

# **NRC's New Generic Environmental Impact Statement and Its Impacts on In Situ Leach Facility Licensing**

**Prepared for the 2009 NMA/NRC Conference**

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# INTRODUCTION

- The Nuclear Regulatory Commission (NRC) Indicated the Generic Environmental Impact Statement (GEIS) for In Situ Leach Facilities is Needed Due to a Number of Agency Challenges:
  - Large Number of Proposed Applications (Approximately 30) by 2012;
  - Limited Agency Human and Financial Resources;
  - Need for Site-Specific Environmental Impact Statements (EISs) for New Facility Licensing Under 10 CFR Part 51

# INTRODUCTION

- NRC Conducted an Open Scoping Process on the Proposed GEIS:
  - Three Public Scoping Meetings (Casper, Wyoming, Albuquerque, New Mexico, Gallup, New Mexico)
- NRC Received Public Comment From Several Sources:
  - Public Scoping Meetings;
  - Regulatory Agencies;
  - Industry Groups;
  - Interested Stakeholders

# INTRODUCTION

- In July of 2008, NRC Issued Its Draft Generic Environmental Impact Statement for In Situ Leach (ISL) Facilities (NUREG-1910) for Public Comment;
- Comments Were Submitted to NRC From a Number of Interested Stakeholders:
  - Eight (8) Public Comment Meetings;
  - Federal Agencies;
  - States and State Agencies;
  - Industry Members and Groups;
  - Members of the Public

# INTRODUCTION

- Availability of NUREG-1910 Now Provides NRC Staff With Regulatory Pathway to “Tier” Site-Specific Environmental Reviews Off NUREG-1910 Analyses and Conclusions:
  - National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) Regulations Allow “Tiering”;
  - Provides Additional Efficiencies in the New Facility Licensing Process;
  - Provides License Applicants and Licensees With Guidance on Preparing Environmental Reports (ERs):
    - License Applicants and Licensees Should Reference NUREG-1910 Where Appropriate to Facilitate Timely Review



# INTRODUCTION

- On June 4, 2009, NRC Issued Its Final Version of NUREG-1910 Including:
  - Purpose and Need for the Proposed Action;
  - ISL Uranium Recovery and Alternatives;
  - Description of Affected Environment (Four Regions);
  - Potential Environmental Impacts;
  - Cumulative Effects;
  - Environmental Justice;
  - Mitigation Measures;
  - Environmental Monitoring;
  - Consultations and Summary

# INTRODUCTION

- The Final NUREG-1910 Included Additional Information in its Appendices:
  - Scoping Summary Report;
  - Potentially Applicable Statutes and Regulations;
  - Conventional Uranium Milling Technologies;
  - Cultural and Historical Resource Management;
  - Hazardous Chemicals;
  - Cumulative Effect Review;
  - *Response to Public Comments*

# NUREG-1910: RESPONSE TO COMMENTS

- A Number of Important Regulatory/Policy Considerations Are Found in The Response to Comments:
  - ISL Site Development is “Phased & Iterative”;
  - Regional Analysis Can Be Applied to Other Geographic Locations;
  - Clarification of Regulatory Requirements;
    - Wellfield Collection Data For License Applications v. Post-License Issuance;
    - Excursion Detection Requirements
  - Conformance of GEIS Terms to the GEIS Glossary;
  - Recognition of Aquifer Exemptions, Restoration Requirements and Associated Safeguards as Effective Means to Protect Adjacent, Non-Exempt Aquifers



# NUREG-1910: RESPONSE TO COMMENTS

- Several Critical Points Made by NMA Were Not Added or Revised by NRC:
  - Greater Description of Performance-Based Licensing and License Conditions;
  - Acknowledgment That 10 CFR Part 40, Appendix A, Criterion 5B Does Not Apply to ISL as a Matter of Law;
  - Re-Evaluation of “Toll Milling” of Ion-Exchange (IX) Resins, Including Those From Water (Mine, Drinking, Other) Treatment Operations

# **NUREG-1910 DIRECT & INDIRECT IMPACTS**

- **The Final NUREG-1910's Analyses & Conclusions Have Direct and Indirect Impacts on Other Licensing Processes:**
  - New Facility Licensing;
  - License Amendments & Renewals;
  - Satellite ISL Facilities;
  - Specific Exemptions for Pre-Licensing Site Construction

# **NUREG-1910: NEW FACILITY LICENSING**

- **The Final NUREG-1910 Has Direct  
Impacts on New Facility Licensing:**
  - Generic/Programmatic Review of Newly Proposed Facilities;
  - Site-Specific Environmental Reviews

# **NUREG-1910: NEW FACILITY LICENSING**

- **NUREG-1910 Continues to Offer a  
Generic/Programmatic Approach to ISL Facility  
Licensing:**
  - **CEQ & NRC Regulations Continue to Endorse “Tiering”;**
  - **NRC Staff Continue to Espouse the Use of “Tiering”;**
  - **Generic Regional Analyses Still Considered to Be a Source  
of Efficiencies in License Review Process:**
    - **Mitigate Need for “Full Blown” EISs for Each New Facility**

# **NUREG-1910: NEW FACILITY LICENSING**

- **However, NRC Staff Has Altered the Original Approach to Environmental Reviews:**
  - The Original Approach Was to Prepare NUREG-1910 and Then “Tier” Site-Specific Environmental Assessments (EAs) for Each New Proposed Site;
  - NOW, the New Approach is to “Tier” Site-Specific Supplemental Environmental Impact Statements (SEISs) for Each New Proposed Site;
  - **Change Made to:**
    - Address Public, NGO Concerns;
    - Provide Strong Legal/NEPA Basis for Environmental Reviews



# **NUREG-1910: NEW FACILITY LICENSING**

- **As a License Applicant, What Does This Mean for Me?:**
  - **License Review Process Will Require Additional Time:**
    - **10 CFR Part 51: Requires That the Following Be Conducted for an SEIS:**
      - Notice of Intent to Prepare the SEIS (Mandatory);
      - Scoping (Discretionary) (NRC Has Determined that NUREG-1910 Negates the Need for Detailed Scoping Due to Its Elongated Scoping Process (Targeted Scoping))

# **NUREG-1910: NEW FACILITY LICENSING**

- **As a License Applicant, What Does This Mean for Me?:**
  - **License Review Likely Will Require Additional Financial Resources (Typically an SEIS is More Expensive Than an EA);**
  - **License Review May or May Not Be Conducted Within the Proposed Two-Year Timeframe**

# NUREG-1910: LICENSE AMENDMENTS AND RENEWALS

- Currently, the Availability of NUREG-1910  
Allows NRC Staff to “Tier” Site-Specific  
Environmental Reviews for License  
Amendments and Renewals, But  
Questions Remain:
  - Which Form Will the Site-Specific Review Take?:
    - EA?;
    - SEIS?;
    - EIS?

# **NUREG-1910: LICENSE AMENDMENTS AND RENEWALS**

- **Why Should License Amendments or Renewals Default to an EA?:**
  - **Prior NRC Practice Was to Start With an EA and Determine if a Finding of No Significant Impact (FONSI) Was Appropriate (NUREG-1748);**
  - **10 CFR Part 51 Does Not Require an EIS for a License Amendment or Renewal:**
    - **(“(b) The following types of actions require an environmental impact statement or a supplement to an environmental impact statement: (8) Issuance of a license to possess and use source material for uranium milling or production of uranium hexafluoride pursuant to part 40 of this chapter.”);**
  - **Amendment or Renewal Applications Typically Do Not Involve Nearly as Much Site-Specific Analysis as a New Facility License**

# **NUREG-1910: SATELLITE ISL FACILITIES**

- **NRC Also Has Raised Potential Shifts in Licensing Policy for Satellite ISL Wellfields/Facilities;**
- **Policy Question: Do Satellite Wellfields Require a New License or a License Amendment to an Existing License?**



# NUREG-1910: SATELLITE ISL FACILITIES

- While NRC Has Not Rendered a Policy Decision on the Parameters for Whether a License or License Amendment is Required, That Decision Has Important Implications for Environmental Reviews:
  - New Licenses Trigger the 10 CFR Part 51 Requirement for an EIS; Unclear Based on New Facility License Requirement for SEISs Whether Satellites Will Require an SEIS;
  - Satellite ISL Wellfields Typically Do Not Involve a Significant Amount of Site-Specific Analyses:
    - No Central Processing Plant;
    - Few, if Any, Administrative/Process Structures;
    - Minor Need for Radiological Dose Assessments Due to Limited Facilities

# **NUREG-1910: SATELLITE ISL FACILITIES**

- **Question: Why Should Satellite ISL Wellfields or Facilities Default to an EA?:**
- **Answer: Use NUREG-1910 Analyses and Conclusions to Default to an EA:**
  - If a New License is Implicated, NUREG-1910 Should Mitigate Need for an SEIS and Conform to NRC's Original Environmental Review Approach of a "Tiered" EA;
  - If a License Amendment is Implicated, No Part 51 Requirement for an EIS and, Thus, an EA with NUREG-1910 Should Be More Than Sufficient

# CONCLUSIONS

- The NUREG-1910 Development Process Has Resulted in Significant Changes to the License Application Review Process:
  - Started with Proposed “Tiered” Environmental Assessments (EA;
  - Now, Final Review Process Implicates SEISs Adding Time and Cost to the License Review Process
- New Review Processes Implicate Potential Use of New Site Construction Approaches;
- Next 12-18 Months Will Result in Important Re-Shaping of the Uranium Recovery Industry