U.S.NRC
United States Nuclear Regulatory Commission
*Protecting People and the Environment*

# Combined License Application Review STP Units 3 and 4

## Overview Panel

## November 19, 2015

# Overview of Staff Review of STP 3 and 4 COL Application

- **STP 3 and 4 COL Application and Contents**
- **ABWR Design Certification (DC)**
- **STP 3 and 4 COL Overview – Safety Review**
- **STP 3 and 4 COL Overview – Environmental Review**
- **Summary of Staff Findings – COL Application**

# STP 3 and 4 COL Application

- **In September 2007, South Texas Project Nuclear Operating Company (STPNOC) submitted the application**
- **In January 2011, Nuclear Innovation North America LLC (NINA) became lead applicant**
- **NINA would be licensed to construct STP 3 and 4. STPNOC would be the licensed operator.**

# STP 3 and 4 COL Application

- **Incorporates by reference the ABWR Design Certification, including the Aircraft Impact Assessment (AIA) amendment to the ABWR**
- **Staff safety evaluation for ABWR: NUREG-1503 and NUREG-1503, Supplement 1**
- **Staff safety evaluation for AIA Amendment: NUREG-1948**

# STP 3 and 4 COL Application Contents

- STP 3 and 4 plant-specific information
- COL Information Items
- Departures from certified design

# STP 3 and 4 COL Overview: Safety Review

- **Design Certified in 1997**
  - **Technological improvements**
  - **Design innovations**
  - **Regulatory changes**
  - **Site-specific requirements**

# STP 3 and 4 COL Overview: Safety Review

- General Electric was the original ABWR vendor
- Alternate vendor (Toshiba) chosen to supply design
- Staff inspections and evaluation to determine alternate vendor qualification

# STP 3 and 4 COL Overview: Safety Review

- **Advisory Committee on Reactor Safeguards (ACRS) Review**
  - **Twenty ABWR Subcommittee meetings and two Full Committee meetings held on STP 3 and 4 COL application and safety evaluation report (SER)**
  - **ACRS report provided February 19, 2015**

# STP 3 and 4 COL Overview: Safety Review

- **Staff response to ACRS provided April 2, 2015**
- **Final SER issued September 29, 2015**

# STP 3 and 4 COL Overview: Required Findings

- **Summary of Findings – 10 CFR 52.97**
  - **Applicable standards and requirements of the Atomic Energy Act (AEA) and the Commission's regulations have been met**
  - **Required notifications to other agencies or bodies have been duly made**

# STP 3 and 4 COL Overview: Required Findings

- **Summary of Findings, continued**
  - **There is reasonable assurance that the facility will be constructed and will operate in conformity with the license, the AEA, and NRC regulations**
  - **Applicants are technically and financially qualified to engage in the activities authorized**

# STP 3 and 4 COL Overview: Required Findings

- **Summary of Findings, continued**
  - **Issuance of the licenses will not be inimical to the common defense and security or to the health and safety of the public**
  - **Findings required by Subpart A of 10 CFR Part 51 have been made**

# STP 3 and 4 COL Overview: Environmental Review

- **Environmental Impact Statement (EIS) completed in accordance with:**
  - **National Environmental Policy Act of 1969**
  - **10 CFR Part 51**
- **U.S. Army Corps of Engineers, Galveston District, was a cooperating agency**

# STP 3 and 4 COL Overview: Environmental Review

- **Staff follows a systematic approach to evaluate impacts**
  - **Solicit and reconcile scoping comments**
  - **Conduct technical review**
  - **Issue draft EIS for public/stakeholder comment**
  - **Consider and disposition comments in preparing final EIS**

# STP 3 and 4 COL Overview: Environmental Review

- **Stakeholder involvement is a key aspect of the process**
- **Final EIS published February 24, 2011, as NUREG-1937**

# STP 3 and 4 COL Overview: Environmental Review

- **Record of Decision:**
  - **States the decision**
  - **Identifies all alternatives considered**
  - **Discusses preferences among alternatives**
  - **States whether the Commission has taken all practicable measures, within its jurisdiction, to avoid or minimize environmental harm**

# STP 3 and 4 COL Overview: Environmental Review

- **Summary of Findings – 10 CFR 51.107(a)**
  - **The requirements of Section 102(2)(A),(C), and (E) of NEPA and the regulations in 10 CFR Part 51, Subpart A, have been met**
  - **After considering the final balance among conflicting factors in the record of the proceeding, the appropriate action is issuance of the COLs**

# STP 3 and 4 COL Overview: Environmental Review

- After weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, the COLs should be issued
- The staff's NEPA review has been adequate

# STP Overview of Panel Presentations

| Panel Number | Issues to be Discussed | Evaluation |
|---|---|---|
| Safety Panel 1 | Departures and Exemptions | FSER Chapter 1 |
| Safety Panel 2 | • Mitigation Strategies for Beyond Design Basis Events<br>• Electric Power (Bulletin 2012-01) | FSER Chapter 22<br><br>FSER Chapter 8 |
| Safety Panel 3 | • Design Basis Flood<br>• Alternate Vendor Qualification | FSER Chapter 2<br>FSER Chapters 1 and 17 |
| Environmental Panel | • Process for Developing the EIS<br>• Environmental Impacts<br>• Analysis of Alternatives<br>• Conclusions and Recommendations | FEIS |