

Preliminary Results of the License Renewal Environmental Review For Sequoyah Nuclear Plant



September 17, 2014

Meeting Details

- TVA has applied to renew the Sequoyah operating license.
- The NRC:
 - is reviewing that application.
 - is reviewing the environmental impact of license renewal.
 - has developed some preliminary results of that review.
 - wants your comments on those results.

Meeting Agenda

- NRC presentation
- Questions & Answers about the presentation materials
- Public Comments

Ground Rules

- Speak into a microphone
- Identify yourself and your group
- Minimize background noise
- Silence personal electronics

Overview and Purpose

- NRC presentation
 - NRC's regulatory role
 - Summary of environmental review
 - Upcoming milestones and how to submit comments outside this meeting
- Your comments

NRC's Regulatory Oversight

- NRC regulates commercial use of nuclear materials including nuclear power plants
- NRC's mission:
 - Protect public health and safety
 - Promote common defense and security
 - Protect the environment

Environmental Review

- Generic Environmental Impact Statement (GEIS) addresses issues common to all plants
- Supplemental Environmental Impact Statement (SEIS) addresses site-specific issues for Sequoyah Nuclear Plant license renewal
- Review proposed action (license renewal) and alternatives

How Impacts are Defined

- NRC-defined impact levels:
 - **SMALL** - Effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.
 - **MODERATE** - Effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.
 - **LARGE** - Effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

How Impacts are Defined

- Special Status Species (Endangered Species Act)
 - no effect
 - may affect but not likely to adversely affect
 - may affect and is likely to adversely affect
- Cultural and Historic resources
(National Historic Preservation Act)
 - effects on historic properties
- Environmental Justice (Executive Order 12898)
 - disproportionately high and adverse impacts

Cumulative Impacts

- Overall impacts to environment including past, present, and reasonably foreseeable future actions
- Preliminary findings
 - SMALL to MODERATE cumulative impacts for surface water resources
 - MODERATE cumulative impacts for terrestrial resources and global climate change
 - LARGE cumulative impacts for aquatic resources
 - SMALL cumulative impacts in all other areas

Site-Specific Environmental Review of Sequoyah Nuclear Plant

Resource Areas	Impact
Land Use & Visual Resources	SMALL
Air Quality & Noise	SMALL
Geological Environment	SMALL
Water Resources	SMALL
Terrestrial Resources	SMALL
Aquatic Resources	SMALL
Special Status Species and Habitats	No effect
Historic and Cultural Resources	No adverse effect
Socioeconomics	SMALL
Human Health	SMALL
Environmental Justice	No disproportionately high and adverse impacts
Waste Management	SMALL

Alternatives

- Alternative energy sources analyzed (power replacement)
 - New nuclear
 - Natural-gas combined-cycle
 - Supercritical pulverized coal
 - Combination – Wind and Solar
- No action alternative

Preliminary Conclusion

The NRC's preliminary recommendation is that the adverse environmental impacts of license renewal for Sequoyah Nuclear Plant are not great enough to deny the option of license renewal for energy-planning decisionmakers

Continued Storage final Rule

- NRC Continued Storage final Rule addresses management of spent fuel after the renewal term.
- August 26, 2014 – approval of Continued Storage Rule
- Environmental impacts of continued storage are generically determined
- <http://www.nrc.gov/waste/spent-fuel-storage/wcd.html>

Environmental Review Milestones

Application Received	January 15, 2013
Notice of Intent	March 8, 2013
Scoping Public Meeting	April 3, 2013
Scoping Period Ended	May 3, 2013
Scoping Summary Report	April 16, 2014
Draft SEIS	July 31, 2014
Draft SEIS Public Meeting	September 17, 2014
Draft SEIS Comments Due	September 29, 2014
Final SEIS	March 2015

Additional Information

- Environmental PM:
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- Safety Review:
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- The draft SEIS can be viewed at:
 - Chattanooga-Hamilton County Library, Northgate Branch
 - Chattanooga-Hamilton County Library, Downtown Branch
 - Signal Mountain Library
- NRC's Web site (www.nrc.gov):
 - <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/>

Submitting Comments After the Meeting

- By mail: Chief, Rules, Announcements, and Directives Branch (RADB)
Division of Administrative Services
Mailstop 3WFN-06-44M
U.S. NRC, Washington, D.C. 20555-0001
- In person: 11545 Rockville Pike
Rockville, Maryland
- Internet: www.regulations.gov, docket ID: NRC-2013-0037

Comments due by September 29, 2014