



PUBLIC MEETING



DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE SOUTH TEXAS PROJECT UNITS 3 AND 4 COMBINED LICENSE APPLICATION

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U.S. Nuclear Regulatory Commission



- NRC's mission:
 - Protect public health and safety
 - Promote common defense and security
 - Protect the environment.
- The NRC is an Independent Agency.
- The NRC has over 30 years of experience regulating operating reactors and other civilian use of nuclear materials.



Purposes of this meeting

- Describe our review process leading up to today
- Provide the schedule from today forward
- Share our preliminary recommendation with you
- Describe how you can provide comments
- **Listen to and gather your comments tonight**

3

Combined Licenses

- South Texas Project (STP) submitted an application for combined licenses (COLs) for two new nuclear units (Units 3 & 4).
 - A combined license gives authorization to construct and operate a new nuclear unit.
 - Units 3 and 4, if approved, would be built on the same site as STP Units 1 and 2.
 - There are two NRC reviews for the STP COLs – safety and environmental.



4

Environmental Review

- NRC and US Army Corps of Engineers, Galveston District prepared an Environmental Impact Statement (EIS).
- US Army Corps is a cooperating agency on the environmental review and preparation of the EIS.



5

Review Process & Schedule



- Published *Federal Register* notice in Dec 2007.
- Scoping period from Dec 2007 to Feb 2008; scoping meetings held on Feb 5, 2008 in Bay City.
- Published *Federal Register* notice on March 26, 2010.
- **Comment period on Draft EIS is March 26 to June 9, 2010.**
- Final EIS expected to be published in March 2011.

6

Organization of EIS

- Chapter 1 – Introduction
- Chapter 2 – Affected Environment
- Chapter 3 – Site Layout and Plant Design
- Chapter 4 – Impacts of Construction
- Chapter 5 – Impacts of Operation
- Chapter 6 – Fuel Cycle, Transportation, and Decommissioning Impacts
- Chapter 7 – Cumulative Impacts
- Chapter 8 – Need for Power
- Chapter 9 – Environmental Impacts of Alternatives
- Chapter 10 – Conclusions and Recommendation

- Appendices A - I

7

Resource Areas



8

How Impacts are Quantified

NRC has established three levels of impact:

- SMALL:** Effect is not detectable, or so minor it will neither destabilize nor 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.

9

Water Resources Impacts

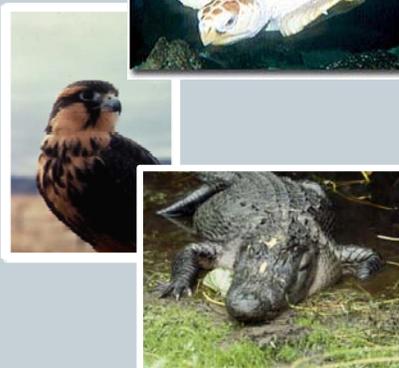
- Analysis includes impacts on surface water and groundwater use and quality.
- Impacts for use and quality for both surface water and groundwater would be SMALL.
 - Surface water and groundwater use would remain within existing permitted limits.
 - STP would comply with state permit for discharge into Colorado River and follow best management practices.



10

Ecological Impacts

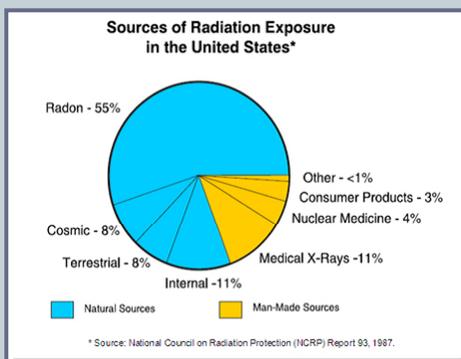
- Evaluated impacts on birds, fish, wildlife, plants, and wetlands on the STP site and nearby area.
 - Staff consulted with Texas Parks and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service.
- Impacts for both terrestrial and aquatic species would be **SMALL**.



11

Radiological Impacts

- Includes impacts on construction workers, members of the public, plant workers, and wildlife.



- Doses to workers would be **SMALL** and below regulatory limits.
- Doses to members of the public from construction and operation would be **SMALL** and below regulatory limits.
- Doses to wildlife would also be **SMALL** and below relevant guidelines.

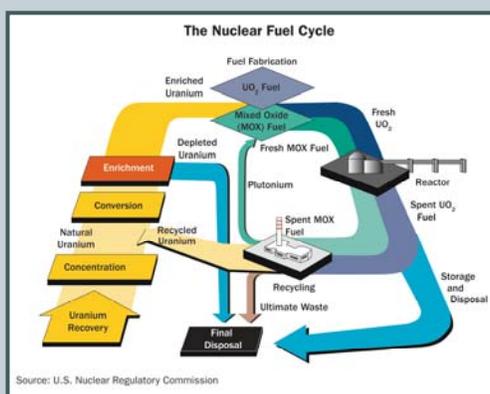
12

Environmental Justice and Socioeconomics

- Environmental justice review focuses on low-income and minority populations.
 - Minority and low-income populations would be not be unevenly affected.
- Socioeconomics includes impacts on taxes, housing, education, traffic and public services.
 - Adverse impacts range from SMALL to MODERATE and beneficial impacts range from SMALL to LARGE.
 - Impacts greater in Matagorda County.

13

Fuel Cycle, Decommissioning, & Transportation



- Includes impacts from the uranium fuel cycle, transportation of fuel and radioactive waste, and decommissioning.
- These activities would result in SMALL impacts on the environment.

14

Cumulative Impacts

- Cumulative impacts include the impacts from the proposed action (Units 3 & 4) with other past, present, and reasonably foreseeable future actions.
 - Examples include:
 - White Stallion Energy Center
 - STP Units 1 and 2
- Cumulative adverse impacts ranged from SMALL to MODERATE. Cumulative tax impacts would be beneficial and range from SMALL to LARGE.

15

Need for Power

- Team relied upon ERCOT studies and findings.
- Team determined there is a need for new baseload generating capacity in the region.



Figure taken from www.ercot.com

16

Alternatives

- **Energy Alternatives**
 - None of the feasible alternatives would be environmentally preferable.
- **Alternative Sites**
 - The STP site was compared to 3 alternative sites.
 - Analysis showed none of the alternative sites would be environmentally preferable to the STP site.
- **Alternative System Designs**
 - No alternative cooling system would be environmentally preferable to the proposed plant design.



17

Preliminary Recommendation

- The NRC staff's preliminary recommendation to the Commission is that the combined licenses be issued.
 - Most of the environmental impacts would be expected to be SMALL.
 - None of the feasible alternative energy sources evaluated would be environmentally preferable.
 - None of the alternative sites would be environmentally preferable to the STP site.

18

Access to the Draft EIS



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www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1937



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19

Submitting Comments on Draft EIS



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<http://www.nrc.gov/public-involve/doc-comment/form.html>



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COMMENTS ARE DUE BY **JUNE 9, 2010**

20