimately, LM may manage as many as 30 UMTRCA Title II sites.

LM currently manages the following Title II disposal sites:

1. Bluewater, New Mexico, Disposal Site
2. Edgemont, South Dakota, Disposal Site
3. L-Bar, New Mexico, Disposal Site
4. Maybell West, Colorado, Disposal Site
5. Sherwood, Washington, Disposal Site
6. Shirley Basin South, Wyoming, Disposal Site
IN CASE OF AN EMERGENCY AT THE SITE, CONTACT 911

LM TOLL-FREE EMERGENCY HOTLINE:
(877) 695-5322

Information about UMTRCA Title I and Title II sites is available at www.energy.gov/lm/sites/lm-sites/programmatic-framework

For more information about the DOE Office of Legacy Management, visit www.energy.gov/lm/office-legacy-management, or contact:

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