Status of the Uranium Recovery Program

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Strategic Overview
(Bo Pham)

• Programmatic Accomplishments
• Adapting to Change
• Nuclear Innovation and Modernization Act (NEIMA)
• What’s Next?
Programmatic Accomplishments

- Major licensing actions completed since last NMA workshop
- Implementation of Wyoming Agreement
- Increased communication with applicants and licensees
- Focus and progress on licensing actions for decommissioning sites
Adapting to Change

- NRC wide Transformation Initiative
- Energy Market (dynamic workload)
- Budget
- Fees
NEIMA

• Uranium recovery report (April 10, 2019) to Congress on recommendations to improve the efficiency of the uranium recovery licensing process

• Flat fee pilot
What’s Next?

• Focus on decommissioning
• Potential ISR Rulemaking
• Limited guidance updates
• Work with Agreement States
• Path for Title II sites to license termination
Programmatic Updates
(Bill von Till)
• Adapting to change
• Major accomplishments
• NRC’s potential approach to resuming the ISR rulemaking
• Revisions to the ISR Standard Review Plan
• Update on alternate concentration limit evaluations
• Sites
• NMSS Procedure SA-900 Termination of Uranium Milling Licenses in Agreement States
Adapting to Change

• Adapting to a changing workload with Wyoming as an Agreement State and no new projects
  • Combined uranium recovery functions and complex material decommissioning
  • Budget commensurate with work
  • Rightsized staffing
  • Concentrating on decommissioning, program guidance, Agreement State assistance and collaboration
Major Operational Accomplishments

• Lost Creek KM Horizon
  • SER completed on August 7, 2018
• Kennecott Sweetwater license renewal
  • SER completed on February 28, 2018
  • Final EA completed on June 4, 2018
  • License issued on July 5, 2018
• Uranium One Ludeman major expansion
  • SER completed on March 1, 2018
  • Final EA completed on August 14, 2018
  • License amendment issued on August 24, 2018
• Cameco Smith Ranch license renewal
  • Final EA completed on September 20, 2018
  • SER completed on September 24, 2018
  • License issued on September 26, 2018
Licensed to Operate Sites

2. Powertech Dewey Burdock (not constructed) – ISR SD
3. Hydro Resources Inc. Crownpoint (not constructed) – ISR NM
1. **Powertech Dewey Burdock** – NEPA cultural resources contention is the sole remaining contention. Evidentiary hearing is scheduled for August 2019.

2. **Cameco Crow Butte License Renewal** – ASLB issued partial initial decision for Contention 1 (Consultation & Tribal Cultural Properties) on May 26, 2016. Licensee petition for review submitted to the Commission on June 20, 2016. ASLB issued second partial initial decision on other contentions on December 6, 2016. Licensee and Consolidated Intervenors submitted petitions for review. Licensee and Commission denied Consolidated Intervenors’ petitions for review on November 29, 2018. Licensee’s petitions for review are pending submitted to the Commission.

3. **Cameco Crow Butte Marsland** – Evidentiary Hearing was held October 30 – November 1, 2018. ASLB issued initial decision ruling in favor of staff and applicant on February 28, 2019. Oglala Sioux Tribe’s petition for review submitted to the Commission.

4. **Cameco Crow Butte North Trend** – On hold per applicant. ASLB will set schedule once actions complete after decision is made on resuming review.
Potential ISR Rulemaking

- FRN for comments dated January 31, 2019 (84 FR 574)
- Comment period closed on May 3, 2019
  - 33 comment letters received representing Agreement States, Industry, Environmental Groups, Tribal Nations, and Individuals
  - Summary of comments - Most letters were supportive of rulemaking although industry caveated that the rule should be of limited scope and not charged to the lone NRC licensee
  - One commenter stated that NRC should continue to defer rulemaking until EPA issued generally applicable standards
  - Some letters requested rulemaking consider certain technical concerns
- Commission Paper in late 2019
  - Commission to decide if a rulemaking will occur
- Associated guidance – NUREG-1569
  - ACL guidance
Alternate Concentration Limits

- NRC Regulations: 10 CFR Part 40, Appendix A, Criterion 5B(5) contains ground water restoration standards, ACLs allowed under 5B(5)(c)
- Developing guidance for conventional and ISR ACLs
  - Existing guidance for conventional sites in NUREG-1620
  - Collaborate with Agreement States
  - Seek public comment
- Workshop with Agreement States in June
  - Focus on conventional and ISR sites
Decommissioning Sites

- Rio Algom Ambrosia Lake, NM
- ANC Gas Hills, WY
- Homestake, NM
  - Major groundwater remediation
    - Upcoming revised groundwater corrective action plan
  - High public interest
  - EPA and State coordination
- UNC Churchrock, NM
  - Major license amendment to bring mine waste on site
  - DOE, EPA, State, and Navajo Nation coordination
  - High public interest
- Sequoyah Fuels, OK – decommissioning, upcoming ACL application
  - Cherokee Nation and OK coordination
Homestake and Bluewater
UNC Church rock Site
Sequoyah Fuels Placement of Yellowcake Storage Material
Sequoyah Fuels Erosion Control
Rock and Side Slope

60 mil HDPE (high density polyethylene geosynthetic)
Sequoyah Fuels Tailings Cell
NMSS Procedure SA-900
Termination of Uranium Milling Licenses in Agreement States

• This procedure describes the review process for making the determination that all applicable standards and requirements have been met prior to Agreement State uranium milling license termination, as required by 10 CFR 150.15a(a) and Section 274c of the Atomic Energy Act of 1954, as amended.

• **OBJECTIVES**
  A. To establish the procedures to be followed by Nuclear Regulatory Commission staff for review of uranium milling license termination proposals submitted by Agreement States.
  B. To provide guidance for use by Agreement States on preparation and submittal of uranium milling license termination proposals for Nuclear Regulatory Commission staff review.
Termination Process for Conventional Uranium Milling Licenses

- Step 1: Licensee documents completed remedial and decommission actions.
- Step 2: Agreement State reviews completed closure actions and finds that all standards are met. Prepares Completion Review Report documenting its bases.
- Step 3: The Nuclear Regulatory Commission and the Department of Energy prepare the Long Term Surveillance Plan in coordination with the Agreement State.
- Step 4: Agreement State submits Completion Review Report to Nuclear Regulatory Commission as basis for Section 274c determination.
Termination Process for Conventional Uranium Milling Licenses (cont.)

• Step 5: Nuclear Regulatory Commission reviews Completion Review Report and determines that all standards are met.

• Step 6: Nuclear Regulatory Commission reviews and accepts/concurs the Long Term Surveillance Plan; Long Term Surveillance Fund transferred to Custodial Agency.

• Step 7: Termination of the specific license by the Agreement State.

• Step 8: Issuance of the general license to the Department of Energy by the Nuclear Regulatory Commission.
Conventional Uranium Milling License Termination Information for the Completion Review Report

- Description of licensee’s activities associated with decommissioning, tailings remediation, and groundwater cleanup, if necessary.
- Documentation that the completed surface remedial actions were performed in accordance with applicable standards and requirements.
- Documentation that the completed site decommissioning actions were performed in accordance with applicable standards and requirements. This documentation should include a discussion of the results of radiation surveys and soil sample analyses which confirm that the licensed site meets applicable standards and requirements for release.
- Documentation that the completed groundwater corrective actions, if necessary, were performed in accordance with applicable standards and requirements.
- Discussion of results of State’s site closure inspection(s).
Termination Process for the Non-conventional Uranium Milling Licenses

• Step 1: Licensee documents completed decommissioning and/or groundwater restoration actions.

• Step 2: Agreement State reviews completed closure actions and finds that all standards are met. Agreement State prepares Completion Review Report documenting its bases.

• Step 3: Agreement State submits Completion Review Report to Nuclear Regulatory Commission as basis for Section 274c determination.

• Step 4: Termination of specific license following Nuclear Regulatory Commission determination.
Questions?

Picture taken at Glacier NP, Montana