



*Bellefonte 3&4*

*Lee Nuclear 1&2*

*Summer 2&3*

*Vogtle 3&4*

*Harris 2&3*

*Levy 1&2*



## **AP1000 Design-Centered Work Group**

**October 9, 2008**



## Morning Agenda

9:00 a.m. Introduction

9:15 a.m. Standard Content and Safety Evaluation Report (SER)  
with Open Items

9:30 a.m. Request for Additional Information (RAI) Responses on  
Standard Content & SCOL Commitment Letters

9:45 a.m. Combined License Application (COLA) Revision Timing  
– Revision and Future Revisions

10:00 a.m. Standard Content RAIs – Lessons Learned

10:15 a.m. Advisory Committee on Reactor Safeguards (ACRS)  
and Integrated DCD/FSAR Presentations

10:30 a.m. Break/Opportunity for Public Comment



# Standard Content and Safety Evaluation Report (SER) with Open Items

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# AP1000 Status

<u>Applicant/Site</u>	<u>Submittal</u>	<u>Acceptance</u>	<u>ASER</u>
AP1000 DCD Amendment	May 26, 2007	Jan 18, 2008	Oct 2009
TVA/Bellefonte (NuStart AP1000 & R-COLA)	Oct 30, 2007	Jan 18, 2008	Sept 2010
Duke/Lee	Dec 13, 2007	Feb 25, 2008	Sept 2010
Progress/Harris	Feb 19, 2008	April 17, 2008	Oct 2010
Southern/Vogtle	Mar 31, 2008	May 30, 2008	July 2010
SCE&G/Summer	Mar 31, 2008	July 31, 2008	Aug 2010
Progress/Levy	Jul 30, 2008	Oct 6, 2008	TBD
FPL/Turkey Point	March 2009	TBD	TBD

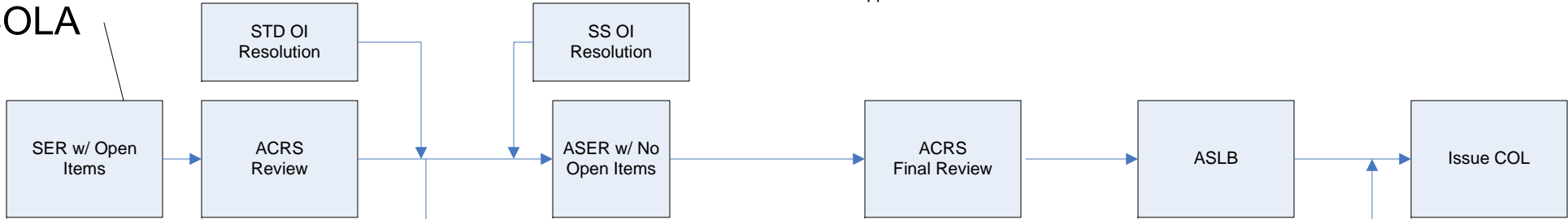
*Bellefonte 3&4    Lee Nuclear 1&2    Summer 2&3    Vogtle 3&4    Harris 2&3    Levy 1&2*

## Challenge

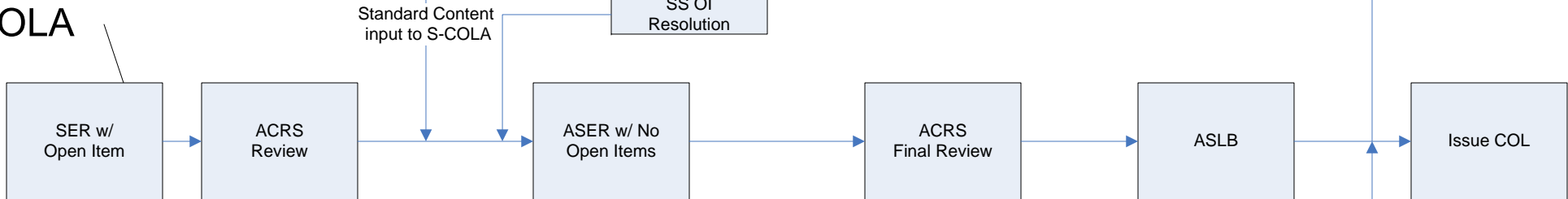
- **The R-COLA has site specific challenges that could extend the schedule for issuance of the FSER and COL beyond the need dates of S-COLAs**
- **S-COLAs need resolution of Standard content**
- **Option to support resolution of Standard Open Items**
  - Resolve open items from SER with Open Items on applicant with greatest schedule need
    - Note “Greatest schedule need” could vary during review

# COLA-DCD Logic Diagram

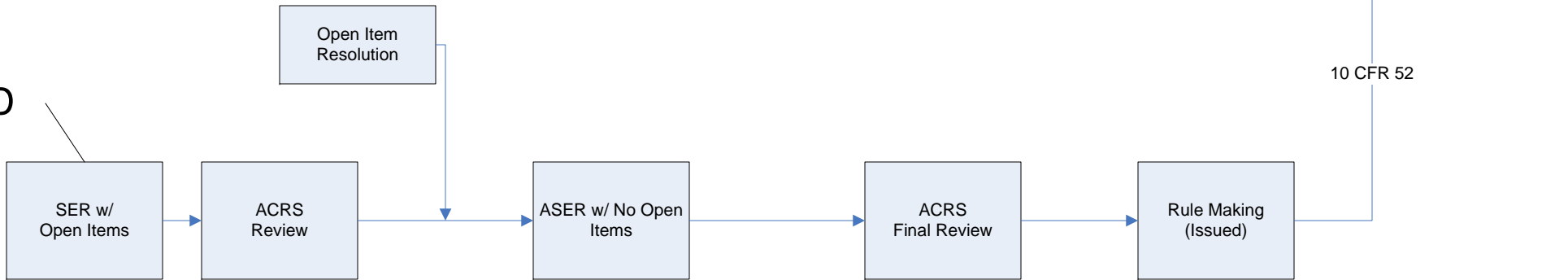
R-COLA



S-COLA



DCD





## Request for Additional Information (RAI) Responses on Standard Content & SCOL Commitment Letters

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## Standard RAI Response Process

- Review current process R-COLA uses to convey to NRC the identification of standard RAIs
- Discuss proposed approach for S-COLAs to endorse R-COLA standard RAI responses (“me-too” letter)
- Obtain NRC feedback on proposed approach



## R-COLA Identification of Standard RAIs

- R-COLA has identified each RAI response submitted as “Expected to be Standard for the S-COLAs” or “Plant Specific”
- For summary purposes, the R-COLA will develop a table identifying all RAIs as either Standard or Plant Specific (examples to follow)
- The FSAR left margin annotation (LMA) was the primary factor for the determination of Standard or Plant Specific
- R-COLA may submit to the NRC this list periodically as needed to accommodate NRC reviews

## R-COLA Standard RAI Response Applicability to S-COLAs

- Each S-COLA will submit an evaluation of R-COLA RAI responses that includes the following (examples to follow):
  - A table listing R-COLA RAIs including the ERAI number, NRC RAI number, RAI letter number and submittal date
  - A copy of the R-COLA determination of the RAI as to whether the RAI was standard or site-specific
  - A determination as to whether the RAIs designated as Standard are endorsed by the S-COLA
- No S-COLA page markups will be provided in the “me-too” submittal since the standard changes will be identical to the R-COLA changes
- Where an S-COLA differs with the R-COLA response to a standard RAI, the S-COLA will notify NRC consistent with the NRC’s expectations as outlined in the S-COLA acceptance and schedule letters

## R-COLA Standard RAI Response Applicability to S-COLAs, cont'd

- **The S-COLA will coordinate the timing of “me-too” submittal(s) with the respective NRC project manager. The first “me-too” submittal:**
  - **Is expected to occur prior to the end of Phase 1 for an S-COLA**
  - **Will address R-COLA standard responses indicated in the R-COLA RAI summary letter**
- **Additional S-COLA “me-too” letters may be submitted as necessary**

## AP1000 S-COLA Evaluation of R-COLA (BLN) RAIs

TVA ID#	ERAI #	RAI Topic / Subject	Date Submitted	RAI Ltr #	Utility Specific	Official NRC RAI #	S-COLA Endorsement
8	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(a)	
9	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(b)	
10	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(c)	
11	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(d)	
12	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(e)	
13	17	RGS1 - Seismology - ETSZ	03-19-2008	BLN-RAI-LTR-000 AR	TVA	02.05.02-01(f)	
14	17	RGS1 - Seismology - ETSZ	05-30-2008	BLN-RAI-LTR-000 AR S1	TVA	02.05.02-01(a)&(c)	
601	17	RGS1 - Seismology - ETSZ	06-30-2008	BLN-RAI-LTR-000 AR S2	TVA	02.05.02-01(e) VR	
18	49	CIB1- Alloys to be used in leak-before-break piping	05-23-2008	BLN-RAI-LTR-001	Standard	03.06.03-01	
33	49	CIB1- Alloys to be used in leak-before-break piping	05-23-2008	BLN-RAI-LTR-001	Standard	03.06.03-02	
34	49	CIB1- Alloys to be used in leak-before-break piping	05-23-2008	BLN-RAI-LTR-001	Standard	03.06.03-03	
16	38	CIB1- Water chemistry program details	05-23-2008	BLN-RAI-LTR-001	Standard	05.02.03-01	
17	48	CIB1- Coatings program details	05-23-2008	BLN-RAI-LTR-001	Standard	06.01.02-01	
798	49	CIB1- Alloys to be used in leak-before-break piping	08-18-2008	BLN-RAI-LTR-001 S	Standard	03.06.03-01 VR	
799	49	CIB1- Alloys to be used in leak-before-break piping	08-18-2008	BLN-RAI-LTR-001 S	Standard	03.06.03-02 VR	
800	49	CIB1- Alloys to be used in leak-before-break piping	08-18-2008	BLN-RAI-LTR-001 S	Standard	03.06.03-03 VR	
22		CIB1- Reactor Vessel Surveillance Program	05-30-2008	BLN-RAI-LTR-002	Standard	05.03.01-01.a	
23	39	CIB1- Reactor Vessel Surveillance Program	05-30-2008	BLN-RAI-LTR-002	Standard	05.03.01-01.b	
624	39	CIB1- Reactor Vessel Surveillance Program	07-10-2008	BLN-RAI-LTR-002 S	Standard	05.03.01-01.a VR	
625	39	CIB1- Reactor Vessel Surveillance Program	07-10-2008	BLN-RAI-LTR-002 S	Standard	05.03.01-01.b VR	
102	166	CIB1- Steam Generator tube preservice inspection	06-05-2008	BLN-RAI-LTR-003	Standard	05.04.02.02-01	
302	166	CIB1- Steam Generator tube preservice inspection	06-05-2008	BLN-RAI-LTR-003	Standard	05.04.02.02-02	
104	104	CIB1- Reactor Vessel Pressurized Thermal Shock	05-16-2008	BLN-RAI-LTR-004	Standard	05.03.03-01	
103	107	CIB1 - PTLR	06-05-2008	BLN-RAI-LTR-005	Standard	05.03.02-01	
575	107	CIB1 - PTLR	06-26-2008	BLN-RAI-LTR-005 S1	Standard	05.03.02-01	
303	135	CIB1- Inservice Testing	06-05-2008	BLN-RAI-LTR-006	Standard	03.09.06-01	
304	110	CIB1- Inservice Testing	06-12-2008	BLN-RAI-LTR-007	Standard	03.09.06-02	
305	110	CIB1- Inservice Testing	06-12-2008	BLN-RAI-LTR-007	Standard	03.09.06-03	
306	110	CIB1- Inservice Testing	06-12-2008	BLN-RAI-LTR-007	Standard	03.09.06-04	

## AP1000 S-COLA Evaluation of R-COLA (BLN) RAIs

TVA ID#	ERAI #	RAI Topic / Subject	Date Submitted	RAI Ltr #	Utility Specific	Official NRC RAI #	S-COLA Endorsement
620	364	ICE1- RG 1.152	08-05-2008	BLN-RAI-LTR-050	Standard	01-01	
613	323	SBPA- RWS connections	07-18-2008	BLN-RAI-LTR-045	TVA	01-02	
608	322	SBPA- RWS info re LOOP	07-18-2008	BLN-RAI-LTR-044	TVA	01-03	
630	365	ICE1- FSER AI 20.7.1-1 re BU 80-06	08-12-2008	BLN-RAI-LTR-059	Standard	01-04	
629	439	NWE1- RG Conformance	08-19-2008	BLN-RAI-LTR-066	Standard	01-05	
746	671	NWE1- RG Conformance	08-29-2008	BLN-RAI-LTR-071	Standard	01-07	
1002	767	NWE1- other major projects	08-21-2008	BLN-RAI-LTR-087	TVA	01-08	
1114	321	SBPA- RWS GDC4 compliance	09-04-2008	BLN-RAI-LTR-103	TVA	01-09	
1163	611	CHPB- RG 8.28	09-17-2008	BLN-RAI-LTR-106	Standard	01-10	
423	337	RSAC- Population projections	07-08-2008	BLN-RAI-LTR-034	TVA	02.01.03-01	
424	338	RSAC- Hazards evaluation	07-08-2008	BLN-RAI-LTR-035	TVA	02.02.01-01	
425	338	RSAC- Hazards evaluation	07-08-2008	BLN-RAI-LTR-035	TVA	02.02.01-02	
426	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-01	
427	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-02	
428	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-03	
429	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-04	
430	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-05	
431	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-06	
432	339	RSAC- Hazards evaluation	07-09-2008	BLN-RAI-LTR-036	TVA	02.02.03-07	
371	232	RSAC- Tornado wind speed	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-01	
1007	232	RSAC- Tornado wind speed	08-18-2008	BLN-RAI-LTR-022 S	TVA	02.03.01-01	
372	232	RSAC- Thunderstorms	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-02	
1008	232	RSAC- Thunderstorms	08-18-2008	BLN-RAI-LTR-022 S	TVA	02.03.01-02	
373	232	RSAC- Nonattainment impact	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-03	
1009	232	RSAC- Nonattainment impact	08-18-2008	BLN-RAI-LTR-022 S	TVA	02.03.01-03	
374	232	RSAC- PMWP differences	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-04	
375	232	RSAC- Snow depth	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-05	
1010	232	RSAC- Snow depth	08-18-2008	BLN-RAI-LTR-022 S	TVA	02.03.01-05	
376	232	RSAC- PMWP (frozen portion)	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-06	
377	232	RSAC- Met data for CTS	06-12-2008	BLN-RAI-LTR-022	TVA	02.03.01-07	
1011	232	RSAC- Met data for CTS	08-18-2008	BLN-RAI-LTR-022 S	TVA	02.03.01-07	
378	232	RSAC- 100 yr return temps	08-18-2008	BLN-RAI-LTR-022	TVA	02.03.01-08	
752	415	SACB- Weather extremes	08-20-2008	BLN-RAI-LTR-088	TVA	02.03.01-09	
1139	856	SACB- Air temperature criteria	08-29-2008	BLN-RAI-LTR-099	TVA	02.03.01-10	
723	518	SACB- Data statistics	08-14-2008	BLN-RAI-LTR-077	TVA	02.03.02-01	
724	518	SACB- Fog estimate	08-14-2008	BLN-RAI-LTR-077	TVA	02.03.02-02	
725	518	SACB- Mixing heights and ventilation rates	08-14-2008	BLN-RAI-LTR-077	TVA	02.03.02-03	
726	518	SACB- Salt and moisture deposition	08-14-2008	BLN-RAI-LTR-077	TVA	02.03.02-04	
727	518	SACB- Maximum snowfall	08-14-2008	BLN-RAI-LTR-077	TVA	02.03.02-05	
719	857	SACB- JFD data	09-04-2008	BLN-RAI-LTR-097	TVA	02.03.02-06	
712	450	SACB- Historic met data file	08-13-2008	BLN-RAI-LTR-075	TVA	02.03.03-01	
716	414	SACB- Site map	09-03-2008	BLN-RAI-LTR-096	TVA	02.03.03-02	



## COLA Revision Timing

*Bellefonte 3&4*

*Lee Nuclear 1&2*

*Summer 2&3*

*Vogtle 3&4*

*Harris 2&3*

*Levy 1&2*

## COLA Revision Timing

- **R-COLA Revision 1 of the ER being submitted shortly**
- **R-COLA Revision 1 of the FSAR required by 01/18/09**
- **NuStart is evaluating an earlier submittal to support S-COLA activities**
- **A submittal as early as 12/01/08 is possible**
- **NuStart is reviewing DCD Revision 17 for COLA impacts; implementation of conforming changes expected to define COLA revision schedule**
- **Future R-COLA revisions are anticipated to occur as milestones warrant**
  - For example, prior to the end of Phase 2B and Phase 4
- **S-COLA revisions to be coordinated with their respective NRC PMs**

## COLA Revision Timing, cont'd

- **Scope of ER Revision 1**
  - Conforming changes identified in previous correspondence containing ER content, such as
    - NRC requests for additional information,
    - TVA-identified errata, and
    - Other TVA correspondence



## COLA Revision Timing, cont'd

- **Scope of FSAR Revision 1**
  - Conforming changes identified in previous correspondence
    - NRC requests for additional information,
    - NuStart-identified errata
    - Revision 17 conforming changes
    - Interface changes from ER Revision 1
    - Other correspondence that identifies COLA changes
    - Will include updates to additional Parts of the COLA as necessary

# AP1000 Design-Centered Working Group

