



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

July 7, 2009

U7-C-STP-NRC-090069

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
Response to Request for Additional Information

Attached are responses to NRC staff questions included in Request for Additional Information (RAI) letter numbers 121 and 122 related to Combined License Application (COLA) Part 2, Tier 2, Section 6.1 and Section 12.2 respectively.

The attachments provide the responses to the RAI questions listed below:

RAI 06.01.02-1
RAI 12.02-3

There are no commitments in this letter.

If you have any questions regarding this response, please contact me at (361) 972-7206, or Bill Mookhoek at (361) 972-7274.

DOA/
MLW

STI 32500448

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

Executed on 7/7/2009



Mark A. McBurnett
Vice President, Oversight and Regulatory Affairs
South Texas Project Units 3 & 4

jaa

Attachments:

1. Question 06.01.02-1, Response
2. Question 12.02-3, Response

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

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RAI 06.01.02-1:

QUESTION:

Please describe in the STP 3&4 FSAR how the evaluation of combustible gas generation for the non-conforming (with respect to RG 1.54 and associated industry standards) coatings and organic materials in containment will be documented and retained in the plant quality records as part of the 10 CFR 50, Appendix B quality assurance program (COL Information Item 6.1).

RESPONSE:

The documentation of the evaluation of combustible gas generation for the non-conforming coatings and organic materials in containment as described in COL Information Item 6.1 will be performed in accordance with 10 CFR 50, Appendix B. Control will be applied to this documentation as specified in Section III of Appendix B. That documentation will be produced by individuals qualified to do the evaluation and will be retained electronically in the data records for the organization responsible for performing the evaluation. Those records will identify the results of the evaluation, the technical basis for those results including assumptions, any detailed calculations, if applicable, any supporting reference material, and evidence of independent verification by a qualified individual who is not the originator. As required in Section VI of Appendix B, any revisions to that evaluation will be controlled and documented and subject to the same approval requirements as the original document. The documentation of the evaluation including all revisions will be subject to audit as specified in Section XVIII of Appendix B. The duration of record retention will be defined as required by Section XVII of Appendix B.

For that evaluation, a list of non-conforming materials and their quantities will be provided which includes quality documentation provided by vendors for their equipment where they will be taking exception to the engineering specification requirements. The evaluation will provide the quantity of combustible gases that will be generated under Design Basis Accident (DBA) conditions for those non-conforming materials. The results will be compared with acceptance criteria that will be established as part of the evaluation.

As a result of this response, Section 6.1.3.1 of the COLA will be revised by adding a sentence at the end of the subsection as shown below.

6.1.3.1 Protective Coatings and Organic Materials

This analysis will be completed and available for NRC review by the end of the respective unit Preoperational testing (COM 6.1-2) The analysis will be documented and retained in plant quality records in accordance with applicable sections of 10 CFR 50, Appendix B.

RAI 12.02-3

QUESTION:

A review of the proposed FSAR Section 12.2.2 indicates internal inconsistencies in the presentation of FSAR data supporting the demonstration of regulatory compliance. Specifically, the applicant is requested to address and resolve the following item:

- 1) In demonstrating consistency with the unity rule of Table 2 (Column 1) of Appendix B to Part 20, add a listing to FSAR Table 12.2-20 Airborne Concentrations, showing the ratio of each airborne radionuclide and sum-of-the-ratios for all airborne radionuclides. Currently, the tabulation does not present the sum-of-the-ratios for 10 CFR 20 compliance. The applicant has not demonstrated compliance in the FSAR to 10 CFR 20.1302 and Appendix B.

RESPONSE:

The attached table is provided to support staff review of the STP 3&4 Rev. 2 COLA to demonstrate compliance with the unity rule (Note 4) of 10 CFR 20, Appendix B and compliance with 10 CFR 20.1302.

During preparation of this response, it was noted that the 10 CFR 20 limits for Zn-65, Tc-99m, Te-129m, Te-131m, and Cs-138 in COLA Rev. 2 Table 12.2-20 were recorded incorrectly. This editorial error will be corrected in a future revision to the STP 3&4 COLA.

FSAR Table 12.2-20 is based on and consistent with DCD Table 12.2-20. The only changes to the table are those values necessary to provide the site-specific and supplementary information required by COL License Information Item 12.5 for airborne releases. Therefore, no revision to the COLA is required.

Nuclide	Annual Release MBq/yr.	Concentration MBq/cm ³	Site Wide 10CFR20 Limits (MBq/cm ³)	Fraction of Allowable Concentration
Kr-83m	3.10E+01	1.28E-17	1.85E-06	6.92E-12
Kr-85m	7.80E+05	3.22E-13	3.70E-09	8.70E-05
Kr-85	2.10E+07	8.66E-12	2.59E-08	3.34E-04
Kr-87	9.30E+05	3.83E-13	7.40E-10	5.18E-04
Kr-88	1.40E+06	5.77E-13	3.33E-10	1.73E-03
Kr-89	8.90E+06	3.67E-12	0.00E+00	0.00E+00
Kr-90	1.20E+01	4.95E-18	0.00E+00	0.00E+00
Xe-131m	1.90E+06	7.83E-13	7.40E-08	1.06E-05
Xe-133m	3.20E+03	1.32E-15	2.22E-08	5.95E-08
Xe-133	8.90E+07	3.67E-11	1.85E-08	1.98E-03
Xe-135m	1.50E+07	6.18E-12	1.48E-09	4.18E-03
Xe-135	1.70E+07	7.01E-12	2.59E-09	2.71E-03
Xe-137	1.90E+07	7.83E-12	0.00E+00	0.00E+00
Xe-138	1.60E+07	6.60E-12	7.40E-10	8.92E-03
Xe-139	1.50E+01	6.18E-18	0.00E+00	0.00E+00
I-131	9.60E+03	3.96E-15	7.40E-12	5.35E-04
I-132	8.10E+04	3.34E-14	7.40E-10	4.51E-05
I-133	6.30E+04	2.60E-14	3.70E-11	7.03E-04
I-134	1.40E+05	5.77E-14	2.22E-09	2.60E-05
I-135	8.90E+04	3.67E-14	2.22E-10	1.65E-04
H-3	2.70E+06	1.11E-12	3.70E-09	3.00E-04
C-14	3.40E+05	1.40E-13	1.11E-10	1.26E-03
Na-24	1.50E+02	6.18E-17	2.59E-10	2.39E-07
P-32	3.40E+01	1.40E-17	3.70E-11	3.78E-07
Ar-41	2.50E+05	1.03E-13	3.70E-10	2.78E-04
Cr-51	1.30E+03	5.36E-16	1.11E-09	4.83E-07
Mn-54	2.00E+02	8.24E-17	3.70E-11	2.23E-06
Mn-56	1.30E+02	5.36E-17	7.40E-10	7.24E-08
Fe-55	2.40E+02	9.89E-17	1.11E-10	8.91E-07
Fe-59	3.00E+01	1.24E-17	1.85E-11	6.70E-07
Co-58	8.90E+01	3.67E-17	3.70E-11	9.92E-07
Co-60	4.80E+02	1.98E-16	1.85E-12	1.07E-04
Ni-63	2.40E-01	9.89E-20	3.70E-11	2.67E-09
Cu-64	3.70E+02	1.53E-16	1.11E-09	1.38E-07
Zn-65	4.10E+02	1.69E-16	1.48E-11	1.14E-05
Rb-89	1.60E+00	6.60E-19	7.40E-09	8.92E-11
Sr-89	2.10E+02	8.66E-17	3.70E-11	2.34E-06
Sr-90	2.60E+00	1.07E-18	2.22E-13	4.82E-06
Y-90	1.70E+00	7.01E-19	3.33E-11	2.11E-08
Sr-91	3.70E+01	1.53E-17	1.85E-10	8.27E-08
Sr-92	2.90E+01	1.20E-17	3.33E-10	3.60E-08
Y-91	8.90E+00	3.67E-18	7.40E-12	4.96E-07
Y-92	2.30E+01	9.48E-18	3.70E-10	2.56E-08
Y-93	4.10E+01	1.69E-17	1.11E-10	1.52E-07
Zr-95	5.90E+01	2.43E-17	1.48E-11	1.64E-06

Nuclide	Annual Release MBq/yr	Concentration MBq/cm ³	Site Wide 10CFR20 Limits (MBq/cm ³)	Fraction of Allowable Concentration
Nb-95	3.10E+02	1.28E-16	7.40E-11	1.73E-06
Mo-99	2.20E+03	9.07E-16	1.48E-10	6.13E-06
Tc-99m	1.10E+01	4.53E-18	7.40E-09*	6.12E-10
Ru-103	1.30E+02	5.36E-17	3.33E-11	1.61E-06
Rh-103m	4.10E+00	1.69E-18	7.40E-08	2.28E-11
Ru-106	7.00E-01	2.89E-19	3.70E-12	7.81E-08
Rh-106m	7.00E-01	2.89E-19	1.48E-09	1.95E-10
Ag-110m	7.40E-02	3.05E-20	3.70E-12	8.24E-09
Sb-124	6.70E+00	2.76E-18	1.11E-11	2.49E-07
Te-129m	8.10E+00	3.34E-18	3.33E-11*	1.00E-07
Te-131m	2.80E+00	1.15E-18	3.70E-11*	1.55E-08
Te-132	7.00E-01	2.89E-19	3.70E-11	7.81E-09
Cs-134	2.30E+02	9.48E-17	7.40E-12	1.28E-05
Cs-136	2.20E+01	9.07E-18	3.33E-11	2.72E-07
Cs-137	3.50E+02	1.44E-16	7.40E-12	1.95E-05
Cs-138	6.30E+00	2.60E-18	2.96E-09*	8.78E-10
Ba-140	1.00E+03	4.12E-16	7.40E-11	5.57E-06
La-140	6.70E+01	2.76E-17	7.40E-11	3.73E-07
Ce-141	3.40E+02	1.40E-16	3.70E-11	3.78E-06
Ce-144	7.00E-01	2.89E-19	1.48E-12	1.95E-07
Pr-144	7.00E-01	2.89E-19	7.40E-09	3.91E-11
W-187	7.00E+00	2.89E-18	3.70E-10	7.81E-09
Np-239	4.40E+02	1.81E-16	1.11E-10	1.63E-06
			Total:	2.40E-02

* These 10 CFR 20 Appendix B limits are corrections to the table.