

# **Preliminary Results of the Environmental Review for James A. FitzPatrick Nuclear Power Plant**

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U.S. Nuclear Regulatory Commission  
August 01, 2007

# Purpose of Today's Meeting

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- Discuss the results of environmental review
- Provide the review schedule
- Describe how to submit comments in the future
- Accept oral and written comments today

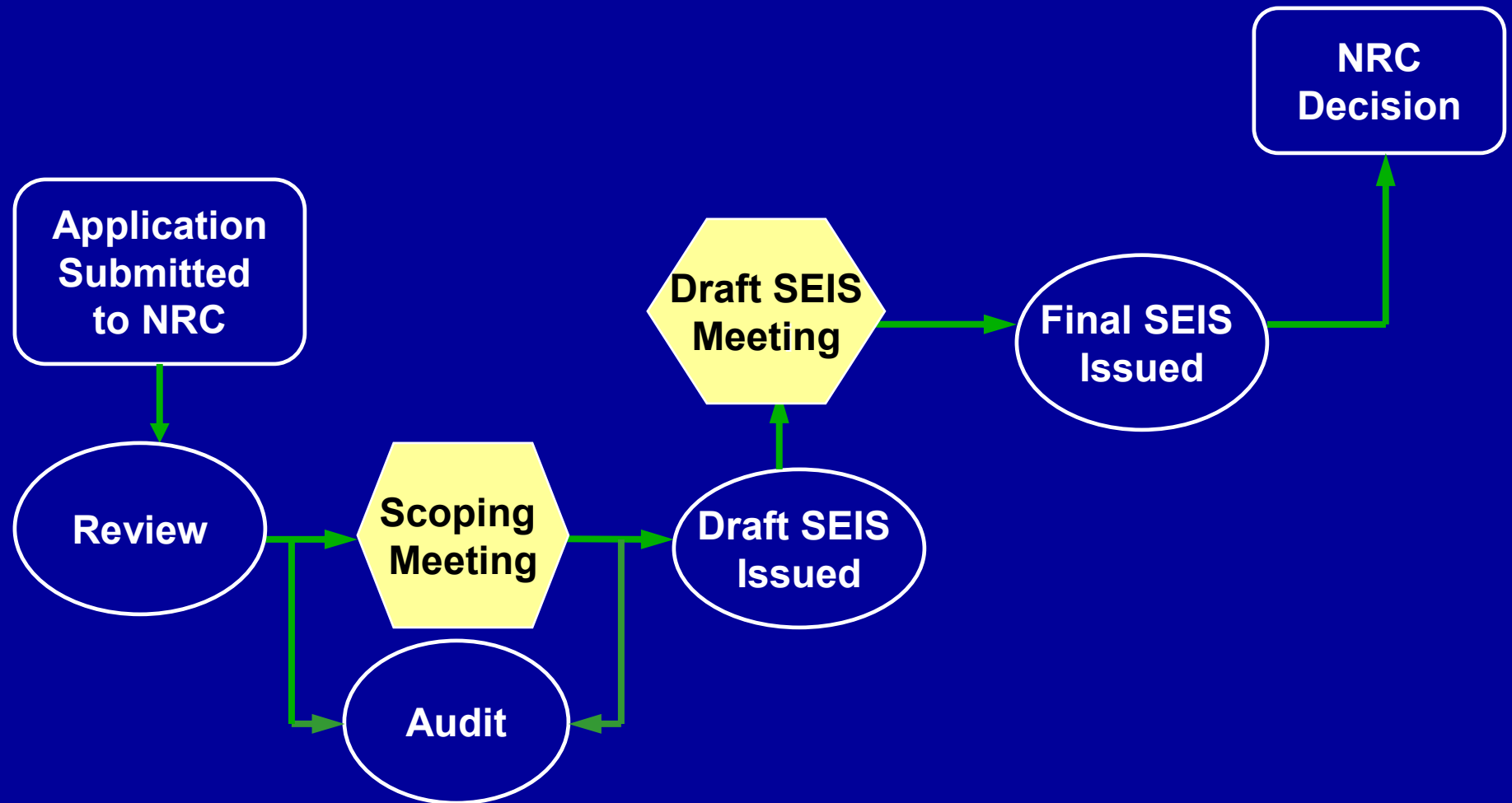
# James A. FitzPatrick Nuclear Power Plant

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- Current operating license expires in **October 2014.**
- Application requests authorization to operate FitzPatrick for an additional 20 years.

# Environmental Review

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# Environmental Review

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- National Environmental Policy Act requires Federal agencies to use a systematic approach to consider environmental impacts.
- NRC prepares an Environmental Impact Statement (EIS) for all proposed license renewals.
- Scope
  - Generic Environmental Impact Statement (GEIS)
  - Site-specific Supplemental Environmental Impact Statement (SEIS)
    - New and significant information on generic conclusions reached in the GEIS.

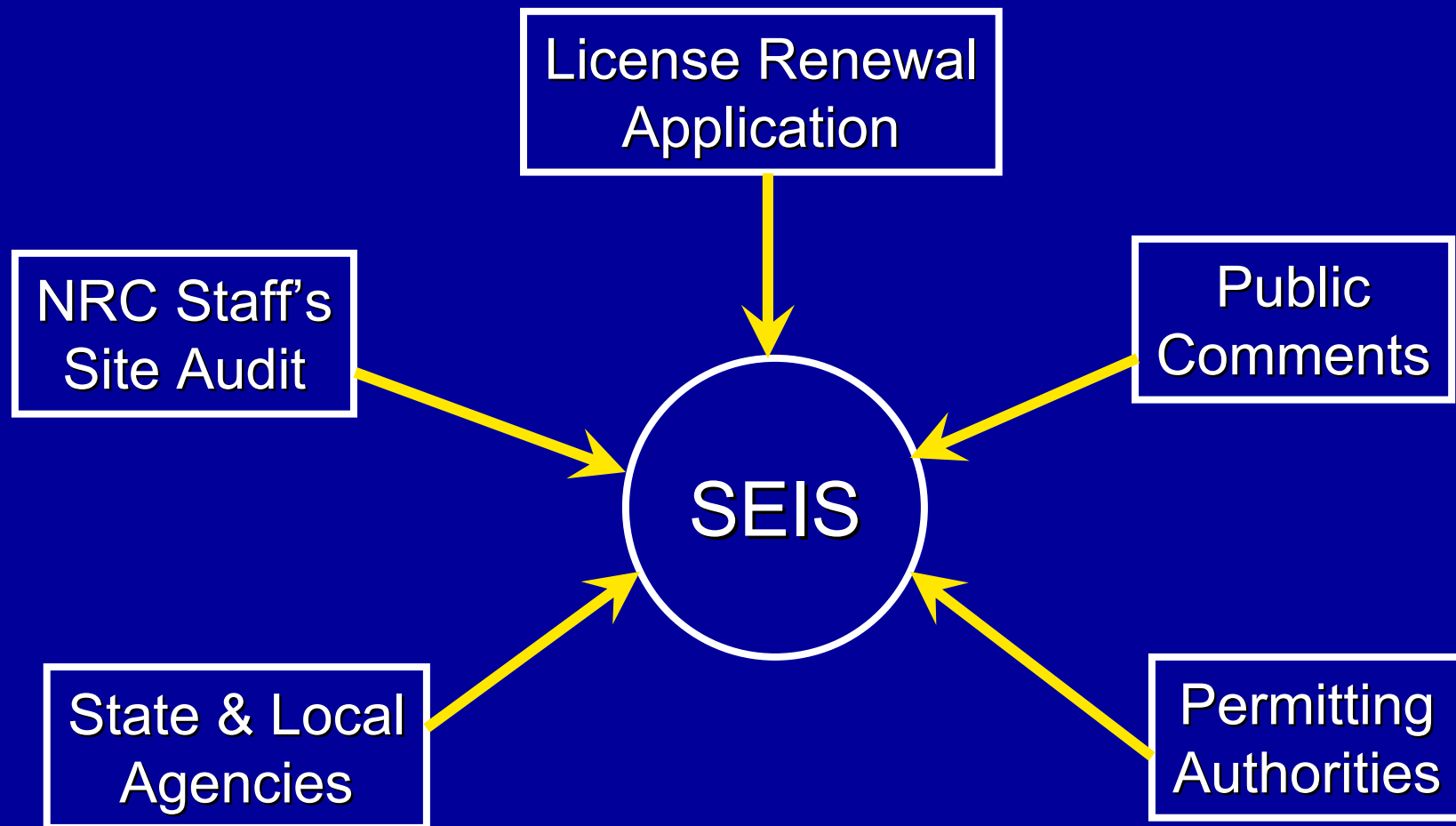
# Decision Standard for Environmental Review

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To determine whether or not the adverse environmental impacts of license renewal for FitzPatrick are so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

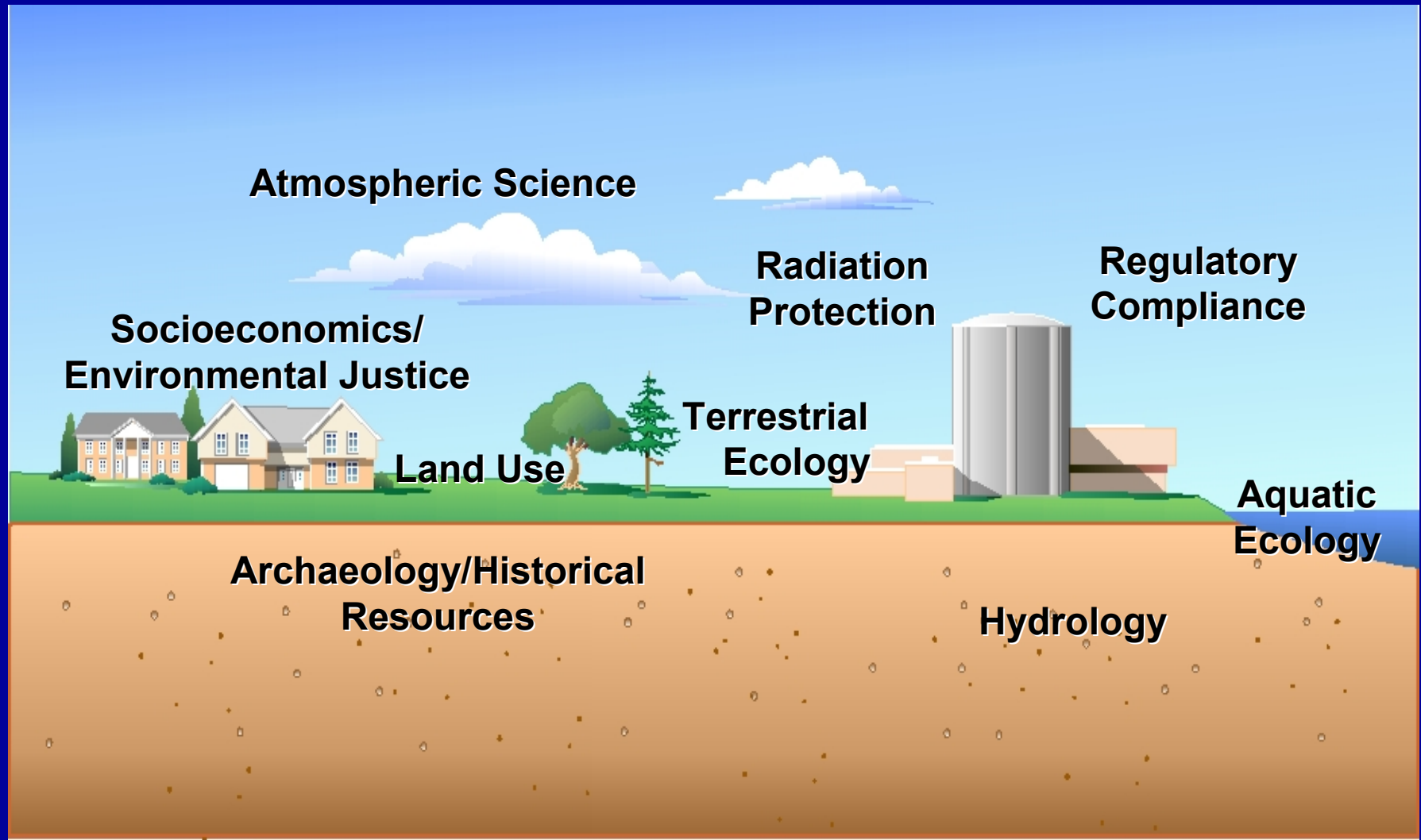
# Information Gathering

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# Team Expertise

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# Environmental Impacts of Continued Operation

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- Cooling system
- Radiological Impacts
- Threatened or Endangered Species
- Postulated Accidents
- Cumulative Impacts

# How Impacts are Quantified

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- NRC-defined impact levels:
  - **SMALL**: *Effect is not detectable or too small to destabilize or noticeably alter any important attribute of the resource.*
  - **MODERATE**: *Effect is sufficient to alter noticeably, but not destabilize important attributes of the resource.*
  - **LARGE**: *Effect is clearly noticeable and sufficient to destabilize important attributes of the resource.*

# Cooling System Impacts

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- Category 2 issues
  - Entrainment
  - Impingement
  - Heat Shock
- Preliminary findings
  - Impacts are SMALL

# Radiological Impacts

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- Category 1 issue
  - Radiation exposures to the public
- Preliminary findings
  - No new and significant information identified
  - GEIS concluded impacts are SMALL

# Threatened or Endangered Species

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- Category 2 issue
  - 5 Federal T&E terrestrial species on or near site and associated transmission lines
  - No aquatic T&E species
- Preliminary findings
  - Impacts are SMALL

# Postulated Accidents

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- Category 1 issues
  - Design-basis accidents
  - Severe Accidents
- Severe accidents
  - Severe accident mitigation alternatives (SAMAs)

# SAMA Evaluation Process

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- Preliminary Findings
  - 239 potential SAMAs considered
  - After screening, number of SAMAs reduced to 63
  - 6 SAMAs are cost-beneficial based on detailed, cost-benefit analysis
  - None of the SAMAs relate to managing the effects of aging; therefore, none are required to be implemented as part of license renewal.

# Cumulative Impacts of Operation

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- Considered impacts of renewal term operations combined with other past, present, and reasonably foreseeable future actions.
- Evaluated to end of 20-year renewal term.
- Preliminary Findings
  - No significant cumulative impacts.



# Alternatives

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- No-action (license not renewed)
- Alternative energy sources
  - New generation (Coal, Natural Gas, Nuclear)
  - Purchased electrical power
  - Other alternatives (Wind, Solar, Conservation)
  - Combination of alternatives
- Preliminary Findings
  - Environmental impacts of alternatives could reach MODERATE or LARGE significance in some impact areas

# Preliminary Conclusions

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- Impacts of license renewal are SMALL for all impact areas.
- Impacts of alternatives may reach MODERATE to LARGE in some impact areas.
- The NRC staff's preliminary recommendation is the adverse environmental impacts of license renewal for FitzPatrick are not so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

# FitzPatrick Environmental Review Milestones

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- Draft Supplemental EIS issued
  - June 08, 2007
- Comment Period ends
  - September 05, 2007
- Final Supplemental EIS to be issued
  - January 2008

# Additional Information

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- Environmental PM:  
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- The draft SEIS and GEIS can be viewed at:
  - Local Libraries: Penfield Library at SUNY-Oswego and Oswego Public Library
  - Online: NRC Reading Room

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437>

# Submitting Comments

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- By e-mail: **FitzPatrickEIS@nrc.gov**
- By mail: Chief, Rules and Directives Branch  
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U.S. NRC  
Washington DC 20555
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