

La Crosse Boiling Water Reactor Project Update

Nuclear Regulatory Commission
Open Meeting
November 28, 2007



A Touchstone Energy® Cooperative 

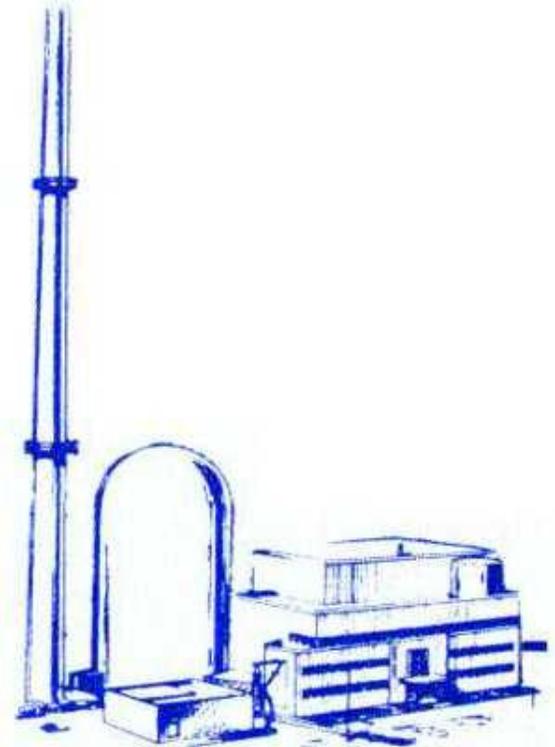
Agenda

- Opening remarks
- RPV Removal & Disposal Project
- Decommissioning Update
- Dry Cask Storage Project
 - Project background
 - Quality Assurance
 - ISFSI site selection



LACBWR Background

- AEC Demonstration Reactor
- Allis-Chalmers design - 50 MWe
- A/E was Sargent & Lundy
- Reactor critical – July 1967
- Commercial operation – November 1969
- DPC purchased reactor – July 1973
- Permanently shutdown – April 1987
- Placed in SAFSTOR – August 1991
- ‘Limited Dismantlement’ start – February 1996



LACBWR at Genoa Site



LACBWR Projects

- Reactor Pressure Vessel (RPV) Removal & Disposal Project
- Dry Cask Storage (DCS) Project
- Transition to ISFSI Management
- Decommissioning Project



RPV Lift & Removal

- 370,000 lbs.
- 23 personnel & 10 hours
- No safety incidents
- Sequence:
 - Cut 32 anchor bolts
 - Trimmed 8 support feet
 - Lifted ~ 20 feet
 - Removed insulation
 - Coated lower half of RPV
 - Trolleyed out of building
 - Lowered into canister
- Radiation levels much lower than expected



RPV Removal



RPV Removal



RPV Removal



RPV Removal



RPV Removal



RPV Removal



RPV Removal



RPV Removal



Entering Barnwell Site



RPV Final Resting Place



Lessons Learned

- Clear roles and responsibilities
- Licensee involvement
- Control of contracted engineering
- Independent engineering acceptance
- Quality Assurance project plan
- Work control processes
- Training for contractors & staff



Citizens Advisory Committee

- First meeting – March 2007
- Consists of community leaders:
 - Local law enforcement
 - County emergency management
 - Village president
 - School administrator
 - Local media
 - Business leaders
 - Interested citizens

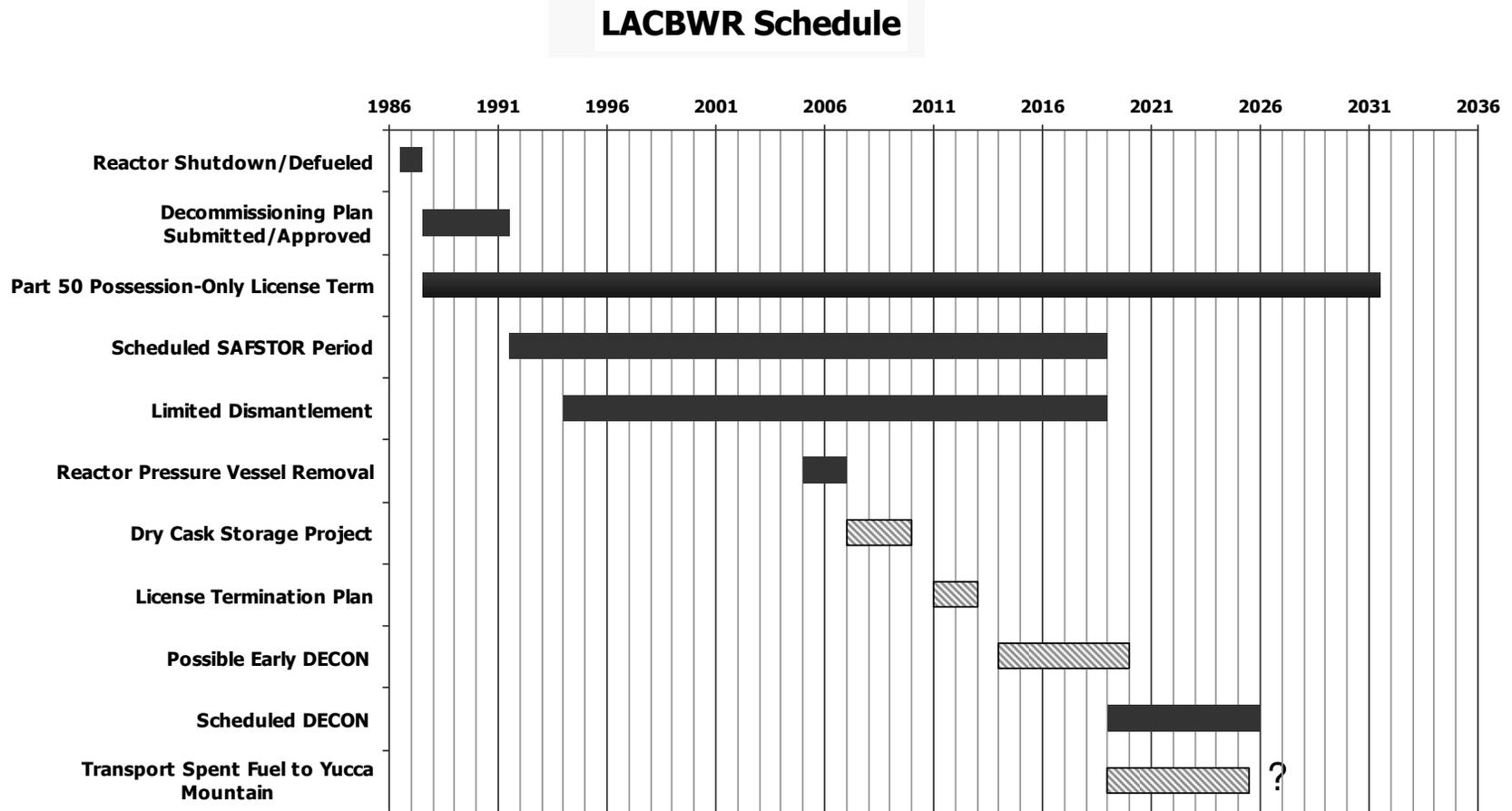


Decommissioning Project

- Post RPV Removal & Dry Cask Storage project
- License Termination Plan
- Full Scale Dismantlement
- Cost Study
 - 2007 update completed
 - \$64.4 million estimate (2007 dollars)
- Funding
 - Nuclear Decommissioning Trust
 - \$67.9 million balance as of August 2007



LACBWR Schedule

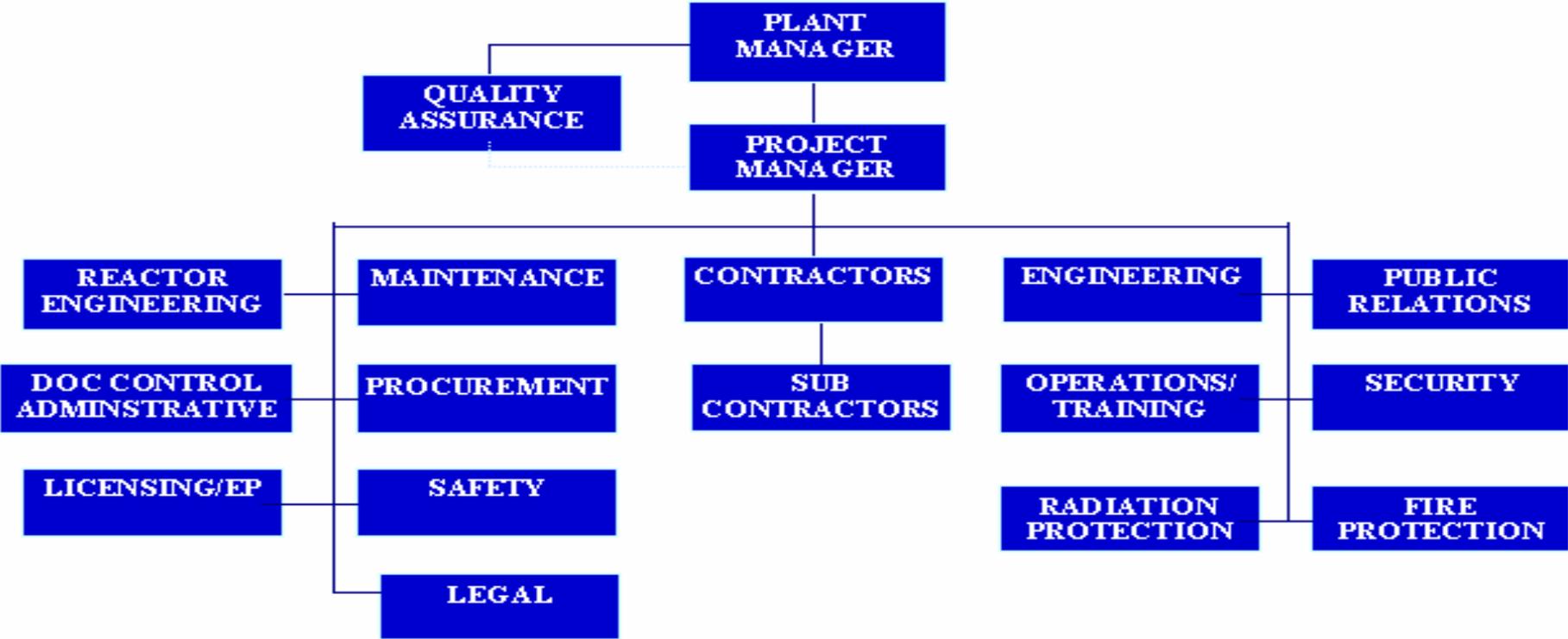


Dry Cask Storage Project

- Scope
- Part 72 Subpart K - General License
- Core Project Team
 - Dairyland Power
 - Sargent & Lundy
 - TriVis
 - Operating Solutions of Michigan
 - Cask system vendor



Dry Cask Storage Project Staffing



Dry Cask Storage Project

- Phase I – Planning
 - Project initiation
 - QA Project Plan
 - ISFSI site selection
 - Plant impact assessment
 - Cask system procurement
 - Operation strategy
 - Licensing strategy



Dry Cask Storage Project

- Phase II – Engineering & Licensing
 - ISFSI design
 - Reactor building modification design
 - 50.59 evaluations
 - Part 50 licensing
 - Procedure development
 - Program modifications
 - Cask vendor licensing



Dry Cask Storage Project

- Phase III – Operations & Construction
 - Build ISFSI
 - Reactor building modifications
 - Training
 - Dry runs
 - Cask loading operations
 - Fuel pool clean-out



Dry Cask Storage Preliminary Schedule

- Cask vendor bids received November 2007
- Cask vendor contract award December 2007
- ISFSI/RB modification design start January 2008
- Fuel characterization 2nd Quarter 2008
- Cask system license amendment 3rd Quarter 2008
- ISFSI/RB mod. construction start 3rd Quarter 2008
- Cask license amendment approval 4th Quarter 2009
- Cask system and ancillary delivery 2nd Quarter 2010
- Training 2nd Quarter 2010
- Dry run 3rd Quarter 2010
- First cask loading 3rd Quarter 2010



Integrated Quality Assurance

- Single quality direction
- One quality plan
- Unified designer & fabricator
- Cohesive quality team



Quality Assurance Program

- LACBWR Quality Assurance Program Description (possession only license)
- QAPD gap analysis
 - NQA-1
 - 10CFR 71
 - 10CFR72
- Quality Assurance Project Plan (QAPP)
- Implementing procedures → site procedures



Quality Assurance Project Plan

- QAPP ↔ project quality program
 - Quality assurance policy
 - Roles & responsibilities
 - Classification of tasks
 - QA requirements
 - DCS Quality Council
 - Quality monitoring



Quality Assurance Project Plan

- Major emphasis on:
 - Project management
 - Procurement
 - Work control
 - Vendor surveillance & inspection
 - Project-wide overview



Cask Vendor Qualification

- Pre-qualification survey
- Qualification audits (Designer & Fabricator)
 - Holtec and Holtec Manufacturing (HMD)
 - NAC and GE Energy
 - TN and Hitachi-Zosen (HZ)
- Used the Dry Storage Quality Group Checklist
- Identified minor issues
- All Vendors qualified for Approved Vendors List



Unified Quality Team

- DCS Quality Council
 - Coordinate project quality overview
 - Assure timely coverage
 - Optimize quality resources
 - Review & share issue/lessons learned
- Council membership
 - LACBWR MQA (Chair)
 - Design Authority QA
 - DFSS Designer QA
 - DFSS Fabricator QA
 - Project Managers

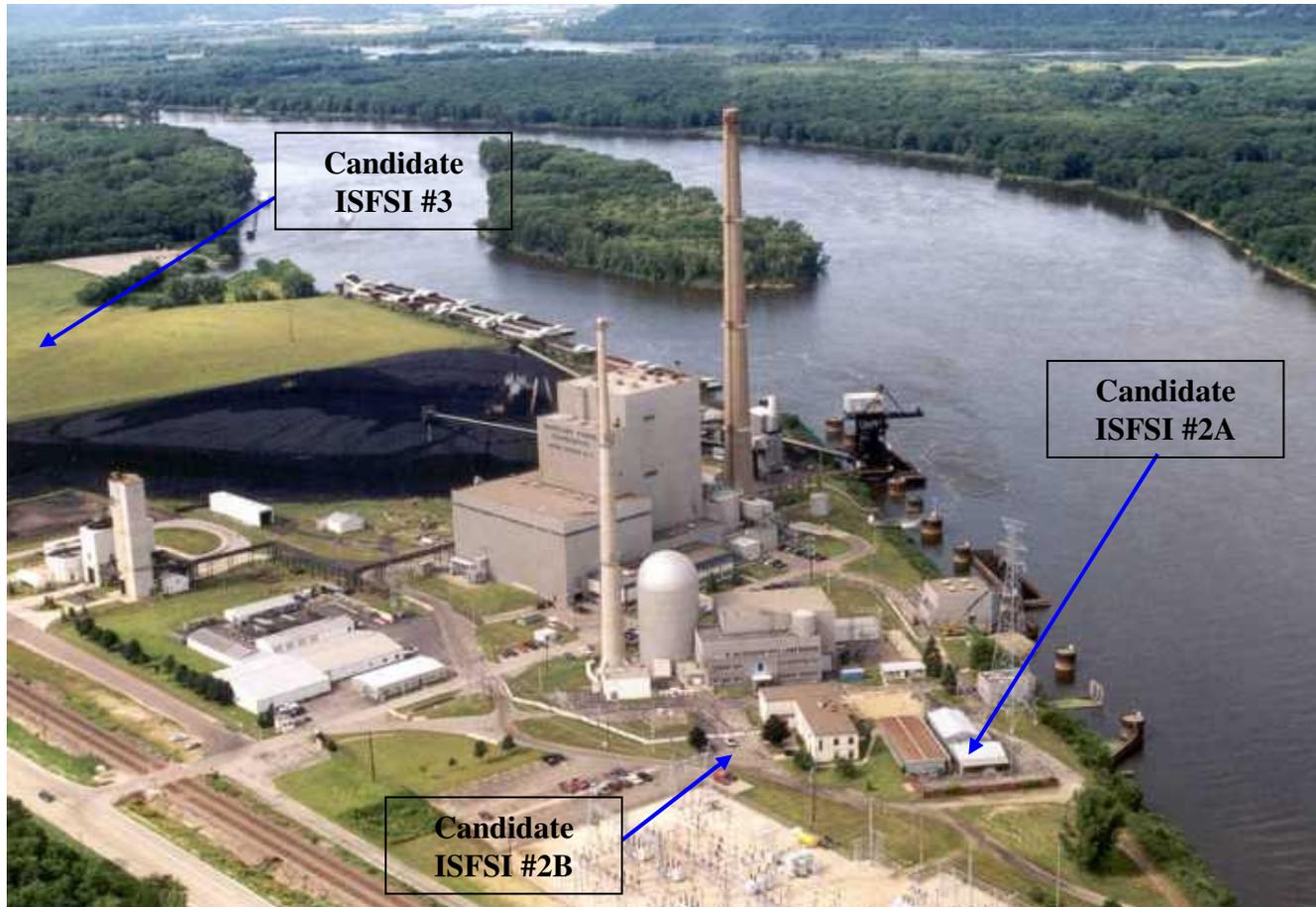


ISFSI Site Selection

- Comprehensive study conducted by S&L
- Address requirements of 10CFR72
- ISFSI away from current protected area
- Three candidate sites
 - One site discarded early
 - Another site added to study
- Security requirements
 - ISFSI order
 - Sept. meeting with PM, NMSS, NMIS, & Region III
- Study completed in November 2007



ISFSI Site Selection



ISFSI Site Selection

- Attributes evaluated:
 - Radiological assessment
 - Geotechnical
 - Genoa site interface
 - Natural phenomena
 - Hazards evaluation
 - Site work development
 - Cask transport path
 - Security, electrical & cask monitoring systems
 - Aesthetics
 - Cost



Site 3 Conceptual



Questions on material covered?

