



**U.S.NRC**

UNITED STATES NUCLEAR REGULATORY COMMISSION

*Protecting People and the Environment*

**EPR Design Centered Working  
Group Public Meeting**

**October 30, 2008**

**NRC/NRO/DNRL/NARP  
Presentation**

# **SCOLA Acceptance Review Status**

Nine Mile Point – P. Chowdhury

Bell Bend – M. Conova

Callaway – S. Arora

## **Nine Mile Point 3 SCOLA**

- Application by Nine Mile Point 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC: **Sept. 30, 2008**
- Application on NRC Public Site: **Oct. 20, 2008**
- NRC Press Release (No. 08-193) Issued: **Oct. 21, 2008**
- Supplement on Figures 8.1-1, 8.2-1, 8.3-1 thru 6 Received: **Oct. 24, 2008**
- Federal Register Notice (on SCOLA Availability) Published: **Oct. 28, 2008**
- Acceptance Review ongoing



# Bell Bend Nuclear Power Plant SCOLA

- Application received on October 10, 2008
- Application files placed in ADAMS w/only minor NRC-promulgated redactions required (5 files). SUNSI complete.
- Public Web page available as of 10/29/2008
- Current Review Status:
- Docketing Decision Targeted: Dec. 16, 2008

# Callaway SCOLA Acceptance Review Status

- Application Received by NRC: July 28, 2008
- Acceptance Review Started: August 5, 2008
- Sufficiency & Quality Issues identified in Geology and Seismology sections of the SCOLA
- AmerenUE Issued Supplement for Section 2.5 on September 24, 2008.
- The Supplement did not fully address Issues.
- Status Letter Issued by NRC: October 16, 2008
- AmerenUE to issue Revision by: November 17, 2008
- Docket Decision : Deferred until Issues Resolved



# **Calvert Cliffs Nuclear Power Plant Unit 3 RCOLA Review Status**

**J. Rycyna**

# Safety RAI Status

- Issued 27 RAIs to UniStar with 85 questions.
- UniStar answered 39 questions within 30 days and asked for up to 90 more days for 17 of them.

# Environmental RAIs

- 363 total RAIs, each is one question
- About two dozen being developed, mainly about cultural and historical resources, new alternate site and relocation of intake structures.



## Submittal Status

Item	Status
COLA Revision 3, Includes all EP documents and Geology figures	Submitted 8/4, second replacement DVDs rejected by ADAMS
Core Borings	Due 9/30, 10/10, Full Report 11/26
Issues with EdF and MidAmerican Ownership	Estimated 1/31/09

# Submittal Status

Item	Status
Intake Structure Move COLA effects	Due 10/31
RAIs 1,2,3,4,5 (2.3) unanswered questions	Due 10/31
RAI 9 (2.2.3) unanswered questions	Due 11/6
RAIs 14 through 27	Due 10/31 - 11/21

## **DC Schedule Constraints on RCOL Schedule**

- SER with Open Items, target is 11/20/09
- Advanced SER with no Open Items, target is 11/10
- Final SER, target is 5/11

## **Schedule Milestones, with Management Reserve**

- Phase 1 Completion - June 16, 2009
- Phase 2 Completion - February 17, 2010
- The following are tentative.
- Phase 3 Completion - May 2010
- Phase 4 Completion - February 2011
- Phase 5 Completion - June 2011
- Phase 6 Completion – August 2011

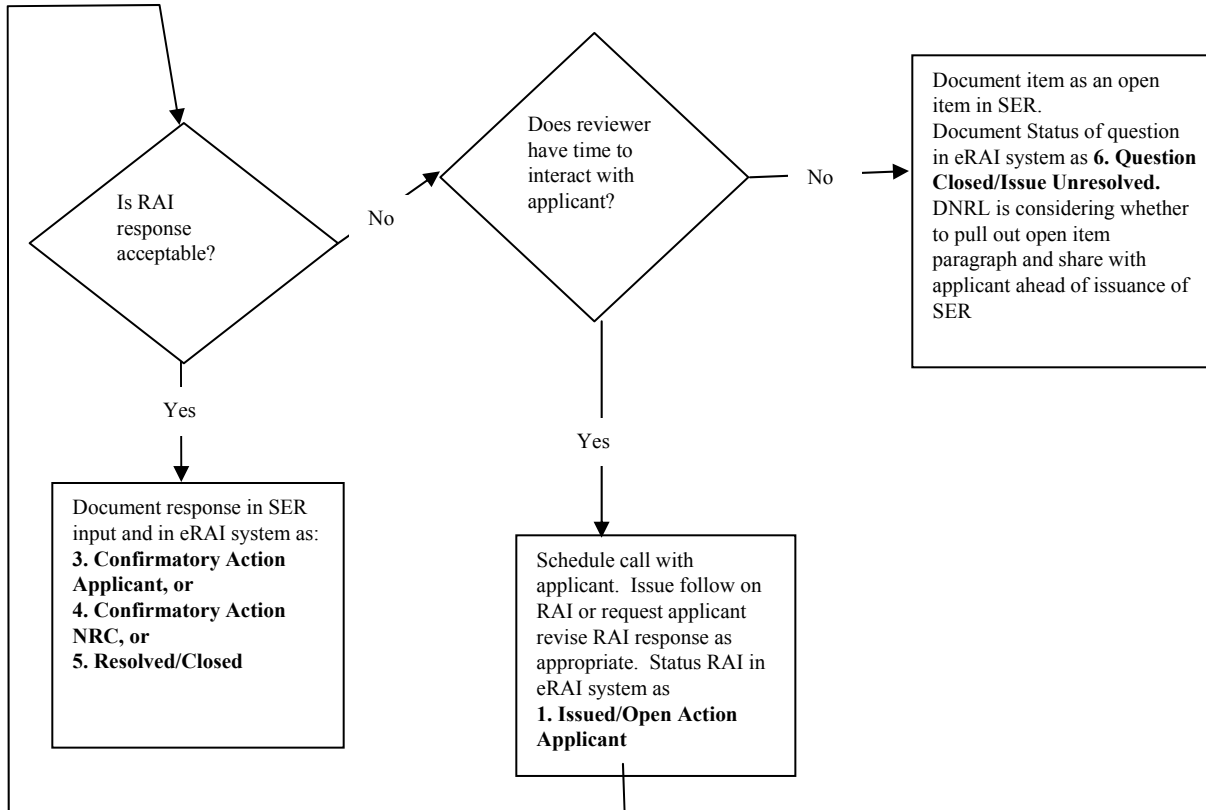
# Challenges to the Review Schedule

- Multiple Supplements and Submittals
  - At least 17 since July 2007
- Missed dates for submittals
  - Four supplements have not met UniStar defined due dates since June 30
- Electronic submittals not appropriate for ADAMS
  - March 14 submittal, multiple iterations
  - Environmental RAI responses
  - August 4 Revision 3 submittal, multiple iterations, still not satisfactory in October

# Summary and Next Steps

- The Calvert Cliffs Review Schedule is tied to AREVA DC Review Schedule.
- Uncertainties for the RCOLA review are under UniStar's control.
- RAI responses have typically been timely.

# Status of an RAI after Applicant Responds



# Status of an RAI after Applicant Responds

- The status flags and explanation for each flag are provided below.\*
- **Issued/Open Action applicant:** The question has been issued to the applicant and the NRC is waiting for a response form the applicant.
- **Responded:** The applicant has provide a response to the question
- **Confirmatory Action Applicant:** The applicant has responded the question. The NRC has reviewed the response and agree with the response but some actions included as part of the response is not complete (e.g., A FSAR change is not formally submitted)
- **Confirmatory Action NRC:** The response to the question is acceptable but the NRC wants to verify/confirm that the application contains the information to close the issue. This is NRC staff's activity and no additional information is required from the applicant.
- **Resolved/Closed:** The NRC has accepted the response and no additional issues or concerns are remaining for that question.
- **Question closed/Issue Unresolved:** Question Closed means that the question can be closed if it is related a similar question or superseded by another question. Issue unresolved means that the issue within the question is not resolved and may become an open item in the SER.
- \* **Status is not a final determination by NRC. For example, during the internal review of an SER section a previously closed issue may be reopened.**



# **EPR Design Certification Review Status**

**G. Tesfaye**

# **EPR Design Certification Review Status**

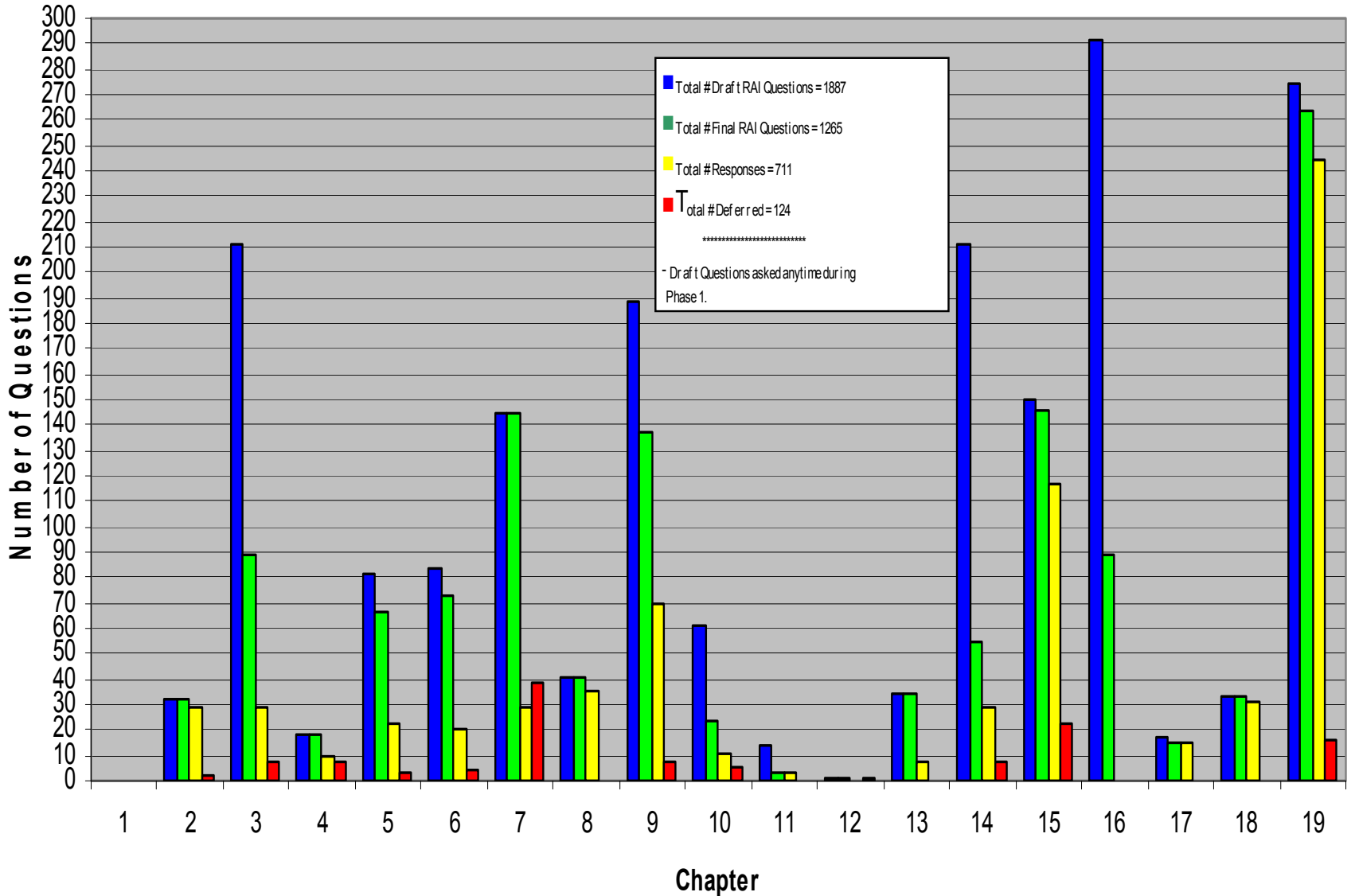
- EPR Phase 1 review (03/19/08-01/28/09)
  - Chapters 2, 7, and 18 done
  - Chapters 10, 13, 16 will be completed shortly
  - The rest of the chapters are on or close to the published schedule for completion.
- Phase 2 review (05/27/2008-11/20/2009)
- Phase 3 review (03/06/2009-03/05/2010)
  - ACRS Presentation will be made in four groups as Phase 2 is completed.

ID	Task Name	Start	Finish	2008				2009				2010				2011				2012
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
				1	Design Certification Review - AREVA- EPR	Wed 3/19/08	Sun 2/5/12													
2	Acceptance Decision	Wed 3/19/08	Wed 3/19/08																	
3	Acceptance Decision to Proceed with Safety Review	Wed 3/19/08	Wed 3/19/08																	
4	Safety Review	Wed 3/19/08	Mon 5/2/11																	
5	Phase 1 - PSER and RAIs	Wed 3/19/08	Wed 1/28/09																	
6	Phase 1 PM Support	Wed 3/19/08	Tue 1/27/09																	
7	P1 - PSER and RAI Preparation	Wed 3/19/08	Wed 1/28/09																	
8	P1 - Chap 1.0 Introduction and General Description	Wed 3/19/08	Tue 1/6/09																	
15	P1 - Chap 2.0 Site Characteristics	Wed 3/19/08	Fri 8/29/08																	
51	P1 - Chap 3.0 Design of Structures, Components and Systems	Wed 3/19/08	Fri 1/2/09																	
94	P1 - Chap 4.0 Reactor	Wed 3/19/08	Tue 1/6/09																	
106	P1 - Chap 5.0 Reactor Coolant System and Components	Wed 3/19/08	Tue 1/6/09																	
128	P1 - Chap 6.0 Engineered Safety Features	Wed 3/19/08	Tue 1/6/09																	
153	P1 - Chap 7.0 I&C Systems	Wed 3/19/08	Thu 8/28/08																	
169	P1 - Chap 8.0 Electric Power	Wed 3/19/08	Tue 11/25/08																	
180	P1 - Chap 9.0 Auxiliary Systems	Wed 3/19/08	Tue 1/6/09																	
213	P1 - Chap 10.0 Steam and Power Conversion	Wed 3/19/08	Mon 10/20/08																	
232	P1 - Chap 11.0 Radioactive Waste Management	Wed 3/19/08	Mon 11/24/08																	
243	P1 - Chap 12.0 Radiation Protection	Wed 3/19/08	Fri 12/19/08																	
253	P1 - Chap 13.0 Conduct of Operations	Wed 3/19/08	Mon 10/20/08																	
270	P1 - Chap 14.0 Initial Test Program	Wed 3/19/08	Tue 1/6/09																	
288	P1 - Chap 15.0 Safety Analysis	Wed 3/19/08	Tue 1/6/09																	
310	P1 - Chap 16.0 Technical Specifications	Wed 3/19/08	Fri 10/17/08																	
322	P1 - Chap 17.0 Quality Assurance	Wed 3/19/08	Wed 12/10/08																	
331	P1 - Chap 18.0 Human Factors	Wed 3/19/08	Fri 8/8/08																	
350	P1 - Chap 19.0 Severe Accidents/Probabilistic Risk Assessment	Wed 3/19/08	Wed 12/10/08																	
359	Phase 1 - Draft input for PSER and RAIs Complete	Mon 12/15/08	Mon 12/15/08																	
360	Phase 1 - PSER and RAIs Complete	Tue 1/6/09	Tue 1/6/09																	
361	SER Phase 1 Managed Reserve	Wed 1/7/09	Wed 1/28/09																	
362	Phase 1 Complete - PSER and RAIs (with Mgmt Review)	Wed 1/28/09	Wed 1/28/09																	

ID	Task Name	Start	Finish	2008				2009				2010				2011				2012
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
363	Phase 2 - SER with OIs	Tue 5/27/08	Fri 11/20/09																	
364	P2 - PM Support	Tue 5/27/08	Mon 9/28/09																	
365	P2 - Section and Chapter Preparation	Tue 5/27/08	Mon 8/24/09																	
366	P2 - Chap 1.0 Introduction and General Description	Mon 1/12/09	Fri 8/21/09																	
376	P2 - Chap 2.0 Site Characteristics	Mon 7/28/08	Tue 1/20/09																	
415	P2 - Chap 3.0 Design of Structures, Components and Systems	Mon 6/2/08	Mon 8/24/09																	
461	P2 - Chap 4.0 Reactor	Mon 9/8/08	Mon 8/24/09																	
476	P2 - Chap 5.0 Reactor Coolant System and Containment	Mon 8/18/08	Mon 8/24/09																	
501	P2 - Chap 6.0 Engineered Safety Features	Mon 8/18/08	Mon 8/24/09																	
529	P2 - Chap 7.0 I&C Systems	Mon 9/8/08	Thu 1/15/09																	
548	P2 - Chap 8.0 Electric Power	Mon 12/8/08	Fri 4/10/09																	
562	P2 - Chap 9.0 Auxiliary Systems	Tue 5/27/08	Mon 8/24/09																	
598	P2 - Chap 10.0 Steam and Power Conversion	Tue 9/2/08	Mon 3/2/09																	
620	P2 - Chap 11.0 Radioactive Waste Management	Wed 10/15/08	Thu 4/9/09																	
634	P2 - Chap 12.0 Radiation Protection	Mon 12/29/08	Mon 5/4/09																	
647	P2 - Chap 13.0 Conduct of Operations	Mon 7/28/08	Tue 4/28/09																	
666	P2 - Chap 14.0 Initial Test Program	Mon 6/30/08	Mon 8/24/09																	
687	P2 - Chap 15.0 Safety Analysis	Mon 7/28/08	Mon 8/24/09																	
712	P2 - Chap 16.0 Technical Specifications	Mon 10/27/08	Fri 3/6/09																	
727	P2 - Chap 17.0 Quality Assurance During Design	Mon 7/28/08	Fri 8/7/09																	
739	P2 - Chap 18.0 Human Factors	Mon 8/18/08	Fri 12/26/08																	
761	P2 - Chap 19.0 Severe Accidents/Probabilistic Risk Assessment	Mon 10/20/08	Fri 8/7/09																	
773	P2 - Appendices	Tue 7/28/09	Fri 8/7/09																	
780	P2 - SER with OI Document Completion	Mon 8/24/09	Wed 9/30/09																	
781	Phase 2 - SER with OIs Chapter Input Complete	Mon 8/24/09	Mon 8/24/09																	
782	P2 - SER with OI PM and LA review and edit	Tue 8/25/09	Thu 9/3/09																	
783	P2 - NRO division and external concurrence	Fri 9/4/09	Fri 9/11/09																	
784	P2 - OGC review comment and NLO	Mon 9/14/09	Fri 9/25/09																	
785	Phase 2 - OGC Review and Concurrence of SER with OIs	Fri 9/25/09	Fri 9/25/09																	
786	P2 - Issue SER with OIs	Mon 9/28/09	Wed 9/30/09																	
787	Phase 2 Complete - SER with OIs Issued	Wed 9/30/09	Wed 9/30/09																	
788	SER Phase 2 Managed Reserve	Thu 10/1/09	Fri 11/20/09																	
789	Phase 2 Complete - SER with OIs Issued (with Mgmt Review)	Fri 11/20/09	Fri 11/20/09																	
790	Phase 3 - ACRS Review of SER with OI	Fri 3/6/09	Fri 3/5/10																	
823	Phase 4 - Advanced SER with No OI	Mon 11/9/09	Fri 11/26/10																	
1269	Phase 5 - ACRS Review of Draft FSER with No OI	Tue 9/14/10	Mon 3/7/11																	
1287	Phase 6 - FSER with No OI	Thu 11/18/10	Mon 5/2/11																	
1503	Safety Review Complete	Mon 2/7/11	Mon 2/7/11																	
1504	Rulemaking	Mon 2/7/11	Sun 2/5/12																	
1511	NPLS schedule support	Wed 3/19/08	Thu 12/15/11																	

## EPR Design Certification Review

### Question Totals/Status



## **EPR DC Review DCDWG Issues**

- Some COLA site specific seismic loadings significantly higher than the EPR standard design bounding loading.
  - plans to address this issue in the EPR standard design not communicated to the staff officially yet
  - Presents potential schedule risk to the DC review

# EPR DC Review DCDWG Issues

- A joint decision was made by AREVA and UniStar to resubmit a topical report (TR) on fuel racks for spent fuel pool (previously submitted by UniStar with the RCOLA Part 2) for review under the EPR DC docket.
  - The staff is currently reviewing the TR under the EPR docket following AREVA's official request to do so.
  - AREVA has indicated that it will revise and resubmit the TR as a technical report to be reviewed as part of the DC FSAR instead of a stand alone topical report.
  - Until this report is submitted and evaluated, it remains a potential risk to the DC review schedule.

# Summary

- Phase 1 review is going relatively well
- The electronic RAI process has worked well
- Several potential schedule and technical challenges remain