

November 7, 2007

MEMORANDUM TO: Michael R. Gartman, Chief  
ESBWR/ABWR Project Branch 2  
Division of New Reactor Licensing

FROM: Sujit K. Samaddar, Chief /RA/  
Structural Engineering Branch 2  
Division of Engineering

SUBJECT: ACCEPTANCE REVIEW RESULTS FOR THE SOUTH  
TEXAS PROJECT COMBINED LICENSE APPLICATION

The Structural Engineering Branch 2 (SEB2) has completed its acceptance review of the South Texas Project (STP) Combined License Application (COLA) submitted by NRG Energy. This review covered the following COLA FSAR Sections for which SEB2 has primary review responsibilities and, in addition, applicable interface documentation referenced in the FSAR:

- FSAR Sections 3.3.1, 3.3.2
- FSAR Section 3.4.2
- FSAR Section 3.5.3
- FSAR Sections 3.7.1, 3.7.2, 3.7.3, 3.7.5
- FSAR Sections 3.8.1, 3.8.2, 3.8.3, 3.8.4, 3.8.5, 3.8.6
- FSAR Section 14.3.2
- FSAR Sections 19F, 19H, 19I

Completeness and Sufficiency

Based on this review, I conclude that the application contains the information required by regulations. However, there are significant gaps in the submitted information that preclude the conduct of an effective and efficient technical review and, therefore, preclude the development of a specific review schedule at this time. SEB2 cannot commence the STP COLA detailed technical review without the information identified in Enclosure 1.

CONTACT: Sujit K. Samaddar, SEB2  
415-3309

B/113

The significant technical deficiencies are as follows:

1. Section 3.7.1 and 3.7.2: The STP site did not have the minimum shear wave velocity required per ABWR DCD. STP COLA failed to identify this Tier 1 departure, and did not address its effects on analysis of Seismic Category I structures. SEB2 staff does not have any information to perform this review.
2. Section 3.8.6.4 (3H.6): STP COLA provided a conceptual design of the site specific structures, e.g., the Ultimate Heat Sink (UHS) and the Reactor Service Water (RSW) Piping Tunnel. Final design of these structures is expected to be available by the third quarter of 2008, as proposed in the COLA. A reasonable assurance of safety determination of these site-specific structures can not be achieved until the final design is available.
3. Section 3.8.4 (3H.3): STP COLA has redesigned the Radwaste Building using a standard departure from the Tier 2 certified design. However, STP did not recognize the Tier 1 changes involved in the redesign related to using the Peak Ground Acceleration (PGA) value and minimum shear wave velocity that are less than the corresponding DCD values. Also, the COLA does not contain details of the redesigned Radwaste Building to the level of detail contained in the DCD.

In addition, there are several other Sections where insufficient or incomplete information is provided in the COLA as stated in Enclosure 1.

#### Schedule

The estimated effort for the detailed technical review of the following STP COLA SRP sections by SEB2 varies materially from the pre-baseline model in the EPM. The revised hours are calculated based on the estimated review time of additional documents expected from STP that were not included in the pre-baseline estimate. For each section, I have provided an updated resource plan for these tasks in Enclosure 2. The resource plan includes the new estimated level of effort and the resources assigned. The expected start date is not indicated, and will depend on the date of receipt of information from STP. Revisions to the resource plans have been submitted for the following FSAR section reviews:

- FSAR Section 3.4.2;
- FSAR Section 3.7.1, 3.7.2;
- FSAR Section 3.8.4, 3.8.6.1, 3.8.6.2, 3.8.6.3, 3.8.6.4

#### Review Dependencies

SEB2's detailed technical review of the STP COLA is independent of other ongoing application reviews by the staff.

- Enclosure:
1. Table 1 of the Safety Analysis Report Review Guide
  2. Table 2 SEB2 Resource Plan Revisions for NRG Energy STP COLA

The significant technical deficiencies are as follows:

1. Section 3.7.1 and 3.7.2: The STP site did not have the minimum shear wave velocity required per ABWR DCD. STP COLA failed to identify this Tier 1 departure, and did not address its effects on analysis of Seismic Category I structures. SEB2 staff does not have any information to perform this review.
2. Section 3.8.6.4 (3H.6): STP COLA provided a conceptual design of the site specific structures, e.g., the Ultimate Heat Sink (UHS) and the Reactor Service Water (RSW) Piping Tunnel. Final design of these structures is expected to be available by the third quarter of 2008, as proposed in the COLA. A reasonable assurance of safety determination of these site-specific structures can not be achieved until the final design is available.
3. Section 3.8.4 (3H.3): STP COLA has redesigned the Radwaste Building using a standard departure from the Tier 2 certified design. However, STP did not recognize the Tier 1 changes involved in the redesign related to using the Peak Ground Acceleration (PGA) value and minimum shear wave velocity that are less than the corresponding DCD values. Also, the COLA does not contain details of the redesigned Radwaste Building to the level of detail contained in the DCD.

In addition, there are several other Sections where insufficient or incomplete information is provided in the COLA as stated in Enclosure 1.

#### Schedule

The estimated effort for the detailed technical review of the following STP COLA SRP sections by SEB2 varies materially from the pre-baseline model in the EPM. The revised hours are calculated based on the estimated review time of additional documents expected from STP that were not included in the pre-baseline estimate. For each section, I have provided an updated resource plan for these tasks in Enclosure 2. The resource plan includes the new estimated level of effort and the resources assigned. The expected start date is not indicated, and will depend on the date of receipt of information from STP. Revisions to the resource plans have been submitted for the following FSAR section reviews:

- FSAR Section 3.4.2;
- FSAR Section 3.7.1, 3.7.2;
- FSAR Section 3.8.4, 3.8.6.1, 3.8.6.2, 3.8.6.3, 3.8.6.4

#### Review Dependencies

SEB2's detailed technical review of the STP COLA is independent of other ongoing application reviews by the staff.

- Enclosure: 1. Table 1 of the Safety Analysis Report Review Guide  
2. Table 2 SEB2 Resource Plan Revisions for NRG Energy STP COLA

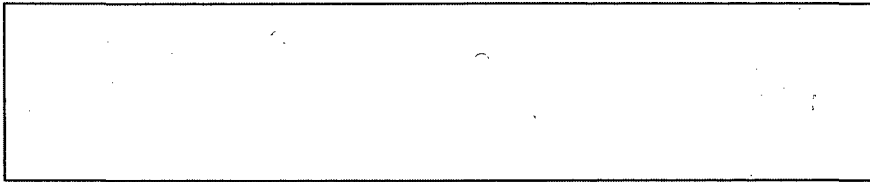
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**Table 1: Safety Analysis Report Acceptance Review Results for STP ABWR COLA**  
**Safety Analysis Report Acceptance Review Results Table**

Out of Scope

FSER Section: 3.8 Technical Branch: SEB2 (Primary/Secondary) Technical Review  
 Branch Chief: S.K. Samaddar SRP Section: 3.8 Date: 10/9/2007

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No. Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/topic? (yes/no)**	4. Can the technically deficiency be resolved through the RAI process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)**	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
3.8.1 – Concrete Containment	Yes	Yes	N/A	N/A	N/A	Yes	No Change		Yes	N/A
3.8.2 – Steel Containment	Yes	Yes	N/A	N/A	N/A	Yes	No Change		Yes	N/A
3.8.3 – Containment Internal Structure	Yes	Yes	N/A	N/A	N/A	Yes	No Change		Yes	N/A

Enclosure 1

3.8.4 (3H.1) – Reactor Building	Yes	No	Yes	a) Evaluation of Reactor Building to address the effects of STP DEP T1 5.0-1 (increase in PMF level) is technically insufficient. b) Site specific structural evaluation lacks rigor.	Yes	No	STP DEP T1 5.0-1: Site flood level is 14 ft higher than DCD PMF level.  Review schedule will be impacted since additional time may be needed by the applicant to provide required analysis information.	Out of Scope	Yes	N/A
3.8.4 (3H.2) – Control Building	Yes	No	Yes	a) Evaluation of Control Building to address the effects of STP DEP T1 5.0-1 (increase in PMF level) is technically insufficient. b) Site specific structural evaluation lacks rigor.	Yes	No	STP DEP T1 5.0-1: Site flood level is 14 ft higher than DCD PMF level.  Review schedule will be impacted since additional time may be needed by the applicant to provide required analysis information.		Yes	N/A
3.8.4 (3H.3) – Radwaste Building	No	No	No	a) Radwaste Building design departs from ABWR DCD (STD DEP 3.8-1). RG 1.206 Sec. C.III.1.6 requirement is not met. FSAR does not contain details of change similar to the details provided in the DCD. Structural details will be available for review prior to fuel load (COM 3H-1). b) STD DEP 3.8-1 contains departure from DCD seismic G value of 0.3g to 0.15g. Therefore departure constitutes a Tier 1 change.	No	No	Staff review of the departure is not possible with the information included in the COLA. Additional information may not be available prior to fuel load.		Yes	N/A
3.8.5 - Foundations	Yes	Yes	N/A	N/A	N/A	Yes	No Change		Yes	N/A

3.8.6.1 – Foundation Waterproofing	Yes	No	Yes	Impact of foundation waterproofing on capability of foundations to transfer shear loads is not adequately addressed.	Yes	No	COL License Information Item 3.23: Foundation Waterproofing.  Review schedule will be impacted since the applicant will need to provide additional technical justification.	Out of Scope	Yes	N/A
3.8.6.2 – Foundation Settlement	No	No	Yes	The referenced Section 3H.6 does not contain assessment of foundation settlement.	Yes	No	COL License Information Item 3.24: Site Specific Physical Properties and Foundation Settlement.  Review schedule will be impacted since the applicant will need to provide additional analysis information.		Yes	N/A
3.8.6.3 – Structural Integrity Test	No	No	Yes	Details of the SIT and the instrumentation are not included in the COLA.	Yes	No	COL License Information Item 3.25: Structural Integrity Test Results.  Review schedule will be impacted depending on availability of additional information.		Yes	N/A
3.8.6.4 (3H.6) – Site specific Seismic Category I structures	No	No	Yes	Conceptual design presented for two site specific seismic category I structures: the Ultimate Heat Sink and the Reactor Service Water Piping Tunnel. This does not meet RG 1.206 Sec. C.I.3.8.4 criteria regarding level of detail to be included in the COLA. FSAR will be updated with the final design information by the third quarter of 2008.	Yes	No	COL License Information Item 3.26: Identification of Seismic Category I Structures.  Review schedule will be impacted since information for review will not be available till the third quarter of 2008.		Yes	N/A

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\*\*Technical Adequacy: The application is compared against the SRP acceptance criteria. Note: New safety features, alternate regulatory compliance approaches, and/or deviations from DCs, should not be treated as deficiencies and factored into the basis for rejecting the application, unless staff determines that there is insufficient technical information associated with the respective item. These items are factored into confirmation of planning assumptions.

\*\*\*DSRA will provide risk significance information at time of review, if available.

\*\*\*\*Identification of new review time is on a FSAR section basis and consistent with the review phases within the EPM. Changes from the pre-baseline review schedule and estimated hours should be on that basis.

### Safety Analysis Report Acceptance Review Results Table

FSER Section: 14.3.2      Technical Branch: SEB2 (Primary/Secondary)      Technical Reviewer: \_\_\_\_\_  
 Branch Chief: S.K. Samaddar      SRP Section: 14.3      Date: 10/1

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No, Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technically deficiency be resolved through the RA process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)**	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
Tier 1 Selection Criteria and Processes for Structures and Systems	Yes	Yes	Yes	N/A		Yes			No	Part 7 of COLA documents both Tier 1 & 2 departures, which need to be reviewed by responsible staff of COLA sections 3.7 and 3.8.



### Safety Analysis Report Acceptance Review Result

FSER Section: 19F      Technical Branch: SEB2 (Primary/Secondary)      Technical Reviewer:    
 Branch Chief: S.K. Samaddar      SRP Section: 19      Date: 10/10/2007

Out of Scope

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No, Identify specific review area/topic in table below.

	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
1. Review Area/Topic*	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technically deficiency be resolved through the RAI process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)***	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
Containment Ultimate Strength	Yes	Yes	Yes	N/A		Yes			Yes	

\*Review Area/Topic: Item identified in RG 1.206 or the regulations; for a COLA referencing a DC, this includes COL information items and departures from the design certification.

\*\*Technical Adequacy: The application is compared against the SRP acceptance criteria. Note: New safety features, alternate regulatory compliance approaches, and/or deviations from DCs, should not be treated as deficiencies and factored into the basis for rejecting the application, unless staff determines that there is insufficient technical information associated with the respective item. These items are factored into confirmation of planning assumptions.

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**Safety Analysis Report Acceptance Review Results Table**

FSER Section: 19H

Technical Branch: SEB2 (Primary/Secondary)

Technical Reviewer:

Branch Chief: S.K. Samaddar

SRP Section: 19

Date: 10/10/2007

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No, Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technically deficiency be resolved through the RAI process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)**	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
Seismic Capacity Analysis	Yes	Yes	Yes	N/A		Yes			Yes	

### Safety Analysis Report Acceptance Review Results Table

FSER Section: 19I      Technical Branch: SEB2 (Primary/Secondary)      Technical Reviewer:    
 Branch Chief: S.K. Samaddar      SRP Section: 19      Date: 10/10/2007

Out of Scope

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No. Identify specific review area/topic in table below.

	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
1. Review Area/Topic*	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/topic? (yes/no)**	4. Can the technically deficiency be resolved through the RAI process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)***	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
Seismic Margin Analysis	Yes	Yes	Yes	N/A		Yes			Yes	

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### Safety Analysis Report Acceptance Review Results Table

SER Section: 3.3

Technical Branch: SEB2 (Primary) Technical Review



Branch Chief: S. Samaddar

SRP Section: 3.3

Date: 10/31/07

Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No. Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing					Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews	
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)***	5. If no, for either completeness or technical sufficiency, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC? (yes/no)****	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours*****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
3.3.1 Wind Loadings	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA
3.3.2 Tornado Loadings	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA
COL Item 3.1	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA
COL Item 3.2	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA

1. Review Area/Topic*	Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing					Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews	
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)***	5. If no, for either completeness or technical sufficiency, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC? (yes/no)****	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours*****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
COL Item 3.3	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA
COL Item 3.4	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA

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\*\*\*Significant deficiencies are those review area/topic which impact the staff's ability to begin the detailed technical review or complete its review within a predictable timeframe.

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**Safety Analysis Report Acceptance Review Results Table**

SER Section: 3.4.2      Technical Branch: SEB2 (Primary)      Technical Review:    
 Branch Chief: S. Samaddar      SRP Section: 3.4.2      Date: 10/31/07

Does the section address the applicable regulations: **Yes**

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? **Yes**. Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule		Review Dependencies Among Concurrent Reviews			
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)***	5. If no, for either completeness or technical sufficiency, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC? (yes/no)****	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours*****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
3.4 Water Level (Flood) Design  3.4.2 Analytical and Test Procedures	YES	N O	YES	RG 1.206 Sec. C.I.3.4.2 requirement is not met. The methods and procedures used to account for the design-basis flood in the analysis are not described. Design-basis static and dynamic flood loads on Category I structures are not provided.	YES	NO	<u>Basis for Change</u> Site flood level is +14ft higher than referenced CD flood level. (STP DEP T1 5.0-1)  Review schedule will be impacted by the period of time required by the applicant to submit the required analysis information.		YES	NA

1. Review Area/Topic*	Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing					Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews	
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)***	5. If no, for either completeness or technical sufficiency, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC? (yes/no)****	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours*****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.

\*Review Area/Topic: Item identified in RG 1.206 or the regulations; for a COL referencing a DC, this includes COL information items and departures from the design certification.

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### Safety Analysis Report Acceptance Review Results Table

SER Section: 3.5.3      Technical Branch: SEB2 (Primary)      Technical Review Out of Scope  
 Branch Chief: S. Samaddar      SRP Section: 3.5.3      Date: 10/12/07  
 Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No. Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing					Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule		Review Dependencies Among Concurrent Reviews		
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/ topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)***	5. If no, for either completeness or technical sufficiency, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC? (yes/no)****	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours*****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
3.5.3 Barrier Design Procedures	YES	YES	YES	NA	NA	YES	NA	No Change	YES	NA

\*Review Area/Topic: Item identified in RG 1.206 or the regulations; for a COLA referencing a DC, this includes COL information items and departures from the design certification.

\*\*Technical Sufficiency: The application is compared against the SRP acceptance criteria. Note: New safety features, alternate regulatory compliance approaches, and/or deviations from DCs, should not be treated as deficiencies and factored into the basis for rejecting the application, unless staff determines that there is insufficient technical information associated with the respective item. These items are factored into confirmation of planning assumptions.

\*\*\*Significant deficiencies are those review area/topic which impact the staff's ability to begin the detailed technical review or complete its review within a predictable timeframe.

\*\*\*\*DSRA will provide risk significance information at time of review, if available.

\*\*\*\*\*Identification of new review time is on a FSAR section basis and consistent with the review phases within the EPM. Changes from the pre-baseline review schedule and estimated hours should be on that basis.



**Safety Analysis Report Acceptance Review Results Table  
(Preliminary Evaluation Results)**

FSER Section: 3.7 Technical Branch: SEB2 (Primary/Secondary) Technical Review

Branch Chief: S.K. Samaddar SRP Section: 3.7

Out of Scope

Does the section address the applicable regulations: Yes/No

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? Yes/No, Identify specific review area/topic in table below.

1. Review Area/Topic*	Completeness and Technical Adequacy Which Form Basis for Acceptability for Docketing				Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule			Review Dependencies Among Concurrent Reviews		
	2. Does COL section address the items required by regulation (refer to RG 1.206, Section C.IV.1)? (Yes/No)	3. Is COL section technically sufficient for this review area/topic? (yes/no)**	4. Can the technical deficiency be resolved through the RAI process? (yes/no)**	5. If no, for either completeness or technical adequacy, identify deficiency(ies). This information will be needed for technical review.	6. Is the identified technical deficiency related to a risk-significant SSC)? (yes/no)***	7. Are the pre-baseline review schedule and estimated staff-hours appropriate? (yes/no)	8. For each no, identify the change (or basis for change).	9. Identify the total review time in staff-hours****	10. Can the review of the area/topic be completed without the completion of a concurrent review? (yes/no)	11. For each no, identify which application (DCD or COLA) and section.
Section 3.7.1	yes	No	yes	Shear wave profile less than DCD requirement	Yes	See table 2	Review schedule will be impacted due to the additional review of information when available		yes	
Section 3.7.2	yes	No	yes	Shear wave profile less than DCD requirement	Yes	See table 2	Review schedule will be impacted due to the additional review of information when available		yes	

Section 3.7.3	yes	yes	yes		no	See table 2			yes	
				The prop. time of submitting of the final seismic analysis of ultimate heat sink and RSW piping tunnel structures, i.e., 3 rd Qtr of 2008, is beyond the review completion time, thus, is not acceptable. The submittal time should be revised to be consistent with staff review compl sched.		No Include d in the above change				
Section 3H.6	no	No	no		no				yes	COLA Section 3H.6
Section 3.7.5, COL License Information										
Section 3.7.5.1, Seismic Design Parameters	yes	yes	yes		no	yes			yes	COL License Info item 3.19
Section 3.7.5.2, Pre-Earthquake Planning and Post-Earthquake Actions*	DSE R/RA P2 Review Scope			This section is related to SRP Section 3.7.4, and is within the review scope of DSER/RAP2			This section is related to SRP Section 3.7.4, and is within the review scope of DSER/RAP2			This section is related to SRP Section 3.7.4, and is within the review scope of DSER/RAP2.
Section 3.7.5.3, Piping Analysis, Modeling of Piping Supports	yes	yes	yes		no	yes			yes	COL License Info item 3.21

Section 3.7.5.4, Assessment of Interaction Due to Seismic Effects	yes	yes	yes		no	yes			yes	COL License Info item 3.22
Section 3.7.5.5, Response Spectra Amplification at Support Attachment Points	yes	yes	yes		no	yes			yes	COL License Info item in Subsection 3.7.3.3.1.8
Section 3.7.5.6, Modeling of Special Engineered Pipe Supports	yes	yes	yes		no	yes			yes	COL License Info item in Subsection 3.7.3.3.1.7

\*Review Area/Topic: Item identified in RG 1.206 or the regulations; for a COLA referencing a DC, this includes COL information items and departures from the design certification.

\*\*Technical Adequacy: The application is compared against the SRP acceptance criteria. Note: New safety features, alternate regulatory compliance approaches, and/or deviations from DCs, should not be treated as deficiencies and factored into the basis for rejecting the application, unless staff determines that there is insufficient technical information associated with the respective item. These items are factored into confirmation of planning assumptions.

\*\*\*DSRA will provide risk significance information at time of review, if available.

\*\*\*\*Identification of new review time is on a FSAR section basis and consistent with the review phases within the EPM. Changes from the pre-baseline review schedule and estimated hours should be on that basis

(1) Data to be provided in the final report.

**Table 2: SEB2 Resource Plan Revisions for  
NRG Energy South Texas Project ABWR COL**

Task Changes						Resource Changes		
SER Section No.	SER Section Title	Task *	Concurrent Dependent Review Activity **	Revised Start Date	Revised Finish Date	Name of Resource	Change Type ***	Revised Hours
3.8.4	Other Seismic Category I Structures	SER Phase 1	N/A			Out of Scope	Revised	Out of Scope
3.8.4	Other Seismic Category I Structures	SER Phase 2	N/A				Revised	
3.8.6.1	Foundation Waterproofing (COL License Information Item 3.23)	SER Phase 1	N/A				Revised	
3.8.6.1	Foundation Waterproofing (COL License Information Item 3.23)	SER Phase 2	N/A				Revised	
3.8.6.2	Site Specific Physical Properties and Foundation Settlement (COL License Information Item 3.24)	SER Phase 1	N/A				Revised	
3.8.6.2	Site Specific Physical Properties and Foundation Settlement (COL License Information Item 3.24)	SER Phase 2	N/A				Revised	

Enclosure 2

Task Changes						Resource Changes		
SER Section No.	SER Section Title	Task *	Concurrent Dependent Review Activity **	Revised Start Date	Revised Finish Date	Name of Resource	Change Type ***	Revised Hours
3.8.6.3	Structural Integrity Test Results (COL License Information Item 3.25)	SER Phase 1	N/A			Out of Scope	Revised	Out of Scope
3.8.6.3	Structural Integrity Test Results (COL License Information Item 3.25)	SER Phase 2	N/A				Revised	
3.8.6.4 (3H.6)	Identification of Seismic Category I Structures (COL License Information Item 3.26)	Ser Phase 1	N/A				Revised	
3.8.6.4 (3H.6)	Identification of Seismic Category I Structures (COL License Information Item 3.26)	Ser Phase 2	N/A				Revised	
3.7.1	Seismic Design Parameters	SER Phase I	N/A				Revised	
3.7.1	Seismic Design Parameters	SER Phase II	N/A				Revised	
3.7.2	Seismic System Analysis	SER Phase I	N/A				Revised	
3.7.2	Seismic System Analysis	SER Phase II	N/A				Revised	

Task Changes						Resource Changes		
SER Section No.	SER Section Title	Task *	Concurrent Dependent Review Activity **	Revised Start Date	Revised Finish Date	Name of Resource	Change Type ***	Revised Hours
3.4.2	Analysis Procedures	SER Phase 1	NA			Out of Scope	Revised	Out of Scope
3.4.2	Analysis Procedures	SER Phase 2	NA				Revised	

This template is to be used to facilitate management of revised planning data resulting from application acceptance reviews. Changes in planning data resulting from acceptance reviews may include identifying dependencies to concurrent activities in other projects, new or deleted tasks, or revisions to task durations, staffing, labor estimates, or start/finish dates.

\* Specify the task being revised: SER Phase 1 – PSER and RAIs Prepared  
 SER Phase 2 – Evaluation Completed  
 Other – Give task name  
 Indicate if this task or SER section is new (not yet in the schedule).

\*\* Concurrent Dependent Review Activity: Identify, if any, the project and activity that precedes the affected task in this schedule (e.g., Task in a design certification review that precedes a COL review).

\*\*\* Change Type indicates how the resource is being changed:  
 Revised – For an existing task, if a currently assigned resource is staying the same, but the hours or dates are being changed.  
 New – For an existing task or a new task, if a new resource is being added to the task.  
 Deleted – For an existing task and a currently assigned resource, if the resource is being removed from the task.