



Turkey Point Unit 3 and Unit 4

Reactor Protection System Engineered Safety Feature Actuation System Nuclear Instrumentation System Replacements

**Safety System Replacement Project LAR
NRC 9th Pre-submittal Meeting Telecon**

April 13, 2022

CLOSED MEETING



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Agenda – Closed Session

- **License Amendment Request (LAR) Content**
- **Alternate Review (AR) Process Deviations**
 - Pre-Submittal
 - Defense-in-Depth and Diversity Submittal
 - Supplements
 - Scope
 - Schedule
 - Technical Specification Surveillance Reduction
- **Project Schedule Review**
 - HFE specific activities with emphasis on PV2
 - Overall Phase Schedule
 - SER requested issuance
- **Questions and Comments**

Introductions – On the Call today

Florida Power & Light

- **FPL Nuclear Licensing**
 - Steve Catron – Licensing Fleet Director
 - Jarrett Mack – Fleet Licensing Lead
- **FPL Nuclear Engineering**
 - Brian Dunn – Director – Fleet Design
 - Phillip Barnes – Design Manager
 - Wesley Frewin – Digital Design Supervisor
 - Warren Busch – Project Engineer
- **FPL PTN Operations**
 - Jim Goodrich – Unit Supervisor

Contract and Support

- **Framatome**
 - Brian Haynes – Licensing Lead
 - Ted Quinn – Licensing Engineer
 - Jacek Novakowski – Human Factors Lead
 - Bill Hannaman – Licensing Engineer (HFE)
- **Sargent & Lundy (3rd Party review)**
 - Pareez Golub
 - John McCague

Submitted Documents per ISG-06, Rev 2 AR Process

RPS/ESFAS/NIS LAR Table of Contents (1 of 4)

- **Intro/Justification/Safety Analysis**
- **Detailed Description**
- **Technical Evaluation**
 - Existing Plant System Description (D1)
 - Existing and New Architecture (D2)
 - New Safety System Equipment
 - New System Functions (D2.3)
 - Functional Allocation (D2.4)
 - New Augmented Quality System Functions
 - System Interfaces (D2.5)
 - Defense-In-Depth and Diversity (D2.6)
 - Setpoint Methodology and Calculations (D2.7)
 - Response Time Performance

Submitted Documents per ISG-06, Rev 2 AR Process

RPS/ESFAS/NIS LAR Table of Contents (2 of 4)

- **Technical Evaluation (Cont.)**
 - Summary System Development Process (D.4)
 - Equipment Qualification (D.3)
 - Applying a Referenced Topical Report (D.5)
 - Tricon Plant Specific Action Items (D.5)
 - Human Factors Engineering (B.1.4)
 - Tests and Self Diagnostics
 - System Failure Analysis
 - Fundamental Design Principles in the new Architecture
 - Compliance with IEEE Std. 603-1991 and IEEE 7-4.3.2-2003 (D.6)
 - NRC ISG-04 Compliance Matrix
 - Reliability
 - Secure Development and Operational Environment (D.8)

Submitted Documents per ISG-06, Rev 2 AR Process

RPS/ESFAS/NIS LAR Table of Contents (3 of 4)

- **Technical Evaluation (Cont.)**
 - Summary of Vendor Oversight Plan (C2.2)
 - Technical Specification Surveillance Reduction (a non ISG-06 item)

- **Regulatory Evaluation Basis**
 - Applicable Regulatory Requirements/Criteria
 - Precedent
 - No Significant Hazards Consideration Analysis
 - Environmental Consideration Analysis
 - Conclusions

Submitted Documents per ISG-06, Rev 2 AR Process

RPS/ESFAS/NIS LAR Table of Contents (4 of 4)

- **ATTACHMENTS**

- Markup Technical Specification Pages
- Markup Technical Specification Bases (Information Only)
- Tricon Topical 4.3 and SVDU 2.0 Qualification Summary Reports

- RPS/ESFAS/NIS System Requirements Specification (SyRS)
- Technical Specification Surveillance Reduction Report/FMEDA
- Framatome Affidavit in support of Attachments
- Listing of Regulatory Commitments

End of Topic

Alternate Review Process Deviations

Human Factors Engineering – LAR Content

Project Schedule



Action Items and Follow-up for April 13th Closed Meeting

- **Action Items and Follow-up**



Questions?



Acronym List

Alternate Review	AR
Conceptual Design Test	PV1
Defense-in-Depth and Diversity	D3
Engineered Safety Features Actuation System	ESFAS
Failure Modes, Effects and Diagnostic Analysis	FMEDA
Florida Power and Light	FPL
Human Factor Engineering	HFE
Institute of Electrical and Electronic Engineers	IEEE
Integrated System Validation	ISV
Interim Staff Guidance	ISG
License Amendment Request	LAR

Acronym List (continued)

Nuclear Instrumentation System	NIS
Nuclear Regulatory Commission	NRC
Preliminary Design Test	PV2
Reactor Protection System	RPS
Safety Evaluation Report	SER
System Requirements Specification	SyRS
Safety Visual Display Unit	SVDU
Turkey Point	PTN
Vendor Oversight Program	VOP

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