

November 1, 2007

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

FROM: Mark Thaggard, Chief /RA/  
Hydrologic Engineering Branch  
Division of Site and Environmental Reviews

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

The Hydrologic Engineering Branch (RHEB) 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 RHEB has primary responsibilities and, in addition, applicable interface documentation referenced in the FSAR:

- FSAR Section 2.4.1
- FSAR Section 2.4.2
- FSAR Section 2.4.3
- FSAR Section 2.4.4
- FSAR Section 2.4.5
- FSAR Section 2.4.6
- FSAR Section 2.4.7
- FSAR Section 2.4.8
- FSAR Section 2.4.9
- FSAR Section 2.4.10
- FSAR Section 2.4.11
- FSAR Section 2.4.12
- FSAR Section 2.4.13
- FSAR Section 2.4.14

**Completeness and Sufficiency**

Based on this review, I conclude that, in general, the application contains the information required by regulations, and that the submitted information is technically sufficient for RHEB to commence the STP COLA detailed technical review.

RHEB concludes that FSAR Sections 2.4.4, 2.4.6, and 2.4.12 in the STP COLA contain information required by regulations. However, there are significant gaps in the submitted information that could adversely affect the conduct of an effective and efficient technical review and thus could cause a significant adjustment in the review schedule.

B/3

## Schedule

The estimated effort for the detailed technical review of the STP COLA sections by RHEB varies materially from the pre-baseline model in the EPM. Because of extensive modeling used to support Sections 2.4.2 – 2.4.5, additional time will be needed to verify the results of these modeling analyses. Further, it is anticipated that additional analyses and data will be needed in support of Sections 2.4.4, 2.4.6, and 2.4.12, which may require additional time by the applicant in responding to request for additional information. Lastly, based on the nature of the site, and the proposed reactor design, RHEB anticipate needing less time than originally forecast for reviewing Sections 2.4.7 -2.4.9, 2.4.11, and 2.4.14. Please note that discussions we plan to have with NRG Energy in the last few days of our acceptance review regarding information in the COLA could require additional adjustments in our estimates of the level effort and the length of time to complete the technical review. 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, the resources assigned, and the expected start date. Revisions to the resource plans have been submitted for the following FSAR Section reviews:

- FSAR Section 2.4.1
- FSAR Section 2.4.2
- FSAR Section 2.4.3
- FSAR Section 2.4.4
- FSAR Section 2.4.5
- FSAR Section 2.4.6
- FSAR Section 2.4.7
- FSAR Section 2.4.8
- FSAR Section 2.4.9
- FSAR Section 2.4.10
- FSAR Section 2.4.11
- FSAR Section 2.4.12
- FSAR Section 2.4.13
- FSAR Section 2.4.14

## Review Dependencies

RHEB'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 RHEB Resource Plan Revision for NRG Energy STP COL

CONTACT:    Mark Thaggard, DSER/RHEB  
                  301-415-6971

## Schedule

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- FSAR Section 2.4.7
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CONTACT:    Mark Thaggard, DSER/RHEB  
              301-415-6971

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| NAME   | HAhn      | NTiruneh  | CCook     |
| DATE   | 11/01/07  | 10/30/07  | 11/01/07  |
| OFFICE | RHEB/DSER |           |           |
| NAME   | HJones    |           |           |
| DATE   | 11/01/07  |           |           |

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Memo to Michael R. Gartman from Mark Thaggard dated November 1, 2007

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

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**Table 1: Safety Analysis Report Acceptance Review Results for NRG Energy South Texas Project ABWR COL**

**PSER Section:** 2.4.1  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.1

**Technical Reviewer:** [Redacted]  
**Date:** 10/26/2007

Out of Scope

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. |
| Site and Facilities   | Yes  | Yes  | N/A  | N/A   |   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Hydrosphere           | Yes  | Yes  | N/A  | N/A   |   | No  | Need more staff-hours to write PSER                        |   | Yes   | N/A  |
| Total                 |  |  |  |   |   |   |  |   |   |  |

\*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.

**PER Section:** 2.4.2  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.2

**Technical Reviewer:**  
**Date:** 10/23/2007

Out of Scope

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.

| 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. |
| Flood History                          | Yes  | Yes  | N/A  | N/A   |   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Flood Design Considerations            | Yes  | Yes  | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Effects of Local Intense Precipitation | Yes  | Yes  | N/A  | N/A   |   | No  | Need more staff-hours to analyze PMP and write PSER        |   | Yes   | N/A  |
| Total                                  |  |  |  |   |   |   |  |   |   |  |

**IER Section:** 2.4.3  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.3

**Technical Reviewer:**  
**Date:** 10/23/2007

Out of Scope

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.

| 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. |
| Probable Maximum Precipitation  | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Precipitation Processes         | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Runoff and Stream Course Models | Yes  | Yes   | N/A  | N/A   |   | No  | Need more staff-hours for flood modeling                   |   | Yes   | N/A  |
| Probable Maximum Flood Flow     | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Water Level Determinations      | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Coincident Wind Wave Activity   | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Total                           |  |   |  |   |   |   |  |   |   |  |

**NER Section:** 2.4.4  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.4

**Technical Reviewer:**  
**Date:** 10/23/2007

Out of Scope

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.

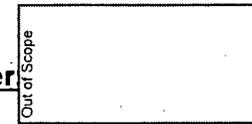
| 1. Review Area/Topic*                            | Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing                    |  |  |   | Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule |   |  | Review Dependencies Among Concurrent Reviews          |   |  |
|--|--|--|--|---|---|---|--|---|---|--|
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| Dam Failure Permutations                         | Yes  | Yes  | N/A  | N/A   |   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Unsteady Flow Analysis of Potential Dam Failures | Yes  | No   | Yes  | Need to address the impacts of mudflow from failure of the MCR embankment.  |   | No  | Need more staff-hours for unsteady flow modeling           |   | Yes   | N/A  |
| Water Level at the Plant Site                    | Yes  | Yes  | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Total  |  |  |  |   |   |   |  |   |   |  |

**ER Section:**  
**Branch Chief:**

2.4.5  
Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.5

**Technical Reviewer:**  
**Date:** 10/26/2007



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.

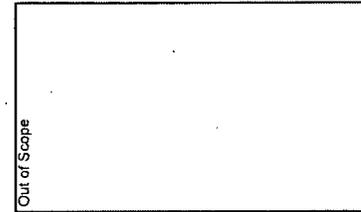
| Review Area/Topic*  | Completeness and Technical Sufficiency Which Form Basis for Acceptability for Docketing                    |   |  |   |  | Changes to Planning Assumptions to be Considered in Development of Baseline Review Schedule |  |  | Review Dependencies Among Concurrent Reviews  |  |
|---|--|---|--|---|--|---|--|--|---|--|
|   | 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). | 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. |
| Probable Maximum Winds and Associated Meteorological Parameters | Yes  | Yes   | N/A  | N/A   |  | Yes   | N/A  | Out of Scope                                       | Yes   | N/A  |
| Surge and Seiche Water Levels                                   | Yes  | Yes   | N/A  | N/A   |  | No  | Need more staff-hours for storm surge modeling             |  | Yes   | N/A  |
| Wave Action   | Yes  | Yes   | N/A  | N/A   |  | Yes   | N/A  |  | Yes   | N/A  |
| Resonance   | Yes  | Yes   | N/A  | N/A   |  | Yes   | N/A  |  | Yes   | N/A  |
| Protective Structures   | Yes  | Yes   | N/A  | N/A   |  | Yes   | N/A  |  | Yes   | N/A  |
| Total   |  |   |  |   |  |   |  |  |   |  |

**SER Section:**  
**Branch Chief:**

2.4.6  
Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.6

**Technical Reviewer:**  
**Date:** 10/26/2007



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.

| 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          |   |  |
|--|--|---|--|---|---|---|--|---|---|--|
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| Probable maximum Tsunami                                   | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Historical Tsunami Record                                  | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Source Generator Characteristics                           | Yes  | No  | Yes  | Doesn't consider additional sources cited in a recent USGS report.  |   | No  | Need more staff-hours for literature review and interpretation |   | Yes   | N/A  |
| Tsunami Analysis   | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Tsunami Water Levels                                       | Yes  | No  | Yes  | Doesn't consider impacts associated with sources cited in a recent USGS report.   |   | No  | Need more staff-hours for tsunami modeling                     |   | Yes   | N/A  |
| Hydrography and Harbor or Breakwater Influences on Tsunami | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Effect on Safety-Related Facilities                        | Yes  | Yes   | N/A  | N/A   |   | Yes   | N/A  |   | Yes   | N/A  |
| Total  |  |   |  |   |   |   |  |   |   |  |

**NER Section:** 2.4.7

**Technical Branch:** RHEB

**Technical Reviewer:**

**Branch Chief:** Mark Thaggard

**SRP Section:** 2.4.7

**Date:** 10/26/2007

Out of Scope

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.

| 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       |   |  |
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| Use Effects        | Yes  | Yes   | N/A  | N/A   |   | No  | Reduce staff-hours because the site is non-freezing zone   | Out of Scope                                       | Yes   | N/A  |
| Total              |  |   |  |   |   |   |  |  |   |  |

**IER Section:** 2.4.8

**Technical Branch:** RHEB

**Technical Reviewer:**

**Branch Chief:** Mark Thaggard

**SRP Section:** 2.4.8

**Date:** 10/22/07

Out of Scope

Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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          |   |  |
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| Cooling water canals and reservoirs | Yes  | Yes  | N/A  | N/A   | N/A   | No  | Reduce staff-hours because canal and reservoir at the site are not safety related SSCs | Out of Scope  | Yes   | N/A  |
| Total                               |  |  |  |   |   |   |  |   |   |  |

**SR Section:** 2.4.9  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.9

**Technical Reviewer:**  
**Date:** 10/22/07

Out of Scope

Does the section address the applicable regulations: Yes  
 Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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          |   |  |
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| Channel Diversions    | Yes  | Yes  | N/A  | N/A   | N/A   | No  | Reduce staff-hours because there is no potential for channel diversion | Out of Scope  | Yes   | N/A  |
| Total                 |  |  |  |   |   |   |  |   |   |  |

**IER Section:** 2.4.10  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.10

**Technical Reviewer**  
**Date:** 10/22/07

Out of Scope

Does the section address the applicable regulations: Yes  
 Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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. |
| Flooding Protection   | Yes  | Yes  | N/A  | N/A   | N/A   | No  | Better feel for level of review needed.                    | Out of Scope  | Yes   | N/A  |
| Total                 |  |  |  |   |   |   |  |   |   |  |

**SER Section:** 2.4.11  
**Branch Chief:** Mark Thaggard

**Technical Branch:** RHEB  
**SRP Section:** 2.4.11

**Technical Reviewer**  
**Date:** 10/22/07

Out of Scope

Does the section address the applicable regulations: Yes  
 Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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. |
| Low Flow in Rivers and Stream            | Yes  | Yes   | N/A  | N/A   | N/A   | Yes   | N/A  | Out of Scope  | Yes   | N/A  |
| Low Water from Surge, Seiche, or Tsunami | Yes  | Yes   | N/A  | N/A   | N/A   | No  | Reduce staff-hours because surge, seiche, and tsunami are not bounding |   | Yes   | N/A  |
| Historical Low Water                     | Yes  | Yes   | N/A  | N/A   | N/A   | Yes   | N/A  |   | Yes   | N/A  |
| Future Controls                          | Yes  | Yes   | N/A  | N/A   | N/A   | Yes   | N/A  |   | Yes   | N/A  |
| Plant Requirements                       | Yes  | Yes   | N/A  | N/A   | N/A   | Yes   | N/A  |   | Yes   | N/A  |
| Total                                    |  |   |  |   |   |   |  |   |   |  |

IER Section: 2.4.12

Technical Branch: RHEB

Technical Review

Branch Chief: Mark Thaggard

SRP Section: 2.4.12

Date: 10/22/07

Out of Scope

Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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). | 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. |
| Description and Onsite Use                              | Yes  | Yes   | N/A   | N/A   | N/A   | Yes   | N/A  | Out of Scope                                       | Yes   | N/A  |
| Sources   | Yes  | Yes   |   | N/A   | N/A   | Yes   | N/A  |  | Yes   | N/A  |
| Subsurface pathways                                     | Yes  | No  | Yes   | Basis not fully supported.  | N/A   | No  | Need more staff-hours for groundwater modeling             |  | Yes   | N/A  |
| Monitoring or Safeguard Requirements                    | Yes  | Yes   | N/A   | N/A   | N/A   | Yes   | N/A  |  | Yes   | N/A  |
| Site Characteristics for Subsurface Hydrostatic Loading | Yes  | Yes   | N/A   | N/A   | N/A   | Yes   | N/A  |  | Yes   | N/A  |
| Total   |  |   |   |   |   |   |  |  |   |  |

**SR Section: 2.4.13**

**Technical Branch: RHEB**

**Technical Review**

**Branch Chief: Mark Thaggard**

**SRP Section: 2.4.13**

**Date: 10/22/07**

Out of Scope

Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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).                | 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. |
| Accidental Releases of Radioactive Liquid Effluent in Ground and Subsurface Water | Yes  | Yes  | N/A  | N/A   | N/A   | No  | Reduce staff-hours because the model developed in 2.4.12 be utilized here | Out of Scope                                       | No  | COLA Section 2.4.12  |
|   |  |  |  |   |   |   |   |  |   |  |
| <b>Total</b>  |  |  |  |   |   |   |   |  |   |  |

SER Section: 2.4.14

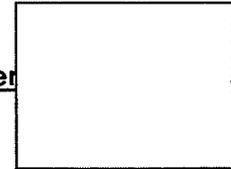
Technical Branch: RHEB

Technical Reviewer

Branch Chief: Mark Thaggard

SRP Section: 2.4.14

Date: 10/22/07



Does the section address the applicable regulations: Yes

Are there any technical deficiencies, changes in planning assumptions, or dependencies on concurrent reviews? No

| 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).   | 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. |
| Technical Specifications and Emergency Operation Requirements | Yes  | Yes  | N/A  | N/A   | N/A  | No  | Reduce staff-hours because flood protection requirement is applicable only to the on-site flooding | Out of Scope                                       | Yes   | N/A  |
|   |  |  |  |   |  |   |  |  |   |  |
| Total   |  |  |  |   |  |   |  |  |   |  |

**Table 2: RHEB Resource Plan Revisions for  
NRG Energy South Texas Project ABWR COL**  
(Suggested Format)

| 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 (planned) |
| 2.4.1           | Hydrologic Description  | PSER and RAIs Prepared | NA                                      | NA                 | NA                  | Out of Scope     | Revised         | Out of Scope            |
| 2.4.2           | Floods  | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.3           | Probable Maximum Flood (PMF*) on Streams and Rivers           | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.4           | Potential Dam Failures (flood potential and low water level*) | PSER and RAIs Prepared | NA                                      | NA                 | 3/31/2009*          |                  | Revised         |                         |
| 2.4.5           | Probable Maximum Surge And Seiche Flooding*                   | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.6           | Probable Maximum Tsunami Hazards                              | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.7           | Ice Effects   | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.8           | Cooling Water Canals and Reservoirs                           | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.9           | Channel Diversions  | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.10          | Flooding Protection requirements                              | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |
| 2.4.11          | Low Water Considerations                                      | PSER and RAIs Prepared | NA                                      | NA                 | NA                  |                  | Revised         |                         |

|        |  |                        |    |    |                 |              |         |              |
|--------|--|------------------------|----|----|-----------------|--------------|---------|--------------|
| 2.4.12 | Groundwater  | PSER and RAIs Prepared | NA | NA | 2/27/2009<br>** | Out of Scope | Revised | Out of Scope |
| 2.4.13 | Accidental Releases Of Liquid Effluents In Ground and Surface Waters | PSER and RAIs Prepared | NA | NA | NA              |              | Revised |              |
| 2.4.14 | Technical Specification and Emergency Operation Requirements         | PSER and RAIs Prepared | NA | NA | NA              |              | Revised |              |
|        | Total  |                        |    |    |                 |              |         |              |

\* This task needs three additional months from the planned schedule for the staff to review applicant tsunami source identification and modeling and to make necessary confirmatory analysis.

\*\* This task needs two additional months from the planned schedule because of the possible need by the applicant to install of additional monitoring wells and the applicant and staff to conduct groundwater pathway analyses.

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.