



# **Preliminary Results of the Environmental Review for Turkey Point Nuclear Generating Units 3 and 4 Subsequent License Renewal**

May 1, 2019

# Agenda

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- Opening Remarks
- NRC's Regulatory Role
- Turkey Point Background
- Environmental Review
- Preliminary Findings
- Environmental Review Milestones
- Submitting Public Comments

# NRC's Regulatory Role

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- **NRC's Primary Governing Statutes**
  - Atomic Energy Act
  - Energy Reorganization Act
  - National Environmental Policy Act (NEPA)
- **NRC's Mission**
  - Protect public health and safety
  - Promote the common defense and security
  - Protect the environment

# Turkey Point Background

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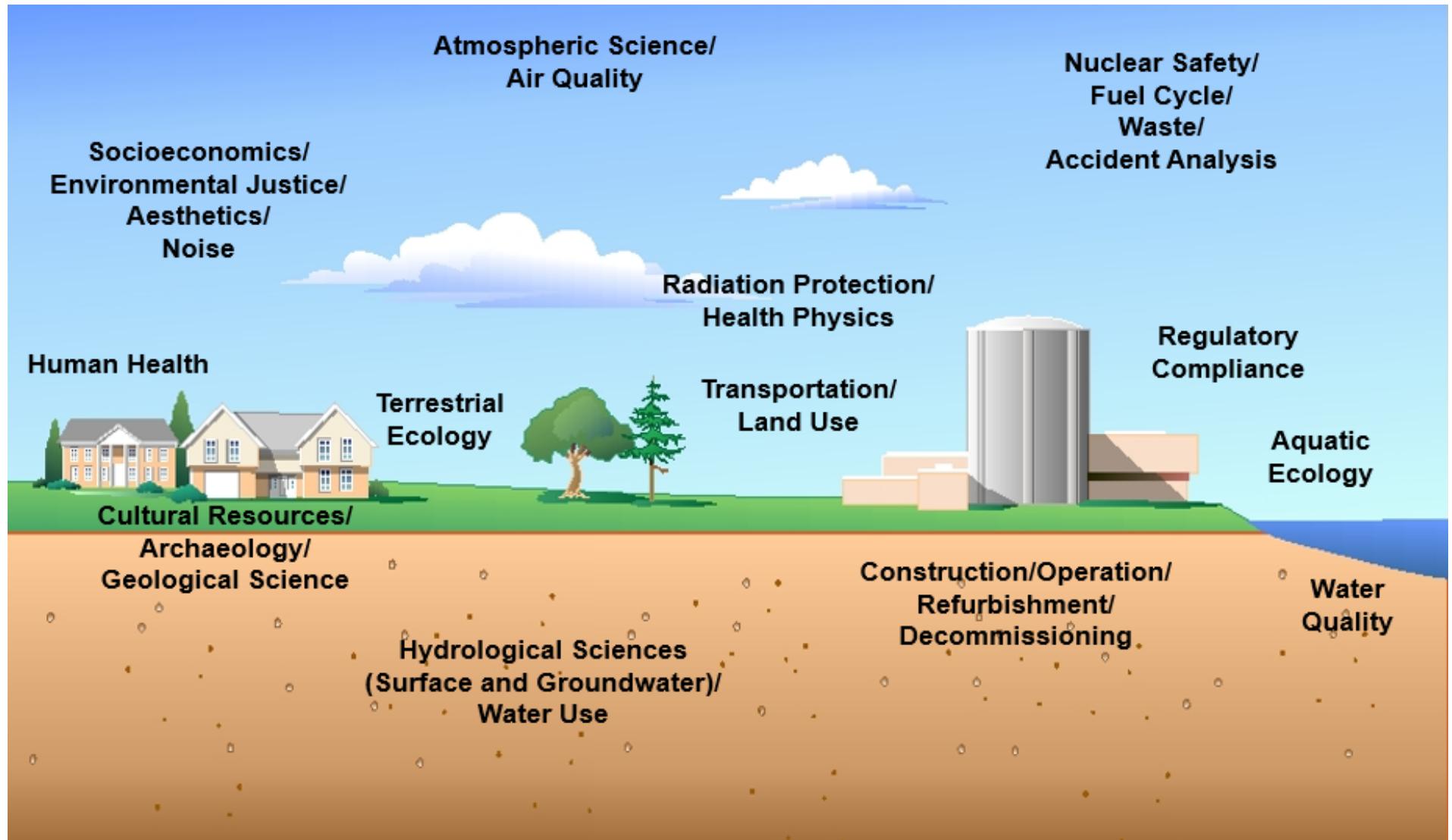
<b>Description</b>	<b>Unit 3</b>	<b>Unit 4</b>
Construction Permits		April 27, 1967
Operating Licenses Issued	July 19, 1972	April 10, 1973
Commercial Reactor Operation	December 14, 1972	September 7, 1973
First Renewed Licenses Issued		June 6, 2002
First License Renewal Expires	July 19, 2032	April 10, 2033

# Environmental Review

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- **Generic Environmental Impact Statement (GEIS)**
  - Addresses environmental issues common to all plants (or a distinct subset of plants) during the license renewal term
- **Supplemental Environmental Impact Statement (SEIS)**
  - Addresses site-specific environmental issues during the license renewal term
  - Includes any new and significant information regarding generic issues, an evaluation of alternatives, and an evaluation of cumulative impacts

# SEIS: Environmental Issues Evaluated



# How Impacts are Defined

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- **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

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- **Federally Listed Species and Critical Habitat (Endangered Species Act)**
  - No effect
  - May affect but is not likely to adversely affect/adversely modify
  - May affect and is likely to adversely affect/adversely modify
- **Essential Fish Habitat (Magnuson-Stevens Act)**
  - No adverse impacts
  - Minimal adverse impacts
  - Substantial adverse impact

# How Impacts are Defined

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- **Cultural and Historic Resources (National Historic Preservation Act)**
  - May adversely affect
  - May not adversely affect
- **Environmental Justice (Executive Order 12898)**
  - Disproportionally high and adverse impacts

# Site-Specific Impacts

Resource Area	Impact
<ul style="list-style-type: none"><li>• Land Use</li><li>• Visual Resources</li><li>• Air Quality</li><li>• Noise</li><li>• Geologic Environment</li><li>• Surface Water Resources</li><li>• Terrestrial Resources</li><li>• Socioeconomics</li><li>• Transportation</li><li>• Human Health</li><li>• Waste Management and Pollution</li></ul>	SMALL

# Site-Specific Impacts

<b>Resource Area</b>	<b>Impact</b>
<ul style="list-style-type: none"><li>• Groundwater</li><li>• Aquatic</li></ul>	<ul style="list-style-type: none"><li>• SMALL to MODERATE</li></ul>
<ul style="list-style-type: none"><li>• Special Status Species and Habitats</li></ul>	<ul style="list-style-type: none"><li>• Likely to adversely affect the American crocodile and eastern indigo snake</li><li>• May affect, but is not likely to adversely affect or no effect to all other species</li><li>• May result in adverse modification to American crocodile critical habitat</li><li>• No adverse modification to West Indian manatee critical habitat</li><li>• No adverse effects on Essential Fish Habitat</li></ul>
<ul style="list-style-type: none"><li>• Historic and Cultural Resources</li></ul>	<ul style="list-style-type: none"><li>• Would not adversely affect known historic properties or historic and cultural resources</li></ul>
<ul style="list-style-type: none"><li>• Environmental Justice</li></ul>	<ul style="list-style-type: none"><li>• No disproportionate high and adverse human health and environmental effects</li></ul>

# Cumulative Impacts

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- Overall impacts to the environment including past, present, and reasonably foreseeable future actions
- Actions that were considered include:
  - Construction and operation of Turkey Point Units 6 and 7
  - Injection wells
  - Wastewater treatment facility
  - Expansion of Independent Spent Fuel Storage Facility
  - Tertiary wastewater treatment facility
- Climate Change

# Alternatives

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- Alternative energy sources analyzed (power replacement)
  - New nuclear generation
  - Natural gas combined cycle
  - Combination alternative (Natural gas and solar photovoltaic)
- No-action alternative
- Mechanical draft cooling towers (closed-cycle cooling water system alternative to the cooling canal system)

# Preliminary Conclusion

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- The adverse environmental impacts of license renewal are not so great that preserving the option of subsequent license renewal for energy-planning decisionmakers would be unreasonable

# Environmental Review Milestones

- Draft SEIS March 29, 2019
- Draft SEIS Public Meeting May 1, 2019
- Draft SEIS Comments Due May 20, 2019
- Final SEIS August 2019

# Obtaining the Draft SEIS

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- **Public Libraries:**

- Homestead Branch Library - 700 N. Homestead Blvd.
- Naranja Branch Library – 14850 SW 280<sup>th</sup> St.
- South Dade Regional Library – 10750 SW 211<sup>th</sup> St.
- Miami-Dade Public Main Library – 101 West Flagler St.

- **NRC Public Website:**

- <https://www.nrc.gov/docs/ML1907/ML19078A330.pdf>

# Contact Information

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- Reactor License Renewal -  
<https://www.nrc.gov/reactors/operating/licensing/renewal.html>
- Turkey Point Nuclear Generating Units 3 & 4 – Subsequent License Renewal Application -  
<https://www.nrc.gov/reactors/operating/licensing/renewal/applications/turkey-point-subsequent.html>
- Turkey Point Listserv:  
<http://www.nrc.gov/public-involve/listserver/plants-by-region.html>
- William “Butch” Burton, Environmental Project Manager  
Phone: 1-301-415-6332  
Email: [william.burton@nrc.gov](mailto:william.burton@nrc.gov)

# How to Submit Comments

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- By mail: Office of Administration  
Mail Stop: TWFN-7-A60M  
ATTN: Program Management, Announcements  
and Editing Branch  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001
- Email: [TurkeyPoint34SLREIS.Resource@nrc.gov](mailto:TurkeyPoint34SLREIS.Resource@nrc.gov)
- Internet: [www.regulations.gov](http://www.regulations.gov)  
Docket ID: NRC-2018-0101
- **Comments due by May 20, 2019**