

Progress Energy Update on COLA Activities

NRC Meeting
February 21, 2006



Progress Energy

Meeting agenda

- Site selection
- Reactor technology decision
- COLA preparation
- Pre-application activities
- Standardization approach

Site selection

- North Carolina – Harris site
 - COLA for two new nuclear units on “Existing” site
 - ◆ Construction Permit (CP) issued originally in 1978 for four nuclear units, one unit was built
 - ◆ Final Environmental Statement (FES) issued in 1983 assuming two nuclear units
 - ◆ Existing Transmission infrastructure
 - ◆ Hard rock site
 - ◆ Water supply availability
- Florida – in progress
 - COLA for two new nuclear units on “Existing” or “Greenfield” site

Harris site overview

- 25 miles SW of Raleigh, NC
- Water supply
 - Harris Lake ~ 4,000 acres
 - Main Dam originally sized for 4 nuclear units
- Site layout
- Transmission – 230 kV Lines



Harris Unit #1

Main Dam

Harris site



Reactor technology decision

- AP1000 Advanced Reactor Design
- NRC Certified Design
 - COL Action Items and standard DCD Deviations (identified by W)

COLA schedule

- Submit two COLAs to NRC
 - Harris units: late September-October 2007
 - Florida units goal: end of 2007-1Q 2008
- Order long lead items in 2008
- Fuel load in 2015 (Carolinas), 2016 (Florida)
- Commercial operation in 2015-2016

Note:

PGN has decided to proceed with the COLAs in order to maintain the nuclear option. A final decision to build new nuclear plants has not been made.

COLA preparation

- Westinghouse
- Shaw Stone & Webster, Inc.
- COLAs preparer – Joint Venture Team (JVT)
 - Sargent & Lundy, LLC
 - WorleyParsons Group, Inc.
 - CH2M Hill, Inc.
- 10 CFR Part 52 experience (JVT)
- Project Organization and Key Team Experience

COLA preparation

- High-quality COLAs
 - Compliance with the NRC regulations, as amended
 - Build on the License Renewal success
- Complete COLAs
 - Validation of each statement of fact
- COLAs Prepared per 10 CFR 50 Appendix B
- Standardized content

COL pre-application activities

- QA Program
 - COLAs preparation QA
 - ◆ NQA-1, 1994 (all JVT members)
 - New plant Design/Construction QAP
 - ◆ NQA-1, 1994 (PGN)
 - Current nuclear fleet Operations QAP
 - ◆ 10 CFR 50 Appendix B (PGN)

COL pre-application activities

- Site activities
 - Borings schedule
 - ◆ April 2006 (Harris site)
 - ◆ Will notify NRC in advance (Florida site)
 - Meteorological data
 - ◆ Existing tower and existing data (Harris site)
 - ◆ Potentially new tower (Florida site)

COL pre-application activities

- Environmental Report (ER)
 - Previous FES, NUREG-0972 (Harris)
 - Update information and perform additional evaluations
 - License Renewal in 4Q 2007 (Harris)
- Lake level
- Engage Federal/State/Local authorities early

COLA standardization

- Standard COLAs (consistent in format and content)
 - NRC regulations and guidance
 - ◆ 10 CFR Part 52
 - ◆ New plants SRP and Regulatory Guides
 - NEI COL TF
 - ◆ COL issues resolution (consistent approach)
 - NuStart

COLA standardization

- FSAR Chapters
 - Standard design (W inputs)
 - Generic issues (standard approach for all AP1000 COLA preparers)
 - Site-specific issues (consistency in the level of detail)
- COL Action Items (NUREG-1793, App.F)
 - W to close design related items as assigned
 - COL applicant to close site-specific items

COL pre-application NRC interactions

- Site visits
- QA Program inspections
- Long lead items procurement schedule
- Public meetings (site proximity)
- NRC workshops
- Future NRC meetings