



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

June 16, 2017

Dr. Dennis C. Bley, Chairman
Advisory Committee on
Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS LETTER, "SAFETY EVALUATION OF LICENSE AMENDMENT REQUEST BY SOUTH TEXAS PROJECT (STP) NUCLEAR OPERATING COMPANY TO ADOPT A RISK-INFORMED RESOLUTION OF GENERIC SAFETY ISSUE-191"

Dear Dr. Bley:

This letter provides the U.S. Nuclear Regulatory Commission (NRC) staff's response to your letter dated May 17, 2017 (Agencywide Documents Access and Management System Accession No. ML17137A325). In this letter, the Advisory Committee on Reactor Safeguards (ACRS) reported on its review of the staff's safety evaluation for the STP Nuclear Operating Company (STPNOC) license amendment request (LAR) to adopt a risk-informed resolution to Generic Safety Issue 191, "Assessment of Debris Accumulation on PWR [pressurized-water reactor] Sump Performance." The LAR requested changes to the technical specifications and licensing basis analysis for STP, Units 1 and 2, and to close Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors." The licensee also requested exemptions from certain emergency core cooling system (ECCS) requirements in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.46 and 10 CFR Part 50 Appendix A, General Design Criterion (GDC) 35, "Emergency core cooling"; GDC 38, "Containment heat removal"; and GDC 41, "Containment atmosphere cleanup."

The ACRS concluded that STPNOC's proposed changes to its licensing basis and technical specifications are acceptable. In addition, the ACRS concluded that there are no changes to the radiological source terms as previously approved, and that there is reasonable assurance that the health and safety of the public will not be affected by operation of STP in the proposed manner. The ACRS noted that, for future applications, the staff should ensure that licensees apply a more systematic approach in 1) identifying system operating configurations, 2) determining the likelihood of each configuration, and 3) calculating the frequency of generating unacceptable amounts of debris for each configuration.

The staff agrees with the ACRS recommendation to apply a systematic approach, given that the risk attributable to debris can vary significantly depending on which ECCS and containment spray system (CSS) equipment is available. ECCS and CSS configurations can vary widely from plant to plant in terms of the system alignments used to perform recirculation cooling. A systematic approach to evaluating these system alignments will enable more accurate risk calculations. During its discussions with STPNOC and the staff, the ACRS agreed that the staff's analysis was conservative and its conclusions would not change with respect to consideration of a more systematic approach.

For completeness, the staff notes the ACRS included the upper head spray nozzle flow path in a list of bypass flow paths that were conservatively excluded from the licensee's analysis. However, in its long-term core cooling (LTCC) analysis, the licensee did credit the upper head nozzle flow path. The staff described the licensee's use of the upper head spray nozzle flow path in the evaluation of LTCC and concluded that this flow path has little impact on the LTCC simulations.

We thank the ACRS for its valuable input on this review, and we look forward to working with the Committee in the future.

Sincerely,

/RA Michael R. Johnson for Victor M. McCree/

Victor M. McCree
Executive Director
for Operations

cc: Chairman Svinicki
Commissioner Baran
Commissioner Burns
SECY

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS LETTER, "SAFETY EVALUATION OF LICENSE AMENDMENT REQUEST BY SOUTH TEXAS PROJECT (STP) NUCLEAR OPERATING COMPANY TO ADOPT A RISK-INFORMED RESOLUTION OF GENERIC SAFETY ISSUE-191" DATED:

DISTRIBUTION: OEDO-17-00326

PUBLIC	RidsNrrLAJBurkhardt	JKaizer, NRR
LPL4 R/F	RidsNrrMailCenter	RAnzalone, NRR
RidsAcrs_MailCTR	RidsNrrOd	RLukes, NRR
RidsEdoMailCenter	RidsNrrPMSouthTexas	PKlein, NRR
RidsNrrDorl	RidsOcaMailCenter	CDeMessieres, NRR
RidsNrrDorlLpl4	RidsOgcMailCenter	CJFong, NRR
RidsNrrDraApla	RidsOpaMail	ARussell, NRR
RidsNrrDssSsib	MYoder, NRR	AJohnson, NRR
RidsNrrDssStsb	SSmith, NRR	CTilton, NRR

ADAMS Accession Nos.:

Package ML17139D410; Incoming ML17137A325; Response ML17151A843 *via email

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LSPB/LA	Tech Ed*
NAME	LRegner (MWatford for)	JBurkhardt	JDougherty
DATE	06/05/17	06/01/17	06/02/17
OFFICE	NRR/DSS/SSIB/BC*	NRR/DORL/LPL4/BC	NRR/DSS/D*
NAME	VCusumano	RPascarelli	MGavrilas
DATE	06/05/17	06/05/17	06/01/17
OFFICE	NRR/DRA/D*	NRR/DORL/D (A)	OGC (NLO)
NAME	JGitter	MRoss-Lee	MYoung
DATE	06/05/17	06/07/17	06/07/17
OFFICE	NRR/D	EDO	
NAME	WDean	VMcCree	
DATE	6/12/17	6/16/17	

OFFICIAL RECORD COPY