Requests for Additional Information (RAIs)
South Texas Project Units 3 and 4
Combined Operating License Application
RAI Submittal 3

RAI Number	Reviewer	RAI Summary	Full Text (Supporting Information)
3.5.4-1 10CFR50 10CFR61	Antonio	Explain the apparent discrepancy in solid radwaste volumes presented in the ER and FSAR tables versus the FSAR text and provide corrected text or tables.	Section 3.5.4 of ER Rev 2 provides a description of the solid waste management system. The annual volumes of solid radwaste to be shipped for disposal are presented in Table 3.5-12, which is excerpted from Table 11.4-3 provided in the FSAR. Table 11.4-3 of the FSAR and Table 3.5-12 of ER Rev 2, indicate the estimated shipped volumes when summed are approximately 473.5 m^3/y. However, based on text provided in the FSAR page 11.4-8, staff calculated annual waste volumes as 1980 ft^3/y Class B and 27,840 ft^3/y Class A for a total of 29,820 ft^3/y which is approximately 845 m^3/y. Provide an explanation for this apparent discrepancy in the solid waste volumes or provide corrected waste volume information.
5.4.2-1 10CFR20	Antonio	Provide the new X/Q and D/Q files and GASPAR input/output files in electronic form and provide associated revisions to impacted sections of the ER.	The applicant responded to Safety RAI 02.03.04-5 stating that new X/Qs and D/Qs will be recalculated based on an envelope surrounding the “power block”. The applicant also responded to Safety RAI 02.03.05-8 stating: “In response to RAI 02.03.04-5, the long-term atmospheric dispersion estimates for routine releases are being recalculated and receptor distances listed in Table 2.3S-26 will be revised to be consistent with information from Revision 15 of the STP Offsite Dose Calculation Manual dated October 1, 2007.” Provide the new X/Q and D/Q files and the GASPAR input/output files for staff review. Provide revised sections of the Environmental Report impacted by the changes described in the responses to RAI 02.03.04-5 and RAI 02.03.05-8.

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5.4.1-1 10CFR20	Antonio	Clarify which data sources were used to determine the impact of liquid and gas releases and provide corrected ER text as appropriate.	Table 12.2-22 of the FSAR and Table 3.5-1 of the ER have been updated based on a departure from the ABWR DCD because the applicant wants to eliminate the forced-circulation concentrator and use mobile filter technology However, on page 5.4-1 of ER Rev 2, the applicant states "The released quantities have been estimated in Tables 12.2-20 (gases) and 12.2-22 (liquids) of the ABWR DCD." Table 12.2-20 of the DCD matches Table 12.2-20 of the FSAR and Table 3.5-2 of the ER and corresponds with input found in various GASPAR input files. However, Table 12.2-22 of the ABWR DCD is not being used because of the stated departure and the liquid effluent source term has been updated and replaced by Table 12.2-22 in the FSAR and Table 3.5-1 in the ER. Based on staff review, the updated source term appears to have been used in various LADTAP calculations but is not consistent with text on the stated page. Update the ER text as appropriate.
RAI 5.2-4 10 CFR 51.71(d)	Prasad	Provide a description of the MCR thermal model used to estimate evaporation from the reservoir. Provide the calculation package that documents the implementation of the MCR thermal model for the staff's audit. Describe any changes that may need to be made to the MCR thermal model for a two-unit (existing Units 1 and 2) operation scenario.	A description of the MCR thermal model used to estimate the evaporation from the reservoir should contain the details needed to support the evaluation of impacts associated with operation of the existing units and the operation of all four units.
RAI 5.2-5 10 CFR 51.71(d)	Prasad	1. Provide a description of rules that govern the operation of the MCR, makeup water withdrawal from the Colorado River, and blowdown from the MCR to the Colorado	The current MCR water budget and water quality model is set up to simulate the operation of all four units (existing Units 1 and 2 and proposed Units 3 and 4) at the STP site. The staff requires simulation results from a two-unit (existing Units 1 and 2) operation scenario to be able to evaluate the incremental impact on water and aquatic resources from the addition of proposed Units 3 and 4 to the STP site. The staff requires the simulation

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		River for the two-unit scenario. 2. Provide the calculation package that documents the implementation of the MCR water budget and water quality model used for the two-unit simulation for staff's audit. 3. Provide three tables summarizing results from the two-unit and the four-unit simulations of the MCR water budget and water quality model that use the historical flow records of the Colorado River. The three tables should represent 1) discharge below the river makeup pumping facility; 2) blowdown discharge temperature; and 3) Total Dissolved Solids (TDS) concentration in the blowdown discharge. Each of the three tables should include two operation scenarios: two units (Units 1 and 2) and four units. For each scenario, the following summary statistics should be provided: minimum; maximum; mean; 10^{th} percentile; 50^{th} percentile; and 90^{th} percentile. For each of these statistics,	results using historical Colorado River flows as well as projected flows accounting for the proposed Lower Colorado River Authority/San Antonio Water System diversions to evaluate the incremental impact on water and aquatic resources from the addition of proposed Units 3 and 4 to the STP site under anticipated changes in the water supplies of the Lower Colorado River Basin. The two-unit simulation should use the same hydro-meteorological input data and should be performed for the same duration as the corresponding four-unit simulation. The MCR water budget and water quality model uses conductivity rather than TDS concentration as a state variable. The staff requires analysis of the simulation results presented in terms of TDS concentrations. The applicant should describe the conversion method and provide publicly-available references related to the method used to convert conductivity values to TDS concentrations.

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		provide the number of days the corresponding measure (discharge, temperature, and TDS) was at or below the estimated value. Example tables are attached. 4. Provide a description of the method used to convert conductivity values (the state variable used in the MCR water budget and water quality model) to TDS concentration in the blowdown discharge. Provide publicly available references that describe and document this conversion method. 5. State the duration (number of days) of the simulations that use the historical flow records of the Colorado River. 6. Populate tables similar to those shown above in item 3 using results from the two-unit and the four-unit simulations that use projected flows accounting for the proposed Lower Colorado River Authority/San Antonio Water System diversions. 7. State the duration	

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		(number of days) of the simulations that use the projected flows accounting for the proposed Lower Colorado River Authority/San Antonio Water System diversions. 8. State the maximum duration (number of days) the blowdown to the Colorado River would occur continuously for two-unit and for four-unit operations with the historical flow record of the Colorado River. 9. State the maximum duration (number of days) the blowdown to the Colorado River would occur continuously for two-unit and for four-unit operations with the projected flows that account for the proposed Lower Colorado/San Antonio Water System diversions.	