

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

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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