



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

April 14, 2011

LICENSEE: Entergy Operations, Inc.  
FACILITY: Arkansas Nuclear One, Unit 1  
SUBJECT: SUMMARY OF MARCH 15, 2011, MEETING WITH ENTERGY OPERATIONS, INC., ON LICENSE AMENDMENT REQUEST FOR CHANGES TO TECHNICAL SPECIFICATIONS RELATED TO COMPLETION TIMES FOR ONE INOPERABLE REACTOR COOLANT SYSTEM COOLING LOOP AT ARKANSAS NUCLEAR ONE, UNIT 1 (TAC NO. ME4563)

On March 15, 2011, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Entergy Operations, Inc. (Entergy, the licensee), for Arkansas Nuclear One, Unit 1 (ANO-1) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The related documents for the subject license amendment request (LAR) are the application dated August 24, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102371014) and the supplemental letters dated November 12, 2010, and February 28, 2011 (ADAMS Accession Nos. ML103160175 and ML110590738, respectively). A list of attendees is enclosed.

The LAR discusses the licensee's proposal to revise several Technical Specifications (TSs) to permit a greater time period for one of two required decay heat removal (DHR) loops to be inoperable. The affected TSs are applicable in lower modes of operation (Modes 4, 5, and 6). The licensee offered in defense of the LAR reasons such as 1) the requested 48-hour completion time (CT) is consistent with the same pump, low pressure injection pump TS; 2) the 48-hour CT is conservative with respect to the Mode 3 DHR CT of 72 hours; and 3) in Mode 4, other means of heat removal are available. The licensee's slide presentation is available at ADAMS Accession No. ML110750416.

The NRC requested that the licensee discuss the following items in its formal response to the requests for additional information (RAIs):

- (1) Inadequacy of the information used to support the CT changes from "immediately" to "48 hours" in TS 3.4.6, "RCS [Reactor Coolant System] Loops – MODE 4," for conditions with one required DHR system in operation and one DHR system inoperable.
- (2) RAI response submitted by letter dated February 28, 2011, with a focus on a detailed discussion of the time-to-boil (TTB) estimate regarding worst-case identification and the assumption regarding thermodynamic mixing in the RCS inventory used in the TTB estimate.

- (3) One of the ways utilities apply NRC Generic Letter 88-17, "Loss of Decay Heat Removal," is calculating TTB for their outage configurations, using this as a surrogate for configuration risk level. The proposed TS elevates the significance of this calculation making it a basis for acceptability of a TS restoration time. Since the licensee wants to put TTB into its licensing basis, the NRC staff questions details of the calculation, its basis, and consideration of local boiling effects and margin levels.

Members of the public were in attendance via the teleconference bridge. Public Meeting Feedback forms were not received.

Subsequently, by letter dated March 24, 2011 (ADAMS Accession No. ML 110840216), Entergy requested to withdraw the application from U.S. Nuclear Regulatory Commission review.

Please direct any inquiries to Kaly N. Kalyanam at 301-415-1480 or [kaly.kalyanam@nrc.gov](mailto:kaly.kalyanam@nrc.gov).



N. Kalyanam, Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-313

Enclosure:  
List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES

MARCH 15, 2011, MEETING WITH ENTERGY OPERATIONS, INC.

LICENSE AMENDMENT REQUEST - CHANGES TO TECHNICAL SPECIFICATIONS

RELATED TO COMPLETION TIMES FOR ONE INOPERABLE

DECAY HEAT REMOVAL LOOP

ARKANSAS NUCLEAR ONE, UNIT 1

TAC NO. ME4563

Nuclear Regulatory Commission

R. Elliott, NRR/DIRS/ITSB  
M. Markley, NRR/DORL/LPL4  
S. Sun, NRR/DSS/SRXB  
A. Howe, NRR/DRA/APLA  
R. Grover, NRR/DIRS/ITSB  
C. Schulten, NRR/DIRS/ITSB (Part-time)  
G. Waig, NRR/DIRS/ITSB (Teleconferenced)  
N. Kalyanam, NRR/DORL/LPL4

Entergy Operations, Inc.

Bryan Ford  
Richard Harris  
Dan Fouts  
James Keys  
Stephanie Pyle  
David Bice

Enclosure

- (3) One of the ways utilities apply NRC Generic Letter 88-17, "Loss of Decay Heat Removal," is calculating TTB for their outage configurations, using this as a surrogate for configuration risk level. The proposed TS elevates the significance of this calculation making it a basis for acceptability of a TS restoration time. Since the licensee wants to put TTB into its licensing basis, the NRC staff's questions on details of the calculation, its basis, and even consideration of local boiling effects and margin levels.

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/RA/

N. Kalyanam, Project Manager  
 Plant Licensing Branch IV  
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ADAMS Accession Nos. Meeting Notice ML110600265, Meeting Summary ML110810467, Handouts ML110750416

OFFICE	DORL/LPL4/PM	DORL/LPL4/LA	NRR/DRA/APLA/BC	NRR/DIRS/ITSB/BC
NAME	NKalyanam	JBurkhardt	SDinsmore for DHarrison	RElliott
DATE	3/25/11	3/25/11	4/5/11	4/13/11
OFFICE	NRR/DSS/SRXB/BC	DORL/LPL4/BC	DORL/LPL4/PM	
NAME	AUises	MMarkley	NKalyanam	
DATE	4/5/11	4/14/11	4/14/11	

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