1 of 1

LICENSING PLAN FOR UMTRA PROJECT DISPOSAL SITES

Final

September 1993

SEP 1 1993

**Prepared for
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LIST OF ACRONYMS

<u>Acronym</u>	<u>Definition</u>
AEA	Atomic Energy Act
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CPD	Contracts and Procurement Division
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
EPA	U.S. Environmental Protection Agency
FAR	final audit report
FPMD	DOE Facilities and Property Management Division
FS	Forest Service
GJPO	Grand Junction Projects Office
H&S	health and safety
LTSP	long-term surveillance plan
NRC	U.S. Nuclear Regulatory Commission
PLCC	prelicensing custodial care
QA	quality assurance
RAA	remedial action agreement
RAC	Remedial Action Contractor
RAP	remedial action plan
RRM	residual radioactive material(s)
TAC	Technical Assistance Contractor
UMTRA	Uranium Mill Tailings Remedial Action
UMTRCA	Uranium Mill Tailings Radiation Control Act
USACE	U.S. Army Corps of Engineers

1.0 INTRODUCTION

1.1 BACKGROUND

In the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978 (Public Law 95-604), as amended, Congress recognized that uranium mill tailings might pose a potentially significant radiation hazard to the public. The UMTRCA authorized the U.S. Department of Energy (DOE) to: 1) perform remedial actions at designated inactive uranium mill tailings sites to reduce potential health hazards to the public, and 2) upon completion of remedial actions, care for the permanent disposal sites under a general license issued by the Nuclear Regulatory Commission (NRC).

Because the 24 designated processing sites had not previously operated under an NRC license, the UMTRCA authorizes the NRC to promulgate regulations to ensure monitoring and maintenance of permanent disposal sites pursuant to a general license, in accordance with the standards of Section 275(a) of the Atomic Energy Act (AEA) of 1954, as amended. The regulation (10 CFR 40.27, *General License for Custody and Long-Term Care of Residual Radioactive Material Disposal Sites*) took effect on November 30, 1990 (55 FR 45531). In addition, the UMTRCA directed the U.S. Environmental Protection Agency (EPA) to promulgate standards for protecting human health and the environment. Regulation 40 CFR, Part 192, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," contains requirements for stabilizing, cleaning up, and disposing of residual radioactive materials (RRM). Regulation 52 FR 36000 contains proposed standards for groundwater contamination cleanup at these sites.

1.2 PURPOSE

The Uranium Mill Tailings Remedial Action (UMTRA) Project Office developed a plan to define UMTRA Project licensing program objectives and establish a process enabling the DOE to document completion of remedial actions in compliance with 40 CFR 192 and the requirements of the NRC general license. This document supersedes the January 1987 *Project Licensing Plan* (DOE, 1987).

The plan summarizes the legislative and regulatory basis for licensing, identifies participating agencies and their roles and responsibilities, defines key activities and milestones in the licensing process, and details the coordination of these activities.

This plan provides an overview of the UMTRA Project from the end of remedial actions through the NRC's acceptance of a disposal site under the general license. The licensing process integrates large phases of the UMTRA Project. Other programmatic UMTRA Project documents listed in Section 6.0 provide supporting information.

1.3 SCOPE

Licensing on the UMTRA Project applies to completed disposal sites. The scope of this plan includes postremedial action activities and requirements for the NRC general license to take effect for a disposal site. The level of detail overviews several phases of the UMTRA Project and is usable for site schedule planning.

2.0 LEGISLATIVE AND REGULATORY FRAMEWORK

The UMTRCA and its amendments, EPA cleanup standards for residual radioactive materials, and the NRC general license requirements for long-term care of disposal sites form the regulatory basis for the UMTRA Program. Requirements set forth in the legislation and regulations are summarized below.

2.1 URANIUM MILL TAILINGS RADIATION CONTROL ACT

Title I of the UMTRCA authorizes the cleanup, stabilization, and disposal of RRM at inactive uranium mill tailings sites. The DOE is identified as the lead agency responsible for implementation, management, and regulatory compliance. The NRC is given administrative authority. More specifically, the UMTRCA requirements include the following:

- The DOE designated 24 sites for remediation under Title I (section 102).
- The DOE shall enter into cooperative agreements with affected states and Indian tribes to perform remedial actions and ensure permanent disposal site right-of-entry for the DOE, EPA, and NRC (section 103).
- The DOE shall maintain custody of disposal site property pursuant to the NRC general license for long-term care and in accordance with EPA standards (section 104).
- The DOE shall acquire title to RRM and the land for permanent disposal sites, including private land and land administered by the Department of the Interior (DOI) (section 104).
- The DOE shall maintain custodial responsibility for disposal sites on Indian land. However, the Indian tribes shall maintain ownership of the disposal sites. The DOE shall enter into custodial care agreements with affected Indian tribes to conduct the long-term surveillance program under the general license (section 105).
- The NRC shall determine compliance with EPA standards and issue one general license for long-term care of the disposal sites (section 202).
- The EPA must promulgate cleanup standards to protect human health and the environment from RRM-associated hazards (section 206).

2.2 UMTRCA AMENDMENTS ACT

In 1988, Congress passed the UMTRCA Amendments Act allowing the DOE to extend without limitation the time frame needed to complete groundwater restoration activities required by 40 CFR 192. As a result of the UMTRCA Amendments Act, the NRC has allowed disposal site licensing to occur in two

steps, if necessary. Two-step licensing may potentially apply to sites where the RRM was stabilized in place at the designated processing sites. This will avoid lengthy delays in long-term surveillance program start-up. The need for two-step licensing will depend on the DOE's established groundwater restoration strategy developed in accordance with the EPA groundwater cleanup standards in 40 CFR 192 and EPA proposed standards (52 FR 36000) issued in 1987.

2.3 EPA STANDARDS FOR REMEDIAL ACTION

The primary objectives of EPA Regulation, 40 CFR 192, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," are isolation to prevent inadvertent human misuse and stabilization to prevent dispersal by natural forces. Consistent with UMTRCA guidance, long-term stability is emphasized: remedial action should last 1000 years when reasonably achievable, with a minimum performance of 200 years. In addition, standards to reduce radon emissions and protect groundwater resources from contamination are specified. The technical approach to surface cleanup with groundwater protection is required in a site-specific remedial action plan (RAP), with review and concurrence by the NRC and state or tribe. A point of compliance for water quality monitoring is required for long-term surveillance.

The EPA amended Regulation 40 CFR 192 in 1987. Standards were proposed to address existing groundwater contamination, caused by uranium processing activities, beneath and in the vicinity of these processing sites (52 FR 36000).

2.4 NRC GENERAL LICENSE FOR CUSTODY AND LONG-TERM CARE OF DISPOSAL SITES

The NRC general license for custody and long-term care of disposal sites, Regulation 10 CFR 40.27, provides the requirements for putting the license into effect for UMTRA sites. The DOE is named as the long-term licensee and, therefore, must meet these specific UMTRCA requirements (see Section 4.0).

The general license requires the development of site-specific long-term surveillance plans (LTSP) specifying compliance with AEA standards. The DOE has developed an implementation plan for preparing site LTSPs. *Guidance for Implementing the UMTRA Project Long-term Surveillance Program* (DOE, 1992) describes the DOE's plans to document final disposal site conditions and implement site inspections, corrective actions, groundwater monitoring, surveillance features installation, site maintenance, record keeping, and reporting.

3.0 ROLES AND RESPONSIBILITIES

The UMTRCA defines the roles and responsibilities of the principal Federal agencies, states, and Indian tribes involved with the UMTRA Project. In addition, several participants support the DOE in the licensing process. State and local agencies serve in a review role. As the lead agency in executing the UMTRCA, the DOE manages the project and ensures compliance with regulatory requirements. The DOE is responsible for programmatic decisions, as well as review and approval of all DOE contractor work. As the administering authority, the NRC must review and concur on all project phases including plans and implementation.

3.1 UMTRA PROJECT OFFICE

The DOE must interact with the public and government agencies at all levels to negotiate plans for remedial actions. The DOE Project Office enters into remedial action agreements (RAAs) and cooperative agreements with the affected states and tribes. RAAs establish the DOE's right to access processing sites and conduct remedial actions. This is necessary because at the time remedial actions are under way, the site is owned by the state. RAAs ensure the DOE unhindered remedial action completion. Cooperative agreements establish specific agency obligations and financial responsibilities.

In addition to a cooperative agreement for remedial actions at sites on Indian land, a long-term custodial care agreement is entered into with the affected tribe following remedial action. Custodial care agreements recognize the DOE's authority to conduct long-term surveillance of disposal sites on Indian land while ownership remains with the tribe.

Through DOE Albuquerque Operations, the DOE UMTRA Project Office receives matrix support from the Facility Properties Management Division (FPMD) and the Contracts and Procurement Division (CPD). The FPMD serves the DOE Project Office in an advisory and oversight role for all real estate transactions and works directly with the U.S. Army Corps of Engineers (USACE) as a liaison for the DOE Project Office. The CPD handles all contracts and funding procedures, such as budgeting for the USACE and cooperative agreements with states.

The DOE has interagency agreements with the Bureau of Land Management (BLM) and Forest Service (FS) allowing for the withdrawal and transfer of jurisdiction of lands under the control of these Federal agencies. This is necessary at some sites to obtain ownership of RRM and disposal sites.

Specific responsibilities of the UMTRA Project Office with respect to milestones and activities in the licensing process are summarized below.

- Enters into cooperative agreement with state or tribe to complete remedial actions for sites under its jurisdiction.

- Conducts final remedial action close-out inspection.
- Prepares site certification report.
- Implements prelicensing custodial care (PLCC) program.
- Maintains custodial care responsibility for disposal sites on Indian land.

3.2 GRAND JUNCTION PROJECTS OFFICE

The Grand Junction Projects Office (GJPO) is responsible for the DOE long-term surveillance program for licensed disposal sites. After the general license takes effect, programmatic responsibility for long-term surveillance of each site will transfer from the UMTRA Project Office to the GJPO. The GJPO must meet all annual site inspection and reporting requirements of the program as specified in the site LTSP. The GJPO will submit inspection reports and deal directly with the NRC in administering any corrective actions and/or routine maintenance.

When remedial action is complete but the general license has not yet taken effect, a site will remain under UMTRA Project Office control. The GJPO will conduct site inspections and prepare annual reports as part of the prelicensing custodial care program. The UMTRA Project Office will oversee, review, and approve GJPO activities. Arrangements between the two project offices and their roles and responsibilities are detailed in the *Implementation Plan for the Integration of the Prelicensing Custodial Care Programmatic Activities Between the UMTRA Project Office and GJPO* (DOE, 1991a).

Specific responsibilities of the GJPO with respect to milestones and activities in the licensing process are summarized below.

- Conducts PLCC inspections and prepares PLCC inspection reports.
- Accepts programmatic responsibility for licensed disposal sites.
- Conducts the DOE long-term surveillance program.

3.3 DEPARTMENT OF THE INTERIOR

The DOI, through the Bureau of Indian Affairs (BIA), is a participating agency for all actions involving processing and disposal sites on tribal land. The BIA is a party to access agreements, cooperative agreements, and long-term custodial care agreements.

3.4 U.S. ARMY CORPS OF ENGINEERS

The DOE Project Office has a memorandum of understanding with the USACE to conduct specific real estate transactions (e.g., land acquisitions, title transfers, and the acquisition of permanent rights-of-way).

Specific responsibilities of the USACE with respect to milestones and activities in the licensing process are summarized below.

- Conducts title transfer for disposal site.
- Conducts title review and curative actions as necessary.

3.5 TECHNICAL ASSISTANCE CONTRACTOR

The Technical Assistance Contractor (TAC) provides technical and management support to the DOE Project Office. TAC involvement extends from preparing project documents such as RAPs, site LTSPs, and environmental assessments to conducting in-process quality assurance (QA) audits/surveillances, environmental audits, and health and safety audits. The TAC also assists with programmatic responsibilities such as acquiring land and complying with Federal regulations and all appropriate DOE orders. TAC involvement continues throughout the licensing process.

Specific responsibilities of the TAC with respect to milestones and activities in the licensing process are summarized below.

- Prepares site RAP.
- Conducts in-process surveillance and audits.
- Prepares site final audit report.
- Provides technical review of site completion report.
- Prepares disposal site LTSP.

3.6 REMEDIAL ACTION CONTRACTOR

The Remedial Action Contractor (RAC) prepares detailed designs for inclusion in the RAP, issues and administers construction subcontracts, and provides management oversight for construction activities. The RAC prepares a site completion report to document the "as-built" conditions of each site. The RAC also provides all maps, photos, and drawings for the long-term surveillance program at the completed site.

Specific responsibilities of the RAC with respect to milestones and activities in the licensing process are summarized below.

- Conducts remedial actions.
- Prepares site completion report.

3.7 STATES AND INDIAN TRIBES

All affected states and tribes serve in an oversight role, with authority to review and comment on all project documents. Their concurrence and approval of the site RAP is required.

As specified in the UMTRCA, the state will acquire the lands needed for remedial action. When remedial action is complete, the state transfers title to the disposal site to the Federal government. For disposal sites on Indian land, the land title will not transfer to the Federal government. Rather, the affected Indian tribe will negotiate a long-term custodial care agreement with the DOE allowing the agency permanent right of entry to conduct required long-term surveillance and maintenance of the disposal site.

Specific responsibilities of the state or tribe with respect to milestones and activities in the licensing process are summarized below.

- Enters into cooperative agreement with DOE to complete remedial actions.
- Acquires land for remedial action (non-Indian lands).
- Reviews and approves site RAP for any site in its jurisdiction.
- Reviews site completion report.
- Reviews site LTSP.
- Transfers disposal site land title to Federal government (non-Indian lands).
- Enters into long-term custodial care agreement with DOE (Indian lands).

3.8 NUCLEAR REGULATORY COMMISSION

The UMTRCA designates the NRC as the regulatory oversight agency for the UMTRA Project. The NRC ensures that EPA standards are met and provides technical and regulatory review of site RAPs, completion reports, LTSPs, and certification reports. NRC concurrence on these documents is required in the licensing process. The NRC general license for long-term care and maintenance of disposal sites regulates compliance on corrective actions, emergency responses, periodic inspections, and other key items of the long-term surveillance program.

Specific responsibilities of the NRC with respect to milestones and activities in the licensing process are summarized below.

- Administers regulations as defined in UMTRCA.
- Reviews and concurs on RAP for each site.
- Participates in final remedial action close-out inspection.
- Reviews site completion report and final audit report and concurs with DOE's site certification summary.
- Reviews and accepts site LTSP.
- Issues general license for custody and long-term care of disposal sites.

3.9 ENVIRONMENTAL PROTECTION AGENCY

The UMTRCA requires the EPA to provide standards for cleaning up RRM to protect human health and the environment. EPA Regulation 40 CFR 192, Subparts A, B, and C, proposes standards for RRM cleanup, stabilization, and disposal. The EPA also established standards for groundwater contamination cleanup.

Specific responsibilities of the EPA with respect to milestones and activities in the licensing process are summarized below.

- Promulgates standards for RRM cleanup at inactive uranium and thorium mining sites (40 CFR 192).
- Promulgates standards for groundwater cleanup impacted by previous operations at uranium and thorium mining sites (proposed 52 FR 36000).

Figure 3.1 illustrates the coordination of these licensing roles and responsibilities.

4.0 LICENSING PROCESS

Requirements for an UMTRA Project disposal site to be accepted under the general license are based largely on the same requirements to prove compliance with EPA remedial action standards. Complying with proposed EPA standards renders the disposal site eligible for the general license.

As specified in the UMTRCA, the following four actions involving the DOE, regulatory agencies, state and local governments, and Indian tribes must occur before the general license becomes effective for a disposal site:

- Disposal site selection and completion of approved remedial action.
- DOE's certification of completion of remedial action with NRC concurrence.
- Documentation of Federal government acquisition of title to (for non-Indian lands) or custodial responsibility of (for Indian lands) the RRM and disposal site for long-term care.
- NRC acceptance of the site LTSP.

Key activities in the licensing process to complete these actions relate directly to UMTRCA requirements. As defined in this section, the licensing process begins at the completion of surface remedial actions and extends through NRC's acceptance of the site LTSP, thus putting the general license into effect for that site. If necessary, the general license may be put into effect in two steps for specific sites, to facilitate the planning and implementation of a groundwater compliance strategy. This is discussed further in Section 4.7.

Process duration is approximately 2 years and involves the review and concurrence of specific documents detailing remedial actions, final site conditions, and plans for the long-term surveillance program. The following sections discuss the licensing process and summarize the necessary documentation, review, and concurrences by the NRC and state or Indian tribe. Figure 4.1 is a flow chart of the licensing process.

4.1 REMEDIAL ACTION COMPLETION

Assuring the completion of remedial actions in accordance with the approved RAP and in compliance with applicable EPA standards is the first step in licensing a disposal site. Each site RAP addresses design specifications and methods of compliance for the remedial actions. The UMTRA *Technical Approach Document* (DOE, 1989) contains procedures and requirements for preparing a RAP. The NRC and state or Indian tribe review and concur on the site RAP and any modifications to it and prepare a site-specific technical evaluation report containing comments on and assessment of the RAP.

FIGURE 4.1
UMTRA PROJECT LICENSING PROCESS

Periodic audits and surveillances are conducted during remedial actions. The TAC performs QA, radiological, environmental, and health and safety audits and surveillances of RAC activities. These independent surveillances are designed to ensure compliance with EPA remedial action standards. TAC standard operating procedures contain procedures and requirements for remedial action audits and surveillances. The TAC's recommendation on the adequacy of the site for certification of completion is a result of these audits and surveillances.

The DOE conducts a remedial action final close-out inspection with NRC oversight. The objective of the inspection is to verify completion of the remedial actions as planned. Specific site features are inspected for completion, including features required by the general license.

4.2 FINAL AUDIT REPORT

The final audit report (FAR) verifies that all QA, radiological, and environmental audits and surveillances, and the remedial action final close-out inspection were conducted. In addition, it verifies the resolution of all findings as necessary to maintain compliance. The TAC prepares the FAR for the DOE to incorporate into the certification report. The FAR assesses the audit results and verifies the resolution of all comments, thus supporting the TAC's recommendation for site certification. Contents of a FAR include:

- Introduction.
- QA audit report summary.
- Radiological, environmental, and QA in-process surveillances.
- Remedial action final close-out inspection.
- Summary and recommendation for certification.

4.3 FINAL COMPLETION REPORT

The RAC prepares a draft site completion report documenting the site as-built conditions. Following the TAC's and DOE's review and approval, the NRC and state or Indian tribe review the report for consistency with the approved RAP. Any construction changes to the RAP are documented in the completion report as UMTRA Project interface documents. These are attachments to the completion report and contain DOE's and NRC's prior approval. The final completion report is prepared and incorporated into DOE's certification report. NRC concurrence on the certification report designates approval of the final completion report. The state or Indian tribe receives a courtesy copy of the final completion report. Contents of a site completion report are outlined below.

- Executive summary.
 - Introduction.
 - Design assessment.
 - Remedial action assessment.
 - Certification basis.
- Project interface documents.
- Appendixes.
 - Design criteria.
 - Technical specifications.
 - Design calculations.
 - As-built drawings.
 - Field test results.
 - Verification measurements.
 - Permits.
 - Preremedial action site conditions.
 - Postremedial action site conditions.
 - Audits and surveillances.
 - Supplemental standards.
 - Long-term surveillance and maintenance features as-built drawings.

4.4 SITE CERTIFICATION

DOE certifies completion of remedial actions following review and approval of the site final completion report and final audit report. The DOE will prepare a certification summary memorandum certifying satisfaction of approved RAP provisions and compliance with EPA standards. The DOE will compile the final completion report, FAR, and certification summary into the certification report and submit it to the NRC for concurrence. NRC concurrence on the certification report is a major milestone in the licensing process.

As part of the UMTRA Project groundwater restoration phase, the DOE also certifies completion of groundwater cleanup at processing sites. This occurs separately from certification of surface remedial actions. The duration and criteria for groundwater cleanup certification is site-specific, depending on the compliance strategy selected for each site. Step two of the licensing process, as needed for some UMTRA disposal sites, will take effect after groundwater restoration certification. Certification of groundwater compliance will include NRC review and approval of DOE's selected compliance strategy. Site observational work plans document the approach and activities used to select a groundwater remediation strategy. RAPs document plans for implementing the selected strategy. Based on the remedial action strategy, the NRC will receive a completion report for review and concurrence at the end of remedial action. NRC concurrence of these planning and completion documents completes the certification process for the groundwater compliance phase of the UMTRA Project.

4.5 DISPOSAL SITE OWNERSHIP/CUSTODY

The UMTRCA requires the Federal government to obtain ownership of the disposal sites, and the NRC general license requires the DOE to assume custodial responsibility for the disposal sites. Of the private land acquired by the state for remedial action, most is given to the community by the state or purchased back by the original owner. Title to the actual disposal site area must be transferred to the Federal government. The disposal site land transfer can only be finalized when the DOE receives NRC concurrence on certification of completion.

When Federal lands will be used for the final disposal site, the DOE will request a land withdrawal and transfer of jurisdiction from the existing managing Federal agency such as the BLM and/or FS. Transfer is accomplished by publishing a public land transfer order in the Federal Register. This must be completed with National Environmental Policy Act compliance and prior to the start of remedial action.

For sites on Indian lands, ownership is not transferred. The DOE only requires permanent right of entry to the disposal site to conduct long-term surveillance and maintenance. The DOE and affected Indian tribe will enter into a custodial care agreement identifying the participating agencies' roles and responsibilities. A custodial care agreement must be established before the NRC accepts the final LTSP and puts the general license into effect for the disposal site.

4.6 LONG-TERM SURVEILLANCE PLAN

The TAC develops the site LTSP for the DOE after completion of remedial action. The NRC and affected state or Indian tribe review and comment on the LTSP. The LTSP establishes detailed instructions for each disposal site to ensure that the DOE meets its responsibilities under the general license and specifies monitoring criteria to ensure proper functioning of the disposal cell. Following site certification, the NRC general license becomes effective when the NRC accepts the final LTSP. The *Guidance for Implementing the UMTRA Project Long-Term Surveillance Program* (DOE, 1992) provides DOE's plans for preparing the LTSP and conducting the long-term surveillance program. The DOE will conduct site inspections (scheduled and unscheduled) and groundwater compliance monitoring, if required. Custodial maintenance (such as grass mowing) may be needed at some disposal sites. The NRC will be provided annual reports describing all site activities, findings, and groundwater monitoring results. The NRC shall be notified before the DOE institutes significant repairs or corrective actions. If site conditions for long-term care change, the NRC will be notified and the LTSP will be amended for NRC acceptance.

A site LTSP includes the following:

- Documentation of ownership (non-Indian)/custodial responsibility (Indian).
- Description of final site conditions and a site legal description.

- Detailed description of the long-term surveillance program.
 - Site inspection frequencies.
 - Planned custodial maintenance, if required.
 - Inspection procedures.
 - Reporting and record keeping.
 - QA procedures.
 - Notification/reporting of unusual events.
- Groundwater characterization and protection strategy.
- Criteria for follow-up and contingency inspections.
- Criteria for instituting maintenance repairs or corrective actions.

4.7 NRC GENERAL LICENSE

The NRC general license establishes requirements for the proper care of uranium mill tailings and RRM stabilized at a permanent disposal site to protect the public health, safety, and environment after remedial action. Monitoring and surveillance ensure proper functioning of the disposal cell.

As previously mentioned, the UMTRCA specifies the completion of four actions (page 4-1) before a disposal site can fall under the general license. For disposal sites where RRM were relocated off the processing site, the NRC license will take effect in one step. For sites where RRM were stabilized at the processing site, additional remedial action for groundwater restoration may be necessary if contamination exists as a result of previous processing operations. For disposal sites where groundwater restoration continues, the NRC license may take effect in two steps, if necessary.

After the DOE performs all surface remedial actions, including meeting groundwater protection standards for the design and performance of the disposal cell, step one of the general license will take effect for a site. Step one will allow commencement of the long-term surveillance program for the site. Where necessary, step two will occur in relation to groundwater contamination cleanup at the processing site. When the DOE certifies, and the NRC concurs, that groundwater restoration standards have been met, the groundwater monitoring section of the disposal site LTSP will be amended, thus completing the licensing process for the site.

Step one brings the disposal cell and surface remedial actions into compliance with the general license. Step two brings the disposal site into compliance with the groundwater protection requirements of the general license. Step two may be necessary for disposal sites located at the processing sites only if existing groundwater contamination prevents some form of cell performance monitoring. This will depend on the groundwater compliance strategy selected for the site. If the completion of groundwater restoration is required before disposal cell

performance monitoring can begin, the general license will take effect in two steps. Step two would occur following the completion of groundwater restoration.

Processing sites remaining after RRM are relocated off the site will not fall under the NRC general license for long-term care. Groundwater restoration activities at these processing sites will meet EPA groundwater restoration standards and be certified by the DOE and concurred upon by the NRC. Ownership of these sites will be given by the state to the community or be offered for acquisition to the previous landowner as directed in the UMTRCA.

5.0 LIST OF CONTRIBUTORS

The following individuals contributed to the preparation of this report.

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B. Harvey	Graphic design
J. Torline, K. Walston	Technical editing and document publication coordination

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8.0 GLOSSARY

acceptance	NRC approval on the contents of the site LTSP and agreement on the terms and conditions for long-term surveillance and maintenance.
audit	A planned and documented activity to determine by investigation, examination, or evaluation of objective evidence the adequacy of and compliance with established procedures, instructions, drawings, and other applicable documents and the effectiveness of implementation.
concurrence	Official NRC approval of the final completion report and agreement in certification of remedial action.
custodial maintenance	Fencing repair, monitoring equipment repair or replacement, revegetation, minor soil cover additions, and general disposal site upkeep such as grass mowing.
disposal	The planned, safe permanent placement of RRM.
groundwater	Water below the land surface, generally in a saturation zone.
license	NRC legislation that contains the maintenance and surveillance requirements for RRM disposal sites.
licensing	The process by which the NRC will, after remedial action completion, approve the final disposition and controls over a disposal site.
milestone	Key activities signifying completion of a major phase of the licensing process. Usually associated with final approvals, concurrences, or acceptances by regulatory agencies.
monitor	Providing data through observations or measurements to evaluate disposal site performance and characteristics.
residual radioactive materials	Waste that the DOE determines to be radioactive. Is in the form of tailings from the processing of ores for uranium extraction, including waste relating to such processing.
stabilization	Encapsulating or covering contaminated material to retard contaminant migration from a disposal site.
surveillance	Visual inspection of the disposal site to determine need for custodial care, evidence of intrusion, and compliance with other license requirements. Also, a documented review, observation, or inspection by quality control inspectors to verify accomplishment of applicable quality requirements specified for engineering, procurement, manufacturing, construction, and installation where these activities occur.

transfer	Transfer of programmatic responsibility for an UMTRA site. Indicates transfer of government funding as well.
uranium mill tailings	The radioactive soils and milled rock remaining after most of the uranium has been extracted from uranium ore.

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