

Preliminary Results of the License Renewal Environmental Review For Byron Station



February 3, 2015

Meeting Details

- Exelon has applied to renew the Byron operating licenses.
- The NRC:
 - is reviewing that application.
 - is reviewing the environmental impact of license renewal.
 - has developed 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 Byron license renewal
- Review proposed action (license renewal) and alternatives

NEPA: Purpose and Need for Proposed Federal Action

- Proposed action - issuance of a renewed license for Byron Station.
- Purpose - to provide a power generation option for energy-planning decisionmakers to meet future system generating needs beyond the current license term.
- “Need for power” is an energy-planning decision making responsibility of certain Federal and state regulators and utility officials.

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 terrestrial resources
 - MODERATE cumulative impacts for aquatic ecology and global climate change
 - SMALL cumulative impacts in all other areas

Site-Specific Environmental Review of Byron Station

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
 - Integrated gasification combined cycle
 - Natural-gas combined-cycle
 - Combination – Natural-gas combined-cycle, Wind, and Solar
 - Purchase Power

- No action alternative

Preliminary Conclusion

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

Continued Storage Rule

- NRC's Continued Storage Rule generically addresses the environmental impacts of continuing to store spent fuel after the licensed life of a reactor
- Environmental impacts from continued storage are identified in Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel (NUREG-2157)
- Final Rule was issued September 19, 2014
- <http://www.nrc.gov/waste/spent-fuel-storage/wcd.html>

Environmental Review Milestones

Application Received	May 29, 2013
Notice of Intent	August 6, 2013
Scoping Public Meeting	August 20, 2013
Scoping Period Ended	September 27, 2013
Scoping Summary Report	May 28, 2014
Draft SEIS	December 31, 2014
Draft SEIS Public Meeting	February 3, 2015
Draft SEIS Comments Due	February 20, 2015
Final SEIS	July 2015

Additional Information

- Environmental PM:

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- The draft SEIS can be viewed at:

- Byron Public Library District, 100 S. Washington St., Byron, Illinois

- 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-2013-0178

Comments due by February 20, 2015

BACKUP SLIDE

Cumulative Impacts

Resource Areas	Impact	DSEIS Section
Air Quality & Noise	SMALL	4.16.1
Geology and Soils	SMALL	4.16.2
Surface Water Resources	SMALL	4.16.3.1
Groundwater Resources	SMALL	4.16.3.2
Terrestrial Ecology	SMALL - MODERATE	4.16.4
Aquatic Ecology	MODERATE	4.16.5
Historic and Cultural Resources	SMALL	4.16.6
Socioeconomics	SMALL	4.16.7
Historic and Cultural Resources	SMALL	4.16.8
Environmental Justice	No disproportionately high and adverse impacts	4.16.9
Waste Management	SMALL	4.16.10
Global Climate Change	MODERATE	4.16.11