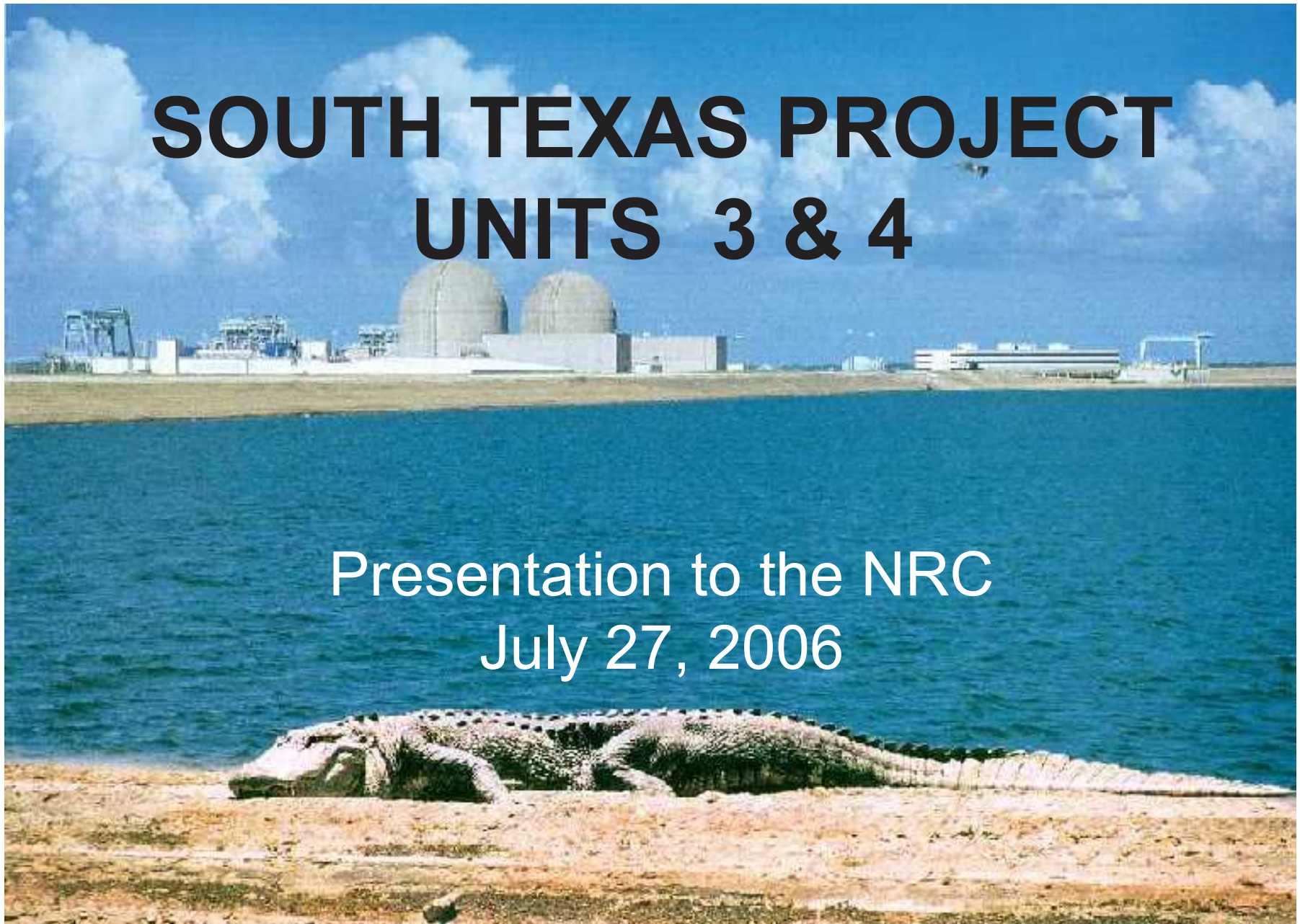


SOUTH TEXAS PROJECT UNITS 3 & 4

Presentation to the NRC
July 27, 2006





Agenda

- Objectives Mark McBurnett
- Project Team Mark McBurnett
- Opening Remarks Steve Winn
- Licensing Strategy/
Project Schedule Mark McBurnett
- Site Description/
Design Strategy Steve Thomas
- Summary Mark McBurnett



Objectives

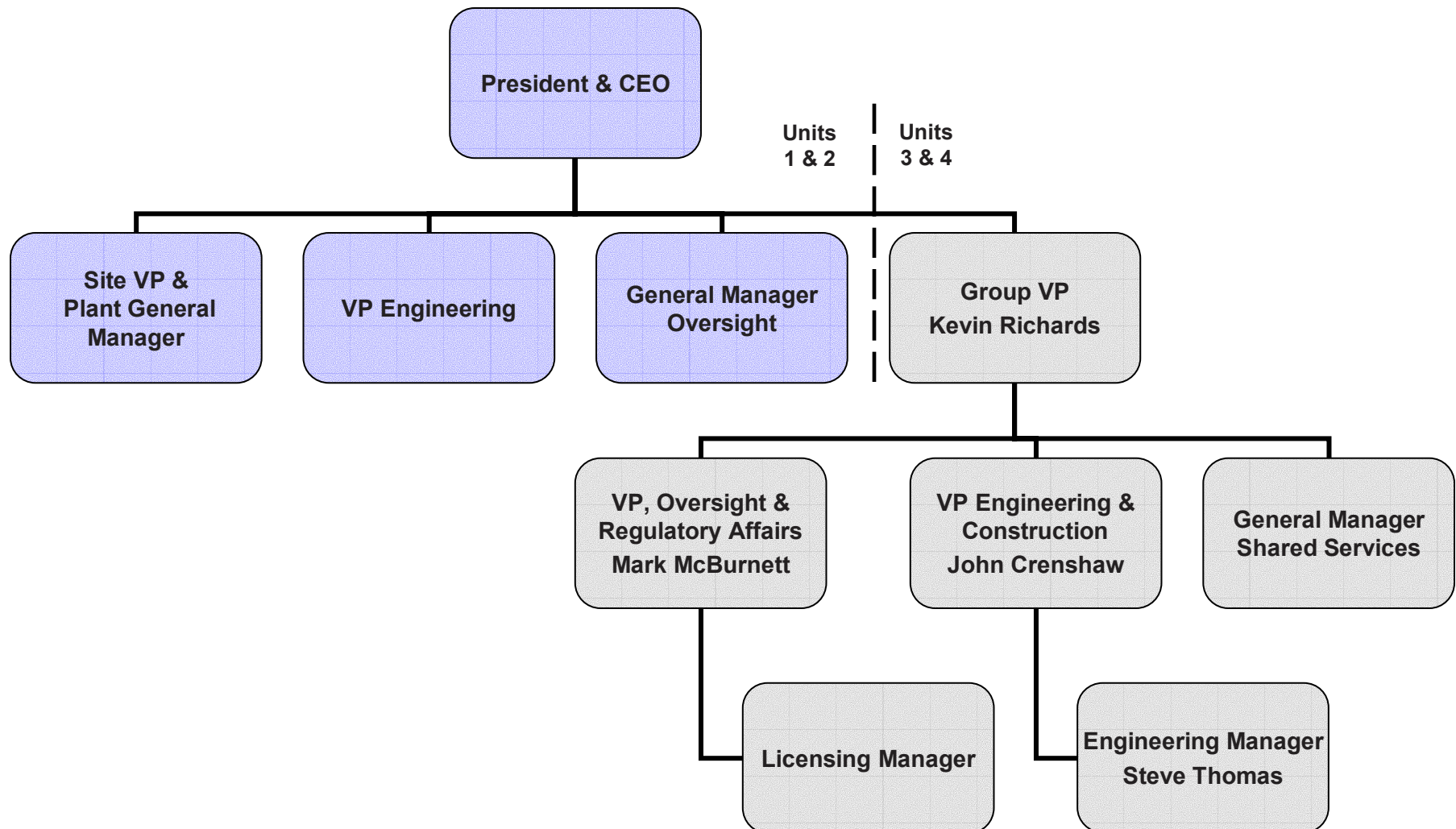
- Describe STP's licensing strategy and project schedule
- Agree on process for early resolution of issues
- Identify issues for future discussions



Project Team

- The primary focus of STPNOC is the safe and reliable operation of STP Units 1 & 2
- STP Unit 3 & 4 project team is separated from Unit 1 & 2 operating team
- Project Team
 - STPNOC
 - GE
 - Bechtel

STP Organization Key Positions





Opening Remarks

- NRG Energy objectives
 - Least licensing risk
 - Most predictable construction schedule
 - Generation online in 2014-2015
- Proven reactor technology
 - Design certification issued
 - FOAKE complete
 - ABWRs in operation (Japan) and construction (Japan and Taiwan)
- STP site



Licensing Strategy

- Advanced state of ABWR design and engineering
- Build from existing plant design
- Minimize departures from DCD
- Adhere to DCRA
- Submit documents and resolve issues early
- Submit high-quality COLA
- Use existing licensing basis
- Use NRC and industry guidance
- Apply lessons learned from ESP applications
- Frequent, open communications/respond to RAIs quickly



Minimize Departures from DCD

- Any departures must be approved by a Project Design Review Board
- No significant deviations from NRC guidance anticipated
- Address all COL action items
- FSAR to incorporate DCD by reference



Minimize Departures (cont'd)

- Avoid optional licensing approaches
 - COLA will not request 10 CFR 50.69, NFPA-805, or risk-informed 10 CFR 50.46
- Use existing STP licensing basis where possible, updated as necessary
 - Emergency Plans
 - Safeguards and Security Plans
- Use Tech Specs in DCD as basis for COL
 - Fill in bracketed information for COLA
 - Convert to ITS after COL issuance



Adhere to DCRA

- Use standardized FSAR sections for ABWR-generic sections
- Use industry standard sections (e.g., FSAR Ch 13)
- STP Units 3 & 4 will be the R-COL
- STPNOC will coordinate with other ABWR applicants



Early Submittals

- GE will submit topical reports to resolve generic issues
 - Applicable portions of DAC
 - Departures from DCD
 - Selected COL action items
- Emergency Plan
- Quality Program
- Safeguards and Security plans
- Selected FSAR and ER sections



Project Schedule

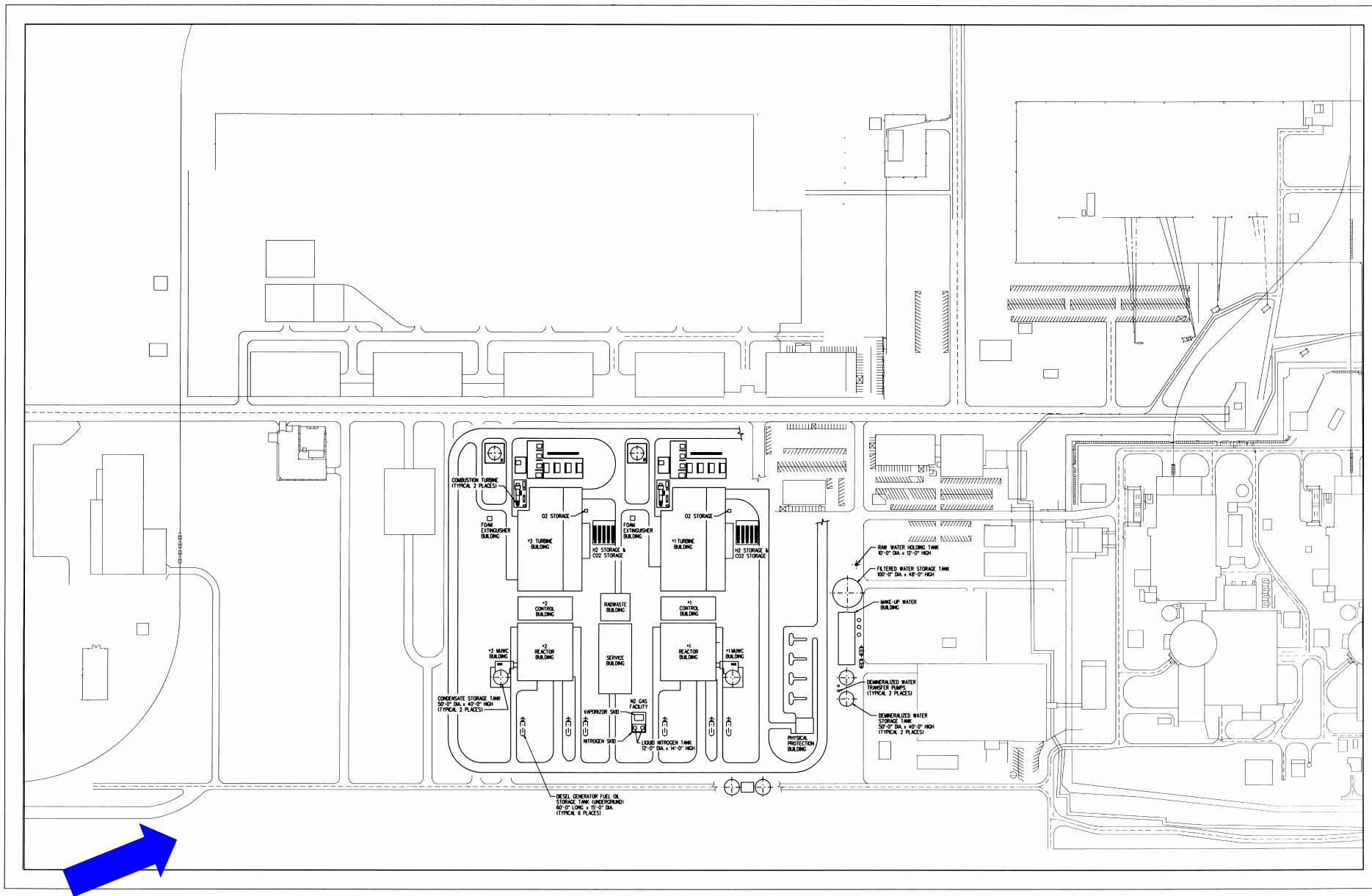
- Submit COLA in latter part of 2007
- NSSS and major components ordered by Summer 2007
- LWA-1 and LWA-2 in 2009
- COL in 2010



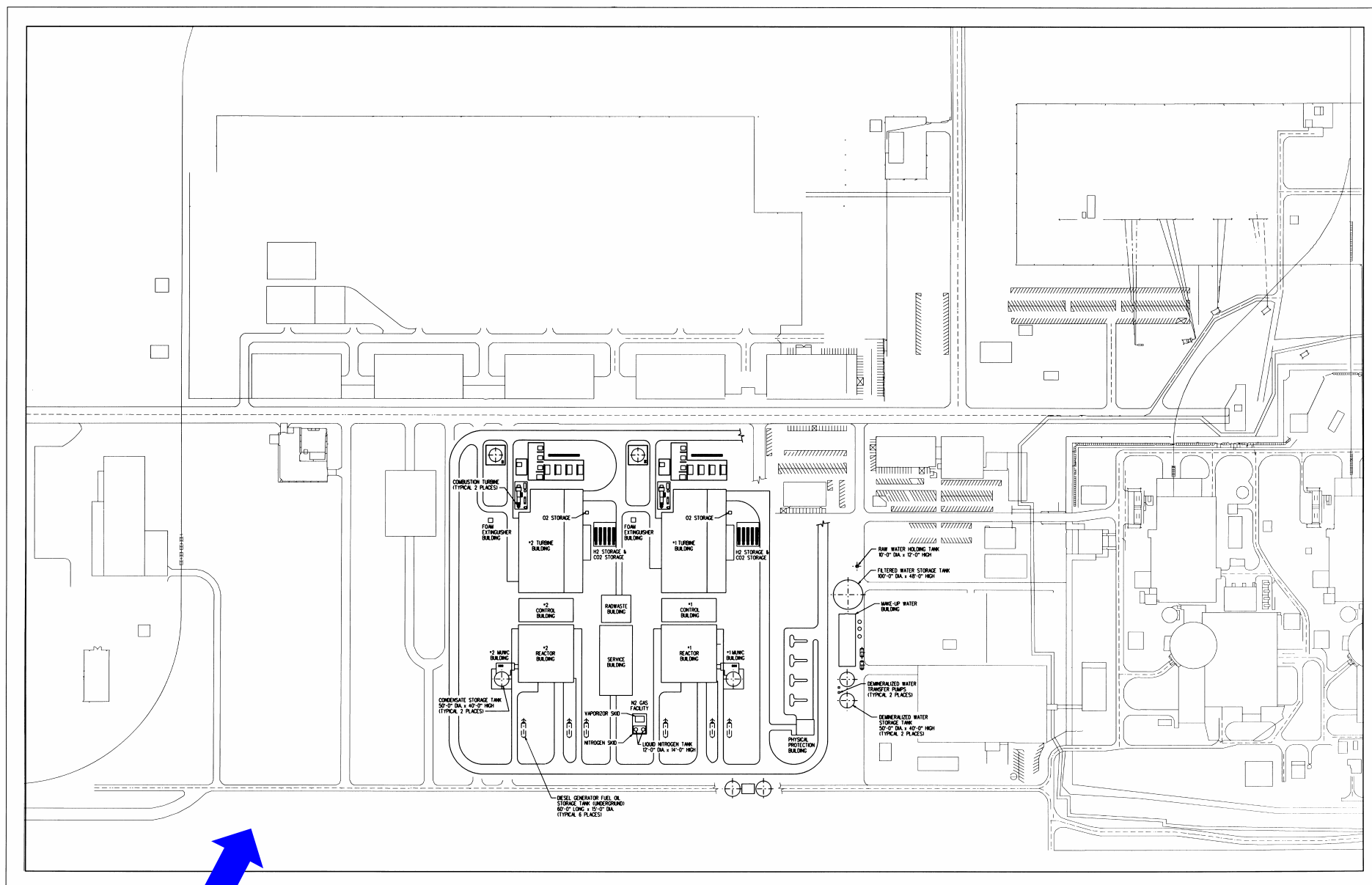


Video







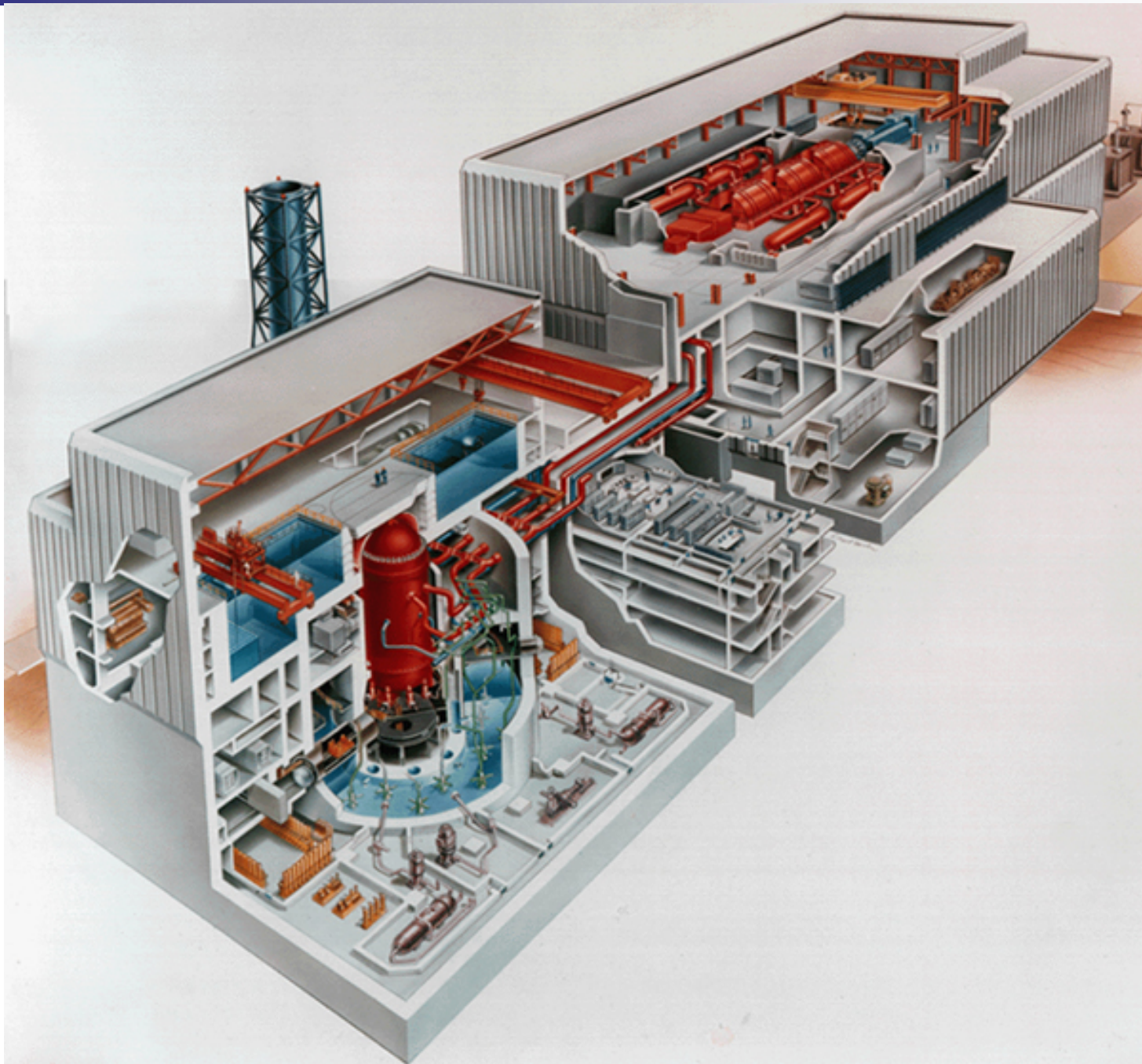
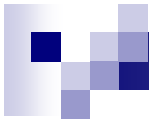




Proven Site

- 7,000-acre reservoir designed for 4 units
- 12,200-acre site
- Low population in EPZ
- Minimal site preparation work required
- Very low seismicity
- Barge and rail access
- Transmission facilities







Design Strategy

- Minimize departures from DCD
- Criteria for departures
 - Technically necessary for the workability of the design or the unavailability of components or products
 - Necessary to account for site specific features
 - Have very significant benefits in terms of safety, reliability, cost, or operations and maintenance



Design Strategy (cont'd)

- Potential design options and departures
 - Electrical distribution system and switchyard
 - Weir turbine/pump vs. Terry turbine/pump
 - Remove hydrogen recombiners
 - Flood level due to postulated MCR breach
 - Use latest GE fuel design
 - Increase steam bypass capacity
 - Spent fuel storage capacity
 - Ultimate heat sink



Next Steps

■ Site investigations

- ☐ Geotechnical investigations
- ☐ Water (cooling water, surface water, groundwater)
- ☐ Meteorological data (existing site data, regional data)
- ☐ Environmental field studies



Future Meetings

- Anticipate periodic NRC meetings
- Typical subjects of future meetings
 - Subsurface investigation
 - Plans for design of site-specific structures and systems
 - Topical reports and NRC requests for additional information
 - Security and sensitive information



Future Meetings (cont'd)

- Typical subjects (cont'd)
 - Plans for site-specific PRA
 - Environmental field investigations and site monitoring activities
 - Interactions with federal, state, and local agencies
 - Identify which COL action items are post-COL activities
 - Approach for need-for-power analysis and alternative site review
 - Milestone schedule for COL review and issuance



Summary

Goal - generation online 2014-2015

- Using a certified design
- ABWR operating experience
- Minimizing departures from DCD
- Using the established regulatory process
- Using a proven site



Success is Important

- Demonstrate a new domestic nuclear plant can be licensed and built on schedule
- Demonstrate COL process works
- STPNOC responsibilities
 - Submit high-quality COLA
 - Meet commitments
 - Exercise open dialog with NRC throughout process

