

**COMMISSION BRIEFING SLIDES/EXHIBITS**

**BRIEFING ON STATUS OF  
NEW REACTOR ISSUES - COLS**

**OCTOBER 16, 2006**

# State Certification and Cost Recovery Rules for Nuclear Facilities

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# Issue Overview

- What authority do state commissions or other regulatory agencies have to review proposals for the construction of new nuclear facilities?
- What rules govern the recovery of costs associated with the planning, construction, and operation of new nuclear facilities?

# State Commission Procedures

- State commissions must address these issues in compliance with the procedural requirements set forth in state law
- Typically, state commissions make decisions following adversary proceedings in which interested parties have a right to present evidence and to otherwise advocate the adoption of the positions that they espouse
- State commissions must make their decisions on the basis of an analysis of the evidentiary record in light of controlling legal principles
- State commission decisions are subject to appeal to the appellate courts in the relevant state

# Status of State Regulation

- States divided in the manner in which the electric industry is regulated
- Sixteen states and the District of Columbia have restructured their electric industries in an attempt to convert the generation function into a competitive business
- Remaining states have retained the traditional industry model, in which utilities that have been awarded monopoly territories provide bundled service to end user customers

# Traditional Regulation

- Utility is assigned a franchised service territory in which it has the exclusive right to provide retail service
- Utility is obligated to provide adequate service at a reasonable rate in its franchised service territory
- Utility is subject to pervasive rate and service quality regulation by a state regulatory agency for the purpose of protecting customers

# Traditional Rate Regulation

1. Ascertain the utility's rate base, which consists of the reasonable cost of the utility's property used and useful in providing utility service, less accumulated depreciation
2. Determine the appropriate debt and equity capital cost rate that the utility should be allowed to collect from customers
3. Multiply the utility's rate base as determined in Step 1 by the capital cost rate established in Step 2
4. Ascertain the utility's reasonable operating expenses, including salaries, depreciation, and similar costs
5. Add the utility's allowable aggregate capital costs as determined in Step 3 to the utility's allowable operating expenses as determined in Step 4 to produce the utility's total revenue requirement
6. Design rates to allow the utility to collect its overall revenue requirement as determined in Step 5 from customers in a non-discriminatory manner

# Electric Restructuring

- Attempts to assure adequate generation service at reasonable prices by using competitive forces rather than regulatory oversight
- Allows entry by non-utility entities into the generation business
- Requires utility to provide delivery service to customers subject to regulatory control
- Allows customers to purchase generation service on the open market at prices set by market forces
- Requires some entity, usually the incumbent utility, to serve as provider of last resort for those customers that do not or are unable to shop for power

# Establishing the Cost of Generation Service in Restructured States

- Customers in restructured states that elect to shop for power pay a market-based price
- Most residential customers in restructured states receive default service
- Default service priced in different ways in different states, with some states retaining traditional regulation for default service and others acquiring generation service for default customers through an auction process

# Certification Requirements in Traditionally-Regulated States

- State law in traditionally-regulated jurisdictions requires a utility to obtain a certificate from a state agency before beginning to construct and operate a generating facility
- Utility is required to show that the proposed facility is needed to meet anticipated future load and represents the least cost way to serve that anticipated load
- Purpose of certification in traditionally-regulated states is to prevent costly-overbuilding

# Certification Requirements in Restructured States

- Extent to which certification requirements persist in restructured states varies from jurisdiction to jurisdiction
- Illinois does not require non-utility generators to obtain a certificate before constructing a new generating facility
- Virginia appears to lighten the standard required for certification of a generating facility that will not be included in utility rate base

# Cost Recovery Under Traditional Regulation

- Costs associated with a new generating facility eligible for use in establishing rates when the facility becomes commercially operable
- Capital costs, including an allowance for funds used during construction, are included in establishing the utility's rate base
- Operating expenses, including depreciation, included in establishing allowable operating expenses
- Certain costs may be disallowed in the event that any portion of the plant's capacity is determined to be excessive or any costs incurred in constructing the facility were unreasonably or imprudently incurred

# Cost Recovery in a Restructured Environment

- Generators recoup costs associated with the provision of service to customers that shop for power in the market-based prices charged to those customers
- Generators recoup costs associated with serving default customers through the mechanism approved by the applicable state commission for the provision of such service
  - In Michigan, default service is priced in a manner reminiscent of cost-based regulation
  - In Pennsylvania, utilities providing default service procure generation through an RFP process, so that the cost of generation is incorporated into each generator's bid
  - In Maryland and New Jersey, the price of default service is determined through an auction process, so that the cost of generation is incorporated into each generator's bid

# Impact of Regional Transmission Organizations on Cost Recovery

- Regional Transmission Organizations that operate day-ahead and real-time generation markets exist in the Mid-Atlantic, Midwest, New England, New York, and Texas
- RTO areas contain both restructured and traditionally-regulated states
- Utilities and other customers have the option of purchasing power through RTO markets instead of operating their own generating facilities or obtaining power from other sources
- Price of power sold through RTO markets is based on bids submitted by participating generators, with all generators receiving the price paid to the generator with the highest accepted bid
- Marginal generation in RTO markets tends to be gas-fired or coal-fired, resulting in prices for power purchased through such markets that exceed the marginal operating cost of nuclear generation

# Other Cost Recovery Mechanisms

- Other options for the recovery of costs associated with designing, licensing, constructing, and operating new nuclear units exist in certain traditionally-regulated states
- Some states permit the inclusion of construction work in progress in rate base
- Other states have adopted or are considering other cost recovery mechanisms in anticipation of new nuclear construction

# Iowa

- Iowa Utilities Board may determine “in advance” “the ratemaking principles that will apply when the costs of an electric generating facility . . . are included in regulated electric rates”
- Approach only applicable to facilities “with a nameplate generating capacity equal to or greater than three hundred megawatts”
- IUB not “limited to traditional ratemaking principles or traditional cost recovery mechanisms” in determining the appropriate method for cost recovery in such instances
- Cost recovery issues associated with new generating facilities must be resolved before construction can begin

# Florida

- Florida PSC is required to approve an alternative cost recovery mechanism for costs resulting from the construction of a new nuclear facility that allows for recovery of preconstruction costs and carrying costs on the utility's projected construction cost balance
- Any utility that brings a new nuclear unit into commercial operation is entitled to include the projected cost of such a facility in base rates using the utility's existing allowed return
- In any ratemaking proceeding in which a utility seeks to include the costs associated with a new nuclear generating unit in rates
  - Otherwise applicable competitive bidding rules do not apply
  - Issuance of a determination of need creates a presumption that the facility is needed to provide service to the public
  - Costs associated with the construction of the facility in question can only be disallowed for imprudence, with a decision to proceed with construction following a determination of need conclusively presumed to be prudent and with any cost increases due to events beyond the utility's control not subject to disallowance

# Georgia

- Georgia PSC has allowed Georgia Power to accumulate up to \$51 million in costs associated with efforts to obtain an Early Site Permit and a Combined Operating License in Account 183, Preliminary Survey and Investigation Charges
- Upon certificate of a new nuclear generating facility by the Georgia PSC, the amounts recorded in Account 183 shall be transferred to a CWIP account
- In the event that a new nuclear facility is not certified, the prudently incurred amounts in Account 183 shall be deferred until the utility's next general rate case, at which point the Georgia PSC will determine the appropriate ratemaking treatment for those costs

# North Carolina

- Duke Energy Carolinas has requested the North Carolina UC in a pending proceeding to
  - Find “that work performed . . . to ensure the availability of nuclear generation by 2016 is prudent and consistent with the promotion of adequate, reliable and economical utility service to the citizens of North Carolina” and the policies expressed in the North Carolina Public Utilities Act
  - Provide “expressly that Duke Energy Carolinas may recover in rates, in a timely fashion, the North Carolina allocable portion of Development Costs prudently incurred for work done in the development of new nuclear generation through December 31, 2007, whether or not a new nuclear facility is constructed”



# **Status of New Reactor and Combined License Issues**

Industry Briefing of NRC Commission  
Oct. 16, 2006

**NEI**



# Industry Panel

- Marvin Fertel, Chief Nuclear Officer, NEI
- J. Barnie Beasley, Chairman & President, Southern Nuclear Operating Company
- James J. Sheppard, President, STP Nuclear Operating Company
- Joe C. Turnage, Senior Vice President, Constellation Generation Group
- Eugene S. Grecheck, Vice President, Nuclear Support Services, Dominion Generation



# Other Industry Representatives

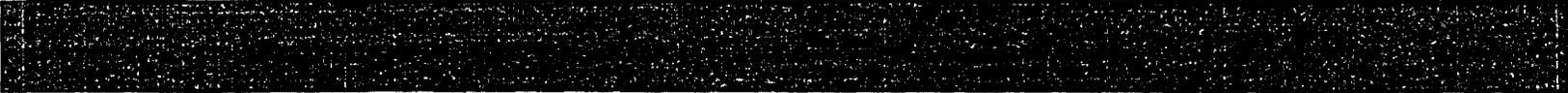
- Scotty Hinnant, Chief Nuclear Officer, Progress Energy & Chairman of NEI New Plant Working Group
- Steve Byrne, Chief Nuclear Officer, SCANA
- Karl Singer, Chief Nuclear Officer, TVA
- Mike Blevins, Chief Nuclear Officer, TXU
- Randy Hutchinson, Senior Vice President, Entergy Nuclear
- Marilyn Kray, President, NuStart Energy
- John Polcyn, Amarillo Power
- Ron Affloter, Vice President, Areva
- Steve Hucik, General Manager, GE Energy, Nuclear
- Ed Cummins, Vice President, Westinghouse



# Level of Standardization in COL Applications

Average Level of Standardization for All DCWG COL Applications

Standard for All COL Applications	65% - 75%
Standard with Limited Number of Site Specific Differences	10% - 20%
Site Specific Information	5% - 15%
Total	100%



# AP1000 Design-Centered Working Group

STATUS REPORT TO  
NRC COMMISSIONERS

October 16, 2006

**Barnie Beasley**

Chairman & President, Southern Nuclear  
Operating Company



# AP1000 DCWG Interactions

- Pre-Application Meetings Scheduled once every six weeks
  - Purpose: to further define COL application requirements and address key technical issues.
  - Early meetings effective in framing and defining key issues (e.g. application formatting, security, emergency planning).
  - Focus areas for future meetings include:
    - PRA level of detail & COL application level of detail
- Pre-Application “Technical Reports”
  - Purpose is to provide early review of design and open items to promote standardization
  - 34 of 71 Westinghouse and DCWG reports submitted and being reviewed
  - On schedule to submit all reports by mid-2007.

# Industry Standardization

- DCWG approach fully embraced
- High levels of standardization in licensing applications
- Design being reviewed to identify further areas where standardization may be achieved
- Operational program descriptions being developed industrywide. Examples include:
  - Training & Security
- Challenges exist to fully complete and articulate guidance and understandings between NRC and industry to assure stability and predictability



# **ABWR Design-Centered Working Group Status Report**

STATUS REPORT TO  
NRC COMMISSIONERS

October 16, 2006

**Joe Sheppard**

President, STP Nuclear Operating Company



# ABWR DCWG

- DCWG Principles
  - Minimize departures from DCD
  - Employ generic section templates
  - Optimize regulatory process
- Pre-application meetings with NRC
  - Initial meeting July 27, 2006, Second meeting Oct. 18, 2006
- DCWG Project Design Review Board (PDRB)
  - Charter Completed Sept. 26, 2006
  - First PDRB meeting Sept. 27, 2006
  - Second PDRB meeting Oct. 11, 2006

**NEI**

# Overall Schedules

- Quality applications per DG-1145 & SRP could reduce 42-month approval schedule
- Environmental review appears to be critical path
  - Candidate for process improvement consistent with NEPA requirements
- Opportunities to further improve regulatory certainty and licensing effectiveness by incorporating measures used in license renewal & LES licensing proceedings
- Recent LWA rulemaking proposal will ensure regulatory focus is maintained on issues that have safety significance



# **U.S. EPR Design-Centered Working Group**

STATUS REPORT TO  
NRC COMMISSIONERS

October 16, 2006

**Joe Turnage**

Senior Vice President, Constellation Generation Group

**NEI**

# Concurrent DCD and COLA Preparation and NRC Review

- Provides unique advantages
  - A higher level of integration between the COL application and DCD texts can be achieved – easier to review
  - Minimizes COL information items
  - Substantial NRC staff interaction (35+ meetings held or being planned)
  - 20+ reports submitted/plan to be submitted
- Presents unique logistical requirements
  - Need to ensure that changes to DCD are properly and timely reflected in COL application and vice versa, as necessary
- Objective is to provide the conditions needed for the NRC to conduct an effective and efficient review of the reference COL application

# Generic Issues

- Appreciate NRC expediting the schedule for issuance of essential NRC guidance documents (Reg. Guides & SRPs)
  - Industry – NRC interactions regarding these guidance documents are critical in assuring quality applications
- Timely NRC review and acceptance of digital I&C designs is crucial to the industry
  - Simulators need to be ordered in 2009
  - Each DCWG needs to have an integrated plan with the NRC to ensure issues are identified and resolved on a schedule that meets industry's timetable



# **ESBWR Design-Centered Working Group**

STATUS REPORT TO  
NRC COMMISSIONERS

October 16, 2006

**Eugene S. Grecheck,**  
Vice President, Dominion Generation



# ESBWR DCWG Schedules

- Pre Application meetings
- COLA submittals to NRC:
  - November 2007—Grand Gulf and North Anna
    - ◆ Both applications will reference ESP's
  - May 2008—River Bend (S-COL)
- ESBWR DCD revisions to NRC:
  - October 2006—Revision 2
    - ◆ Design changes and COL item resolution
  - February 2007—Revision 3
    - ◆ Incorporate RAI responses; resolve more COL items
- Concurrent DCD and COL reviews

# DG-1145 Perspective

- Commendable effort by the NRC staff
  - Seven workshops yielded improved understandings, interactions need to continue
- Progress made but issues remain, some beyond the scope of DG- 1145
  - Plant-specific PRA issues
  - Environmental Report
  - Seismic
- Quality applications: meeting DG 1145 plus the SRP

# Conclusion

- NRC staff and industry working on developing predictable implementation processes for Part 52
- Continue to interact on:
  - Developing standardized COL applications
  - SRP Updates and Reg. Guide revisions and development, including DG-1145
  - I&C and Human Factors
  - Making further improvements to the licensing process
    - ◆ LWA rulemaking
- Industry believes that quality COL standardized applications could be reviewed and approved in 27 months
  - Benefit of intensive pre-application interactions (few RAIs)
  - Schedule for approval of second wave of standardized applications should be shorter



Union of  
Concerned  
Scientists

Citizens and Scientists for Environmental Solutions

**NUCLEAR REVIVAL**

**OR**

**NUCLEAR RE-RUN?**

**October 16, 2006**

**David Lochbaum**

**Director, Nuclear Safety Project**

# **ACRONYMS**

**AEC – Atomic Energy Commission**

**AEOD – Office of Analysis and  
Evaluation of Operational Data**

**ASP – Accident Sequence  
Precursor (i.e., “near-miss”)**

**BL – Bulletin**

**EA – Enforcement Action**

**FPC – Federal Power Commission** <sup>2</sup>

# **ACRONYMS** (cont)

**LER – Licensee Event Report**

**LLTF – Lessons Learned Task Force**

**GL – Generic Letter**

**H&I – Harassment and intimidation**

**IN – Information Notice**

**NEI – Nuclear Energy Institute**

# **ACRONYMS** (cont)

**NRC – Nuclear Regulatory  
Commission**

**QA – Quality Assurance (e.g, 10  
CFR 50, App. B stuff)**

**ROP – reactor oversight process**

**SALP – systematic assessment of  
licensee performance**

# **ACRONYMS** (cont)

**TVA – Tennessee Valley Authority**

**UCS – Union of Concerned  
Scientists**

REDACTED

# **REGULATORY VIEW**

**NRC, and AEC, did an excellent job of establishing regulations and expectations.**

**NRC, and AEC, did an inadequate job of enforcing regulations and expectations.**

# **VIEW BASIS**

**Example: Davis-Besse LLTF**

**Total of 51 recommendations for revised/expanded NRC processes**

**Overwhelming majority (43) involved enforcement, rather than establishment, of appropriate regulatory requirements.**

# **REGULATORY GOAL**

**NRC must match its high level of performance in establishing regulatory requirements with equal capability in enforcing those requirements.**

# **CONSTRUCTION PHASE QUALITY MIRROR**

**US House hearing 11-19-1981 on  
“Quality Assurance in  
Nuclearplant Construction”**

**Chairman Udall chronicled the  
quality assurance breakdowns  
at Diablo Canyon, South Texas  
Project and Zimmer and posed  
four questions.**

# **CONSTRUCTION PHASE QUALITY QUESTIONS**

**1) How did these quality assurance failings occur?**

**2) Why did these failings go so long undetected by the owner utilities and the NRC?**

# **CONSTRUCTION PHASE QUALITY QUESTIONS**

- 3) What is being done to minimize the likelihood of future failings of this kind?**
- 4) How are we to be sure that completed plants have in fact been constructed in accordance with the Commission's regulations?**

# **CONSTRUCTION PHASE QUALITY ANSWERS**

**1) How did these quality assurance failings occur?**

**Ineffective management.**

# **CONSTRUCTION PHASE QUALITY ANSWERS**

**2) Why did these failings go so long undetected by the owner utilities and the NRC?**

**Ineffective management and ineffective oversight.**

# **CONSTRUCTION PHASE QUALITY ANSWERS**

**3) What is being done to minimize the likelihood of future failings of this kind?**

**Failings were minimized by the phase-out of nuclear plant construction programs. Last nuclear plant licensed (Watts Bar) had failings.**

# **WATTS BAR RETROSPECTIVE**

**NRC issued operating license  
for Watts Bar on 02/07/1996.**

**TVA certified to NRC on  
02/20/1985 that Watts Bar was  
ready to license.**

**TVA “missed” by 4,004 days:  
longer than the desired  
licensing and construction time  
for new reactors.**

# **CONSTRUCTION PHASE QUALITY ANSWERS**

**4) How are we to be sure that completed plants have in fact been constructed in accordance with the Commission's regulations?**

**No such assurance. Sources:  
SECY-90-365, IN 92-65,  
AEOD/T97-01, IN 98-22, SECY-  
00-0141, NUREG-1275, RG 1.186**

# **VIEW BASIS REVISITED**

**The serious problems encountered at Diablo Canyon, South Texas Project, and Zimmer did not result from NRC having inadequate regulations, but from NRC have inadequate enforcement of adequate regulations.**

# **REGULATORY GOAL**

**NRC must match its high level of performance in establishing regulatory requirements with equal capability in enforcing those requirements.**

# **DESIGN & CONSTRUCTION ISSUES**

- **BWR offgas explosions BL 78-03**
- **Environmental qualification BL 79-01b**
- **Piping supports BL 79-02**
- **Counterfeit parts BLs 83-07 & 88-05**
- **Maine Yankee EA-96-299**

# **MORE DESIGN & CONSTRUCTION ISSUES**

- **Fire barrier systems BL 92-01**
- **ECCS pump clogging BLs 93-02, 95-02, 96-03, and 03-01, IN 96-59**
- **Steam generators IN 79-27, IN 80-36, IN 82-06, IN 82-14, IN 84-49, IN 85-65, BL 88-02, IN 88-31, IN 88-99, BL 89-01, IN 89-33, IN 89-65, GL 95-03, GL 97-06, IN 98-27, IN 01-16, IN 02-02**

# **CONSTRUCTION PHASE INSPECTIONS**

**NUREG-1789: *“Since the NRC has limited resources and uses a sampling inspection methodology, reduction in inspection effort may occur when reviews have identified effective program implementation that provides high confidence in the license’s quality control process.”***

# **CONSTRUCTION PHASE INSPECTIONS (CONT)**

**NO!**

**History of AEC/NRC oversight of nuclear plant construction and operation is a recurring theme of misplaced, unjustified confidence in licensee's processes.**

**Quit pinching pennies and losing millions!**

# **ITAAC**

## **NOTHING BETTER**

### **AEOD/T97-01, “Design Errors in Nuclear Power Plants”**

- 3,439 LERs with design errors between 1985 and 1995**
- 2% of LERs contained design errors significant enough to be reviewed under the ASP program**

# **ITAAC NOTHING BETTER**

**NUREG-1275 v14, “Causes and Significant of Design-Basis Issues at U.S. Nuclear Power Plants”**

- 70% of design errors 1985-1997 date back to original licensing**
- 60% of ASP events in 1997 involved design errors**

# **CONSTRUCTION PHASE OVERSIGHT**

**Regulatory oversight for existing reactors during their construction was conducted under SALP and its predecessors.**

**NRC tossed SALP and went to ROP for existing reactors. NRC needs construction phase ROP.**

# **CONSTRUCTION PHASE ROP**

**Because irradiated fuel won't yet be on site, a risk-based ROP would be all Green all the time. Thus, a performance-based ROP is needed during the construction phase to differentiate between adequate and inadequate outcomes.**

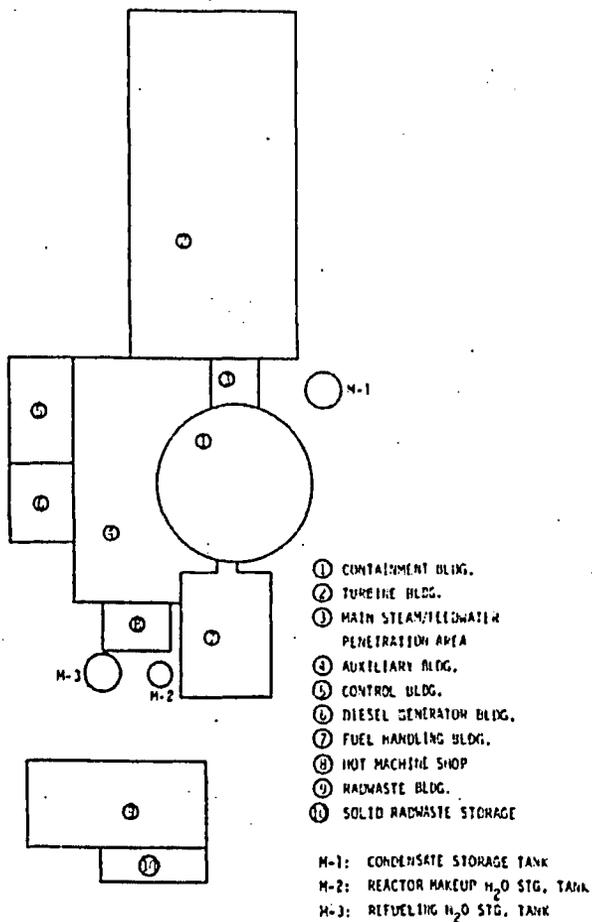
# **CONSTRUCTION PHASE GENERIC COMMUNICATIONS**

**Problems with generic implications identified along the frenetic, no-holds-barred construction schedules must be promptly communicated by NRC to all applicable entities.**

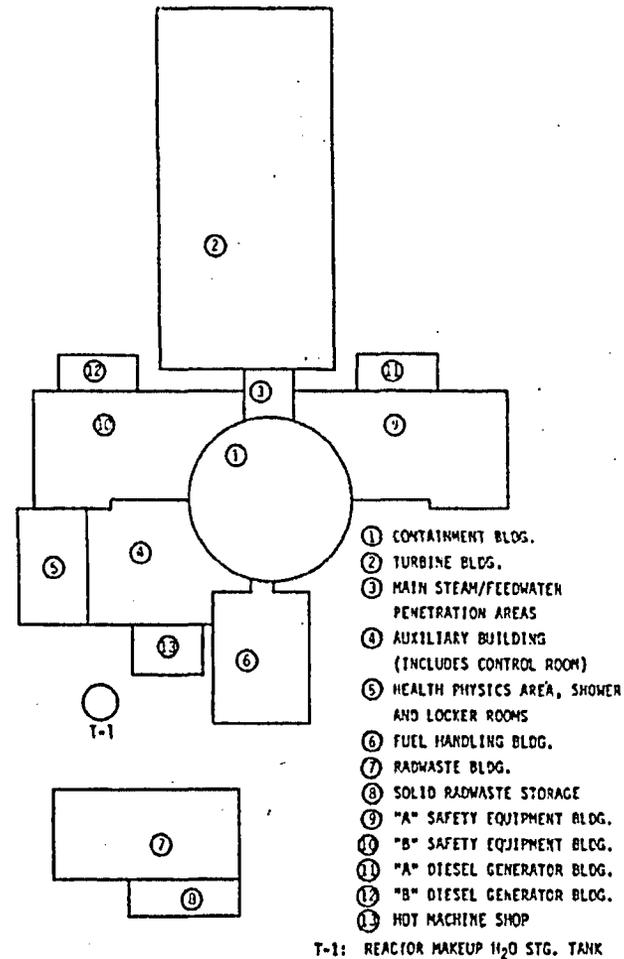
# **CONSTRUCTION PHASE SECURITY**

**At reactors under construction adjacent to operating reactor(s), NRC must require personnel and vehicle access controls long before fuel arrives onsite.**

# SECURITY BY DESIGN



Baseline Standard Plant



Modified Plant Layout: Separated Safety Buildings and Containment Penetrations

# **CONSTRUCTION PHASE DRUG-FREE WORKPLACES**

**Energy Policy Act provided subsidies for reactors, not opium dens. The drug and alcohol provisions of 10 CFR Part 26 must apply during construction to prevent recurrence of the ...**

# **CONSTRUCTION PHASE DRUG CULTURE**

**Huge and preventable problems afflicted Seabrook, Shearon Harris, and others during construction because lots of temporary workers with lots of cash lacked appropriate adult supervision.**

# **CONSTRUCTION PHASE SAFETY CULTURE**

**Huge and preventable problems afflicted Wolf Creek, Comanche Peak, Watts Bar, and others during construction because allegations were handled retrospectively rather than forthrightly.**

# **CONSTRUCTION PHASE ALLEGATIONS**

**NRC's investigations of H&I  
allegations are untimely.**

**Investigations into H&I  
allegations during construction  
need to be completed before  
startup, not by decommissioning.**

# **BACK TO THE FUTURE**

**To dispel any notion that these “sins of the past” have been corrected, consider:**

- vibration problems afflicting Quad Cities and Palo Verde**
- pressurizer heater design errors at Palo Verde and Waterford**
- faked surveillance tests at Byron**

# **REGULATORY GOAL**

**NRC must match its high level of performance in establishing regulatory requirements with equal capability in enforcing those requirements.**

# **BACKUP SLIDES**

# **NUCLEAR NUMBERS**

<b>Nuclear reactors ordered</b>	<b>253</b>
<b>Construction permits issued</b>	<b>175</b>
<b>Operating licenses issued</b>	<b>130</b>
<b>Operating licenses ended</b>	<b>26</b>

**Sources: NEI & NRC**

# NUCLEAR NUMBERS

Nuclear Power Plants Cancelled Since 1970

<p><b>1972 (4 PLANTS)</b> Perryman 1&amp;2 Verplank 1&amp;2</p>	<p><b>1978 - CONT'D</b> Blue Hills 1&amp;2 Sundesert 1&amp;2 South River 1, 2 &amp; 3 Atlantic 1, 2, 3 &amp; 4</p>	<p><b>1982 - CONT'D</b> Vandalla Black Fox 1&amp;2 (0%, 0%) Cherokee 2&amp;3 (0%, 0%) Hartsville B1&amp;2 (17%, 7%) Pebble Springs 1&amp;2 Phipps Bend 2&amp;3 (25%, 5%) WNP 4&amp;5 (24%, 16%) Perkins 1, 2 &amp; 3</p>
<p><b>1974 (7 PLANTS)</b> Tyrone 2 Quanicassee 1&amp;2 Vidal 1&amp;2 Vogtle 3&amp;4 (0%, 0%)</p>	<p><b>1979 (8 PLANTS)</b> Greene County Tyrone 1 (0%) New England 1&amp;2 Palo Verde 4&amp;5 Stanislaus 1&amp;2</p>	<p><b>1983 (6 PLANTS)</b> Cherokee 1 (18%) Clinch River (1%) Clinton 2 (0%) Harris 2 (4%) Skagit 1&amp;2</p>
<p><b>1975 (14 PLANTS)</b> Fermi 3 Pilgrim 3 Barton 3&amp;4 Fulton 1&amp;2 Orange 1&amp;2 St. Rosalie 1&amp;2 Somerset 1&amp;2 Summit 1&amp;2</p>	<p><b>1980 (16 PLANTS)</b> Forked River (6%) Haven 1 North Anna 4 (4%) Sterling (0%) Davis-Besse 2&amp;3 (0%, 0%) Erie 1&amp;2 Greenwood 2&amp;3 Jamesport 1&amp;2 (0%, 0%) Montague 2&amp;3 New Haven 1&amp;2</p>	<p><b>1984 (10 PLANTS)</b> River Bend 2 (0%) Zimmer 1 (97%) Hartsville A1&amp;2 (44%, 34%) Marble Hill 1&amp;2 (60%, 37%) Midland 1&amp;2 (85%, 85%) Yellow Creek 1&amp;2 (35%, 3%)</p>
<p><b>1976 (1 PLANT)</b> Allens Creek 2</p>	<p><b>1981 (6 PLANTS)</b> Bailly (1%) Callaway 2 (1%) Hope Creek 2 (18%) Pilgrim 2 Harris 3&amp;4 (1%, 1%)</p>	<p><b>1988 (2 PLANTS)</b> Carroll 1&amp;2</p>
<p><b>1977 (10 PLANTS)</b> Fl. Calhoun 2 Sears Isle Barton 1&amp;2 Douglas Point 1&amp;2 South Dade 1&amp;2 Surry 3&amp;4 (0%, 0%)</p>	<p><b>1982 (16 PLANTS)</b> Allens Creek 1 North Anna 3 (9%)</p>	<p><b>1989 (1 PLANT)</b> Seabrook 2 (23%)</p>
<p><b>1978 (14 PLANTS)</b> Haven 2 North Coast 1 Zimmer 2</p>	<p><b>1990 (1 PLANT)</b> Grand Gulf 2 (33%)</p>	

# **PUBLIC PARTICIPATION**

***“No evidence has been found to support industry statements that citizen opposition and regulatory changes have been the primary causes for rising costs, and construction delays.”***

**US House Committee on  
Government Operations**

# **INDUSTRY PARTICIPATION**

***“To the contrary, FPC statistics show that mismanagement is more of a determinant than regulatory changes and citizen opposition.”***

**US House Committee on  
Government Operations**

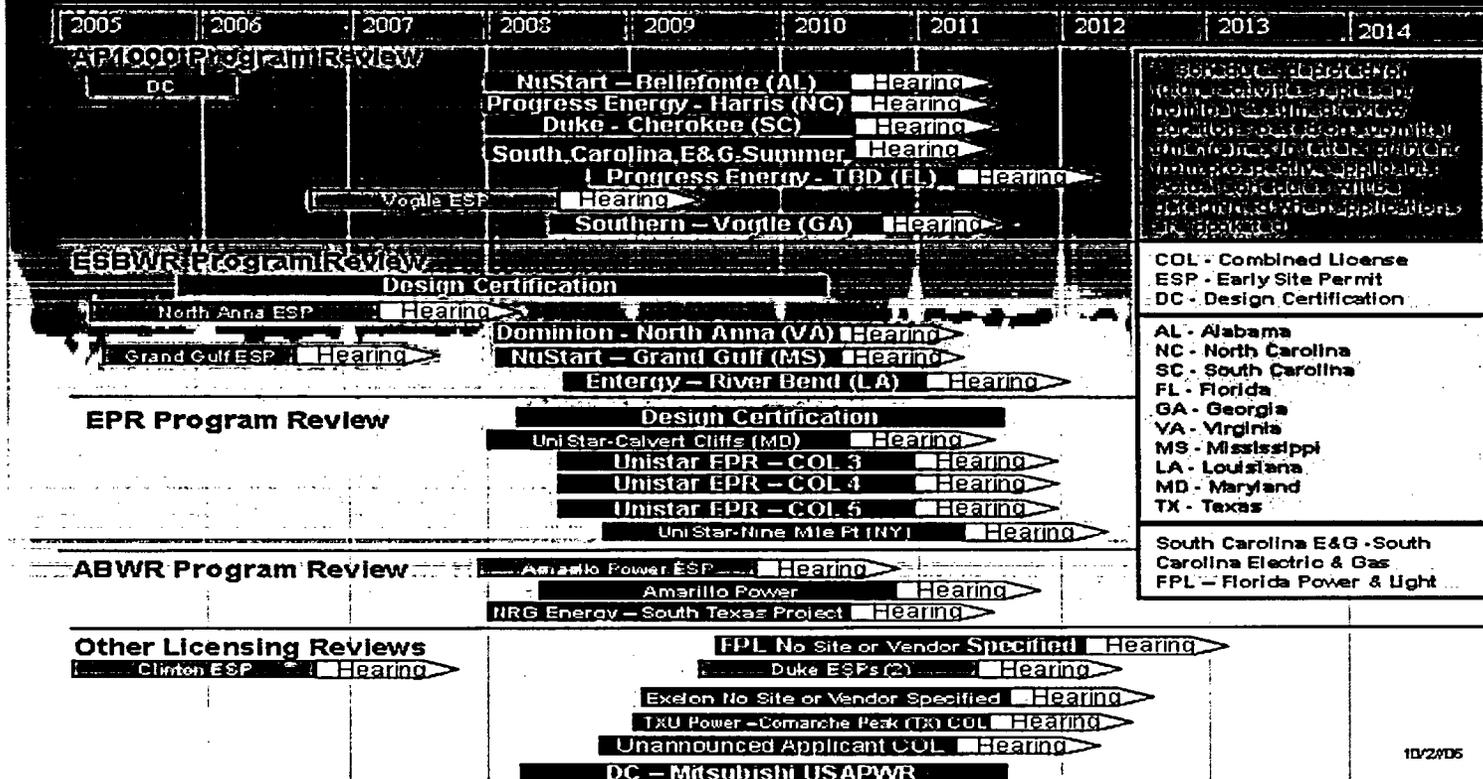
# **STATUS OF NEW REACTOR ISSUES**

**October 16, 2006**

**Luis Reyes, Executive Director  
for Operations**

# New Reactor Licensing Applications

An estimated schedule by Fiscal Year



10/2/06

# **Integrated Transition**

- **Success for both offices**
- **Balanced human resources**
- **Timed for:**
  - **Knowledge management**
  - **Completion of existing casework**
  - **Support of new applications**

# **Integrated Transition**

- **Strong management teams**
- **Supports consistency**
- **Applying lessons learned**
- **Hiring to Fiscal Year 2008 needs**

# **Qualification Plans**

- **Develop qualified regulators**
- **Train large numbers**
- **Apply standard process**
- **Transfer knowledge**

# **Current Application Review Activities**

- **Early site permits for Clinton, Grand Gulf, North Anna, and Vogtle**
- **ESBWR design certification**

# **Draft Guide - 1145**

- **Draft issued September 7**
- **Public comment period ending October 21**
- **Issue final guide with final rule, January 2007**

# **Standard Review Plan and Regulatory Guides**

- **Revise by March 2007**
- **Multiple public meetings**

# **Pre-application Review Activities**

- **Topical reports related to EPR, AP1000 designs, and Quality Assurance programs**

# **Pre-application Review Activities**

- **Inspections related to site characteristics for potential Combined License applicants**
- **Meetings with design-centered working groups**

# **Status of Rulemaking**

- **Part 52 final rule - due to Commission October 31, 2006**
- **Limited Work Authorization supplemental proposed rule - Staff Requirements Memoranda issued 10/2 (Public 10/3)**

# **Status of Rulemaking**

- **Security Assessment proposed rule sent to Commission 9/28**
- **Physical security proposed rule to be published late October**

# **Status of Rulemaking**

- **Fitness for duty final rule to Executive Director for Operations 12/18/2006**
- **Section 20.1406 proposed rule due to Commission 3/30/2007**

# **Integration and Coordination**

- **Business Process Integrator**
- **Outreach briefings:**
  - **Council on Environmental Quality**
  - **Congressional Staff**
- **Master Integrated Schedule**



# **Preparedness for New Reactors**

**October 16, 2006**

**Karen D. Cyr**

**General Counsel**

# **REORGANIZATION**

- **Created New Reactor Programs Division - April 2006**
  - **Provides advice and counsel to NRR/NRO on new reactor licensing matters**

# **STAFFING STRATEGIES**

## **Attorneys & Paraprofessionals -**

### **Continuous hiring process:**

- **Honor Law Graduate Program**
- **Lateral hiring**

# **READINESS STRATEGIES**

- **Establishing GG-15 team leader positions to supervise design-centered teams**
- **Enhancing office-wide training in core skills**

# **READINESS - cont.**

- **Enhancing Knowledge Management processes**
- **Plan for surge capacity from other divisions to accomplish work**