

New Developments in ISL Uranium Recovery Regulation:

Hydro Resources, Inc.'s Crownpoint Uranium Project

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PRESENTATION OUTLINE

- Hydro Resources, Inc.'s (HRI) Nuclear Regulatory Commission (NRC) Licensing Proceeding
 - Background and Procedural History
 - Licensing Board Determinations
 - Issues Appealed
 - Argument
 - Commission Decisions

BACKGROUND AND PROCEDURAL HISTORY

- 1987: HRI Submits License Application for the Crownpoint Uranium Project (CUP)
- Four Proposed Uranium Recovery Sites:
 - Church Rock Section 8
 - Church Rock Section 17
 - Unit One
 - Crownpoint

BACKGROUND AND PROCEDURAL HISTORY

- 1994: NRC Staff Issues Draft Environmental Impact Statement (DEIS)
- 1996: Eastern Navajo Dine Against Uranium Mining, Southwest Research and Information Center and Others (Intervenors) Request NRC Hearing
- 1997: NRC Staff Issues Final Environmental Impact Statement (FEIS) and Determines No Significant Impacts Posed by HRI's Proposed CUP

BACKGROUND AND PROCEDURAL HISTORY

- 1997: Intervenors Granted NRC Subpart L “Informal” Hearing on CUP
- Hearing Request Areas of Concern for All Proposed Uranium Recovery Sites:
 - Groundwater Protection and Restoration
 - Financial Assurance
 - Historic Preservation
 - Air Emissions
 - Environmental Justice
 - FEIS Adequacy
 - Financial and Technical Qualifications

BACKGROUND AND PROCEDURAL HISTORY

- NRC Hearing Bifurcated to Be Litigated By Site
- 1998-1999: Church Rock Section 8 Litigation Commences
- Licensing Board Determines That HRI License Application is Adequate

BACKGROUND AND PROCEDURAL HISTORY

- Intervenors Appeal to Commission
- 5/2000: Commission Determines that HRI Must Submit Groundwater Restoration Action Plans (RAPs) and Financial Assurance Cost Estimates Prior to Commencing Uranium Recovery (CLI-00-08)
- 2000-2001: HRI Submits RAPs for All Sites and Receives NRC Staff Approval
- 2001: Intervenors Challenge RAP for Church Rock Section 8
- 11/01: Oral Hearing At NRC With Licensing Board Regarding RAPs

LICENSING BOARD DETERMINATIONS

- 1/04: Licensing Board Issues Decision Upholding HRI Church Rock Section 8 RAP With Three Exceptions (LBP-04-03):
 - RAP Cannot Assume Availability of *Major* Site Equipment During Restoration
 - RAP Cannot Assume the Performance of Multiple, Unrelated Tasks (i.e., Wearing Multiple Hats) by Site Employees During Groundwater Restoration
 - RAP Must Account for Use of “Tremie Line” Method of Well-Plugging

ISSUES APPEALED

- 2/04: HRI Appeals LBP-04-03 to the Commission and Requests Review
- 5/04: Commission Grants HRI's Request for Review
- 7/04: HRI Submits Initial Brief to Commission
- Issues for Review:
 - RAP Cannot Assume Availability of *Major* Site Equipment During Restoration
 - RAP Cannot Assume the Performance of Multiple, Unrelated Tasks (i.e., Wearing Multiple Hats) by Site Employees During Restoration

ARGUMENT

- ISSUE #1: RAP Cannot Assume Availability of *Major* Site Equipment During Restoration
- SUMMARY OF ARGUMENT:
 - Standard Industry Practice and NRC ISL Standard Review Plan Allows for the Availability of *Major* Site Equipment
 - Licensing Board Decision Does Not Define What is *Major* Site Equipment (i.e., All Pumps, All Pipes, RO's, IX Columns, Brine Concentrators, etc.)
 - NRC Regulations Requiring Mandatory Annual Surety Updates Allow for Adjustment of Financial Assurance to Reflect Maintenance, Repair or Replacement of Site Equipment

ARGUMENT

- ARGUMENT #1: Standard Industry Practice and NRC ISL Standard Review Plan Addresses for the Availability of *Major* Site Equipment
 - Standard Industry Life-Cycle Cost Estimates on Site Equipment Provides for Adequate Assessments and Repair or Replacement of *Major* Site Equipment as Necessary
 - Mandatory Fifteen Percent (15%) Contingency Included in Cost Estimates Provides Additional Safeguard

ARGUMENT

- ARGUMENT #2: Licensing Board Decision Does Not Define What is *Major* Site Equipment
 - ISL Uranium Recovery Facilities Have Numerous *Types* of Equipment That Could Be Deemed Major:
 - Well-Field Pipes
 - Brine Concentrators
 - Reverse Osmosis Mechanisms
 - Front-End Loaders
 - IX Columns

ARGUMENT

- ISL Uranium Recovery Licensees Do Not Account for Dismantling Entire Well-Field and Reconstructing for Decommissioning
 - Cost-Prohibitive to Force Licensees to Re-Purchase All Site Equipment for Decommissioning
 - Not All Site Equipment Requires Replacement, Only Maintenance and Repair

ARGUMENT

- ARGUMENT #3: NRC Regulations Requiring Mandatory Annual Surety Updates Allow for Adjustment of Financial Assurance to Reflect Maintenance, Repair or Replacement of Site Equipment
 - NRC Regulations at 10 CFR Part 40, Appendix A, Criterion 9 Require Mandatory Surety Updates on an Annual Basis
 - Surety Updates Require Cost Adjustments (Up or Down) in the Event of:
 - Change in Technology or Processes
 - Change in Engineering Practices
 - Change in Total Costs for Licensed/Approved Actions
 - Change in Environmental Parameters for Restoration
 - Inflation
 - Following NRC Regulations for Surety Updates As An Adequate Safeguard for Decommissioning is Standard Industry Practice and Generally Approved by NRC Staff

ARGUMENT

- ISSUE #2: RAP Cannot Assume the Performance of Multiple, Unrelated Tasks (i.e., Wearing Multiple Hats) by Site Employees During Restoration
- SUMMARY OF ARGUMENT:
 - Standard Industry Practice Assumes the Performance of Multiple, Unrelated Tasks by Site Employees
 - HRI's Proposed Labor Categories and Cost Estimates Are Sufficient to Perform Groundwater Restoration
 - NRC Regulations Requiring Mandatory Annual Surety Updates Provide Adequate Safeguards for Potential Increases in Labor Requirements

ARGUMENT

- ARGUMENT #1: Standard Industry Practice Assumes the Performance of Multiple, Unrelated Tasks by Site Employees
 - ISL Uranium Recovery is Largely Automated and Few Site Employees Are Required
 - Multiple Tasks Can Be Performed by Experienced Qualified Professionals

ARGUMENT

- ARGUMENT #2: HRI's Proposed Labor Categories and Cost Estimates Are Sufficient to Perform Groundwater Restoration
 - HRI Modeled Its Proposed Labor Categories and Costs on Existing or Completed, NRC/Agreement State-Approved Projects
 - HRI Included Required Fifteen Percent Contingency for An Additional Safeguard

ARGUMENT

- ARGUMENT #3: NRC Regulations Requiring Mandatory Annual Surety Updates Provide Adequate Safeguards for Potential Increases in Labor Requirements
 - Appendix A, Criterion 9 Mandatory Annual Surety Updates Allow for Assessment of Labor Costs and Potential Need for More or Less Manpower at the Site
 - Surety Updates Require Cost Adjustments in the Event of:
 - Change in Technology or Processes
 - Change in Engineering Practices
 - Change in Total Costs for Licensed/Approved Actions
 - Change in Environmental Parameters for Restoration
 - Inflation

COMMISSION DECISION

- 12/04: Commission Issues CLI-04-33 and Finds For HRI On Both Appealed Issues As Follows:
- ISSUE #1: RAP Cannot Assume Availability of *Major* Site Equipment During Restoration
 - Commission Determines:
 - That HRI RAP Properly Presents Financial Assurance Cost Estimates for Availability of Site Equipment
 - That Site Equipment Must Be Assessed Based on Whether Maintenance, Repair or Replacement is Required
 - That NRC Annual Surety Updates and Fifteen Percent Contingency Are An Adequate Safeguard to Ensure Funds Are Available for This Assessment

COMMISSION DECISION

- ISSUE #2: RAP Cannot Assume the Performance of Multiple, Unrelated Tasks (i.e., Wearing Multiple Hats) by Site Employees During Restoration
 - Commission Determines:
 - That Standard Industry Practice of Assuming the Performance of Multiple, Unrelated Tasks by Site Employees is Appropriate
 - That HRI's RAP Presents the Proper Approach
 - That NRC Annual Surety Updates Are An Adequate Safeguard for Assessing the Potential Need for Increases in Labor Costs for Financial Assurance Cost Estimates

OUTSTANDING ISSUES

- Three Remaining Uranium Recovery Sites Must Be Litigated:
 - Church Rock Section 17
 - Unit One
 - Crownpoint

OUTSTANDING ISSUES

- Scope of Issues Have Been Refined:
 - Groundwater
 - SDWA/AEA Regarding Operating in Drinking Water Sources
 - Fluvial Aquifer Characteristics in ISL Mining
 - Performance-Based Licensing Approach for ISL Mining
 - Excursion Controls
 - Restoration Costs Estimates
 - Cultural and Historic Resources
 - Phased Approach to Section 106 Resource Identification Per Performance-Based License Approach
 - Air Emissions
 - Only Church Rock Section 17 to Be Litigated
 - Environmental Impact Statement Adequacy
 - Same Arguments for Church Rock Section 8 to Preserve Appeal