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NUCLEAR INNOVATION NORTH AMERICA LLC
(South Texas Project Units 3 and 4) United States Nuclear Regulatory Co





### **Combined License Application Review** STP Units 3 and 4

**Safety Panel 1 November 19, 2015** 

#### **Panelists**

- Tom Tai Senior Project Manager
- Richard Turtil Senior Financial Analyst
- Dinesh Taneja Senior Electronics Engineer

#### **Departures Summary**

- Total departures 275
- Departures Tier 1, Tier 2\*, Tier 2
   and Technical Specifications (TS)
- Tier 1, Tier 2\*, and TS departures require NRC approval
- Tier 2 departures generally do not require NRC approval

#### **Tier 1 and TS Departures**

- Tier 1 departures depart from certified portion of design
- TS departures depart from ABWR Technical Specifications
- Exemptions are required for Tier
   1 and TS departures

#### Tier 2\* and Tier 2 Departures

- Tier 2\* departures require NRC approval but do not require an exemption
- Tier 2 departures use 50.59-like change process
- One Tier 2 departure required prior NRC approval

#### **Tier 2 Departures**

- Staff confirmed it was reasonable that Tier 2 departures do not require NRC approval
  - Applied 50.59-like criteria
  - Examined applicant's process
  - Some requests for additional information

#### **Exemptions**

- Exemption request for material control and accounting
- Exemption request for financial qualifications

### **Examples Covered In This Presentation**

- Exemption request financial qualifications
- Tier 1 departure STD DEP 3.4-1,
   Safety Related I&C Architecture

### Current Regulatory Framework for Financial Qualifications

- Current requirements in 10 CFR 50.33(f) and Part 50, Appendix C
- COL applicants must possess or have reasonable assurance of obtaining the funds to cover construction and operation costs

### Challenges With Current Standard

- Applicant could not meet current requirements and requested a more flexible approach
- SECY-13-0124 provided policy options for Commission action

#### **SRM on SECY-13-0124**

- Change Part 50 by rulemaking to use Part 70 standard
- Applicants can rely on license conditions
- Consider granting exemptions during pendency of rulemaking, but exemptions must anticipate the outcome of the rulemaking

#### **Draft Regulatory Basis**

- Draft Regulatory Basis addressed new Part 70 standard
- Staff discussed draft proposed requirements with public and solicited comment
- Comments supported change in financial qualification standard

#### **Financial Capacity**

- Reflects applicant's understanding of project size and scope
- Is not a predictive finding that applicant will obtain financing
- Supports staff's determination that applicant appears to be financially qualified

#### **NINA Exemption Request**

- NINA provided:
  - Reasonable cost estimates for construction and operation
  - Acceptable Financial Capacity Plan
  - License conditions ensuring adequate funding prior to construction and operation

#### **NINA Exemption Request**

- NINA meets the proposed standards in the Draft Regulatory Basis
- NINA satisfies the requirements for an exemption
- NINA's exemption request should be granted

## Tier 1 Departure On I&C Architecture

- Selection of digital instrumentation and control (I&C) platforms resulted in changes to I&C architecture
- Data communication design changed the most

## Tier 1 Departure On I&C Architecture

- Diverse digital platforms are used for the Engineered Safety
   Features System and the Reactor
   Trip System
- Changes enhance protection against failures

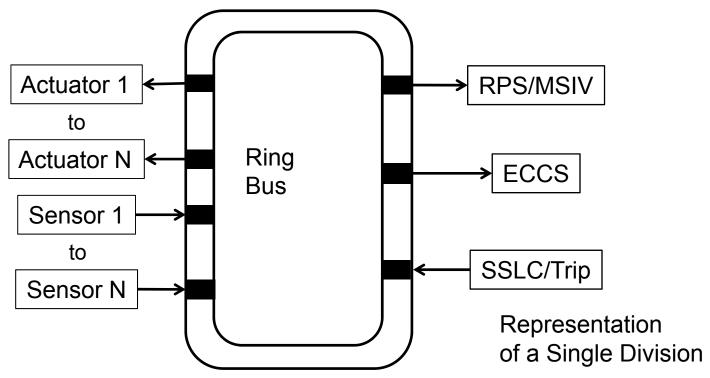
## Tier 1 Departure On I&C Architecture

- Review based on <u>current</u> regulations and staff guidance
- Staff concluded the modified I&C design conforms with current requirements

#### **Questions?**

### **Backup Slides**

# Certified U.S. ABWR Ring Bus Design



# STP Point-to-Point Data Communication Design

