

Groundwater Protection Initiative Status Review

**George Oliver
NRC Public Meeting
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NUCLEAR
ENERGY
INSTITUTE

Initiative History

- Contributing Events
 - Braidwood 2006, Indian Point 2005, Salem 2002 Decommissioning Experience (CY, YR, MY)
 - Issues Not Limited to Above Sites
 - Intense Public Interest
- Taskforce Formed – Nov 2005
- Preliminary Public Meeting with NRC – Dec 2005
- Executive Taskforce Formed- Jan 2006
- Developed Industry Initiative – Mar 2006
- Approved and Issued Industry Initiative – May 2006
- Issued Interim Industry Guidance – May 2006

Initiative History

- Implemented Initiative – Jul 2006
- Voluntary Data Submitted – Jul 2006
- Peer Reviews of Action Plans – Oct - Dec 2006
- Peer Reviews of Protocols – Jan – Feb 2007
- Lessons-Learned Workshop – Feb 2007
- Redraft of Guidance – Apr-May 2007
- Additional Industry Comments – Jun-Jul 2007

Initiative History

- Issued Final Industry Guidance – Aug 2007
- EPRI Groundwater Guidelines – 2007
- Implement Ongoing Peer Review – 2008
- Groundwater Protection
 - Ongoing Responsibility of Environmental Protection Taskforce

Projected Status 2007

- Hydro Geology From Action Plans
- Initial Placement Of Monitoring Wells
- Action Plans Consistent With Interim Guidance
- Communication Plans Consistent With Interim Guidance

Redrafting Guidance Team

- Jim Breeden – Dominion
- Al Gould – FP&L
- Larry Haynes – Duke
- Zigmund Karper – Exelon
- Geoff Schwartz – Entergy
- Bill Wendland – ANI
- Kathy Yhip – SCE
- Rita Sipe – Duke*

*(Representing the NEI Communications Taskforce)

Redrafting Process

- Lessons Learned Workshop February 8-9
- Approximately 30+ Issues Identified February - March
- Drafting Sessions April – May
- Draft Final Guidance Issued May 9th To Industry Points of Contact
- Comments Submitted May 18th
- Comments Addressed May 25th
- Revised Draft Final Guidance Posted June 18th
- NSIAC August 30th
- NEI Technical Report 07-07 Issuance August 31

Summary of Changes

- Consolidates Guidance in One Document
- New Reactor Sites to Establish Plans Prior to Initial Fuel Receipt
- Hydrogeology Assessments Based on Events with Potential to Change Hydrogeology
- Incorporates Recent Industry Experience with Steam Piping

Summary of Changes

- Voluntary Communication Additional Clarity and Flexibility
 - Flow Chart Added For Key Conditions
 - The Reference to Any Size Leak or Spill From High Risk Systems Removed
 - A Provision Added Regardless of Volume or Concentration That the Licensee Deems Appropriate
 - The 100 Gallon Threshold Leak or Spill Threshold Was Retained
 - The Definition of Groundwater Was Retained (Any Subsurface Water)

Summary of Changes

- A Definition of What a Contaminated System Was Provided with Required LLDs.
 - All Radio-Nuclides use the Effluent LLDs
- Leaks and Spills That Meet These Criteria are Reported Regardless of Whether the Onsite Groundwater is a Source of Drinking Water
- Guidance Has Been Provided for What is Drinking Water – Beneficial Designations by Regulatory Agencies with Jurisdiction Over Groundwater Use.

Summary of Changes

- Guidance to Notify NEI of Voluntary Communication has Been Added
- Guidance has Been Added for Periodic Self Assessment at a Frequency of 5 years.
- A Check-List for Performing Self Assessments has Also Been Provided Which is Similar to the NEI Peer Assessments Performed During 2006 and 2007.
- A Glossary of Terms has Been Added for Clarity

Issuance and Implementation of Changes

- NEI Issued Technical Report 07 – 07 “Industry Ground Water Protection Initiative – Final Guidance Document” on August 31, 2007
- Each Member Company Is To Implement The Changes Within 12 Months of Issuance of Technical Report 07 – 07 (August 31, 2008)

“Life-of Plant” Program

- Integrate Into Routine Plant Operations in a “Monitoring and Maintenance” Mode
- Sustain Through Decommissioning/License Termination
- Incorporate Lessons-Learned Into New Plant Design and Operations

Continuing Efforts

- NEI Will Continue Monitoring and Respond to NRC Activities (ongoing)
- EPRI Issuing Technical Guidelines for Groundwater Protection
 - Provides a Technical Basis and Approach
- NEI Will Establish an Ongoing Peer Review Process to Help Assure Sustainability of the Initiative

Summary

- Releases Have Not Posed a Risk to Public Health and Safety
 - Given Rise to Public Uncertainty and Concern
- We Are Responsible for Maintaining the Trust and Confidence of Our Stakeholders
- We Are Committed to Groundwater Protection as Part of Our Environmental Stewardship
 - Based on Prevention, Timely Detection, and Effective Response
 - With Timely and Open Communication
- There Continues to be Public Interest