

July 27, 2000

MEMORANDUM TO: William M. Dean, Chief
Inspection Program Branch
Division of Inspection
Program Management, NRR

FROM: Philip Ting, Chief **/RA/**
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety & Safeguards, NMSS

SUBJECT: REVISED INSPECTION MANUAL CHAPTERS 2801 and 2641

Attached, please find a Document Issuing Form for two inspection-related documents:
1) Manual Chapter 2801 "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program;" and 2) Manual Chapter 2641 "In-Situ Leach Facilities Inspection Program." Both items are revisions of the existing documents. The changes were proposed by Region IV to align the guidance with the current inspection frequencies for various sites, orient the inspection guidance more toward performance based inspections, and to improve the overall effectiveness of the inspection program for these facilities. The inspection frequency changes are in accordance with the directive delineated in John Greeves' October 16, 1998 memorandum to Carl Paperiello.

Attachments:

1. Manual Chapter 2801
2. Manual Chapter 2641

cc: R. Anderson, TTC
B. Spitzberg, RG-IV
D. Cool, IMNS
E. Brach, SFPO
M. Weber, FCSS
J. Greeves, DWM

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Mohammad Haque, FCSS\FCLB
(301) 415-6640

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DOCUMENT NAME:mc2641&2801mem.wpd Accession No.ML003732094

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NAME	MHaque		DGillen		PTing			
DATE	7/18/2000		7/27/2000		7/27/2000			

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This document should be made available to the PUBLIC MH 7/27/00
(Initials) (Date)

DOCUMENT ISSUING FORM

To: NRR, DIPM, IIPB, Director

From: NMSS, FCSS, FCLB, P. Tin
(Originating Branch Chief)

1. Number and title of document

Manual Chapter 2641, "In-Situ Leach Facilities Inspection Program:" and
Manual Chapter 2801, "Uranium Mill and 11e.(2) Byproduct Material Disposal Site and
Facility Inspection Program

2. Type of document

☒ Manual Chapter (MC)
☐ Appendix
☐ Technical Guidance

☐ Inspection Procedure (IP)
☐ Temporary Instruction (TI)
☐ 10 CFR Guidance

3. Type of action

☐ New document
☒ Revision
☐ Deletion

4.a. If a new IP is being prepared, state its need or purpose, whether it is for the "Core" Inspection Program, the SALP category it applies to, the direct inspection hours needed to perform it, and the inspection frequency.

b. State the reason for the revision, and if a TI or IP is being revised, the resulting change in direct inspection hours or FTE, if any.

Core Program: ☐ Yes ☒ No SALP Category: N/A DIE: N/A
Inspection Frequency: As Noted

Statement: The MCs are being revised in response to recommendations in the Uranium Recovery area discussed in the October 16, 1998, memorandum from John Greeves to Carl Paperiello.

c. For any proposed addition in direct inspection hours that results from a or b above, state the increase in proposed hours and identify where the proposed corresponding reduction in direct inspection hours is to occur (Note: the total "Core" hours is a fixed number and cannot be increased without permission from the NRR Office Director).

DIE increase resulting from 4a or 4b: N/A

Proposed reduction, IP No.: N/A

Details of reduction: N/A

d. If new training requirements or the revision of current training requirements are needed as the result of the new IP, TI or revision of existing procedures, these should be identified. The group responsible for establishing and presenting the training should also be identified.

New training course required? ☐ Yes ☒ No
Revision to existing training course? ☐ Yes ☒ No
Lead Branch for establishing training: N/A
Training to be given by: N/A

Brief description of proposed training: N/A

5. Attach a WP6.1 floppy disk with a hard copy of the document.

a. Has document been reviewed by the technical editor? ☐ Yes ☒ No
If not, state why: The changes in this revision were minor and did not require a review by the technical editor

6. Special exhibits (anything that cannot be put on WP6.1 system such as drawings, reductions, or block diagrams) are attached? ☐ Yes ☐ No ☒ N/A

7. Attach a summary of comments and resolutions. State comment, its source, and if not adopted why. Is summary attached? ☐ Yes ☐ No ☒ N/A

8. All approval signatures must be obtained in the order listed below.
Check items 1-7 above and ensure all documents (WP6.1 floppy disk & hard copy, special exhibits, comment summary and resolution, and any background information) are attached to this form before routing it for approvals.

a. /RA/ 7/26/00
Originator/Date

d. _____

b. /RA/ 7/27/00
Originator Branch Chief/Date

e. _____
IIPB, Branch Chief/Date

c. _____
IIPB, Manual Coord./Date

f. _____
DIPM, NRR, Director/Date

9. Date received by IIPB
Manual Coordinator _____

10. Change notice number and issue
date: _____

END

MANUAL CHAPTER 2641

IN-SITU LEACH FACILITIES INSPECTION PROGRAM

2641-01 PURPOSE

This chapter establishes the routine safety inspection program for in-situ leach (ISL) facilities. Included in the program are operating ISL facilities, research and development facilities, and facilities in preoperation, startup, and decommissioning status.

2641-02 OBJECTIVES

02.01 To establish general policy for the ISL facilities inspection program, including priorities for inspection.

02.02 To establish specific requirements for the frequency with which referenced inspection procedures (IPs) should be performed at ISL facilities.

02.03 To achieve consistency in performing inspections, whether performed by inspectors based in the regional office or in the Headquarters.

2641-03 PROGRAM ASSUMPTIONS

This program deals primarily with inspection of operating ISL facilities, but also addresses inspection requirements and assessment activities for facilities in construction, preoperation, startup status, and decommissioning.

Inspections during the operating phase begin upon issuance of the facility license, continuing until the facility ceases all operation and is placed in standby or inactive status, or is decommissioned. For guidance for facilities in standby or inactive status, or in decommissioning status refer to Inspection Manual Chapters 2801 (Uranium Mill and 11e.(2) Byproduct Material Disposal Site and Facility Inspection Program) and 2605 (Decommissioning Procedures For Fuel Cycle and Materials Licensees); Inspection Procedure 87654; NUREG 1575 MARSSIM (Multi-Agency Radiation Survey and Site Investigation Manual); and other NRC documents relating to decommissioning.

ISL facilities in non-operating status generally do not pose the same risk levels as operating facilities, especially if nuclear material has not yet been introduced into the facility, or has been placed in storage and is not in process. Certain IPs may not be applicable in these cases, and others utilized in accordance with the level of risk attached to each situation. However, since ground-water restoration costs may continue to rise as equipment ages or is removed from the site, IPs may play an important role in confirming estimates of ground-water restoration sureties.

Inspection activities for new facilities or those undergoing major modifications when no nuclear material is present are conducted as an adjunct to the licensing process. Their purpose is to establish the accuracy of representations made in the license application that certain facility structures or equipment meet stated safety and environmental criteria. Inspections are justified before a license is issued where inspection for the intended purpose would not be practical after construction is completed.

Facilities for which decommissioning plans are being prepared, or have been submitted but not approved, remain as operating facilities. Inspection requirements specified in this chapter remain in effect in these situations, but may be adjusted through coordination between the regional office and the Headquarters, to account for the lower risk associated with curtailed operations.

For sites in decommissioning, not all inspection procedures may be applicable, and inspection requirements may be adjusted to reflect the different activities and the increased or decreased levels of risk. Inspection requirements for decommissioning can be found in several NRC documents (e.g., MARSSIM, IP 87654, etc.).

2641-04 DEFINITIONS

04.01 In-situ Leach. In-situ leach mining involves the use of a leaching solution (lixiviant) to extract the mineral of interest from the geologic formation in which it occurs.

04.02 Performance Based License. Consistent with the regulatory reduction effort initiated in 1994, all new and renewed licenses are being issued as performance-based. A performance based license (PBL) allows the licensee to make changes to the facility without prior NRC approval if certain license conditions are met.

2641-05 PROGRAM DESCRIPTION

05.01 General. This chapter identifies requirements for the inspection of the health, safety, and environmental aspects of licensee operations. The inspector should be completely familiar with the current regulatory requirements and commitments associated with the license. These include the comparable parts of title 10, U.S. Code of Federal Regulations, licensee Operation Plans, the license application, applicable guides, and other codes to which licensees may commit by reference. In the case that NRC guidance documents are updated after a license or amendment is issued, the licensee is generally only committed to follow the original guidance. Thus, the particular revision of the guidance to which the licensee has been committed is important.

The recommended IPs and frequencies for the different programmatic areas are identified in the appendix. It identifies both a recommended minimum and a normal level of effort for inspection of certain program areas. The minimum and normal levels of inspections are specified as different frequencies of implementation of the various IPs comprising the overall program for a facility.

The "Minimum" frequency of inspection specified for a procedure is the lowest recommended frequency to which the inspection should be reduced. The "Normal" frequency is one which should be followed absent strong indications the licensee's performance is sufficiently outstanding or poor in the area covered by the procedure that a change is warranted. For a "Normal" inspection frequency, all elements of a procedure should be completed within the recommended "Normal" frequency.

There is no maximum frequency expressed or implied by the appendix. Any level of effort (i.e., frequency of inspection) above that specified as the "Normal" frequency should be based on a significant and demonstrated concern for safety and the environment in the continued operation of the in-situ leach facility. This would be determined by the responsible regional office or the Headquarters. Substantial adjustments to inspection frequency must be approved as specified in Section 05.02 of this chapter.

Some inspection procedures listed in the appendix may normally be conducted more frequently than annually, so more attention can be paid to licensees' efforts to implement changes in their safety programs resulting from modifications in plant processes and procedures.

The scope of IPs, taken as a whole, is not intended to be limited to only those elements discussed in the procedures. The descriptions and examples contained in the procedures are provided primarily for illustrative purposes. Examination of other safety-significant activities not expressed or implied in a procedure is left to the inspector's judgment, in consideration of the relative degree of safety risk posed by the activity.

As a result of reviews conducted under the authority of the National Environmental Policy Act, the NRC placed license conditions on facility operations involving environmental issues. Environmental inspections would be conducted at the same time as health and safety inspections.

Most ISL licensees have been issued a PBL delegating additional regulatory authority for various aspects of licensed activities to the licensees. These licensees are required to establish a Safety and Environmental Review Panel to evaluate all safety issues pertinent to the associated PBL conditions. This portion of the licensee's program should be inspected at each inspection.

During inspections, emphasis should be placed on performing physical examinations, observing conduct of operations, making independent measurements and interviewing personnel. Records review should be de-emphasized and involve a random selection of only those records that have safety and environmental significance. In addition to determining if the licensee is complying with regulatory or license requirements, the inspector's primary concern should be to determine if the licensed facility is being operated safely.

05.02 Program Adjustments. This program provides the responsible regional office and the Headquarters flexibility to adjust the frequencies, and scope of inspections for different functional areas at a facility. Periodic adjustments should be based on the inspection history, licensee performance and safety significance of findings, as delineated in sections 05.03-05.04. Occasional adjustments may also occur in response to other events or activities, as determined by the responsible regional office or the Headquarters. A reasonable allowance for responding to these events or activities should be incorporated in the inspection plan for the facility. Necessary adjustments may be difficult to implement within the constraints imposed by limited inspection resources within the regional office and the Headquarters. In such cases, implementation may involve a shift in the focus of already scheduled inspection resources for the subject facility, or a shift in allocated inspection resources from other facilities in the region that have exhibited superior performance. Resources may also be utilized from other regional offices or the Headquarters in a coordinated response to address significant safety or environmental issues that cannot otherwise be deferred.

Inspections during the construction and pre-operational phase of a facility will be conducted on a case-by-case basis. Pre-operational inspections will be conducted at least once before startup of facility operations. The inspection procedures for the construction/pre-operational phase are indicated in the appendix, as applicable.

Substantial adjustments in the planned inspection schedule for a facility (i.e., those that involve shifts in resources which may affect other facilities or result in exceeding a "normal" inspection frequency) should be coordinated between the Headquarters and the regional office.

05.03 Extension of Inspection Frequency.

- a. The interval between inspections may be extended (lengthened) on the basis of good licensee performance. The main consideration in extending the inspection interval should be evidence of well-managed and effective radiation safety and environmental protection programs which shows a history of compliance. Specifically, the inspection frequency may be extended for licensees meeting the following conditions:
 - i. The violations identified during the licensee's current and preceding inspections were of a low safety significance and no more than two violations per inspection are Severity Level IV.
 - ii. The licensee has not had a significant program change since the preceding inspection. Significant program changes should relate to changes in the scope or type of operations, changes in the authorized materials or possession limits, changes in key personnel, or changes in locations of use. (NOTE: Extension should not be considered for licensees who have undergone significant program changes to ensure the licensee can maintain adequate performance over the next inspection period.)

Licensees which meet the above criteria may have their inspection interval extended as follows:

Producing ISLs increased from 6 months to 1 year.

Standby or inactive ISLs from 1 year to three years.

ISLs in restoration from 1 year to 3 years.

For instance, a production ISL which meets the above criteria may have their next inspection due date lengthened to 1 year from the last inspection. The extension shall be valid only until the next inspection, but may be renewed on the basis of repeated favorable findings.

- a. To document the extension in the interval between inspections, a note (e.g., a memorandum or section within the inspection report) should be written by the inspector, approved and signed by the inspector's immediate supervisor, and placed in the docket file.
- c. The decision to extend the inspection should be made after each routine inspection. The project manager for the site should be informed and the master inspection plan updated.

05.04 Reduction of Inspection Frequency.

- a. The interval between inspections may be reduced (shortened) and inspections conducted more frequently than specified in the priority system on the basis of poor licensee performance. The main consideration in reducing the inspection interval should be evidence of moderate to severe problems in the licensee's radiation safety or environmental protection programs. Poor compliance history is one indicator of such problems, while lack of management involvement or control over the radiation safety program is another indicator. Specifically, licensees that meet the following conditions shall be considered for reduction in inspection interval:

- i. A Severity Level I, II, or III violation on the most recent inspection, or
- ii. Issuance of an order or escalated enforcement on the most recent inspection, or
- iii. If a "management paragraph" appears in the cover letter transmitting the notice of violation on the most recent inspection (i.e., a paragraph that requires the licensee to address adequate management control over the licensed program), or
- iv. An event requiring a reactive inspection, or
- v. Repetitive violations.

The above list is not exhaustive; the inspection frequency can and should be reduced for any other reason deemed pertinent by regional management. An example would be an enforcement conference where the outcome did not include escalated enforcement action, but did indicate the need for the licensee to improve some aspect(s) of its compliance program.

Licensees which meet the above criteria may have their inspection interval reduced by any length. For instance, an annually-inspected licensee with a poor performance record could be rescheduled for its next inspection in 6 months. The reduction may be valid only until the next inspection or another duration specified, but regional management shall consider the results of the next inspection when determining whether the reduced frequency should be continued, changed, or returned to normal.

- b. To document the reduction in the interval between inspections, a note (e.g., a memorandum or section within the inspection report) should be written by the inspector, approved and signed by the inspector's immediate supervisor, and placed in the licensing file.
- c. The decision to extend the inspection may be made at any time, but consideration should be given immediately after each routine inspection. The project manager for the site should be informed and the master inspection plan updated.

05.05 Inspections After Escalated Enforcement.

If escalated enforcement action has taken place for a particular licensee, a follow-up inspection should be scheduled and conducted within 6 months of the last inspection or sooner, in accordance with the guidance in this IP regarding reduction of inspection frequency (Section 05.04), after completion of the escalated enforcement action, to assess the licensee's follow-up actions in response to the previous violations. Regions may perform this follow up inspection as a part of a routine inspection.

05.06 Performance-Based License. At sites operating under a PBL, the inspector should ensure that changes authorized under the PBL do not erode the basis for NRC's licensing decision. In evaluating the changes made to the facility, inspectors should recognize that the reviews conducted by the licensee's evaluation panel are reviews of neither safety nor environmental acceptability; rather, the evaluation panel reviews under the PBL are a determination of whether the proposed changes require prior NRC review. Licensees are obligated to ensure that any change considered to the facility should be safe and environmentally acceptable. Then the evaluation panel is responsible for determining if the proposed changes need to be submitted to NRC. There will be circumstances where the licensee finds that the proposed changes are acceptable; however, the change may still require an NRC review.

As a general set of guidelines, NRC review will be required for changes to:

- i. The items described in the application or subsequent submittals that would reduce the safety basis of the facility;
- ii. The procedures conditioned in the license or outlined, summarized, or included in the application; and
- iii. Any of the license conditions.

Additional guidance on the inspection of PBL activities undertaken by licensees can be found in IP 37001, "10 CFR 50.59 Safety Evaluation Program." Although this IP is applicable to 10 CFR Part 50 licenses, the basic philosophy and inspection process can be adopted to PBLs since the PBL concept was derived from 10 CFR 50.59.

2641-06 REVIEW OF EVENTS

All inspections should include, as appropriate, a review of licensee reportable and non-reportable events received by the NRC or maintained at a licensee's facility. In the case of reports received by the NRC involving radiological health and safety, the region is responsible for determining the seriousness of the reported incident and whether an immediate reactive inspection is necessary. When such reports involve programmatic or technical areas normally addressed by the Headquarters, the regional office shall confer with the Headquarters to jointly determine what response, if any, is required, including whether the NRC response should include personnel from the Headquarters.

Non-reportable events are those determined by the licensee to fall outside criteria requiring them to be reported to the NRC. Although these events are not reported formally to the NRC, licensees occasionally may contact regional staff informally to describe the event. Still, licensees are often required, through license conditions or commitments, to maintain records of non-reportable events on-site. The records generally describe the events, the licensee's immediate response, the actions taken to investigate their safety significance, and the follow-up actions taken to prevent similar events in the future. Individually, such events may not appear safety-significant. A series of such events, however, may demonstrate a precursor condition exists for a future occurrence of a more serious event.

Inspections should examine non-reportable events for the particular programmatic area being inspected. The examination should be used to determine that licensee management has taken appropriate corrective actions to preclude recurrence. It also may provide an overview of the types of safety challenges experienced during plant operation and the general character of the licensee's responses to such events.

2641-07 INDEPENDENT INSPECTION EFFORT

Each inspector should spend onsite inspection time performing independent inspection effort. The amount of time spent should be commensurate with the level of risk, the complexity of the facility, and the degree to which inspection resources have already been committed to significant safety and environmental issues already identified in the facility. This effort may include more in-depth inspection in selected technical areas than that normally called for by the formal procedures. The major objective of this effort should be to gain increased understanding of potential safety and environmental hazards of particular operations of interest, such as those which may have been involved in a series of recent non-reportable events.

Comparison of the findings from this type of effort with the licensee's findings may uncover unresolved safety and environmental questions and other problems not discovered through other means. Discovered hazards outside the scope of NRC IPs or regulatory authority should be conveyed to the licensee at the exit interview, described to regional management during debriefing, and included in the formal inspection report. In cases where regulatory jurisdiction for the observed potential hazard is clear, the finding shall be reported to the responsible agency for action (e.g., state regulatory authorities, Mine Safety and Health Administration, Environmental Protection Agency, etc.). In all cases where a finding involves a potential effect on radiological health and safety, the finding shall be followed during subsequent inspections until the licensee has addressed the concern. However, special follow-up inspections based solely on issues under other regulatory authorities are not required unless the potential hazard also directly involves radiological health or safety.

2641-08 RANDOM SELECTION AND EXAMINATION OF RECORDS

Many of the inspection procedures normally require the inspector to select certain types of records at random for closer examination. However, random selection is not always required. Certain records of interest may be sought at the discretion of the inspector.

Random selection is a technique that recognizes the fact that the NRC does not have the resources to inspect every detail of a facility. The NRC inspection program is predicated on the fact that the licensee is ultimately responsible for the safety of the licensed facility. Random selection, where specified in a procedure, allows the inspector to sample specific aspects of the licensee's safety and environmental program to be studied at a level of detail that would be impractical if exercised uniformly across the entire safety program. When random selection is specified in a procedure, the inspector should select records corresponding to activities that relate to the NRC's regulatory role, such as effluent monitoring records or ground-water restoration records. Also included should be records required to be retained for later decommissioning.

To reasonably verify operations are conducted in a safe and environmentally acceptable manner, the inspector should also randomly select personnel for interviews. The extent to which random selections or examinations are needed is left to the inspector's judgment of how uniformly operational and safety safeguards procedures are being followed.

The areas covered during an inspection need not be limited only to those elements discussed in the procedures, but may need to include examination of other activities not expressly delineated or covered in existing procedures. In such cases, the inspector must exercise good professional judgment in modifying the inspection and in identifying to the Headquarters the possible need for development of supplemental guidance. Conformance with the principles of reducing radiation exposure to as low as is reasonably achievable (ALARA) should be a principal concern at all times.

2641-09 RESPONSIBILITY FOR INSPECTIONS

The responsibility for inspection resides with the Region IV Office, except in the case of inspections for license functions handled within the Headquarters. To efficiently utilize resources, the Region IV office should ask the Headquarters to assist with inspections when specialized technical expertise is not available within the region.

2641-10 MASTER INSPECTION SCHEDULE

An inspection schedule involving radiological health, safety, and environmental inspections shall be maintained by the Region IV office. These inspections will be scheduled to ensure: (1)

inspections are performed with the required frequencies (as prescribed in the appendix, or modified in accordance with this chapter); and (2) inspections do not overlap and cause undue burden on normal operations at a facility, within the available resources of the region.

Most scheduled inspections will be announced inspections, with adequate advance notice given to the licensee to ensure the appropriate licensee personnel can be available and inspectors can arrange to observe activities not conducted on a routine or regularly scheduled basis. However, inspection staffs retain the option for conducting inspections on an unannounced basis as necessary to fulfill the intent of the inspection.

To achieve the goals of cost saving and efficient use of staff time and travel, inspections (other than initial inspections) may be scheduled within a window around their inspection due date. Inspection of semi-annual licensees may vary around their due date by ± 1 month. Inspection of annual licensees may vary around their due date by 3 months. Inspections will not be considered "overdue" until they exceed the open window. Inspections may be scheduled before their window if the inspector receives information that warrants an earlier inspection.

Attachment:

Appendix, "Inspection Procedures and Frequencies For Different Programmatic Areas"

APPENDIX

INSPECTION PROCEDURES AND FREQUENCIES FOR DIFFERENT PROGRAMMATIC AREAS

<u>Procedures</u>		<u>Inspection Frequencies</u>	
<u>Number</u>	<u>Title</u>	<u>Normal</u>	<u>Minimal</u>
83822	"Radiation Protection"	Semiannual	Annual
88045	"Environmental Protection"	Semiannual	Annual
89001	"In-Situ Leach (ISL) Facilities"	Semiannual	Annual
86740	"Transportation of Radioactive Materials"	Annual	Annual
88035	"Radioactive Waste Management"	Semiannual	Annual
88005	"Management Organization & Controls"	Semiannual	Annual
87102	"Maintaining Effluents from Materials Facilities As Low as Reasonably Achievable (ALARA)"	Annual	Annual
88050	"Emergency Preparedness"		As Needed
88064	"Emergency Procedures"		As Needed
88055	"Fire Protection"		As Needed
83890	"Closeout Inspection & Survey"		As Needed
92701	"Follow-up"		As Needed
92703	"Follow-up of confirmatory Action Letters"		As Needed
93001	"OSHA Interface Activities"		As Needed
88065	"Incident Investigation"		As Needed
87654	"Uranium Mill Site Decommissioning Inspections"		As Needed
87104	"Decommissioning Procedure for Materials Licensees"		As Needed
37001	"10 CFR 50.59 Safety Evaluation Program"		As Needed

MANUAL CHAPTER 2801

**URANIUM MILL AND 11e.(2) BYPRODUCT MATERIAL DISPOSAL SITE
AND FACILITY INSPECTION PROGRAM**

2801-01 PURPOSE

This chapter establishes the safety inspection program for uranium mills and 11e.(2) byproduct material disposal sites and facilities (11e.(2) sites) licensed and regulated under 10 CFR Part 40 including mills authorized to take 11e.(2) byproduct material. The disposal sites include both commercial disposal facilities and sites associated with licensed uranium mills. Included in the program are inspection procedures related to all phases of activities: construction and pre-operations, operations, and reclamation/closure. Procedures presented cover those facilities licensed and regulated in their entirety by U.S. Nuclear Regulatory Commission (NRC). The primary purpose of the inspection program is to obtain sufficient information through observations, personnel interviews, independent measurements, and review of facility records and procedures, to ascertain, in a timely manner, whether facility operations, and radiological and non-radiological programs regulated by NRC conform with regulatory requirements and the conditions of the applicable license. As a result, the inspection program determines that uranium mills and 11e.(2) sites are managed throughout their entire life cycle in a manner that provides protection from radioactivity to employees, members of the public, and the environment.

2801-02 OBJECTIVES

02.01 To establish general policy and priorities for inspection of uranium mills and 11e.(2) byproduct material disposal sites.

02.02 To establish a uniform process for inspection of uranium mills and 11e.(2) byproduct material disposal sites.

02.03 To define specific requirements for inspection of uranium mills and 11e.(2) byproduct material disposal sites.

2801-03 DEFINITIONS

03.01 11e.(2) Byproduct Material. As defined in Section 11 of the Atomic Energy Act of 1954, as amended, byproduct material means tailings or waste produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content.

03.02 Closure. As defined in Appendix A to 10 CFR Part 40, closure means the activities, after operations, to decontaminate and decommission the buildings and site used to produce byproduct materials and reclaim the tailings and/or waste disposal area(s). Also, commonly referred to as decommissioning or reclamation.

03.03 Decommission. As defined in 10 CFR 40.4, decommission means to remove a facility or site safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license; or release of the property under restricted conditions and termination of license. A Decommissioning Plan usually details the demolition and/or cleanup of the mill buildings and large equipment, tanks, etc.

03.04 Reclamation Plan. As defined in Appendix A to Part 40, for the purposes of Criterion 6A, reclamation plan means the plan detailing activities to accomplish reclamation of the tailings or waste disposal area in accordance with the technical criteria of Appendix A.

03.05 Operation. Operation for a mill is the process of extracting uranium from ore. For an 11e.(2) disposal facility, operation means that a uranium or thorium mill tailings pile or impoundment is being used for the continued placement of byproduct material or is in standby status for such placement.

03.06 Performance-Based License (PBL). A PBL allows the licensee to make changes to the facility without prior NRC approval if the conditions specified in the PBL are met.

2801-04 PROGRAM APPLICABILITY

This program has been developed to respond to needs for inspection procedures related to construction, pre-operation, operations, and reclamation/closure for sites licensed by NRC. Where 11e.(2) byproduct material disposal sites are operating under Agreement State regulation, it is expected that responsibility for regulation and inspection activities at those sites will continue to reside with the Agreement States. It is noted that existing inspection procedures from other NRC programs can be applied, in full or in part, to many aspects of uranium mill and 11e.(2) byproduct material disposal site inspections, and that additional inspection procedures specific to disposal technology, and on-site activity can be developed and employed incrementally, as needed. Tables 1 and 2 provide a listing of procedures that are currently available and include comments concerning their applicability. Minimum and normal frequencies of inspection are listed; adoption of the minimum frequency of inspection should be tailored to both the level of site activity and to the performance of the licensee.

2801-05 PROGRAM DESCRIPTION

05.01 General. The inspection program for sites specifically licensed for 11e.(2) byproduct material disposal, and for uranium mills has been divided into three parts. The parts are designed to be responsive to the various inspection needs during the different phases of facility life: construction/pre-operations, operations, and reclamation/closure. Each phase of the inspection program varies with respect to applicable inspection procedures, inspection frequency, and degree to which a given procedure may be applied. The inspection programs for each phase are discussed in narrative form in Section 2801-08. Tables 1 and 2 present information for the pre-operations, operations, and closure phases.

This chapter identifies requirements for the inspection of the health, safety, and environmental aspects of licensee activities. The inspector should be completely familiar with the current regulatory requirements and commitments associated with the license. These include the comparable parts of title 10, U.S. Code of Federal Regulations, the license application, applicable guides, and other codes to which licensees may commit by reference. In the case that NRC guidance documents are updated after a license or amendment is issued, the licensee is generally only committed to follow the original guidance. Thus, the particular revision of the guidance to which the licensee has been committed is of importance.

The scope of inspection procedures (IPs), taken as a whole, is not intended to be limited to only those elements discussed in the procedures. The descriptions and examples contained in the procedures are provided primarily for illustrative purposes, as examples of things that should be examined. Examination of other safety-significant activities not expressed or implied in a procedure is left to the inspector's judgment, in consideration of the relative degree of safety risk posed by the subject activity.

The environmental aspects of the activities relate to those license conditions that have been placed on the operation by the NRC as a result of reviews conducted under the authority of the National Environmental Policy Act. Environmental inspections would be conducted at the same time as health and safety inspections.

05.02 Program Adjustments. This program provides the responsible regional office and the Headquarters flexibility to adjust the frequencies, and scope of inspections for different functional areas at a facility, as well as the periodicity of specific areas of inspections. (Suggested frequencies for various procedures are specified in Tables 1 and 2. There is no maximum frequency expressed in Tables 1 and 2. It is expected that any level of effort above that specified as the normal frequency would be established at a level commensurate with whatever is needed to resolve identified problems and their importance to safety.) Periodic inspection interval adjustments should be based on inspection history, licensee performance and safety significance of findings, as delineated in sections 05.03-05.04. Occasional adjustments may also occur in response to other events or activities, as determined by the responsible regional office or the Headquarters. A reasonable allowance for responding to these events or activities should be incorporated in the inspection plan for the facility. Necessary adjustments may be difficult to implement within the constraints imposed by limited inspection resources within the regional office and the Headquarters. In such cases, implementation may involve a shift in the focus of already scheduled inspection resources for the subject facility, or a shift in allocated inspection resources from other facilities in the region that have exhibited superior performance. Resources may also be utilized from other regions or the Headquarters in a coordinated response to address significant safety or environmental issues that cannot otherwise be deferred.

Inspections during the construction and pre-operational phase of a facility will be conducted on a case-by-case basis. Pre-operational inspections will be conducted at least once before startup of facility operations. The inspection procedures for the construction/pre-operational phase are indicated in the appendix, as applicable.

Substantial adjustments in the planned inspection schedule for a facility (i.e., those that involve shifts in resources which may affect other facilities or result in exceeding a "normal" inspection frequency) should be coordinated between the responsible regional office and the Headquarters.

05.03 Extension of Inspection Frequency.

- a. The interval between inspections may be extended (lengthened) on the basis of good licensee performance. The main consideration in extending the inspection interval should be evidence of well-managed and effective radiation safety and environmental protection programs which shows a history of compliance. Specifically, the inspection frequency may be extended, for licensees meeting the following conditions:
 - i. The violations identified during the licensee's current and preceding inspections were of a low safety significance and no more than two violations per inspection are Severity Level IV; and
 - ii. The licensee has not had a significant program change since the preceding inspection. Significant program changes should relate to changes in the scope or type of operations, changes in the authorized materials or possession limits, changes in key personnel, or changes in locations of use. (NOTE: Extension should not be considered for licensees who have undergone significant program changes to ensure the licensee can maintain adequate performance over the next inspection period.)

- b. To document the extension in the interval between inspections, a note (e.g., a memorandum or section within the inspection report) should be written by the inspector, approved and signed by the inspector's immediate supervisor, and placed in the licensing file.
- c. The decision to extend the inspection should be made after each routine inspection. The project manager for the site should be informed and the master inspection plan updated.

05.04 Reduction of Inspection Frequency.

- a. The interval between inspections may be reduced (shortened) and inspections conducted more frequently than specified in the priority system on the basis of poor licensee performance. The main consideration in reducing the inspection interval should be evidence of moderate to severe problems in the licensee's radiation safety or environmental protection programs. Poor compliance history is one indicator of such problems, while lack of management involvement or control over the radiation safety program is another indicator. Specifically, licensees that meet the following conditions shall be considered for reduction in inspection interval:
 - i. A Severity Level I, II, or III violation on the most recent inspection; or
 - ii. Issuance of an Order or escalated enforcement on the most recent inspection; or
 - iii. If a "management paragraph" appears in the cover letter transmitting the notice of violation on the most recent inspection (i.e., a paragraph that requires the licensee to address adequate management control over the licensed program); or
 - iv. An event requiring a reactive inspection; or
 - v. Repetitive violations.

The above list is not exhaustive. The inspection frequency may be reduced for any other reason deemed pertinent by regional management. An example would be an enforcement conference where the outcome did not include escalated enforcement action, but did indicate a need for the licensee to improve certain aspect(s) of its compliance program.

Licensees which meet the above criteria may have their inspection interval reduced by any length. For instance, an annually-inspected licensee with a poor performance record could be rescheduled for its next inspection in 6 months. The reduction may be valid only until the next inspection or another duration specified, but regional management shall consider the results of the next inspection when determining whether the reduced frequency should be continued, changed, or returned to normal.

- b. To document the reduction in the interval between inspections, a note (e.g., a memorandum or section within the inspection report) should be written by the inspector, approved and signed by the inspector's immediate supervisor, and placed in the licensing file.
- c. The decision to extend the inspection may be made at any time, but consideration should be given immediately after each routine inspection. The project manager for the site should be informed and the master inspection plan updated.

05.05 Inspections After Escalated Enforcement. If escalated enforcement action has taken place for a particular licensee, a follow-up inspection should be scheduled and conducted within 6 months of the last inspection or sooner, in accordance with the guidance in this IP regarding reduction of inspection frequency (Section 05.04), after completion of the escalated enforcement action, to assess the licensee's follow-up actions in response to the previous violations. Regions may perform this followup inspection as a part of a routine inspection.

05.06 Performance-Based License. At sites operating under a PBL, the inspector should ensure that changes authorized under the PBL do not erode the basis for NRC's licensing decision. In evaluating the changes made to the facility, inspectors should recognize that the reviews conducted by the licensee's evaluation panel are reviews of neither safety nor environmental acceptability; rather, the evaluation panel reviews under the PBL are a determination of whether the proposed changes require prior NRC review. Licensees are obligated to ensure that any change considered to the facility should be safe and environmentally acceptable. Then the evaluation panel is responsible for determining if the proposed changes need to be submitted to NRC. There will be circumstances where the licensee finds that the proposed changes are acceptable; however, the change may still require an NRC review.

As a general set of guidelines, NRC review will be required for changes to:

- i. The items described in the application or subsequent submittals that would reduce the safety basis of the facility;
- ii. The procedures conditioned in the license or outlined, summarized, or included in the application; and
- iii. Any of the license conditions.

Additional guidance on the inspection of PBL activities undertaken by licensees can be found in IP 37001, "10 CFR 50.59 Safety Evaluation Program." Although this IP is applicable to 10 CFR Part 50 licenses, the basic philosophy and inspection process can be adopted to PBLs since the PBL concept was derived from 10 CFR 50.59.

2801-06 REVIEW OF EVENTS

All inspections should include, as appropriate, a review of licensee reportable and non-reportable events that involve contamination, releases, equipment malfunctions, or other similar events that have generic significance. The review should cover corrective actions taken by the licensee and follow-up actions taken to prevent recurrence. In the case of reports received by NRC involving radiological health and safety, the region is responsible for determining the seriousness of the reported incident and whether an immediate reactive inspection is necessary. When such reports involve programmatic or technical areas normally addressed by Headquarters programs, the region shall confer with Headquarters, to jointly determine what response, if any, is required.

Non-reportable events are those determined by the licensee to fall outside criteria requiring them to be reported to NRC. Although, these events are not reported formally to NRC, licensees occasionally may contact regional staff informally to describe the event and explain the basis why it is considered a non-reportable event. Often, licensees are required, by the license conditions, to maintain records of non-reportable events onsite. Non-reportable events should be examined during inspections, to determine appropriate corrective actions or follow-up to preclude recurrence. Such events may relate to safety issues requiring follow-up actions by the Occupational Safety and Health Administration, or the Mine Safety and Health Administration. These events may also relate to existing or potential operational concerns, not otherwise reportable, such as biointrusion

in disposal units, erosion or sloughing of trench walls, or uncontrolled wind erosion. Additional guidance on non-reportable events is contained in individual inspection procedures.

2801-07 INDEPENDENT INSPECTION EFFORT

Each inspector should spend some onsite inspection time performing independent inspection effort. The amount of time spent should be commensurate with the level of risk, the complexity of the facility, and the degree to which inspection resources have already been committed to significant safety and environmental issues that have already been identified in the facility. This effort may include more in-depth inspection in selected technical areas than that normally called for by the formal procedures. The major objective of this effort should be to gain increased understanding of potential safety and environmental hazards of particular activities of interest, such as those that may have been involved in a series of recent non-reportable events.

Comparison of the findings from this type of effort with the licensee's findings may uncover unresolved safety and environmental concerns, improper maintenance practices, and other problems that may not be discovered through other means. Discovered hazards outside the scope of NRC's regulatory authority should be conveyed to the licensee at the exit interview (as set forth in IP 88002), described to regional management during debriefing, and included in the formal inspection report. In cases where regulatory jurisdiction for the observed potential hazard is clear, the finding shall be reported to the responsible agency for action (i.e., State, Mine Safety and Health Administration, Environmental Protection Agency, etc.). In all cases where the finding involves a potential effect on radiological health and safety, the finding shall be followed up during subsequent inspections until the licensee has resolved the concern. However, special follow-up inspections solely on the basis of Mine Safety and Health Administration issues are not required unless the potential hazard poses a radiological health or safety concern.

2801-08 RANDOM SELECTION AND EXAMINATION OF RECORDS

Many of the inspection procedures normally require the inspector to select certain types of records at random for closer examination. However, random selection is not always required. The inspector may seek out certain records of interest when so inclined.

Random selection is a technique that recognizes the fact that NRC does not have the resources to inspect every detail of plant. The NRC inspection program is predicated on the fact that the licensee is ultimately responsible for the safety of the licensed facility. Random selection, where specified in a procedure, allows the inspector to sample specific aspects of the licensee's safety and environmental program to be studied at a level of detail that would be impractical if exercised uniformly across the entire safety program. When random selection is specified in a procedure, the inspector should select records corresponding to activities that relate to the NRC's regulatory role, such as effluent monitoring records or ground-water restoration records. Also included should be records required to be retained for later decommissioning.

To reasonably verify that activities are conducted safely and in an environmentally acceptable manner, the inspector also should randomly select personnel for interviews. The extent and depth to which random selections or examinations are needed are left to the inspector's judgment, depending on how satisfactorily the licensee's operational, and safety and safeguards procedures are being followed.

2801-09 REGIONAL RESPONSIBILITY FOR LICENSEES

The responsibility for inspection resides with the regional office in which the licensee operation is located. For efficiency in resource use, the regional office may request another regional office or Headquarters to assist in the conduct of inspections when specialized technical expertise is

needed and is not available within the responsible region. In some cases, a region may wish to transfer all or part of the inspection responsibility to another region or to Headquarters. These arrangements may be made with mutual agreement between the offices involved. If a permanent transfer of total inspection responsibility is involved, the affected regional offices should ensure that the appropriate changes are made to the computerized license data file by informing the Headquarters of the change in inspection responsibility for the license and requesting a change in the file. The regional office assuming inspection responsibility will be credited with the caseload in budgeting and allocating resources.

2801-10 INSPECTION DURING VARIOUS PHASES OF FACILITY LIFE

10.01 Part I - Inspection During the Construction and Pre-Operational Phase.

- a. Purpose. The purpose of this instruction is to provide guidance for planning and conducting inspections during the construction/pre-operations phase of facility life. Activities encompassed during the construction/pre-operations phase of a uranium mill or disposal site include disposal trench construction: liner placement: observation and verification of placement and compaction of cover materials: equipment use: fire protection program (equipment and training procedures);, and compliance with applicable construction specifications requirements in accordance with applicable management controls and quality assurance procedures. Activities encompassed during start-up of a mill that has been on stand-by, would include equipment operation/function and safety.
- b. Implementation. This inspection program begins on issuance of the license, or license amendment to restart the mill, and continues until the site begins active receipt and disposal of waste, or processing of ore at a mill. Situations may arise in which inspection requirements specified for other phases may apply concurrently with those specified here for the pre-operational phase. For example, certain requirements contained under Parts I and II may apply in the construction, pre-operational checks, and start-up of a major modification to the site.

The uranium mill or 11e.(2) byproduct material disposal site pre-operational inspection program is defined by selection from among the list of procedures in Table 1. The areas covered during an inspection need not be limited only to those elements discussed in the procedures, but may need to include examination of other activities not expressly delineated or covered in existing procedures. In such cases, the inspector must exercise good professional judgment in modifying the inspection and in identifying to the Headquarters the possible need for development of supplemental guidance. Conformance with the principles of reducing radiation exposure to as low as is reasonably achievable (ALARA) should be a principal concern at all times.

For the normal inspection frequency, each procedure should be executed for each specific frequency. In practice, part or all of the procedure element may need to be examined during each inspection visit.

During inspections, emphasis should be placed on physical examinations, observation of conduct of operations, independent measurements, and personnel interviews. Attention should be directed toward the availability of written procedures, the degree to which they are being followed, and the state of training of on-site personnel. Effort should be concentrated on areas of perceived concern (highest safety risk) and site activities performed since the last inspection.

Review of records should involve only a sampling of those records important to safety of personnel and the general public. For example, if the organizational structure has not changed with respect to personnel and assigned functions and responsibilities, the inspector should not pursue the subject of organization in any detail, unless there is reason to believe that such is not the case.

Discretion in such areas is left to the inspector's judgement.

- c. Regulatory Considerations. The inspector should be familiar with current license requirements; previous inspection reports; applicable codes, standards and guides; and the following regulations:

10 CFR Part 19, "Notices, Instructions, and Reports to Workers: Inspection and Investigations."

10 CFR Part 20, "Standards for Protection against Radiation."

10 CFR Part 21, "Reporting of Defects and Noncompliance."

10 CFR Part 40, "Domestic Licensing of Source Material."

10 CFR Part 61.82, "Commission Inspection of Land Disposal Facilities (Commercial Disposal Only)."

- d. Guidance for Use of Inspection Procedures during the Pre-Operational Phase. The inspection procedures indicated in Table 1 for the construction/pre-operations phase are applicable to inspections conducted at uranium mills and 11e.(2) byproduct material disposal sites during construction/pre-operations. The inspection staff can determine the applicable elements of each procedure by reviewing the procedure, the facility license, and reports of previous inspections.

10.02 Part II - Inspection during the Operations Phase.

- a. Purpose. The purpose of this instruction is to provide guidance for planning and conducting inspections during the operations phase of the facility. Activities encompassed during the operations phase include receipt and handling of incoming 11e.(2) byproduct material, or the processing of ore and packaging of yellowcake; emplacement of the 11e.(2) byproduct material for disposal; radiation safety and environmental monitoring activities; and records management.
- b. Implementation. This inspection program begins on issuance of the facility license, or a license amendment to allow a uranium mill on stand-by to restart, and continues until the facility ceases active receipt of materials and/or disposal of waste. Situations may arise in which inspection requirements specified for other phases may apply concurrently with those specified here for the operations phase. For example, certain requirements contained under Parts I and III may apply in the operations, or start-up of a facility.

The uranium mill or 11e.(2) byproduct material disposal site operations inspection program is defined by selection from among the list of procedures in Table 2. The areas covered during an inspection need not be limited only to those elements discussed in the procedures, but may need to include examination of other activities not expressly delineated or covered in existing procedures. In such cases, the inspector must exercise good professional judgment in modifying the inspection and in identifying to the Headquarters the possible need for development of supplemental guidance. Conformance with the principles of ALARA should be a principal concern at all times.

For the normal inspection frequency, each procedure should be executed for each specific frequency. In practice, part or all of the procedure element may need to be examined during each inspection visit. Emphasis should be placed on physical examinations, observation of conduct of operations, independent measurements, and personnel interviews. Attention

should be directed toward the availability of written procedures, the degree to which they are being followed, and the state of training of on-site personnel. Effort should be concentrated on areas of perceived concern (highest safety risk) and licensee activities conducted since the last inspection.

Review of records should otherwise involve only a sampling of those records important to safety of personnel and the general public. For example, if the organizational structure has not changed with respect to personnel and assigned functions and responsibilities, the inspector should not pursue the subject of organization in any detail, unless there is reason to believe that such is not the case. Discretion in such areas is left to the inspector's judgment.

- c. Regulatory Considerations. The inspector should be familiar with current license requirements; previous inspection reports; applicable codes, standards and guides; and the following regulations:

10 CFR Part 19, "Notices, Instructions, and Reports to Workers: Inspection and Investigations."

10 CFR Part 20, "Standards for Protection against Radiation."

10 CFR Part 21, "Reporting of Defects and Noncompliance."

10 CFR Part 40, "Domestic Licensing of Source Material."

10 CFR Part 61.80, "Maintenance of Records, Reports, and Transfers."

10 CFR Part 61.82, "Commission Inspection of Land Disposal Facilities (Commercial Disposal Only)"

- d. Guidance for Use of Inspection Procedures During Operations. The inspection procedures indicated in Table 2 for the Operations Phase are applicable to inspections conducted at uranium mills and 11e.(2) byproduct material disposal sites, including mills authorized for disposal of in-situ leach facility waste and other 11e.(2) byproduct material. The inspection staff can determine the applicable elements of each procedure by reviewing the procedure, the facility license, and reports of previous inspections. Inspectors should also refer to applicable portions of Regulatory Guides 4.14, 8.22, and 8.30, for details.

10.03 Part III - Inspection During the Reclamation/Closure Phase.

- a. Purpose. The purpose of this instruction is to provide guidance for planning and conducting inspections during the period of reclamation/closure of a uranium mill site or 11e.(2) byproduct material disposal site. In some cases, as specifically allowed or required by license condition, some closure activities may occur for some parts of a facility during the operations phase. The purpose of the inspection is to verify, by field observations and review of licensee records, that decontamination of soil, sediment, surface waters, and ground-water, as well as reclamation of the disposal cell, are being performed in accordance with NRC-approved plans.
- b. Implementation. This program is initiated when the licensee begins implementation of any portion of the approved reclamation/decommissioning plan. The foundation for planning and scheduling inspections will thus be the licensee's progress in implementing the reclamation plan (construction schedule). The criteria for inspections will be license conditions and applicable regulations, some of which will directly address reclamation activities. In many cases, portions of the reclamation plan may be implemented for part of a site while active operations continue elsewhere on site. In these cases, the appropriate portions of this program

should be implemented in conjunction with the operations inspection program. The reclamation plan itself, as amended during site operation and approved by NRC, should be reviewed by the regional office to determine if procedural or scheduling modifications are necessary to enable planning of an efficient inspection program. The inspection program continues in effect until the licensee has implemented all elements of the reclamation plan, the license is terminated, and the title to the land is transferred to the State or the U.S. Department of Energy for long-term surveillance and maintenance.

The 11e.(2) byproduct material disposal site, or uranium mill reclamation and decommissioning inspection program is also defined by selection from among the list of procedures in Table 2. The areas covered during an inspection need not be limited only to those elements discussed in the procedures, but may need to include examination of other activities not expressly delineated or covered in existing procedures. In such cases, the inspector must exercise good professional judgment in modifying the inspection and in identifying to the Headquarters the possible need for development of supplemental guidance. Conformance with the principles of ALARA should be a principal concern at all times.

For inspections during site remediation/closure (includes licensee performing cleanup verification measurements), each procedure should be executed for each specific frequency. In practice, part or all of the procedure element may need to be examined during each inspection visit. Emphasis should be placed on physical examinations, observation of conduct of operations, limited independent measurements (e.g., split samples), and personnel interviews. Attention should be directed toward the availability of the licensee's written procedures, the degree to which they are being followed, and the state of training of on-site personnel. Effort should be concentrated on areas of perceived concern. Discretion in such areas is left to the inspector's judgment in consultation with Headquarters staff (project manager, technical reviewers).

A confirmatory survey may be performed as an audit of the licensee's final survey results to independently confirm that the report is accurate and representative of site conditions, but is only necessary if there is significant doubt regarding the licensee's final survey results. A confirmatory survey will be performed if any of the following applies to decommissioning of the site:

- i. Repeated violations, with the inclusion of a "management paragraph;"
 - ii. Issuance of an order;
 - iii. Failure to take short-term corrective measures;
 - iv. An event requiring a reactive inspection;
 - v. Limited financial and technical viability of the licensee; and
 - vi. Significant problems identified with the reclamation plan or final survey data.
- c. Regulatory Considerations. The inspector should be especially familiar with current license requirements; previous inspection reports; applicable codes, standards and guides; and the following regulations:

10 CFR Part 20, "Standards for Protection against Radiation."

10 CFR Part 40, "Domestic Licensing of Source Material."

- d. Guidance for Use of Inspection Procedures During Closure. The inspection procedures indicated in Table 2 are applicable to inspections conducted at 11e.(2) byproduct material disposal sites, or uranium mills during closure. The most applicable procedure is under development and will be entitled, "Decommissioning Inspection Procedure for Uranium Mill Sites." The inspection staff can determine the applicable elements of each procedure by reviewing the procedure, the facility license, and the licensee's closure (reclamation) plan.

Attachments:

Table 1	Inspection Procedures Applicable to Pre-Operational Inspection of a Uranium Mill or 11e.(2) Byproduct Material Disposal Site
Table 2	Inspection Procedures Applicable to Inspection of a Uranium Mill or 11e.(2) Byproduct Material Disposal Site during Operations and Closure

TABLE 1**INSPECTION PROCEDURES APPLICABLE TO PRE-OPERATIONAL INSPECTION OF A URANIUM MILL
OR 11e.(2) BYPRODUCT MATERIAL DISPOSAL SITE**

Procedure Number	Procedure Title	Inspection Frequency		Applicability of Procedure to the Inspection
		Minimum	Normal	
36100	10 CFR Part 21 Inspection at Nuclear Power Reactors	As Necessary	As Necessary	Inspectors should be sensitive to the underlying principle driving this procedure.
37001	10 CFR 50.59 Safety Evaluation	As Necessary	As Necessary	As applicable to implementation of Performance Based license since the PBL concept was derived from 10 CFR 50.59.
88001	On-site Construction	Annual	Key constr. milestones	Applicable to the inspection of engineering and construction.
88005	Management Organization and Controls	Annual	Annual	Generic Procedure applicable.
88045	Environmental Protection	Annual	Semiannual	License will specify offsite monitoring and sample locations, frequencies and applicable limits on levels and concentrations of radioactivity.
89001	In-situ Leach (ISL) facilities	Annual	Semiannual	Generic procedure applicable to uranium mills and in-situ leach facilities.
92701	Followup	As Necessary	As Necessary	Generic procedure applicable.
92703	Followup of Confirmatory Action Letters	As Necessary	As Necessary	Generic procedure applicable.

TABLE 2

**INSPECTION PROCEDURES APPLICABLE TO INSPECTION OF A URANIUM MILL SITE OR
11e.(2) BYPRODUCT MATERIAL DISPOSAL SITE DURING OPERATIONS**

Procedure Number	Procedure Title	Inspection Frequency		Applicability of the Procedure
		Minimum	Normal	
37001	10 CFR 50.59 Safety Evaluation	As Necessary	As Necessary	As applicable to implementation of Performance Based license since the PBL concept was derived from 10 CFR 50.59.
83822	Radiation Protection	Annual	Semiannual	This procedure is applicable in its entirety.
86740	Inspection of Transportation Activities	Annual	Semiannual	This procedure should be used to confirm compliance for yellowcake or 11e.(2) shipments.
88001	On-site Construction	Annual	Semiannual	This procedure is for the engineering and construction aspects of a disposal cell and implementation requires the assistance of Headquarters staff.
88005	Management Organization and Controls	Annual	Annual	This procedure is generally applicable.
88010	Operator Training/Retraining	Annual	Biennial	This procedure is applicable to mill and disposal sites.
88025	Maintenance and Surveillance Testing	Annual	Semiannual	Generally applicable.
88035	Radioactive Waste Management	Annual	Semiannual	Sections 02.01 - 02.06 are generally applicable.
88045	Environmental Protection	Annual	Semiannual	This procedure is applicable in its entirety.
88050	Emergency Preparedness	Biennial	Biennial	This procedure is generally applicable. Discretion is required regarding the degree to which all requirements are inspected against.
89001	In-situ Leach Facilities	Annual	Semiannual	Applicable to the operating aspects generic to uranium mills and ISL facilities.
92701	Followup	As Necessary	As Necessary	Generally Applicable.
90703	Followup of Confirmatory Action Letters	As Necessary	As Necessary	Generally Applicable.
93001	OSHA Interface Activities	As Necessary	As Necessary	Generally Applicable.