# PWROG Topical Report on the 50.69 Categorization Process

PWROG Presentation to NRC

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# Introduction to PWROG Topical Report on the 50.69 Categorization Process

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# Meeting Purpose

- Kick-off NRC review of the PWROG topical report on the 50.69 categorization process
  - Provide an overview of the topical report to assist NRC review
  - Summarize the PWROG process, as described in the topical report, that was used at Wolf Creek for categorization
  - Suggest areas for focus of NRC review
  - Discuss the NRC review schedule

# Importance of NRC Review

- Several licensees have expressed interest in implementing 50.69 in the 2008 time frame
  - Timely NRC review is important to these licensees
  - NRC acceptance of the PWROG categorization process using endorsed guidance provides confidence in the regulatory process
  - NRC feedback on the PWROG topical report content will facilitate future licensee submittals

# Wolf Creek Role in PWROG Process

- Wolf Creek was selected as the PWROG pilot plant for the 50.69 categorization process
  - The use of the Wolf Creek plant allows details of the categorization process to be illustrated
- WCNOC undertook extensive efforts including IDP
  - NRC observed the initial IDP in December 2003
  - NRC feedback was incorporated into the process used in the subsequent May 2004 IDP
- This is not a WCNOC submittal requesting approval to implement 50.69



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# Expected Results of the NRC Review

- The use of endorsed categorization guidance in the manner illustrated in the PWROG Topical Report is acceptable
  - Licensee submittals referencing the PWROG Topical Report should receive expeditious NRC review
- A definition of the level of categorization information expected for 50.69 submittals by other licensees
- Resolution of NRC issues with the Code Case N-660 revision currently being considered by ASME

# Details of Wolf Creek 50.69 Topical Report

## Bob Lutz

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# 10 CFR 50.69 Submittal Requirements

- 10 CFR 50.69 (b)(2) requires the following information to be submitted for NRC review prior to licensee implementation of the provisions of the rule
  - A description of the process for categorization of SSCs as RISC-1 through RISC-4
  - A description of the measures taken to assure the quality and level of detail in the processes used to evaluate the plant for internal and external events are adequate for the categorization of SSCs
  - Results of the PRA review process to meet 50.69 (c)(1)(i)
  - A description of, and basis for acceptability, the evaluations conducted to satisfy 50.69 (c)(1)(iv)



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# PWROG 10 CFR 50.69 Topical Report

- The PWROG topical report describes:
  - the process for categorization of SSCs as RISC-1 through RISC-4
  - the evaluations conducted to satisfy 50.69 (c)(1)(iv), and
  - the basis for acceptability of the evaluations
- The PWROG pilot topical report does not describe:
  - the quality and level of detail of the risk assessments used to evaluate the plant for internal and external events
  - the results of the PRA quality review process

# Basis for Review of Categorization

- The 50.69 requirements for submittal of the categorization process and the quality of the risk assessment used to support the categorization process can be treated separately
  - Both pieces are required before final NRC approval for implementation can be granted
- The PWROG process, as illustrated by Wolf Creek, can be the template for future licensees

# Level of Information for 50.69 Submittals

- The amount of information to be provided in the submittal is not specified in any guidance
  - PWROG approach in the Topical Report recognizes that additional information is needed at the pilot stage to permit NRC to develop review processes
  - The Topical Report contains WCNOC examples only to illustrate the categorization process
  - Future submittals can reference the SE on the PWROG Topical Report categorization process
- A template for categorization information to be included in submittal reports will be developed by industry based on the NRC review feedback

# WCNOC Systems Categorized

- Containment Spray System (EN)
  - System modeled in the PRA but mostly with Level 2 / LERF impact
  - Chosen to illustrate categorization of systems with minimal CDF impact
- Control Building Ventilation System (GK)
  - System with a significant number of components not modeled in the at-power PRA
  - Chosen to illustrate categorization of systems using qualitative criterion in the guidance



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# PWROG Topical Report Contents

- Categorization of Active Functions
  - Provides high level information related to the use of each section of NEI 00-04 and how it fulfills the categorization requirements of 50.69
- Categorization of Passive Functions
  - Provides high level information related to the use of each section of ASME Code Case N-660, Rev. 0 and exceptions taken based on draft revisions to the Code Case that are being considered by ASME
    - PWROG pilot used N-660
    - Although similar, N-752 was not developed until after the categorization was completed

# PWROG TR Contents (continued)

- Risk Categorization Basis
  - A Reg Guide 1.200 PRA review is not included in this report,
  - The results of the categorization are dependent on the PRA; the process is not
- Program Documentation and Change Control
  - Provides an example of the processes for documentation and change control

# PWROG TR Contents (continued)

- Periodic Updates
  - Provides an example of the processes for future categorization updating based on changes to plant equipment and operations
  - Provides an example of the processes to be used to monitor the performance of components in categorized systems
- Application of RISC-3 Treatment Requirements
  - Presents an example commitment to control the design, procurement, etc. of RISC-3 SSCs to provide reasonable confidence ….
- Differences in Guidance
  - Discusses the differences from NRC endorsed categorization guidance



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# Suggested Focus for NRC Review

## Jason Brown

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# Adherence to NEI 00-04

- WCNOC categorization followed the April 2004 draft of NEI 00-04
- Differences between the endorsed version of NEI 00-04 and the April 2004 version used in the WCNOC categorization were determined to be of no impact
  - WCAP-16308-NP identifies all differences in the NEI 00-04 guidance and the basis for finding “NO IMPACT”

# Adherence to ASME Code Case N-660

- WCNOC categorization followed endorsed ASME N-660 Code Case, Rev. 0 with only a few exceptions
- Differences between the endorsed version of N-660, Rev. 0 and the version used in the WCNOC categorization were assessed
  - WCAP-16308-NP identifies all changes in the N-660 Code Case guidance and the basis for the change

# Suggested Areas for NRC Review Focus

- The passive categorization process to resolve NRC comments on the proposed changes to Code Case N-660
  - Resolution of an acceptable passive categorization is key to future submittals
  - Based on similarities, resolution of NRC issues with PWROG pilot use of N-660 should also apply to N-752
- The qualitative categorization processes for functions and SSCs not modeled in the PRA

# Other areas of NRC review

- The following areas are a straight-forward application of endorsed guidance
  - Assembly of plant specific inputs
  - System engineering assessment
  - Component safety significance assessment
  - Risk sensitivity assessment

# CONCLUSIONS

## Biff Bradley

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# PWROG 50.69 Topical Report

- The PWROG 50.69 Topical Report categorization follows endorsed guidance with only a few exceptions that are well documented
  - Satisfies the requirements in the 50.69 rule
  - Satisfies the guidance in Reg Guide 1.201
- The PWROG 50.69 Topical Report documents the categorization process that can be used by licensees in implementing 50.69

# Expected Results of the NRC Review

- The use of endorsed categorization guidance in the manner illustrated in the PWROG Topical Report is acceptable
  - Licensee submittals referencing the PWROG Topical Report should receive expeditious NRC review
- A definition of the level of categorization information required for 50.69 submittals by other licensees
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# NRC Review Process Suggestions

- Timely NRC review is required for other licensees to make a positive decision for 50.69 (See next slide)
  - NRC review completion in 2007 would facilitate future licensee submittals in late 2007 or early 2008
  - Industry resources are available to quickly respond to NRC questions
- Identification of industry and NRC points of contact
  - Industry overall POC – Biff Bradley, NEI
  - Industry lead technical contact - Bob Lutz, Westinghouse
  - NRC Management champion - ??
  - NRC Project Manager – Tanya Mensah
  - NRC lead technical contact - ??

# Suggested Review Process / Schedule

- April / May 2007
  - Meeting to discuss technical issues identified in early review
- June / July 2007
  - Draft RAIs / Meeting to discuss technical issues
- August 2007
  - Formal RAIs (if required)
- September 2007
  - Industry RAI responses / Meeting to discuss responses
- October / November 2007
  - Draft SE for industry review
- December 2007
  - Final SE