GUIDANCE TO THE NRC STAFF

ON

THE LICENSE TERMINATION PROCESS FOR CONVENTIONAL URANIUM MILL LICENSEES

U.S. Nuclear Regulatory Commission
Office of Nuclear Material Safety and Safeguards
Division of Waste Management
Uranium Recovery Branch

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Attachment 1

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1.0 BACKGROUND

The Atomic Energy Act of 1954, as amended, (the Act) provides the statutory requirements for the transfer of the title and custody to byproduct material and any land used for the disposal of such byproduct material from a uranium mill licensee to either Federal or State control, prior to termination of the licensee's specific license. These requirements are codified in 10 CFR Part 40, at paragraph § 40.28, "General license for custody and long-term care of uranium or thorium byproduct materials disposal sites." 10 CFR 40.28, along with pertinent requirements laid out in Appendix A to 10 CFR Part 40 (Appendix A), provide for the completion of certain licensing actions prior to the transfer of the land and byproduct material to the United States or the appropriate State for long-term care.

The purpose of this document is to provide to the U.S. Nuclear Regulatory Commission staff specific direction to be applied in the course of the license termination process for Uranium Mill Tailings Radiation Control Act of 1978 (UMTRCA) Title II sites. The license termination process, including the roles of the respective involved organizations, is discussed in general, and then, various relevant issues are addressed in greater detail. This is the initial version of this guidance document, and as specific uranium mill licenses are terminated and title to the land and byproduct material is transferred to the appropriate governmental agency, future revisions are likely to be necessary. These revisions will address not only issues yet to be identified, but also will provide any additional necessary clarification of issues discussed herein.

2.0 ROLES OF INVOLVED ORGANIZATIONS

2.1 U.S. Nuclear Regulatory Commission

In accordance with Section 83c of the Act for NRC licensees, and Section 274c for Agreement State licensees, prior to termination of the specific license, the NRC determines whether the licensee has met all applicable standards and requirements under that license. For NRC licensees, this will involve NRC staff review of licensee submittals relative to the completion of decommissioning, reclamation, and, if necessary, groundwater cleanup. For Agreement State licensees, the State will conduct these reviews in accordance with its standards and regulations. Under 10 CFR 40.28, the NRC must concur with the State on the termination of its specific licenses. NRC's determination with respect to Section 274c of the Act will be conducted by the Office of State Programs (OSP) in consultation with the Office of Nuclear Material Safety and Safeguards. It is anticipated that this determination will rely on OSP's reviews of the Agreement State's program and on the State's documentation of its conclusions concerning the licensee's performance of remedial actions.

In addition, the NRC staff reviews the site Long-Term Surveillance Plan (LTSP) submitted by the custodial agency, for both NRC and Agreement State sites. Upon NRC acceptance of the LTSP, the NRC terminates the specific license (or concurs in the Agreement State's termination) and places the long-term care and surveillance of the site by the custodial agency under the general license provided at 10 CFR 40.28.

A final NRC responsibility is the determination of the final amount of long-term site surveillance funding. Criterion 10 of Appendix A specifies a minimum charge of $250,000 (1978 dollars), revised to reflect inflation, which may be escalated on a site-specific basis due to surveillance and long-term monitoring controls beyond those specified in Criterion 12 of Appendix A. Detailed discussion of the bases used in developing the minimum charge and any escalated costs is provided in Section 3.4.

2.2 Uranium Mill Licensees

Prior to license termination, licensees are required by license conditions to complete site decontamination and decommissioning, and surface and groundwater remedial actions consistent with NRC-approved (in the case of an NRC licensee) or Agreement State-approved (for an Agreement State licensee) decommissioning, reclamation, and groundwater corrective action plans.

Licensees will need to document the completion of these remedial actions in accordance with procedures developed by the NRC or the Agreement State. As discussed in Section 3.1, for NRC licensees, this information will include a report documenting completion of tailings disposal cell construction and accompanying quality assurance/quality control (QA/QC) records, as well as radiation surveys and other information required under 10 CFR 40.42. Agreement State licensees will document their remedial action performance in accordance with the respective State requirements.

Because the LTSP must reflect the remediated condition of the site, the licensee will interact with the custodial agency in the preparation of the LTSP. Most likely, this will involve supplying the custodial agency with appropriate documentation (e.g., as-built drawings) of the remedial actions taken and reaching agreements (formal or informal) with the custodial agency regarding the necessary surveillance control features of the site (e.g., boundary markers, fencing). It is the custodial agency's responsibility to submit the LTSP to the NRC for approval. However, the licensee may elect to help prepare the LTSP, to whatever degree is agreed to between the licensee and the custodial agency.

Finally, the licensee provides the funding to cover long-term surveillance of the site, in accordance with Criterion 10 of Appendix A. The final amount of this charge will be determined by the NRC, based on the final conditions of the site.

Following termination of the existing license and transfer of the site and byproduct materials to the custodial agency, a licensee's remaining liability extends solely to any fraudulent or negligent acts committed prior to the transfer to the custodial agency, as provided in Section 83b(6) of the Act.

2.3 Custodial Agency

Section 83 of the Act provides, that prior to termination of the specific license, title to the site and byproduct materials shall be transferred to either (1) the U.S. Department of Energy (DOE), (2) a Federal agency designated by the President, or (3) the State in which the site is located, at the option of the State. It is expected that DOE will be the custodial agency for most, if not all, of the sites.

It is the responsibility of the custodial agency to submit the LTSP to the NRC for review and acceptance. Provisions and activities identified in the final LTSP will form the bases of the custodial agency's long-term surveillance at the site. NRC's acceptance of the LTSP will render that site licensed under the general license in 10 CFR 40.28. Custodial agencies are required, under 10 CFR 40.28(c)(1) and (c)(2), to implement the provisions of the LTSP. These activities could include those not to be reflected in the long-term care charge, but voluntarily committed to by the custodial agency.

2.4 States

As discussed in Section 2.3, the State has the option of becoming the custodial agency for a site located within its boundaries. This "right of first refusal" may be exercised either on a site-by-site basis or so as to cover all sites within the State's limits. This option should be exercised early enough in the license termination process so that termination of the specific license and transfer of the site to the appropriate custodial agency is not delayed unnecessarily. Written confirmation of a State's decision should be documented in a letter to DOE, from the Governor of the State, or another State official to whom the authority for this decision has been appropriately delegated. A copy of this letter should be transmitted to the NRC.

A State's authority over the regulation of the non-radiological constituents of groundwater is not impacted by its status, or lack thereof, as a custodial agency for any site within its boundaries. A State's authority, however, does not extend to the radiological constituents of groundwater (NRC, 1980b).

Finally, in addition to its potential role as a custodial agency, an Agreement State conducts the reviews of reclamation and decommissioning plans and groundwater corrective action programs for its licensees. Criteria used in these reviews are those applicable from Agreement State regulations which are compatible with the relevant requirements of Appendix A. Additionally, with NRC concurrence, an Agreement State terminates the specific licenses for its licensees, based on a review of a licensee's performance of remedial actions in accordance with approved plans.

3.0 THE LICENSE TERMINATION PROCESS

A licensee considering termination of its Source Material License should have in place an acceptable (by the NRC or Agreement State, whichever is appropriate) site decommissioning and reclamation plan, and if necessary, an acceptable groundwater corrective action program. This section describes the termination process that follows an NRC licensee's completion of decommissioning, reclamation, and groundwater corrective action in accordance with the approved plans. Specific procedures for the NRC's concurrence in the termination of Agreement State licenses are under development by OSP.

3.1 Licensee Documentation of Completed Remedial and Decommissioning Actions

3.1.1 Documentation of Completed Surface Remedial Actions

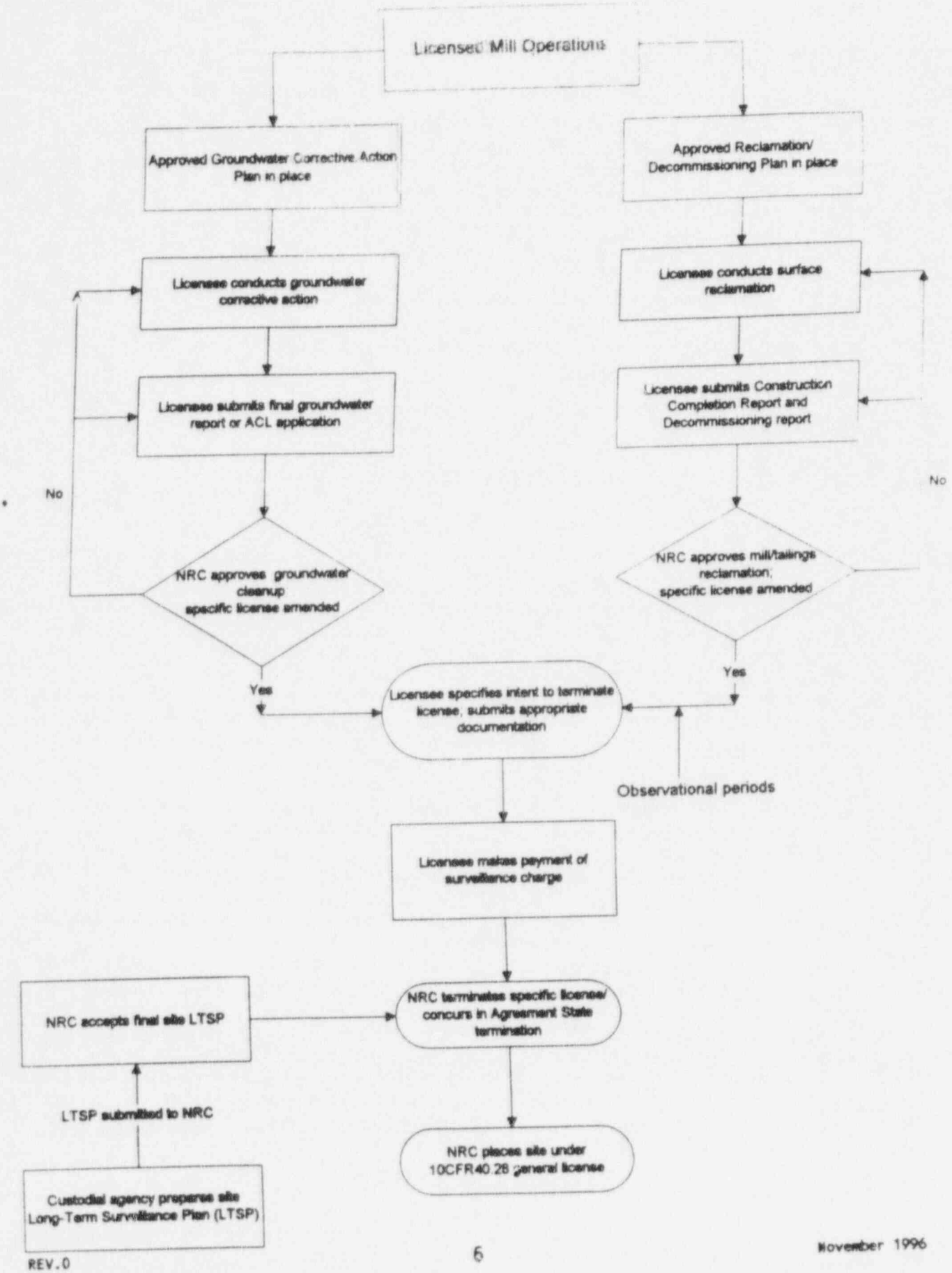
Although uranium mill licensees are required to complete reclamation in accordance with an NRC- or Agreement State-approved plan, presently, there is no statutory or regulatory requirement for a licensee to submit formal documentation that the tailings disposal cell was reclaimed in accordance with the approved plan. However, for the NRC staff to determine that all applicable standards and requirements have been met (under Section 83c of the Act), some form of documentation is necessary.

To ensure a timely and efficient NRC review, when reclamation of the tailings disposal cell is completed, the licensee should submit to the NRC, for review, a report detailing the conduct and completion of the reclamation construction activities. This Construction Completion Report (CCR) would consist primarily of QA/QC records and as-built drawings. A licensee may refer to the reports prepared by DOE to document completion of remedial actions at UMTRCA Title I Project sites as guidance in developing its CCR. However, some of the information provided in DOE's reports (e.g., original design calculations) is provided to ease the NRC staff's review rather than to meet documentation requirements.

If a CCR or similar report is not submitted, it will be necessary for the NRC staff to conduct a detailed technical review in order to meet its responsibilities under Section 83c of the Act. This review could involve several site visits and significant confirmation testing and would likely involve staff in the following technical disciplines: geotechnical engineering, surface water and erosion protection, and soil radiation cleanup. Accurate QA/QC records and photographs kept by a licensee during cell construction will be important input into the NRC staff's determination that reclamation has been conducted and completed in accordance with the approved plan.

Should a licensee neglect to compile QA/QC records, or have inadequate records, the NRC may require it to conduct appropriate sampling of those portions of the completed cell that are in question (e.g., of the radon barrier). If a licensee is unwilling or unable to comply, the NRC staff or NRC contractors will conduct the sampling, and the licensee will be assessed fees in accordance with the provisions of 10 CFR 170.31. In addition, if a

License Termination Process



requirement to maintain QA/QC records is part of an approved reclamation plan, a licensee's lack of such records may be interpreted as a violation of the relevant license condition. Appropriate NRC action would be taken in such instances.

3.1.2 Documentation of Completed Site Decommissioning

Licensees are also required under 10 CFR 40.42(i) to document the results of site decommissioning, which is accomplished by conducting a radiation survey of the premises where the licensed activities were carried out. The results of this survey, the contents of which are specified at 10 CFR 40.42(i)(2), are submitted to the NRC for review. A licensee has the option of demonstrating that the premises are suitable for release in a manner other than that specified at § 40.42. Additional documentation pertinent to site decommissioning and soil cleanup may be required by specific license condition.

3.1.3 Documentation of Completed Groundwater Corrective Actions

Criteria 5A-5D, along with Criterion 13, of Appendix A incorporate the basic groundwater protection standards imposed by the U.S. Environmental Protection Agency (EPA) in 40 CFR Part 192, Subparts D and E (48 FR 45926; October 7, 1983). These standards apply during operations and prior to the end of closure. At a licensed site, if these groundwater protection standards are exceeded, the licensee is required to put into operation a groundwater corrective action program (CAP) (Criterion 5D of Appendix A). The objective of the CAP is to return the hazardous constituent concentration levels to the concentration limits set as standards.

For licensees with continuing groundwater cleanup, NRC approval is required for the termination of corrective action. A licensee should submit appropriate groundwater monitoring data and other information that provide reasonable assurance that the groundwater has been cleaned to meet the appropriate standards. This may include an application for alternate concentration limits (ACLs) if the licensee concludes some ACLs for certain constituents are necessary. ACLs will be reviewed by the staff in accordance with the most current version of the NRC Staff Technical Position "Alternate Concentration Limits for Title II Uranium Mills: Standard Format and Content Guide, and Standard Review Plan for Alternate Concentration Limit Applications" (NRC, 1996).

3.2 NRC Review of Completed Closure Actions

Upon receipt of the CCR, decommissioning report, groundwater completion report or ACL application, the NRC staff will review the document first for completeness and level of detail. Given a favorable finding, the NRC staff will then review the content of the report for documentation of acceptable completion of the applicable aspect of closure. When, based on this review, the NRC staff determines that the action has been conducted in accordance with the license requirements and regulations, the NRC will notify the licensee by formal correspondence, and, if the licensee so requests, amend the specific license, by deleting applicable license requirements for reclamation,

decommissioning or groundwater cleanup, and identifying requirements for any disposal cell observational period and/or environmental monitoring. As part of its review, NRC staff will conduct site inspections, examining first-hand the closure actions taken, including the QA/QC records.

Additionally, NRC staff will conduct a final construction-completion inspection, which is expected to consist of a site walk-over and an examination of construction records. No independent verification of completed actions (e.g., confirmatory coring of the radon barrier) is expected, except on a case-by-case basis, as discussed previously.

With respect to construction of the tailings cell, the NRC staff's review of the CCR, coupled with site inspections, will ensure that the disposal cell was constructed in accordance with the approved design and done so "correctly" (e.g., QA/QC records show the appropriate number of material lifts were placed).

The NRC staff will rely on site inspections as the primary means of determining acceptable implementation of the licensee's approved decommissioning plan, especially in regards to soil cleanup. These inspections will consist of: (1) reviews of procedures, (2) evaluations of procedure implementation, (3) evaluations of records and quality assurance, and (4) limited gamma surveys and soil sampling. In this way, the staff will gain a needed level of confidence in the licensee's performance to support its evaluation of the final decommissioning survey report. Confirmatory sampling, either by the NRC or its contractors, will be conducted at sites for which additional confirmation beyond inspections is necessary. Specific criteria will be employed to identify those sites requiring confirmatory sampling.

3.3 Observational Periods

3.3.1 Following Completion of Surface Remedial Actions

Although no statutory or regulatory requirement exists for an observational period following the completion of surface remedial actions, this period is necessary for the NRC to assess the potential long-term stability of the tailings disposal cell. The length of this observational period will be determined on a site-specific basis, with a minimum period of one year, commencing at the completion of the erosion cover. Licensees should report significant cell degradation (e.g., the development of settlement or erosional features) occurring during this period.

Sites employing a "full self-sustaining vegetative cover" (Criterion 4 of Appendix A) will be required to have an observational period of at least two years, and possibly as long as five years, consistent with the bases for Appendix A (NRC, 1980).

A *de facto* observational period may exist at most sites where cleanup of groundwater contamination continues following the completion of surface reclamation (i.e., construction of the tailings disposal cell).

3.3.2 Groundwater Remediation

As specified in Criterion 5D of Appendix A, all identified hazardous constituents for which compliance sampling is being conducted at a licensed site must be returned to the concentration limits set as standards (i.e., the specified compliance limits) prior to termination of the specific license. At license termination, the NRC will require licensees to sample for all constituents previously identified in the tailings liquor to ensure that no further remediation is necessary. The NRC will not terminate a specific license while a groundwater CAP is in operation.

A groundwater CAP which employs evaporation ponds may also delay the completion of surface reclamation, if pond sludges are to be disposed of in the completed tailings disposal cell.

3.4 Long-Term Site Surveillance Funding

Prior to termination of the specific license, the NRC will set the final amount of the long-term site surveillance charge to be paid by the licensee in accordance with Criterion 10 of Appendix A. The NRC's process for determining this amount will include consultations with the licensee and the custodial agency. Payment of this charge to the U.S. general treasury or to the appropriate State agency is required prior to termination of the specific license.

3.4.1 Bases for Determination of Surveillance Charge

The basic criterion for tailings disposal is to not depend on perpetual human care and maintenance to preserve the isolation of the tailings. The NRC, in Criterion 1 of Appendix A, concludes that:

> "The general goal or broad objective in siting and design decisions is permanent isolation of tailings and associated contaminants by minimizing disturbance and dispersion by natural forces, and to do so without ongoing maintenance."

However, as further indicated in Criterion 1, for practical purposes, specific design and siting considerations must involve finite time limits. For this reason, Criterion 6 contains longevity standards for design of the disposal cell.

In order that the isolation of the tailings and associated contaminants be preserved to the extent possible, the Act provided that title to the byproduct material and associated land be transferred to the care of the United States or the State, as discussed previously. The NRC has interpreted such long-term custody by a governmental agency, whether Federal or State, as "a prudent, added measure of control" (NRC, 1980a), so that land uses that might contribute to the degradation of the cover or lead to direct human exposures can be prevented.

In the final Generic Environmental Impact Statement (GEIS) on Uranium Milling (NRC, 1980a), the NRC staff developed the bases for the long-term surveillance charge, given the intent that no ongoing active maintenance of site conditions should be necessary to preserve waste isolation. In the GEIS, the assumptions

underlying the so-called "passive monitoring" approach to surveillance of the site are as follows:

1. An annual visual inspection of the site, either as a site visit or in a flyover, lasting one to two days;

2. No maintenance of equipment or facilities, no fence replacement, and no sampling or airborne environmental monitoring would be expected.

3. Little to no groundwater monitoring would be required, and if necessary, monitoring would consist of sampling for indicator constituents (e.g., Ra-226) using portable equipment (no heavy sampling or monitoring equipment necessary);

4. The slow movement of groundwater beneath the sites would allow for relatively infrequent sampling (e.g., once every 2-5 years);

5. Essentially, the only costs for continued surveillance/maintenance would consist of time spent in preparing for the inspection, travel to the site, conduct of the inspection, and annual report writing; and

6. Minimal NRC oversight would be required.

Passive monitoring, thus, would not involve such activities as: irrigation, hauling of fill, regrading, or seeding.

Finally, as discussed previously, licensees will contribute the funds necessary to cover the costs of long-term surveillance of their sites. The charge assessed is a one-time fee, and of an amount such that interest on the funds, assuming a 1 percent annual real interest rate, will yield a corresponding amount sufficient to cover the annual costs of site surveillance. The GEIS provides more detailed discussion regarding the determination of this interest rate.

3.4.2 Determination of Surveillance Charge Amount

Based on the assumptions discussed in Section 3.4.1, the NRC developed the minimum long-term surveillance charge of $250,000 (1978 dollars) reflected in Criterion 10 of Appendix A. It is this charge, adjusted to account for inflation, that the licensee is required to pay into the general treasury of the United States, or alternately, to the appropriate State agency (if the State is to become the long-term site custodian). The methodology the NRC staff will use to determine the adjusted surveillance charge that accounts for inflationary increases since 1978 involves: (1) using the Consumer Price Index (CPI) available at the time the licensee requests termination and (2) applying the rate of increase for the last month for which it has been calculated to any following month leading to license termination. For example, in June 1996, the NRC determined the final surveillance charge for the TVA/Edgemont site. In doing so, the NRC staff used the April 1996 CPI and applied the rate of increase between March and April to the months of May and June.

Criterion 10 does allow for the escalation of this minimum charge, if, on the basis of a site-specific evaluation, the expected site surveillance or control requirements are determined to be significantly greater than those specified in Criterion 12 of Appendix A (i.e., annual inspections to confirm site integrity and determine the need, if any, for maintenance and/or monitoring).

Escalation could result from a licensee's proposal of alternatives to the requirements in Appendix A, as allowed under Section 84c of the Act. For example, a licensee could demonstrate by analysis that the only mechanism for achieving a minimum disposal cell design life of 200 years at its site is through the use of ongoing maintenance. The NRC may approve such a design if it finds that the design will achieve a level of stabilization and containment for the site concerned, and a level of protection of public health and safety and of the environment which is equivalent to, to the extent practicable, or more stringent than, the level which would be achieved by the NRC's requirements. However, the licensee would likely be required to place additional funds in the long-term surveillance charge to cover the costs of the ongoing maintenance.

Another situation which may lead to the escalation of the minimum charge is the recognition that some degree of active care (e.g., fence upkeep, vegetation control, maintenance of erosional control measures) is necessary to preserve the as-designed conditions of the site. This need should become apparent in the course of site observations during the reclamation and observational periods.

In any case, any escalation in the minimum charge will be discussed with the licensee and long-term custodian, prior to license termination. Any final variance in the funding requirements will be determined solely by the NRC.

A situation may arise in which the custodial agency desires to have commitments in the LTSP that are beyond those required in Appendix A and which are not determined necessary by the NRC. In such a case, the amount of the long-term surveillance charge would not be affected (NRC, 1990; Detailed Comment Analysis, Comment 1.2). The custodial agency will need to identify a mechanism for funding these additional self-imposed requirements.

3.4.3 Payment of Long-Term Surveillance Charge

Licensees may pay the final site surveillance charge directly to the NRC or the custodial agency. If paid to the NRC, the funds will be deposited, in accordance with the Miscellaneous Receipts Act, in the U.S. general treasury. A custodial agency receiving payment from the licensee, will need to document receipt and subsequent deposition of the payment. Copies of such documentation should be provided to the NRC.

Finally, 10 CFR 150.32(a) provides that, when an Agreement State license is terminated and the disposal site is to be transferred to the Federal government for long-term care, all funds collected by the Agreement State for the purposes of long-term surveillance will be transferred to the United States.

3.5 Preparation of the Long-Term Surveillance Plan

While surface remediation and groundwater cleanup activities are ongoing, it is in the best interest of the licensee to begin interaction with the custodial agency with regard to that agency's preparation of the site LTSP. The custodial agency's responsibilities under the general license are defined in the LTSP, the required contents of which are provided at 10 CFR 40.28 and in Criterion 12 of Appendix A. These contents include:

- a legal description of the site to be transferred and licensed;
- a detailed description of the site, as a baseline from which future inspectors can determine the nature and seriousness of any changes (licensees may reference previously submitted information, to the extent applicable, in providing this description (10 CFR 40.31(a)));
- a detailed description of the long-term surveillance program, including: (a) the frequency of inspections and reporting to the NRC; (b) the frequency and extent of any groundwater monitoring; (c) appropriate groundwater concentration limits; and (d) inspection procedures and personnel qualifications;
- the criteria for follow-up inspections in response to observations from routine inspections or extreme natural events; and
- the criteria for instituting maintenance or emergency measures.

In addition to these regulatory requirements, the NRC will also require that the LTSP contain documentation of title transfer of the site from the licensee to the custodial agency. This requirement does not apply to sites located on Indian lands, since transfer does not occur for such sites (Criterion 11F of Appendix A).

Because the LTSP must reflect the remediated condition of the site, it is expected that the existing licensee will interact with the custodial agency in the preparation of the LTSP. As discussed in Section 2.2, this will likely involve supplying the custodial agency with appropriate documentation (e.g., as-built drawings) of the remedial actions taken and reaching agreements (formal or informal) with the custodial agency regarding the necessary surveillance control features of the site (e.g., boundary markers, fencing). Although it is possible that the LTSP may be prepared by the licensee, it is more likely that the document will be developed by the custodial agency, since the LTSP will reflect post-transfer responsibilities committed to by the custodial agency. The LTSP must be submitted to the NRC for approval by the custodial agency.

As the likely custodial agency for most, if not all, of the sites, DOE has proposed an approach intended to streamline NRC staff reviews of site LTSPs. This approach would involve NRC approval of a "generic LTSP shell" prepared and submitted by DOE. For sites under the long-term care of DOE, significant portions of the LTSP will not change from site to site (e.g., criteria for followup inspections and for instituting maintenance or emergency measures).

NRC's approval of the "shell" would cover this generic information, and allow the NRC staff to focus its review on the site-specific information in the LTSP. This information may reflect site-specific activities which are not to be reflected in the long-term care charge, but are voluntarily committed to by the custodial agency. The "shell" is currently under development by the NRC and DOE.

3.6 Site Ready for License Termination

When a licensee has completed site reclamation, decommissioning, and, if necessary, groundwater corrective action, and is ready to terminate its specific Source Material License, it will need to formally notify the NRC of its intentions. Such notification should be accompanied by a completed NRC Form 314, "Certificate of Disposition of Materials."

Additionally, an environmental report (ER) is required under 10 CFR 51.60(b)(3) for termination of a license for the possession and use of source material for uranium milling. However, because the environmental impacts associated with reclamation and decommissioning of a uranium mill site will already have been assessed by the NRC staff prior to license termination, licensees seeking license termination can submit a supplemental ER summarizing site decommissioning and reclamation objectives, activities, and results.

Agreement State licensees should apply to their Agreement State for license termination, providing the appropriate State-required documentation, as needed.

3.7 Termination of the Specific License/Issuance of the General License

Actual termination of a licensee's specific license and the subsequent placement of the site under the general license provisions of 10 CFR 40.28 will involve a number of separate actions to be completed by the NRC. Significant internal coordination (and external, if Agreement State licensees are involved) will be required so that these actions will be completed in an efficient and timely manner, thereby ensuring that the byproduct material and any land used for the disposal of such byproduct material remain under NRC license throughout the process.

3.7.1 NRC Determination under Section 83c/274c of the Act

Under Section 83c of the Act for NRC licensees, or Section 274c for Agreement State licensees, the NRC determines whether all applicable standards and requirements have been met by the licensee in the completion of site reclamation, decommissioning, and groundwater corrective action. Necessarily, this determination will rely primarily upon NRC or Agreement State reviews and acceptance of the documentation provided by the licensee. In addition, NRC or Agreement State site closure inspection activities, potentially including limited confirmatory radiological surveys, will provide supplemental information to the NRC's determination.

For Agreement State licensees, NRC's periodic reviews of the Agreement State's regulatory program will provide confidence that the State's reviews and

licensing actions associated with termination have been conducted appropriately, from a technical, administrative, and procedural perspective. The NRC staff will not conduct independent detailed technical reviews of a Agreement State licensee's documentation of completed site decommissioning and reclamation.

3.7.2 NRC Review and Acceptance of the LTSP

An NRC-approved LTSP is required prior to termination of the specific license and placement of the site and byproduct material under the 10 CFR 40.28 general license. Review and acceptance of the LTSP is the sole purview of the NRC. Formal concurrence on the LTSP by other entities, including the State in which the site is located, is not provided for, since these entities have no regulatory authority under the Act, during the long-term care period. However, the NRC will accept public comments on any licensing action taken by the Commission. Lack of NRC acceptance of a site LTSP can delay termination of the specific license.

The NRC staff's acceptance of an LTSP will be documented in written notification to the custodial agency, and, separately, by noticing the action in the Federal Register. In addition, for Agreement State licensees, the NRC will also notify the relevant Agreement State of the action.

3.7.2.1 Issuance of a specific order under 10 CFR 40.28

If an acceptable LTSP has not been received by the NRC for a reclaimed site ready for transfer to the custodial agency, two options are available to the NRC. First, if appropriate, the Commission may choose to not terminate the existing license for a short period of time, while awaiting an acceptable LTSP. Alternately, under 10 CFR 40.28, the NRC may issue a specific order to the custodial agency to take custody of the site and to commence long-term surveillance, while the agency prepares the LTSP for final NRC approval.

A substantial supporting basis would be required to support NRC issuance of an order. An understanding of the circumstances leading to the custodial agency's inability to take the site would also be necessary. Factors that would be considered include whether:

(1) adequate notice (at least 16 months) has been provided by the existing licensee to allow the custodial agency to affect title transfer to the land and byproduct material;

(2) sufficient time (at least two years) has been allowed for the custodial agency to prepare, and the NRC to review, the LTSP;

(3) the NRC has reviewed the CCR, decommissioning report, and groundwater cleanup report, and conducted the final license-termination inspection and found that the closure actions were completed in an acceptable manner;

(4) site degradation has occurred, and if so, whether appropriate repairs have been completed;

(5) the required long-term surveillance funding payments have been made to the U.S. general treasury or to the designated State agency; and

(6) the custodial agency has an acceptable basis for delaying for inclusion of the site under the general license.

In cases where DOE or another Presidentially-designated Federal agency is to be the long-term custodian, and is unable to take custody of the site due to lack of funding, the NRC may still order the agency to do so. The intended custodial agency will have at most one year (i.e., the time by which an annual site inspection is to have been completed) in which to obtain the funds through the necessary appropriations process.

3.7.3 Transfer of Site Control to the Custodial Agency

Given a determination that all applicable standards and requirements have been met and the approval of the site LTSP, the NRC will need to complete the remaining relevant licensing actions: (1) terminating the specific license by letter of termination addressed to the specific licensee, or concurring in the Agreement State's termination of the specific license; (2) placing the site under the general license in 10 CFR 40.28; (3) noticing in the Federal Register the completion of these licensing actions; and (4) informing appropriate Federal and State officials directly of the termination of the specific license and the placement of the site under the general license.

For Agreement State licenses, these actions will need to be closely coordinated with the relevant Agreement State. Following the NRC's concurrence in the proposed action, the Agreement State should be ready to terminate the specific license and to transfer the long-term care funds to the U.S. general treasury upon notification from the NRC that the LTSP has been accepted. The long-term custodian, for its part, should be prepared to accept title to the land and byproduct material. Completion of these final actions should occur within a relatively short period of time (e.g., within a week).

4.0 ADDITIONAL ISSUES

4.1 UMTRCA Title II Sites on Indian Lands

For UMTRCA Title II disposal sites on Indian lands, UMTRCA provides that long-term surveillance will be accomplished by the Federal government and that the licensee (i.e., the custodial agency) will be required to enter into arrangements with the NRC to ensure this surveillance. UMTRCA does not state explicitly which Federal agency is responsible for the disposal site. In addition, because these sites are located on Indian lands, no title transfer will occur.

The NRC will work out long-term care arrangement for these disposal sites on a case-by-case basis. Likely, this will involve a site access agreement between the Indian Tribe, the custodial agency, and the NRC, to allow the custodial agency to conduct the required site surveillance. Currently, the only site on Indian lands is Western Nuclear, Inc.'s Sherwood uranium mill, located on the Spokane Indian Tribe reservation in eastern Washington State.

4.2 Concurrent Jurisdiction

It is the intent of the NRC staff to make a good faith effort in working with the States on issues related to a licensee's completion of remedial actions and preparation for license termination. However, concurrent jurisdictional issues between the NRC and the States may arise over the regulation of the non-radiological constituents of groundwater (previously, the NRC has concluded that it has sole jurisdiction over the radiological groundwater constituents (NRC, 1980b)). Such issues would involve disagreements over the groundwater concentration limits to which licensees must restore, especially when a State's concentration limits for certain constituents are lower than the NRC's. While the NRC staff will, to the extent possible, accommodate a State's perspective, it retains the right to terminate a specific license should a licensee have completed closure activities in accordance with NRC-approved closure plans.

Where the issues involved are not those of direct NRC concern, the NRC staff will address such issues with the States or other Federal agencies on a case-by-case basis.

Currently, four sites (two NRC licensees: the United Nuclear Corporation/ Church Rock site, and the Homestake Mining Company/Grants site; and two Agreement State licensees: the Cotter Corp/Canon City and the UMETCO/Uravan sites, both in Colorado) are on the Superfund National Priorities List. For these sites, the NRC considers that it will need to determine if it is appropriate to terminate any of these licenses on a case-by-case basis.

5.0 REFERENCES

U.S. Nuclear Regulatory Commission [NRC], 1980a, "Final Generic Environmental Impact Statement on Uranium Milling," NUREG-0706, 3 vols, September 1980.

NRC, 1980b, "OELD Legal Opinion on Two Questions Relating to Operation of the Uranium Mill Tailings Radiation Control Act of 1978," Shapar, H.K., memorandum to Commissioner Ahearne, April 28, 1980.

NRC, 1990, "Rulemaking Issue (Affirmation): Amendments to 10 CFR Part 40 for General Licenses for the Custody and Long-Term Care of Uranium and Thorium Mill Tailings Disposal Sites," SECY-90-282, August 10, 1990.

NRC, 1996, "Staff Technical Position: Alternate Concentration Limits for Title II Uranium Mills: Standard Format and Content Guide, and Standard Review Plan for Alternate Concentration Limit Applications," February 1996.

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NOV - 1 1996

Mr. Joe Holonich
Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, Maryland 20852-2738

Subject: Estimate of Cost for Annual Site Inspections at UMTRCA Title II Uranium Mill Sites

Dear Mr. Holonich:

The DOE has reviewed your September 24, 1996 letter concerning long-term surveillance costs for UMTRCA Title II uranium mill sites. In general, through efficiencies and assistance from NRC, the DOE's costs have been substantially reduced to the same approximate cost range as the NRC estimate, which was based upon the draft ARCO Bluewater Mill Long-Term Surveillance Plan.

DOE's cost to inspect a Title I site in 1996 ranged from $5,200 to $8,600. These are actual costs, not estimates. These costs represent a significant decrease from previous experience because of the new, shorter inspection report format that DOE recently adopted. inspection costs averaged approximately $25,000 per site when the Long-Term Surveillance and Inspection Program was initiated.

Actual costs include preparation time, travel, on-site inspection time, preparation time, and time to prepare the annual inspection report in the new, shorter format. In every case, inspectors had previous experience at the sites they inspected, so efficiencies to be expected with experience were already achieved. Two inspectors conducted the inspections because of the remoteness and unattended nature of the sites as compared to the NRC inspections which take place on sites that have, at a minimum, a caretaker on site who will accompany the inspector. Also, the costs reflect savings from inspecting two sites in the same general area when practical.

There is a general correlation between cost and the size of the site. The correlation is not perfect because large sites without issues or concerns are less expensive to inspect and report on than smaller sites with issues or concerns.

Many Title II sites will be significantly larger than Title I sites. This will have an effect on the cost but not necessarily a large one. The effect will require DOE to spend additional time at the site, perhaps an additional half or partial day, and additional time

Attachment 2

preparing the report. DOE's estimate for this additional labor and related expenses is $750 to $1,000 per site. Therefore, based upon our current knowledge of the regulations and requirements, DOE's estimate of cost to inspect and report on Title II sites ranges from $6,000 to $9,600, per year, per site. DOE agrees that this range compares favorably with NRC's estimate of $4,600 to $8,100. DOE will of course continue its efforts to contain costs.

Additional savings are possible when more multiple sites are inspected in the same general area, and this is expected to become more feasible as additional sites are added to the Long-Term Surveillance and Maintenance Program. These multiple inspections may additionally reduce travel costs which can be a significant cost especially when eastern sites are inspected and/or routine scheduled maintenance (mowing grass) is conducted.

The DOE is also considering reducing the frequency of the annual detailed inspections. After an individual disposal cell has been inspected a few times and the completed cell continues to perform as designed, consideration should be given to performing detailed inspections every three to five years. At other times, less formal inspections will be performed. If a cell is performing as designed and it is designed for at least 200 years and up to 1,000 years, detailed annual inspections probably are not necessary. This change would further reduce the long-term costs.

If you have any questions about this letter, please feel free to contact Joe Virgona at 970/248-6006, or call me at 970/248-6001.

Sincerely,

George J. Rael
Acting Manager

cc:
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