

T4 E31

November 5, 2007

MEMORANDUM TO: Michael R. Gartman, Acting Chief
ESBWR/ABWR Projects Branch 2
Division of New Reactor Licensing
Office of New Reactors

FROM: Jennifer L. Dixon-Herrity, Chief **/RA by Anthony H. Hsia for/**
Engineering Mechanics Branch 2
Division of Engineering
Office of New Reactors

Anthony Hsia, Chief **/RA/**
Engineering Mechanics Branch 1
Division of Engineering
Office of New Reactors

SUBJECT: ACCEPTANCE REVIEW RESULTS FOR SOUTH TEXAS PROJECT
UNITS 3 AND 4 COMBINED LICENSE APPLICATION (TAC NOS.
RA0035, RA0036, and RA0039)

Engineering Mechanics Branches 1 and 2 (EMB) in the Division of Engineering of the Office of New Reactors has completed its acceptance review of the South Texas Project Units 3 and 4 (STP 3/4) Combined License application (COLA) submitted by STP. This review covered the following COLA Final Safety Analysis Report (FSAR) sections for which EMB has review responsibilities and, in addition, applicable interface documentation referenced in the FSAR:

FSAR Sections 3.2.1, 3.2.2, 3.9.1, 3.9.2, 3.9.3, 3.9.4, 3.9.5, 3.10, 3.12, 5.2.1.1; and 5.2.1.2

Enclosure 1 to this memorandum summarizes our acceptance review for the applicable sections of the NRC Safety Evaluation Report (SER).

Completeness and Sufficiency

Based on our review, EMB concludes that the application contains the information required by regulations, and that the submitted information is technically sufficient for EMB to commence the STP COLA detailed technical review.

CONTACT: J. Dixon-Herrity, NRO/DE/EMB2
301-415-2967

A. Hsia, NRO/DE/EMB1
301-415-6933

B16

Schedule

The estimated effort for the detailed technical review of the all of the branch SRP section for the STP 3/4 COLA by EMB have changed as a result of the level of information submitted and the level of completion of the design in the STP COLA. The resource plan that currently exists in the EPM should be modified accordingly. Enclosure 2 summarizes the EMB revisions to the resource plan. Issues that involve schedule uncertainty include:

Potential Adverse Flow Effects

Since issuance of the ABWR Design Certification, operating experience at current BWR nuclear power plants in the early 2000s has revealed a site-specific issue regarding potential adverse flow effects as a result of acoustic resonance that has resulted in cracking and damage to the steam dryer and damage to valves in the main steam line. GE Topical Report NEDO-33316 deals with potential adverse flow effects of flow-induced vibration and acoustic resonance and is referenced in the STP FSAR Sections 3.9.2 and 3.9.5. This report will be reviewed concurrent with the STP COLA. Resolution of unresolved issues identified during this review have the potential to affect the STP COLA review schedule.

Component Design

Although the STP COLA states for COL Action Item 3.30 that Design Specifications and Reports will be made available for NRC audit, these documents were not completed at the point the application was submitted. The applicant plans to complete the design and have the specifications and reports available for audit prior to issuance of the license. However, if the design is not completed such that an audit can be performed, Design Acceptance Criteria for component design will be needed to proceed to licensing. This has the potential to affect the STP COLA review schedule.

Review Dependencies

EMB's detailed technical review for the STP 3/4 COLA is independent of other ongoing application reviews by the staff.

Enclosures:

1. STP 3/4 ABWR COLA Acceptance Review Results
2. EMB Resource Plan Revisions for STP 3/4 ABWR COLA

cc: GWunder, NRO/DNRL/DDLO/NGE2
DHabib, NRO/DNRL/DDIP/NPLS

Schedule

The estimated effort for the detailed technical review of the all of the branch SRP section for the STP 3/4 COLA by EMB have changed as a result of the level of information submitted and the level of completion of the design in the STP COLA. The resource plan that currently exists in the EPM should be modified accordingly. Enclosure 2 summarizes the EMB revisions to the resource plan. Issues that involve schedule uncertainty include:

Potential Adverse Flow Effects

Since issuance of the ABWR Design Certification, operating experience at current BWR nuclear power plants in the early 2000s has revealed a site-specific issue regarding potential adverse flow effects as a result of acoustic resonance that has resulted in cracking and damage to the steam dryer and damage to valves in the main steam line. GE Topical Report NEDO-33316 deals with potential adverse flow effects of flow-induced vibration and acoustic resonance and is referenced in the STP FSAR Sections 3.9.2 and 3.9.5. This report will be reviewed concurrent with the STP COLA. Resolution of unresolved issues identified during this review have the potential to affect the STP COLA review schedule.

Component Design

Although the STP COLA states for COL Action Item 3.30 that Design Specifications and Reports will be made available for NRC audit, these documents were not completed at the point the application was submitted. The applicant plans to complete the design and have the specifications and reports available for audit prior to issuance of the license. However, if the design is not completed such that an audit can be performed, Design Acceptance Criteria for component design will be needed to proceed to licensing. This has the potential to affect the STP COLA review schedule.

Review Dependencies

EMB's detailed technical review for the STP 3/4 COLA is independent of other ongoing application reviews by the staff.

Enclosures:

1. STP 3/4 ABWR COLA Acceptance Review Results
2. EMB Resource Plan Revisions for STP 3/4 ABWR COLA

cc: GWunder, NRO/DNRL/DDLO/NGE2
DHabib, NRO/DNRL/DDIP/NPLS

ADAMS Accession Number: ML073090656

OFFICE	NRO\DE\EMB2	NRO\DE\EMB1
NAME	JDixon-Herrity	AHHsia
DATE	11/05/07	11/05/07

OFFICIAL RECORD COPY

Table 1: Safety Analysis Report Acceptance Review Results for STP ABWR -COL - EMB

SER Section: 3.2.1 Technical Branch: EMB2 (Primary/Secondary) Technical Reviewer: Out of Scope
 Branch Chief: J. Dixon-Herrity SRP Section: 3.2.1 Date: 10/17/07

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.
Identify site-specific SSCs outside the scope of the referenced certified design (ref. COL Information Item 3.8.6.4)	No	No	Yes	The complete list of SSCs outside the scope of the DCD, such as the RSW pumps and RSW piping tunnel do not appear to be seismically classified in FSAR 3.2 and Table 3.2-1, but may be identified in other sections such as 3.8.6.4 and 9.2	Yes	Yes	NA	NA	Yes	

Compliance with current RG 1.29 version	No	Yes	Yes	Compliance with current RG 1.29 Rev.4 identified in FSAR Table 1.9S.1-1, but RG is not included in Section 1.8	Yes	Yes	N/A	N/A	Yes	
Compliance with current RG 1.143 version	Yes	Yes	NA	NA	N/A	Yes	N/A	N/A	Yes	
Non-Seismic SSCs with risk-significance (RG 1.29 C.2 items)	No	No	Yes	It is not clear that site specific nonsafety-related SSCs important to safety have been seismically classified, evaluated and identified for risk-significance. RTNSS items are not addressed.	?	Yes	N/A	N/A	No	May need concurrent review of ABWR Chapt 19 to identify risk-significant components

*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.

SER Section: 3.2.2

Technical Branch: EMB2 (Primary/Secondary)

Technical Reviewer: Out of Scope

Branch Chief: J. Dixon-Herrity

SRP Section: 3.2.2

Date: 10/17/07

Does the section address the applicable regulations: Yes

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 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.
Identify SSCs outside the scope of the referenced certified design	No	No	Yes	The complete list of SSCs outside the scope of the DCD, such as the RSW pumps and RSW piping tunnel do not appear to be quality classified in FSAR 3.2 and Table 3.2-1, but may be identified in other sections such as 3.8.6.4 and 9.2	Yes	Yes	N/A	N/A	Yes	

Compliance with RG 1.26, GDC 1 and 10 CFR 50.55a for N stamp of Class 2 and 3 components	No	No	Yes	Compliance with N stamping Class 2 and 3 components identified in RG 1.26 Rev.4, RIS 2005-17 and regulations is not addressed in FSAR Section 1.8 or Table 1.9S.1-1	Yes	Yes	N/A	N/A	Yes	
Application of unendorsed and withdrawn ANS 52.1	No	No	Yes	Section 1.8 does not identify a departure from the DCD in regard to industry safety classification standard. As identified in ABWR FSER, ANS 52.1 is not NRC endorsed, but the standard is still referenced in the DCD.	Yes	Yes	N/A	N/A	Yes	
Appropriate quality requirements for nonsafety-related risk-significant site-specific SSCs important to safety per SRP 3.2.1, SRP 3.2.2, 10 CFR 50 Appendix B and GDC1	No	No	Yes	Identification of pertinent or supplemental quality requirements to assure reliability of site-specific risk-significant SSCs do not appear to be adequately defined in 3.2.2. RTNSS items are not addressed.	Yes	Yes	N/A	N/A	No	May need concurrent review of ABWR Chapt 19 to identify risk-significant components

SER Section: 3.6.5.1/3.6.2.5 Technical Branch: EMB2 (Primary/Secondary) Technical Review
 Branch Chief: Jennifer Dixon-Herrity SRP Section: 3.6.2 Date: 10/26/2007

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.

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			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.
3.6.5.1, COL License Information, details of pipe break analysis results and protection methods 3.6.2.5, materials to be supplied for the operating license review	No	Yes	No	The applicant has not provided the COL License Information and simply moves the task to an ITAAC that does not cover all the required details. The applicant needs to provide an alternatives along with the justification described in RG 1.206 C.III.4.3.	Yes	No	Out of Scope	Out of Scope	No	COLA 3.9.7.4 related to the completion of piping design.

SER Section: 3.9.1 Technical Branch: EMB1 (Primary/Secondary) Technical Reviewer: Out of Scope
 Branch Chief: Anthony Hsia SRP Section: 3.9.1 Date: 10/29/2007

Does the section address the applicable regulations: Yes

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 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:
3.9.1	Yes	Yes	Yes	N/A	N/A	Yes	N/A	N/A	Y	N/A
DEP Admin										
Table 3.9-1										

SER Section: 3.9.2 Technical Branch: EMB1 (Primary/Secondary) Technical Reviewer: Out of Scope
 Branch Chief: Anthony Hsia/J. Dixon-Herrity SRP Section: 3.9.2 Date: 10/29/07

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.
FSAR Section 3.9.2.1- Vibration and dynamic effects testing of piping systems	Yes	No	Yes	(See footnotes, Item 5)	Yes	No	Out of Scope	Out of Scope	No	DCD Section 3.9.2.1
FSAR Section 3.9.2.3- Dynamic response of reactor internals under operational flow transients and steady -- state conditions	Yes	No	Yes	(See footnotes, Item 5)	Yes	No	Out of Scope	Out of Scope	No	COLA Section 3.9.3.3

FSAR Section 3.9.2.4- Preoperational flow induced vibration testing of reactor internals.	Yes	No	Yes	(See footnotes, Item 5)	Yes	No	Out of Scope []	No	COLA Section 3.9.2.4
FSAR-3.9.2.6- Corelations of reactor internals vibration tests with the analytical results.	Yes	No	Yes	(See footnotes, Item 5)	Yes	No		No	COLA Section 3.9.2.6

Item 5. GE topical report NEDO-33316 deals with potential adverse flow effects of flow-induced vibration and acoustic resonance and is referenced in STP FSAR Sections 3.9.2.3, 3.9.2.4 and 3.9.4.6. It is being reviewed concurrently with the STP submittal. Resolution of unresolved issues identified during the review of NEDO-33316 could potentially effect the STP review schedule.

Item 8. [(a) Contractor hours originally anticipated will not be required.
 (b) Total work hours for TAC ID RA0629 (STP P1 review) , are estimated to be 350 hours
 (c) Total work hours for TAC ID RA1272 (STP P2 review), are estimated to be 200 hours]

Out of Scope

SER Section: 3.9.3 Technical Branch: EMB2 (Primary/Secondary) Technical Reviewer

Branch Chief: Jennifer Dixon-Herrity SRP Section: 3.9.3 Date: October 26, 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 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.
FSAR Section 3.9.7.2 - ASME Class 2 or 3 or Quality Group D Components with 60-Year Design Life	Y	N	Y	Pertinent Class 2 or 3 or QG D components have not been identified and analyzed for the required 60-year design life. This issue will be pursued along with COL Info Item 3.9.7.4	N/A	N	Out of Scope		Y	N/A
FSAR Section 3.9.7.4 – Audit of Design Specification and Design Reports	Y	N	Y	Design of Components is not yet completed. However, the applicant has indicated in a conference call that the design specification and reports for all Class 1, 2, and 3 components will be provided for audit during 2009 to mid-2010	N/A	N			Y	N/A
FSAR Section 3.9.3.4.2 – STD DEP Admin – Replacing Eq. 3.9-1	Y	Y	Y	N/A	N/A	Y			Y	N/A

Out of Scope

SER Section: 3.9.4

Technical Branch: EMB1 (Primary/Secondary)

Technical Reviewer:

Branch Chief: Anthony Hsia

SRP Section: 3.9.4

Date: 10/24/2007

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. **N/A**

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.
Incorporated by Reference	Yes	Yes	N/A	N/A	N/A	Yes	N/A		Yes	N/A

Out of Scope

SER Section: 3.9.5 Technical Branch: EMB1 (Primary) Technical Reviewer

Branch Chief: A. Hsia / J. Dixon-Herrity SRP Section: 3.9.5

Date: 10/29/2007

Does the section address the applicable regulations: Yes

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 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.
RPV Internals	Yes	No	Yes	(see attached page, item 5)	Yes	No	Out of Scope		No	COLA 3.9.2.3

Table 1 (continued):

Item 5: Consideration of potential adverse effects of flow-induced vibration and acoustic resonance is dependent upon resolution of unresolved technical issues raised during concurrent review of Topical Report NEDO-33316, referenced in STP standard supplement to FSAR Section 3.9.2.3. Treatment of the comprehensive vibration assessment program for reactor internals defined by NEDO-33316 in response to guidelines contained in R.G. 1.20 should be addressed in the context of both SRP 3.9.2 and SRP 3.9.5.

Out of Scope

SER Section: 3.10

Technical Branch: EMB2./ICE (Primary/Secondary)

Technical Review

Branch Chief: Jennifer Dixon-Herrity

SRP Section: 3.10

Date: 10/26/2007

Out of Scope

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.
Experience-Based Method of Qualification	Yes	No	Yes	No information is provided in COLA for mechanical equipment.	No	No, if the stated method of qualification is going to be used	Based on the teleconference call with the applicant on 10/25/2007, the applicant indicated that it will clarify, in the forthcoming COLA, Revision 1, that this method of qualification will not be used for mechanical equipment.	N/A	N/A	COLA Section 3.10

Availability of qualification records	Yes	No	Yes	The applicant will be requested to provide an implementation program, including milestones and completion dates with appropriate information submitted with sufficient time for staff review and approval prior to installation of the equipment, not prior to fuel loading, in accordance with Section C.I.3.10.4 of RG 1.206.	N/A	No, it will be revised	The schedule and the staff hours will be revised based on the applicant's response to RAIs.	See Table 2	Yes	N/A
Verification of qualification records (Audit)	Yes	No	Yes	The records are not available for staff review and audit now.	N/A	Yes	N/A	N/A	Yes	N/A

SER Section: 3.12

Technical Branch: EMB1 (Primary/Secondary)

Technical Reviewer:

Out of Scope

Branch Chief: A.Hsia

SRP Section: 3.12

Date: 10/29/07

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.
Design Report Availability	Yes	N	Yes	N/A	N/A	No	Out of Scope		yes	
Post issuance of COL activity for ensuring final closure of this item	Yes	N	Yes	N/A	N/A	No			yes	

SER Section: 5.2.1

Technical Branch: EMB1 (Primary/Secondary)

Technical Reviewer

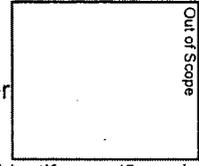
Branch Chief: Anthony Hsia

SRP Section: 5.2.1

Date: 10/29/2007

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 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.
Sec 5.2.1.1	Yes	Yes	Yes	N/A	N/A	Yes	N/A	N/A	Yes	N/A
Sec 5.2.1.2	Yes	Yes	Yes	N/A	N/A	Yes	N/A	N/A	Yes	N/A
Dep tables 5.2-1 and 5.2-1a										

**Table 2: EMB Resource Plan Revisions for
South Texas Project (STP) ABWR R-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	
3.2.1	Seismic Classification	P1 – 3.2.1	Review referenced technical reports	NA	NA	Out of Scope	Revise -	Out of Scope	
3.2.1	Seismic Classification	P2 – 3.2.1	Review referenced technical reports	NA	NA		Revise -		
3.2.1	Seismic Classification	P1							
3.2.1	Seismic Classification	P2							
3.2.2	System Quality Group Classification	PSER and RAIs prepared	Review referenced technical reports	NA	NA			Revised -	
3.2.2	System Quality Group Classification	Evaluation completed	Review referenced technical reports	NA	NA			Revised -	
3.6.2	Details of Pipe Break Analysis Results and Protection Methods	P1-3.6.2 determ of rupture location, RA0605					Out of Scope		
3.6.2	Details of Pipe Break Analysis Results and Protection Methods	P2-3.6.2 determ of rupture location, RA1248							

3.6.2	Details of Pipe Break Analysis Results and Protection Methods	P4-3.6.2 determ of rupture location, RA 1972				Out of Scope	<input type="checkbox"/>	deleted	Out of Scope
3.6.2	Details of Pipe Break Analysis Results and Protection Methods	P1-3.6.2 determ of rupture location, RA0605						revised	
3.6.2	Details of Pipe Break Analysis Results and Protection Methods	P2-3.6.2 determ of rupture location, RA 1248						revised	
3.9.2	Ditto	P2-3.9.2 (RA1272)	COLA 3.9.2 and NEDO-33316	NA	NA				
3.9.3	ASME Code Class 1, 2, and 3 Components and Component Supports, and Core Support Structures	P4 - 3.9.3 ASME Code Class 1, 2, and 3 Components	N/A					Revised	
3.9.4	Control Rod Drive System	P1	N/A	N/A	N/A			Revised	
3.9.4	Control Rod Drive System	P2	N/A					Revised	
3.9.5	Reactor Pressure Vessel Internals	PI-3.9.5 RA0635	COLA 3.9.2.3 and TR NEDO-33316	NA	NA			Revised	
3.9.5		PI-3.9.5 RA0635	NA	NA	NA				
3.9.5		P2-3.9.5 RA1278	COLA 3.9.2.3 and TR NEDO-33316	NA	NA				
3.9.5		P2-3.9.5 RA1278	NA	NA	NA				
3.12	Piping Design Review	P1-3.12 RA0649	NA	1/7/08	4/11/08				
3.12	Piping Design Review	P2-3.12 RA1292	NA	5/9/08	6/18/08				

3.12	Piping Design Review	P2-3.12 RA0649	NA	5/9/08	6/18/08	Hsu R Kaihwa	Revised	Out of Scope
3.12	Piping Design Review	P4-3.12 RA2016	NA	3/27/08	8/3/09	Out of Scope		
3.12	Piping Design Review	P4-3.12 RA2016	NA	3/27/08	8/3/09			
3.12	Piping Design Review	P4-3.12 RA2016	NA	3/27/08	8/3/09			
5.2.1.1	Compliance with 10CFR50, Section 50.55a	P1	N/A	N/A	N/A		revised	
5.2.1.1	Compliance with 10CFR50, Section 50.55a	P2	N/A	N/A			Revised	
5.2.1.1	Compliance with 10CFR50, Section 50.55a	P4	N/A	N/A			Revised	
5.2.1.2	Applicable Code Cases	P1	N/A	N/A	N/A		revised	
5.2.1.2	Applicable Code Cases	P2	N/A	N/A		Revised		
5.2.1.2	Applicable Code Cases	P4	N/A	N/A		Revised		