

PMSTPCOL PEmails

From: Muir, Jessie
Sent: Tuesday, March 31, 2009 12:16 PM
To: Kiesling, Russell W; sadamico@STPEGS.COM
Cc: STPCOL; Miller, Beverly M; Biggins, James
Subject: Draft RAIs
Attachments: RAI Round 3 - draft.doc; RAI 3 Supplemental table - draft.doc

Attached you will find the draft RAIs related to rad waste and MCR modeling that we would like to discuss on today's call at 2pm EST. The file named "RAI 3 Supplemental Table - draft" is an example of the type of table we would expect to see based on the related RAI.

The hydrology reviewers will be on the call but our rad waste reviewer is not available today. I understand your contractors will not have a lot of time to review the RAIs before the call today so if another call is necessary, we'd be glad to support it.

Thanks,
Jessie

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Subject: Draft RAIs
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From: Muir, Jessie

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MESSAGE	738	3/31/2009 12:15:50 PM
RAI Round 3 - draft.doc	47610	
RAI 3 Supplemental table - draft.doc	44026	

Options

Priority: Standard
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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)
3.5.2-1 10CFR20 10CFR51.45	Antonio	Provide the reasoning for use of the ABWR DCD liquid effluents as listed in Table 12.2-22 of the FSAR and Table 3.5-1 of the ER, or provide updated liquid effluent source term.	The Final Safety Analysis Report Section 11.2, states that the liquid waste management system will deviate from the system described in the Advanced Boiling Water Reactor Design Control Document by eliminating the forced-circulation concentrator and using a mobile filter technology. Staff did not find a new liquid effluent source term based on this change in design.
3.5.4-1 10CFR50 10CFR61	Antonio	Explain the discrepancy in solid waste volumes or provide corrected text or table.	From text in Final Safety Analysis Report, 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. However, in Table 11.4-3 of the same document, the estimated shipped volumes, when summed are approximately 473.5 m ³ /y.
5.4.2-1 10CFR20	Antonio	Provide the new X/Q and D/Q files, GASPARG input/output files and proposed revisions to impacted sections of the Environmental Report.	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." If the newly calculated X/Qs, D/Qs and receptor distances impact reported radiological doses to the public, staff will need to review revised sections of the Environmental Report as well as the new XOQDOQ files, GASPARG input and output files.
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 in a reading room for staff's review.	The description of the MCR thermal model to estimate the evaporation from the reservoir is needed to support the evaluation of impacts associated with operation of the existing units, the proposed units and in evaluation of cumulative effects from the operation of all four units.

South Texas Project Units 3 and 4
RAI Submittal 3

RAI Number	Reviewer	RAI Summary	Full Text (Supporting Information)
		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.	
RAI 5.2-5 10 CFR 51.71(d)	Prasad	1. Provide a description of rules that describe the operation of the MCR, makeup water withdrawal from the Colorado River, and blowdown from the MCR to the Colorado 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 in a reading room for staff's review. 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 81-year historical flow records of the Colorado River. The three tables should represent 1) discharge below the river makeup pumping facility; 2) water temperature at the blowdown discharge	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 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.

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RAI Submittal 3

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		location into the Colorado River; and 3) Total Dissolved Solids at the blowdown discharge location into the Colorado River. Each of the three tables should include three operation scenarios: no plant operation; two units (Units 1 and 2); and four units. For each scenario, the following summary statistics should be provided: minimum; maximum; mean; 10th percentile; 50th percentile; and 90th percentile. For each of these statistics, provide the number of days the corresponding measure (discharge, temperature, and TDS) was at or below the estimated value. 4. State the duration (number of days) of the simulations that use the 81-year historical flow records of the Colorado River. 5. 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	

South Texas Project Units 3 and 4
RAI Submittal 3

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		proposed Lower Colorado River Authority/San Antonio Water System diversions. <u>6. State the duration (number of days) of the simulations that use the projected flows accounting for the proposed Lower Colorado River Authority/San Antonio Water System diversions.</u> <u>7. 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 81-year historical flow record of the Colorado River.</u> <u>6-8. 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 projected flows that account for the proposed Lower Colorado/San Antonio Water System diversions.</u>	

Please populate the following tables using results from the two-unit and the four-unit simulations of the MCR water budget and water quality model that use the 81-year historical flow records of the Colorado River.

Operation Scenario	X = Discharge below the River Makeup Pumping Facility (cfs) [Y = Number of days at or below X]					
	minimum	maximum	mean	10 th percentile	50 th percentile	90 th percentile
No Plant	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Two Units (Units 1 and 2)	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Four Units	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]

Operation Scenario	X = Water temperature at the blowdown discharge location in the River (°F) [Y = Number of days at or below X]					
	minimum	maximum	mean	10 th percentile	50 th percentile	90 th percentile
No Plant	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Two Units (Units 1 and 2)	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Four Units	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]

Operation Scenario	X = Total Dissolved Solids at the blowdown discharge location in the River (mg/L) [Y = Number of days at or below X]					
	minimum	maximum	mean	10 th percentile	50 th percentile	90 th percentile
No Plant	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Two Units (Units 1 and 2)	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]
Four Units	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]	X [Y]