



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

April 15, 2015

Mr. Dennis L. Koehl
President and CEO/CNO
STP Nuclear Operating Company
South Texas Project
P.O. Box 289
Wadsworth, TX 77483

**SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL
INFORMATION RELATED TO REQUEST TO REVISE THE EMERGENCY
ACTION LEVEL SCHEME (TAC NOS. MF4195 AND MF4196)**

Dear Mr. Koehl:

By letter dated May 15, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14164A341), as supplemented by letters dated July 10, 2014, and February 11 and 26, 2015 (ADAMS Accession Nos. ML14282A185, ML15055A039, and ML15068A045, respectively), STP Nuclear Operating Company (STPNOC) requested approval for an emergency action level scheme change for the South Texas Project Units, 1 and 2.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in your application and your responses to an NRC staff request for additional information (RAI) dated December 18, 2014 (ADAMS Accession No. ML14352A180), and determined that additional information, as described in the enclosure to this letter, is required to complete the review of your application.

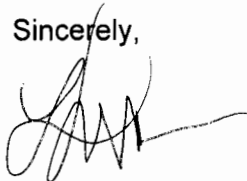
A draft copy of the enclosed RAI was provided to Mr. Lance Sterling of your staff via e-mail on March 31, 2015 (ADAMS Accession No. ML15098A608). The question was discussed with your staff during a conference call on April 2, 2015. It was agreed that STPNOC will provide a response to the requested information by April 23, 2015.

D. Koehl

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If you have any questions, please contact me at 301-415-1906 or via e-mail at Lisa.Regner@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Regner', with a long horizontal flourish extending to the right.

Lisa M. Regner, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

REQUEST FOR ADDITIONAL INFORMATION

LICENSE AMENDMENT REQUEST FOR EMERGENCY ACTION LEVEL SCHEME CHANGE

STP NUCLEAR OPERATING COMPANY

SOUTH TEXAS PROJECT, UNITS 1 AND 2

DOCKET NOS. 50-498 AND 50-499

By letter dated May 15, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14164A341), as supplemented by letters dated July 10, 2014, and February 11 and 26, 2015 (ADAMS Accession Nos. ML14282A185, ML15055A039, and ML15068A045, respectively), STP Nuclear Operating Company (STPNOC, the licensee) requested approval for an emergency action level (EAL) scheme change for the South Texas Project Units, 1 and 2.

The licensee's requested changes support a conversion from the current EAL scheme to a scheme based on Nuclear Energy Institute (NEI) 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," dated November 2012 (ADAMS Accession No. ML12326A805). The following request for additional information (RAI) is necessary for the U.S. Nuclear Regulatory Commission (NRC) staff to complete its review.

General Discussion

By letter dated February 26, 2015, STPNOC responded to RAI-10, Attachment 1, page 4 of 5 as follows:

STPNOC has removed containment radiation monitors (RT-8050 and RT-8051) from the RCS [Reactor Coolant System] Barrier Category 3, RCS Activity/Containment Radiation table due to a reduction in the setpoint value based on calculation STPNOC013-CALC-004, Revision 2. Calculation STPNOC013-CALC-004 was revised in February 2015 and would have lowered the RT-8050 and RT-8051 setpoint from 450 mR/hr to approximately 140 mR/hr above background. STPNOC believes that the proximity of the new setpoint to the background level and the effect of TIC [temperature-induced current] precludes the use of these radiation monitors as reliable indications of an RCS breach. STPNOC does not have other Reg. Guide 1.97 radiation monitors in the containment that can fulfill the function of RT-8050 and RT-8051.

The NEI 99-01, Revision 6, guidance associated with RCS barrier loss (based on section "RCS Activity/Containment Radiation" in Table 9-F-3: PWR [Pressurized-Water Reactor] EAL Fission Product Barrier Table) on page 98 states the following threshold for loss or potential loss of barriers is needed:

Containment radiation monitor reading greater than (site-specific value)

The loss of RCS barrier based on RCS Activity/Containment Radiation is included to provide a diverse indication that the RCS barrier has been lost. The NRC staff expects licensees to provide site-specific indications that will promote timely and accurate assessment of barrier status.

RAI-10.a

STPNOC proposes removing the loss of RCS barrier due to Category 3, RCS Activity/Containment Radiation from the EAL scheme.

Typically, the value associated with this threshold is based upon the maximum allowed amount of fuel damage. Radiation levels above this threshold would therefore be indicative of a loss of the RCS barrier and would require an EAL as determined from the fission barrier logic. It is unusual for this value to be as low as described in STPNOC's response, as compared to licensees of a similar design, which, in some instances, can be a threshold as high as 25 R/hr.

- a. Please provide justification that the calculated value is correct. If a discrepancy is identified, provide a correct value.
- b. Please provide a containment radiation value that would provide an indication of RCS barrier integrity.

D. Koehl

- 2 -

If you have any questions, please contact me at 301-415-1906 or via e-mail at Lisa.Regner@nrc.gov.

Sincerely,

/RA/

Lisa M. Regner, Senior Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

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LPL4-1 Reading

RidsAcrcsAcnw_MailCTR Resource

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RidsNsrDpr Resource

RidsRgn4MailCenter Resource

DJohnson, NSIR/DPR/ORLOB/ORLT

MNorris, NSIR/DPR/ORLOB/ORLT

ADAMS Accession No. ML15100A007

OFFICE	NRR/DORL/LPL4-1/PM	NRR/DORL/LPL4-1/LA	NRR/DORL/LPL4-1/BC	NRR/DORL/LPL4-1/PM
NAME	LRegner	JBurkhardt	MMarkley	LRegner
DATE	4/14/15	4/13/15	4/15/15	4/15/15

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