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September 19, 2011  
U7-C-NINA-NRC-110118

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

South Texas Project  
Units 3 and 4  
Docket Nos. 52-012 and 52-013  
Supplemental Response to Request for Additional Information

Reference: Letter, Scott Head to Document Control Desk, "Response to Request for Additional Information," dated August 28, 2009, U7-C-STP-NRC-090123 (ML092450155)

Attached is a supplemental response to an NRC staff question in Request for Additional Information (RAI) letter number 177, related to Combined License Application (COLA) Part 2, Tier 2, Section 9.2, "Water Systems." The original response to this RAI was submitted in the referenced letter.

An attachment to this letter contains the revised response to the following RAI question:

RAI 09.02.05-1, Supplement 1

When a change to the COLA is required, it will be incorporated into the next routine revision of the COLA following NRC acceptance of the RAI response.

There are no commitments in this letter.

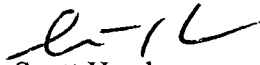
If you have any questions, please contact Scott Head at (361) 972-7136 or Bill Mookhoek at (361) 972-7274.

D091  
NRC

STI 32954018

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 9/19/11



Scott Head  
Manager, Regulatory Affairs  
South Texas Project Units 3 & 4

jaa

Attachment: RAI 09.02.05-1, Supplement 1

cc: w/o attachment except\*  
(paper copy)

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**RAI 09.02.05-1, Supplement 1:****QUESTION:**

GDC 44 requires reliable operation of the ultimate heat sink (UHS) under all anticipated conditions. ITAAC 3.0-1.2a in Section 9 of the FSAR states that the RSW pump suction will be at 3.35 m above mean sea level (MSL). ITAAC 3.0-1.2a does not specify if the RSW suction elevation is a required minimum or maximum. The NRC staff cannot reconcile this number with Figure 1.2-35 presented in FSAR Section 21 of the COL application where the bottom of the pool is 4.3 m above MSL and the pump is 10 meters below the bottom of the pool (although the electronic copy of the figure is difficult to read). Nor does this elevation agree with Tier 2 Section 9.2.5.5.2(7) which states that the minimum water level is 1.83 m above the suction line's centerline. FSAR, Section 16, SR 3.7.1.2 states that the minimum level in the UHS basin is 0.91 meters with the reference level not provided. The applicant should resolve the discrepancies in the reactor service water pump suction elevation.

**SUPPLEMENTAL RESPONSE:**

The original response to this RAI, submitted with STPNOC letter U7-C-STP-NRC-090123, dated August 28<sup>th</sup>, 2009, provided clarification on the elevations of several points of interest related to the Ultimate Heat Sink (UHS). This supplemental response with COLA markups provides consistency with subsequent RAI responses, and corrects minor discrepancies in the COLA. Information and COLA revisions provided in the original response are not affected by this supplemental response with the exception of the revision to Tier 2 Figure 1.2-35.

As indicated in COLA Part 2, Tier 2, Subsection 9.2.5.5.2(5), the bottom of the UHS is provided with a 0.3 meter-tall curb to prevent the migration of sediment into the RSW system. This curb was also described in the response provided to RAI 09.02.05-8, included in STPNOC letter U7-C-STP-NRC-100045, dated February 18<sup>th</sup>, 2010. The revised Figure 1.2-35 provided with the original response to RAI 09.02.05-1 was affected by the subsequent response to RAI 03.07.01-13, Supplement 2, submitted with STPNOC letter U7-C-STP-NRC-090230, dated December 30, 2009, which showed the curb height in Figure 1.2-35 as 0.6 meters (2 feet). The curb height of 0.6 meters is greater than the 0.3 meters height originally set for protection against sediment migration. This requirement is clarified in the COLA mark-up to Subsection 9.2.5.5.2(5), provided in the Enclosure. A revision to Figure 1.2-35 which corrects a minor discrepancy as indicated by a cloud which reflects a change from COLA Revision 6 is also provided in the Enclosure.

NINA is also submitting a revision to correct typographical errors identified in COLA Part 2, Tier 2, Table 3.2-1. In Table 3.2-1, Principal Component P8, the "Ultimate Heat Sink", should refer to U20, "Ultimate Heat Sink and Associated Structures", not U16, which is undefined.

As a result of this supplemental RAI response, the COLA will be revised as shown in the Enclosure.

## **Enclosure**

**These mark-ups are based on COLA Revision 6.**

COLA Part 2, Tier 2, Table 3.2-1, will be revised as follows:

**Table 3.2-1 Classification Summary**

The classification information is presented by System* in the following order:		
<b>Item No.</b>	<b>MPL Number†</b>	<b>Title</b>
P Station Auxiliary Systems		
<i>P8 (See <del>U16</del>U20)</i>	<i>P40 (See U80)</i>	<i>Ultimate Heat Sink (Ultimate Heat Sink and Associated Structures)</i>

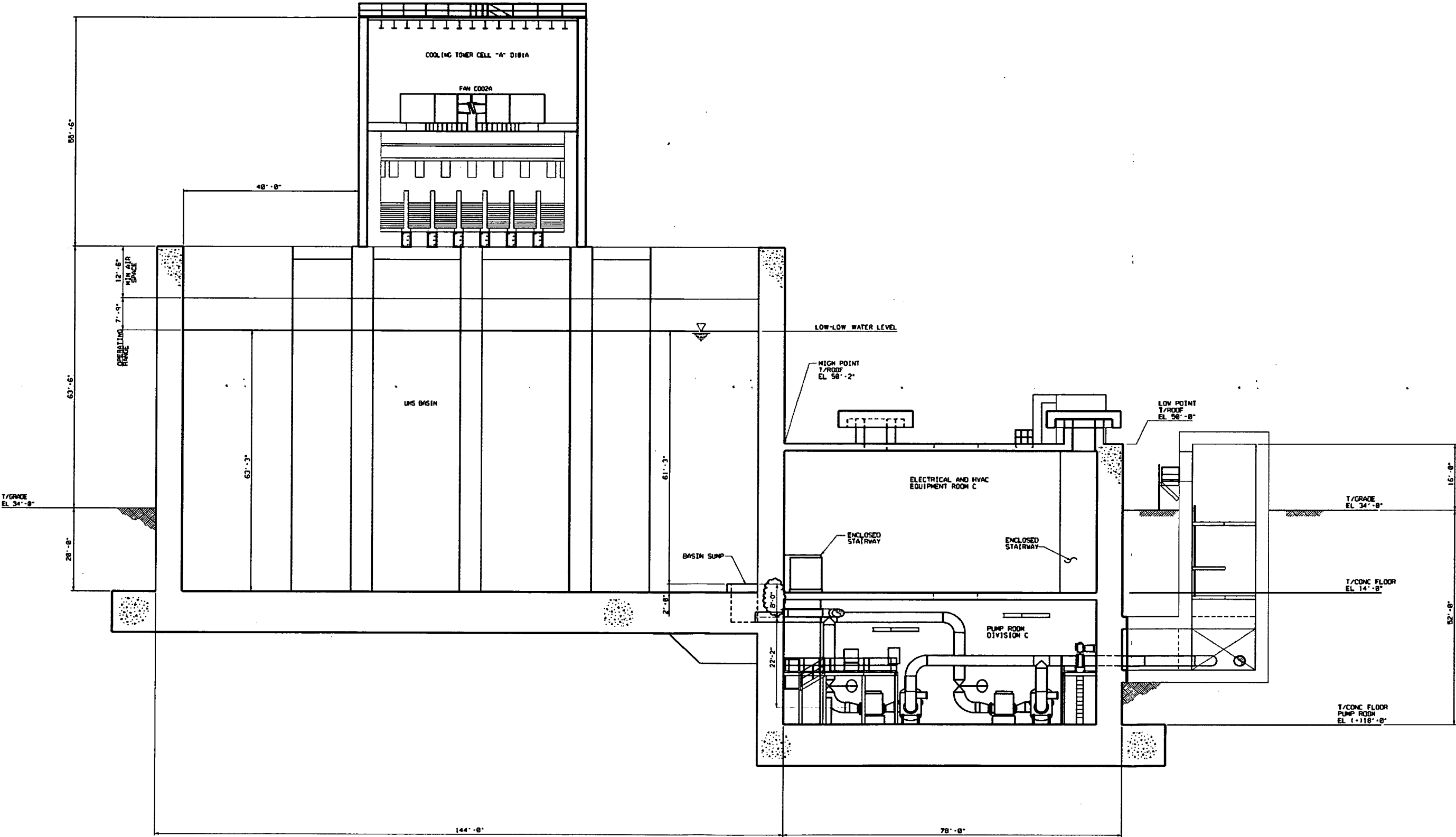
**Table 3.2-1 Classification Summary (Continued)**

Principal Component*	Safety Class <sup>b</sup>	Location <sup>c</sup>	Quality Group Classification <sup>d</sup>	Quality Assurance Requirement*	Seismic Category <sup>e</sup>	Notes
<i>P8 (See <del>U16</del>U20)</i> <i>Ultimate Heat Sink (Ultimate Heat Sink and Associated Structures) UHS Basin, Cooling Tower Structural Elements, and RSW Pumphouse</i>	<i>3</i>	<i>O,U</i>	<i>C,—</i>	<i>B</i>	<i>I</i>	

COLA Part 2, Tier 2, Subsection 9.2.5.5.2(5), will be revised as follows:

The bottom of the UHS water storage basin is provided with a ~~0.60-3~~ meter-tall curb to prevent sediment migration to the RSW pump.

COLA Part 2, Tier 2, Figure 1.2-35 Section 1, will be revised as follows:



**SECTION 1**