

Robinson Nuclear Plant

24 Month Fuel Cycle Pre-Submittal Meeting
April 20, 2016 1:00 to 3:00 PM



Agenda

Opening Remarks/Meeting Objectives

Project Update/LAR Submittal Schedule

LAR Content

Closing Remarks

Duke Attendees

Jim Kammer	RNP Eng General Manager
Gary Swider	RNP 24 Month Fuel Cycle Project Lead
Jeff Mungo	RNP 24 Month Fuel Cycle Project Lead Eng
Geoff Pihl	Nuclear Fuels Eng Radiological Eng Manager
Scott Connelly	RNP Licensing

Opening Remarks

Introductions

Meeting Objectives :

- Common understanding of the proposed scope of the Robinson LARs for 24 Month Fuel Cycle and AST
- Provide overview of Duke efforts to develop LARs
- Update any regulatory positions on issues specific to the LARs
- Discuss LAR schedule from submittal to NRC approval

24 Month Fuel Cycle LAR Content

RNP Summary Engineering Change

- Modeled after requirements of GL 91-04 and other LARs
- Documents all changes and acceptability
 - Surveillances Extensions
 - Steam Generator Inspections
 - Appendix J Surveillances (LAR submitted to Option B in November 2015)

LAR Content (continued)

Drift and Uncertainty Methodology

- Engineering Change document was developed for Time Dependent Analyzed Drift (AD)
- Utilization of EPRI TR-103335 Rev 1 and 2
- Addresses seven items identified in Enclosure 2 of GL 91-04
- Use of Industry experts in Drift analysis
- Methodology similar to Oconee

24 Month Fuel Cycle LAR Content (continued)

Instrument Drift Analysis/Failure Review Methodology

- Reviewed of 10+ years of Previous Calibrations
- Statistical analysis to demonstrate extended interval acceptable
- Reviewed of 10+ years of Corrective Maintenance
- Dispositioned all found failures and assessed to ensure no significant plant impact due to longer Tech Spec interval

Fuel and Core Design

Core Design

- Removal of partial length shield assemblies (PLSAs) and implementation of mid-enriched blankets

Fuel Design

- Change to standardized design with larger pellet diameter

AST LAR Content

Analyses

- AST analyses revised in accordance with RG 1.183
- Source Term changes include addressing:
 - 24 month fuel cycle effects added
(source term will cover current 18 month fuel cycle and new 24 month fuel cycle)
 - Removal of PLSAs
 - Allowance to exceed RG 1.183 Table 3 Footnote 11 peaking requirements -
New gap fractions for these pins determined using ANS 5.4 [2011]
- Dose analysis changes from Current Licensing Basis:
 - New Rod Ejection analysis allowing fuel failure

LAR Content (continued)

Precedent LARs –

Oconee 1,2,3 -	Adams ML101330499	LAR Submittal
	Adams ML110480489	RAI response
	Adams ML11124A126	RAI Response
	Adams ML11203A018	RAI Response
	Adams ML091620074	Information
	Adams ML12086A289	Amendment Issuance
Indian Point 2,3 -	Adams ML100320955	LAR Submittal
	27 associated Adams documents	
Catawba, McGuire, Oconee (all units) – New AST Gap Fractions		
	Adams ML15196A093	LAR Submittal

Project Timeline/LAR Submittal Date

RNP 24 Month Fuel Cycle Project started	May 2014
RNP LARs Submittal	Summer 2016
Seeking NRC Approval Date	Late Summer 2018
24 Month Fuel Cycle Implementation	Fall 2018 RO32

Closing Remarks
