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## INSPECTION PROCEDURE 89005

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### MANAGEMENT ORGANIZATION AND CONTROLS AT URANIUM RECOVERY AND 11e.(2) BYPRODUCT MATERIAL FACILITIES

PROGRAM APPLICABILITY: 2602 and 2801

#### 89005-01 INSPECTION OBJECTIVES

01.01 To establish the inspection program for management organization and controls at conventional mills, in situ recovery uranium mills, 11e.(2) byproduct material disposal sites, and other 11e.(2) byproduct material sites licensed and regulated under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 40.

01.02 To ensure that the licensee effectively manages facility organization, changes, independent review committees, internal reviews and audits, routine site inspections, facility procedures, and Additional Protocol reports.

01.03 To ensure that the licensee's management organization and controls comply with U.S. Nuclear Regulatory Commission (NRC) license and regulatory requirements.

#### 89005-02 INSPECTION REQUIREMENTS

This inspection procedure (IP) provides the requirements and guidance for inspections of management organization and controls at sites licensed under 10 CFR Part 40. Because this IP applies to a variety of licensees, certain inspection requirements and inspection guidance as provided in this IP may not be applicable to all sites.

02.01 Inspection Requirements to Meet Objectives. To meet the objectives of this IP, the inspector shall conduct the following minimum inspection activities:

- a. Prepare for the inspection in the office before the onsite inspection. This effort should include review of the license and license application requirements for the management organization and control program. If the inspection is an announced inspection, the inspector should consider requesting electronic copies of the licensee's manuals or procedures prior to the onsite inspection. The inspector should also request that the licensee provide documentation of any significant changes that have been made to the program since the last inspection.
- b. Conduct one or more site tours to verify that site activities are being implemented in accordance with license requirements. For example, observe the status of water retention impoundments to verify that the licensee's daily inspection checklists are reflective of the as-found conditions.

- c. Observe one or more critical activities such as a daily site inspection by licensee staff. Ensure that the licensee's staff understand their responsibilities and are trained and qualified to conduct the daily inspection.
- d. Verify through a limited records review that the licensee continues to maintain the required records in accordance with license and procedural requirements. For example, the inspector shall ensure that the licensee's staff continue to conduct daily plant tours, routine radiation safety officer tours, radiation safety committee meetings, annual embankment inspections, and annual program reviews. The inspector should determine if any negative trends are present in the data, and if trends are identified, the inspector should verify that the licensee has taken actions to address these trends.
- e. If there have been any significant changes in the program since the last inspection, ensure that the changes have been appropriately evaluated and implemented by the licensee.

02.02 Performance-based/Risk-informed Inspections. In accordance with Commission policy (SECY-98-144), inspectors must conduct performance-based inspections with an emphasis on risk-significant activities that have an impact on safety and the environment. A performance-based inspection emphasizes the observation of activities and results of the licensees' programs over the review of procedures or records. The risk-informed inspection approach considers risk insights together with other factors to focus inspection activities commensurate with the risks associated with the implementation of the licensee's NRC-approved programs.

Although the programs and procedures described in this IP are predominately compliance-based, some of these programs and procedures may have an impact on safety and the environment. The higher risk activities include procedures and training for radiological incidents such as spills, accidents, and environmental contamination events. For example, inspection experience has shown that failures to follow established procedures have resulted in risk-significant events such as uptakes.

In summary, the inspector shall verify compliance primarily through observations of site conditions, observations of work activities, interviews with workers, demonstrations by workers, and reviews of critical records. The inspector shall focus attention on the most important, risk-significant activities and the results of the licensee's efforts.

## 89005-03 INSPECTION GUIDANCE

The emphasis of this inspection effort is to ensure that the licensee has established and implemented critical programs, manuals, and procedures to manage and control:

- Regulatory requirements applicable to management organization and controls
- Organizational staffing and operations training
- Changes using the performance-based license
- Plant review committee and radiation safety committee meetings

- Audits and other self-assessments, including the As Low As Is Reasonably Achievable (ALARA) and radiation protection program audits
- Site inspections including routine operational inspections by licensee staff and site tours by management and radiation safety officers
- Facility procedures
- Additional Protocols reporting requirements

03.01 Regulatory Requirements. The following regulatory requirements apply to most uranium recovery and 11e.(2) byproduct material sites:

- 10 CFR 20.1101(c) states that the licensee shall periodically (at least annually) review the radiation protection program content and implementation.
- 10 CFR 40.32(c) states, in part, that an application for a specific license will be approved if the applicant's proposed equipment, facilities, and procedures are adequate to protect health and minimize danger to life or property. For uranium recovery and 11e.(2) byproduct material sites, these proposed procedures include requirements for management organization and control. These program requirements will be specified in the license application and the conditions of the license.
- 10 CFR 40.31(g) and 10 CFR 75.11 require certain nuclear fuel cycle facilities, including uranium recovery sites, to provide information to the NRC on a routine basis to comply with the Additional Protocol reporting requirements.

03.02 Organizational Staffing and Operations Training. Details about the licensee's staffing and training programs are commonly provided in the license application, decommissioning plan, and/or reclamation plan. The details may include discussion of organizational structure, key positions, responsibilities, qualifications, and training requirements. Training requirements include site familiarization, radiological safety, industrial safety, and task-specific training. For this IP, the inspector should concentrate on non-radiological training. Inspection guidance for radiological training is provided in a different IP.

The inspector should verify that the licensee has implemented an organization in accordance with license requirements with defined qualifications, responsibilities, and functions. The goal of this inspection effort, in part, is to ensure that the licensee has sufficient staff to conduct the work necessary to maintain compliance with license and regulatory requirements. The inspector should compare the licensee's actual organizational structure to license requirements. Ensure all positions are filled with qualified individuals. Recommended qualification requirements for the health physics staff are provided in Section 2.4 of Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Radiation Exposure at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable."

Some licensees may assign individuals to fill more than one position as presented on the organization chart. In general, the licensee has the authority to manage its staff assignments as long as the individuals meet the training and qualification requirements for each position.

The inspector should concentrate on recently appointed staff members, to ensure that the individuals have the training and experience requirements for their positions as specified in the license. Some licensees fill critical positions with contractors. The inspector should verify that the contractors have the training and experience requirements specified in the license for their positions. If no significant changes have occurred since the previous inspection, then the inspection report should state that there have been no significant changes in the organization.

Based on inspection experience, a common error that licensees have encountered involves the review and approval of site staff to fill certain positions or titles, unaware that the proposed change may conflict with other license application commitments or license requirements regarding staffing and training. The inspector should pay attention to organizational changes to ensure that the licensee has the authority to make these kinds of changes.

The inspector should review staff turnover rates. High turnover rates may be indicative of underlying problems that should be understood and addressed by the licensee. Although high turnover rates are not regulatory compliance issues, high turnover rates could lead to future compliance problems including inadequate staff to implement the license and regulatory requirements. The inspector should ensure the licensee understands the causes of high turnover and has a plan to address the issue, to avoid future compliance problems.

Most licensees establish and implement industrial safety programs. One significant risk at uranium recovery sites involves the handling of chemicals. Another significant risk involves confined space entries. Although the NRC does not regulate industrial safety and chemicals (unless the chemicals become radiologically contaminated), the license application may include industrial and chemical safety program requirements. If the inspector identifies a significant industrial safety hazard, the inspector should refer to the guidance provided in Inspection Manual Chapter 1007, "Interfacing Activities Between Regional Offices of NRC and OSHA."

The NRC has established a policy for Safety Conscious Work Environments (SCWE). This program might be described in the license application. Details about SCWE can be found in Regulatory Issue Summary RIS-05-18, "Guidance for Establishing and Maintaining a Safety Conscious Work Environment." Although the NRC encourages licensees to implement SCWE programs, licensees are not required by regulation to implement this policy.

**03.03 Changes Using Performance-based License.** Some licenses authorize licensees to make limited program, procedure, and process changes in certain situations. The licensee's change process is commonly called the Safety Evaluation and Review Process (SERP) but may be named differently by some licensees. Most performance-based license conditions include requirements such as designation of SERP committee members, limitations on changes, and annual reporting requirements. Most licensees develop site procedures to fully describe the SERP evaluation process.

The inspector should review the SERP program during each inspection. The inspector should verify that the licensee followed the SERP process as specified in the license. In addition, the inspector should conduct site tours and interview site staff to determine if any other changes were made to the plant or programs that should have been reviewed as part of the SERP process prior to implementation.

At the discretion of the inspector, newly implemented or revised SERP program procedures should be reviewed to verify that the instructions effectively implement the performance-based

license requirements. The procedures do not have to be reviewed if they have not been revised since the last inspection.

**03.04 Plant Review Committee and Radiation Safety Committee.** Most licensees establish review committees with functions and responsibilities that vary from site to site. Some committees provide independent review functions, others conduct technical reviews of proposed changes and trends. These committees may be separate from the SERP committees. The inspector should determine whether the committees are functioning as required by the license or license application. The inspector should review meeting minutes to ensure that a quorum of members was established, the committee met at the required frequencies, and the members discussed relevant topics. Ensure that alternate committee members were designated to act on behalf of permanent committee members.

Most licensees have an ALARA or radiation safety committee. This committee is expected to review the radiological data for the previous reporting period, identify potential trends, and suggest ALARA goals for the next reporting period. The committee may also review radiological incidents and accidents that have occurred in the reporting period. Further, some licenses require licensees to submit copies of the ALARA committee meetings in reports to the NRC. In these situations, the inspector should ensure that the committee discussed relative topics and provided the report to the NRC as specified in the license.

**03.05 Audits and Other Self-Assessments.** The audit and self-assessment requirements are commonly provided in the license application but may be referenced in the license itself. The most common self-assessment is the annual ALARA or radiation protection program review which is required by 10 CFR 20.1101(c). Uranium recovery and 11e.(2) byproduct material facilities typically do not have formal quality assurance programs similar to those required for 10 CFR Part 50 programs. Thus, the ALARA audit may be the only formal audit conducted at the site.

As noted in NUREG-1736, "Consolidated Guidance: 10 CFR Part 20—Standards for Protection Against Radiation," the annual radiation protection program review should be conducted at least once every 12 months by qualified persons who are knowledgeable of the onsite radiation program. Whenever practical, this review should be performed by personnel who do not have direct responsibility over the program (independent of programmatic responsibility). The review should cover procedural compliance, technical adequacy, implementation, and effectiveness of the program. Lessons learned and suggested improvements from these reviews should be considered for program improvements. Additional details about the annual program audit, including a list of proposed topics, are provided in Section 2.3.3 of Regulatory Guide 8.31.

**03.06 Site Inspections and Routine Site Tours.** Many licensees are required to conduct daily or weekly walkdowns of the site to observe general radiation control practices, facility equipment, and water impoundments. The individuals who conduct the daily and weekly walkdowns must be trained in accordance with the requirements provided in the license or license application. The inspector should review a selected number of routine inspection records to ensure that the daily and weekly tours were conducted by qualified individuals. The inspector should also verify that any abnormal condition identified during routine site inspections and tours were corrected by the licensee in a timely manner.

Many licenses require the radiation safety officer to conduct monthly reviews. The monthly reviews should include the results of the daily and weekly inspections, occupational exposure records, effluent release records, radiation protection program records, and trends that are

identified. The inspector should verify that the licensee is conducting these monthly reviews in accordance with license requirements. Additional guidance for the daily/weekly inspections and monthly reviews are provided in Section 2.3 of Regulatory Guide 8.31.

Further, some licenses require annual inspections of site impoundments. This annual report is commonly required to be submitted to the NRC. The inspector should review these annual reports to ensure that the impoundments continue to function as designed and constructed. During site tours, the inspector should observe the impoundments to ensure that the as-found conditions are reflected in the most recent annual inspection report.

**03.07 Facility Procedures.** Most licenses include a condition that procedures shall be established for all activities involving radioactive materials that are handled, processed, or stored. Further, these procedures shall enumerate pertinent radiation safety practices to be followed. Procedures are required for all program areas that involve radioactive material including environmental monitoring, radiation protection, operations, transportation, and emergency responses. Most licensees review and update procedures at least annually, and site procedures must be reviewed by the radiation safety officer before implementation. Additional guidance for procedures is provided in Section 2.2 of Regulatory Guide 8.31.

The inspector should verify that the licensee has: (1) implemented procedures for all areas of facility operations that involve radioactive material; (2) made available up-to-date procedures for use in the plant; (3) reviewed the procedures at the frequency specified in the license; and (4) informed site staff when changes to procedures are approved.

The inspector should conduct a detailed review and walkdown of selected procedures, depending on the focus of the inspection. The purpose of this review is to ensure that the procedures are reflective of the facility and to ensure that licensee staff understand the procedural requirements. The walkdown can be conducted with licensee staff using operational, environmental, or transportation program procedures.

**03.08 Additional Protocol Reporting Requirements.** The Additional Protocol reporting requirements are provided in 10 CFR 40.31(g) and 10 CFR 75.11. Under the Additional Protocol agreement, commercial nuclear fuel cycle facilities are required to routinely report on peaceful nuclear activities within the United States. These reporting requirements apply to uranium recovery facilities including ore processing plants, facilities using or storing ore concentrates, or other impure (UF<sub>6</sub>, uranium metal, UO<sub>2</sub>) source materials. The inspector should determine if the licensee made the required submissions to the NRC as required by the Additional Protocols agreement between the U.S. Government and the International Atomic Energy Agency (IAEA). The purpose of this verification is to help ensure that these reports are accurate, complete, and consistent with regulatory requirements.

Uranium recovery facilities are required to make annual submissions that include forms AP-1 (Certification), AP-2 (Contact Information), and AP-7 (Concentration Plant Operations). Ensure the licensee submitted completed forms for each year since the previous inspection. Reconcile the information on the forms with the production numbers and the transportation records. Additional inspection details for these reporting requirements are provided in NRC Memorandum, "Verification of Additional Protocol Reporting at Uranium Recovery Facilities," dated June 22, 2012 (ML12171A355).

#### 89005-04 RESOURCE ESTIMATE

Implementation of this inspection procedure is estimated to require 4-8 hours of inspection effort. This estimate is for direct inspection effort and does not include preparation for the inspection and documentation of the inspection results.

#### 89005-05 PROCEDURE COMPLETION

This IP is complete when the inspection staff has observed the activities, interviewed site staff, and reviewed records as needed to satisfy the objectives of this IP. This IP should be completed at least once a year, or at other frequencies as established in the Master Inspection Schedule.

#### 89005-06 REFERENCES

Inspection Manual Chapter 2801, "Uranium Recovery and 11e.(2) Byproduct Material Facility Inspection Program," October 8, 2021

Inspection Manual Chapter 1007, "Interfacing Activities Between Regional Offices of NRC and OSHA," May 6, 2016

NRC Memorandum, "Verification of Additional Protocol Reporting at Uranium Recovery Facilities," June 22, 2012, ML12171A355

NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Facility," March 2002

NUREG-1736, "Consolidated Guidance: 10 CFR Part 20 – Standards for Protection Against Radiation," October 2001

Regulatory Guide 8.31, "Information Relevant to Ensuring That Occupational Radiation Exposure at Uranium Recovery Facilities Will Be As Low As Is Reasonably Achievable," May 2002.

Regulatory Issue Summary RIS-05-18, "Guidance for Establishing and Maintaining a Safety Conscious Work Environment," dated August 25, 2005

Staff Requirements SECY-98-144, "White Paper on Risk-informed and Performance-based Regulation," March 1, 1999

END

Attachment 1: Revision History for IP 89005

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Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML21202A318 10/08/21 CN 21-034	New inspection procedure originally based on fuel cycle IP 88005, Management Organization and Controls	n/a	ML21202A316