

**COMMISSION BRIEFING SLIDES**

**BRIEFING ON RISK-INFORMING  
SPECIAL TREATMENT REQUIREMENTS**

**JULY 20, 2001**



*United States  
Nuclear Regulatory Commission*

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**STP NUCLEAR  
OPERATING COMPANY  
EXEMPTION REQUESTS:**

**Proof-of-Concept for Risk-Informing  
10 CFR Part 50, Option 2**

**July 20, 2001**

# OVERVIEW

- STPNOC Exemption Requests
  - ✓ Review Effort and Results
  - ✓ Exemption Finding and Special Circumstances
  - ✓ ACRS Comments
- Option 2
  - ✓ Insights from STPNOC Exemptions
  - ✓ Status

# STPNOC REQUEST

- Exemptions From Special Treatment Requirements of 10 CFR Parts 21, 50, and 100
  - ✓ Low Safety Significant (LSS) and Nonrisk Significant (NRS) Safety-Related Structures, Systems, or Components
  - ✓ Includes Quality Assurance, Qualification, Repair, Replacement, Inspection, Testing, and Maintenance

# REVIEW EFFORT

- Final Safety Analysis Report
  - ✓ Licensing Basis for Exemptions
- Categorization Process
  - ✓ PRA and Expert Panel Insights
  - ✓ Risk Significance of Components
- Treatment Process
  - ✓ Functionality of Components

# REVIEW RESULTS

- STPNOC Categorization and Treatment Processes Described in Proposed FSAR Section Adequate to Support Exemptions
- Categorization Acceptable for Reducing the Scope of Components Subject to Special Treatment and for Exemptions Granted

# **REVIEW RESULTS** (con't)

- Treatment Includes Elements That, If Effectively Implemented, Will Result in Low Risk Safety-Related Components Remaining Capable of Performing Safety Functions Under Design-Basis Conditions

# EXEMPTION FINDING

- Relaxing Special Treatment Requirements Consistent with STPNOC's Proposal for Low Risk Safety-Related Components Poses No Undue Risk to Public Health and Safety



# **SPECIAL CIRCUMSTANCES**

- STPNOC's Categorization Process Is a Material Circumstance Not Considered When Special Treatment Regulations Were Adopted
- It is in the Public Interest to Grant the Exemptions
- Consult with Commission

# ACRS COMMENTS

# NEXT STEPS

- Address Comments
- Issue Exemptions in 2 Weeks
- Implementation of Exemptions

# OPTION 2 STATUS

- Insights from STPNOC Exemptions
- Option 2 Rulemaking Tasks Proceeding in Parallel:
  - ✓ Developing Rule Language
  - ✓ Working with Industry to Reach General Agreement on NEI 00-04 (Implementation Guidance)
  - ✓ Interacting with Industry on Pilot Activities

# OPTION 2 STATUS (con't)

- Expected Option 2 Challenges:
  - ✓ Translating STPNOC Lessons-learned into the Option 2 Framework
  - ✓ Addressing the Issue of PRA Quality
  - ✓ Ensuring the Framework Can Accommodate All Facilities and Situations (Existing, New, and Renewed Licenses)

## **OPTION 2 STATUS** (con't)

- Schedule of April 2002 to Provide Commission Proposed Rulemaking Package
  - ✓ Near Term Tasks(1-4 Months): Rule, Appendix T, NEI 00-04, PRA Issues, Pilot Activities
  - ✓ Medium Term Tasks (3–6 Months): Pilot Feedback, Guidance Revisions, Finalize Rule, Regulatory Analysis

## **OPTION 2 STATUS** (con't)

- ✓ Long Term Tasks (6-10 Months):  
Completion of Regulatory Analysis,  
Commission Paper

# **Option 2 - Risk-Informing Part 50 Special Treatment Requirements**

**Tony Pietrangelo, Director  
Risk and Performance-  
Based Regulation**

**July 20, 2001**



## **Overview**

- **NEI 00-04, Option 2  
Implementation Guidance**
- **Pilot Program**
- **10 CFR 50.69 Rule-Making**
- **Differences with STPNOC  
Exemption**
- **Conclusions**





## **NEI 00-04**

- **Comprehensive, detailed guidance on categorization**
  - **High-level elements on treatment**
- **General agreement w/ NRC staff in June on readiness to pilot**
- **Revisions will continue in parallel with pilot program**



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## **Pilot Program**

- **Primary purpose is to test adequacy of guidance**
- **Pilot plants: Quad Cities, Wolf Creek, Palo Verde, Surry**
- **Each will select 2-3 systems**
- **Estimate 6-12 months to complete**



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## **10 CFR 50.69**

- **ANPR published in March 2000**
- **Exemption requests unnecessary if rule-making is timely**
- **Industry perspective on schedule:**
  - **Proposed rule December 2001**
  - **Final rule December 2002**



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## **10 CFR 50.69**

- **Need(?) for Appendix T**
  - **Intent of no prior review laudable, but not realistic**
  - **Why use rule to codify categorization method?**
  - **Duplicative of regulatory guidance**



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## **Differences with STPNOC**

- **Exemption v. rule-making**
- **Implementation details**
  - **Existing regulatory framework covers most circumstances**
  - **No need to invent new change control mechanisms**

**NEI**

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## **Differences with STPNOC**

- **Envision less prescription and interaction on treatment of low safety-significant SSCs**
- **Categorization and sensitivity studies should demonstrate ample margin**

**NEI**

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## **Conclusions**

- **STP has demonstrated proof of concept for Option 2**
- **Expedite notice of proposed rule**
  - **Focuses interaction**
  - **Keeps management involved**
- **Clear need to proceed with Option 3 and Risk-informed Tech Specs**



# **SOUTH TEXAS PROJECT PRESENTATION TO THE NRC COMMISSIONERS**

**Joe Sheppard, Vice President  
Engineering & Technical Services**

**July 20, 2001**

## **Introduction**

- **STPNOC appreciates the Commission and staff focus on the Exemption submittal**
  - **this has been an extensive, evolving process**
  - **many open items were resolved because of frequent staff/STPNOC interactions**
  - **much groundwork has been established for future industry use**
- **STPNOC believes that the preliminary SER largely satisfies the intents that were originally set out to be achieved**

## **Preliminary SER**

- **STPNOC has reviewed the preliminary SER for factual errors and omissions**
- **Feedback provided to the staff on July 3**
- **A number of clarifications/corrections are needed**
  - **generally entails revisions to single sentences**
  - **no significant revision to the SER should be required**

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## **Preliminary SER**

- **STPNOC will continue to work closely with the staff to resolve these errors and omissions**
- **Editorial issues will generally not be addressed**
- **Do not expect an impact to the August 3 SER approval date**

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## **Implementation of SER Allowances**

- **Now the hard part starts...**
- **STPNOC will take a very deliberate, cautious approach in implementing the SER allowances**
- **Certain SSC treatments still have strong deterministic elements imposed**
- **Close interaction with industry and the staff will continue on implementation feedback and lessons learned**

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## **Future Actions**

- **STPNOC will continue to interact closely with NEI/industry on the Option 2 effort**
- **SER approval will send a strong message to industry on the Commission's commitment to risk-informed applications**
- **Although the SER requirements are workable for STPNOC, the requirements are too prescriptive for rulemaking**
- **Look forward to Option 2 rulemaking and risk-informing the regulations under Option 3**

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## **Conclusion**

- **STPNOC is anxious to receive the approved SER and begin the implementation journey**
- **Strong communication will be necessary to relay SER experience and lessons learned**
- **With approval of the SER, STPNOC looks forward to enhancing nuclear safety while reducing the burden on both STPNOC and the staff**

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