



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

July 16, 2012

LICENSEE: Entergy Operations, Inc.

FACILITY: Arkansas Nuclear One, Unit 2

SUBJECT: SUMMARY OF JUNE 12 AND 13, 2012, MEETING WITH ENTERGY OPERATIONS, INC., ON NUCLEAR REGULATORY COMMISSION ACCEPTANCE REVIEW AND ENTERGY'S PLANS TO PROVIDE SUPPLEMENTAL INFORMATION TO THE ORIGINAL SUBMITTAL (TAC NO. ME8282)

On June 12 and 13, 2012, 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 2 (ANO-2) at ANO offices, Reeves E. Ritchie Training Center (RERTC) Boardroom, 1448 SR 333, Russellville, Arkansas 72802. The meeting notice was issued on May 30, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML121460017). The licensee's slide presentations are available at ADAMS Accession Nos. ML12166A560 and ML12167A021.

By letter dated March 27, 2012 (ADAMS Accession No. ML12087A113), Entergy submitted a license amendment request (LAR) to adopt National Fire Protection Association (NFPA) 805 Performance Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants at ANO-2. By letter dated May 25, 2012 (ADAMS Accession No. ML121380395), the NRC staff provided the results of its acceptance review of the LAR. In order to make the application complete and to enable the NRC staff to complete its acceptance review, the staff requested that Entergy supplement the application to address the information requested in the enclosure by July 11, 2012. The meeting was held at the request of Entergy to discuss the supplemental information requested on the four items in the NRC staff's letter dated May 25, 2012.

Item 1: The modifications for transition need to be described and modeled, as appropriate, in the probabilistic risk analysis (PRA) for estimating the risk changes.

Licensee Statement: The Entergy presentation described the modifications identified and final plant configurations after the proposed modifications. The licensee also stated that the modifications will be completed in a manner that supports the assumptions of the PRA.

NRC Staff Comments: The details provided appeared to be at about the right level. The NRC staff will make the final determination after the receipt of the licensee's supplement.

Item 2: Proper quantitative Recovery Action (RA) risk estimates need to demonstrate that the evaluations supporting the transitions have been completed satisfactorily.

Licensee Statement: Entergy stated the delta risk from RAs are being drafted and preliminary results are available for review. Examples of the information which will be in the supplement were provided.

NRC Staff Comments: The NRC staff stated that a) the sensitivity delta core damage frequency (Δ CDF) will be needed for acceptance, b) the NRC staff would expect to see a positive delta risk in the licensee's calculations, and c) risk increases from the RAs to be provided.

Item 3: In Attachment G to the LAR, without a primary control station (besides the Main Control Room) and with only eight RAs identified for Fire Area G, the licensee reports the change in risk and the additional risk from RAs is bounded by a risk estimate of "0.0." This risk limit needs further explanation.

Licensee Statement: The licensee detailed the RAs credited for Control Room (CR) abandonment, proposed modifications, and recovery actions which are credited for CR abandonment.

NRC Staff Comments: The NRC suggested that the supplement should contain the delta risk numbers and a detailed explanation of the RAs and the modifications.

Item 4: The NRC staff expressed concern that two sensitivity studies compare the results based on one "unacceptable method" to results based on another "unacceptable method." The risk results were calculated using an unacceptable method.

Licensee Statement: The licensee stated the supplement will contain the calculated CDF and LERF and their deltas as requested in the sensitivity analyses.

NRC Staff Comments: The NRC staff suggested that the sensitivity studies compare the results obtained using the unacceptable method to those obtained using an acceptable method.

In summary, the licensee stated that it will be submitting the supplement on or before July 11, 2012. The NRC staff reiterated that while it expects that the application and the supplement may contain enough information to start the acceptance review, additional requests for information for the detailed review can be expected.

Visits inside the protected area by the NRC staff were carried out in order to get a better understanding of the issues and layouts.

No members of the public were in attendance. Public Meeting Feedback forms were not received.

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Please direct any inquiries to me at 301-415-1480 or kaly.kalyanam@nrc.gov.

A handwritten signature in black ink, appearing to read "N. Kalyanam". The signature is written in a cursive style with a horizontal line under the last name.

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

Docket No. 50-368

Enclosure:
List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES

JUNE 12-13, 2012, MEETING WITH ENTERGY OPERATIONS, INC.

LICENSE AMENDMENT REQUEST TO ADOPT NATIONAL FIRE PROTECTION

AGENCY (NFPA) 805 AT ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

June 12, 2012

Entergy Operations, Inc. (Entergy)

Chris Schwarz - Site Vice President, Operations, Arkansas Nuclear One (ANO)
Dale James - Director, Nuclear Safety Assurance, ANO
Jaime McCoy - Director, Engineering, ANO
Deepak Rao - PRA Supervisor, Entergy Corporate
Richard Harris - Lead PRA, ANO
Chris Little - NFPA 805 Safe Shutdown, ANO
Tom Malise - Operations Control Room Supervisor, ANO
Lori Potts - NFPA 805 PRA
Dennis Barton - NFPA 805 Safe Shutdown
Jessica Walker - Fire Protection, Kleinsorg Risk Group Services
Bill Rowlett - Mechanical Design Engineer, ANO
Rick Nance - Entergy Fleet NFPA 805 Project Manager
George Woerner III - Mechanical Design Engineer Supervisor, ANO
Ronnie Hendrix - Lead Fire Protection, ANO
Bill Greeson - Engineer Programs & Components Manager, ANO
Glenn Dobbs - Electrical Design Engineer Supervisor, ANO
Alfred Sanchez - Senior NRC Resident Inspector, ANO
Larry Young - NFPA 805 Project Lead, ANO
Grant Ehren - NFPA 805 Project Manager, ANO
Bryan Daiber - Design Engineer Manager, ANO
Stephenie Pyle - Licensing Manager, ANO
Robert Beard - Engineer Programs & Components Supervisor, ANO
Mike Chisum - General Manager, ANO
David Bice - Licensing NFPA 805 Lead ANO

U.S. Nuclear Regulatory Commission (NRC)

Alex Klein - Branch Chief, NRR/DRA/AFPB
Harry Barrett - Senior Fire Protection Engineer, NRR/DRA/AFPB
Ray Gallucci - Senior Fire PRA Engineer, NRR/DRA/APLA
William Schaup - ANO Resident Inspector, Region IV
Paul Lain, Senior Fire Protection Engineer, NRR/DRA/AFPB*
Chuck Moulton, Fire Protection Engineer, NRR/DRA/AFPB*
Leslie Fields, Senior Project Manager, NRR/DRA/AHPB*
Jonathan Evans, General Engineer, NRR/DRA/APLA*
Kaly Kalyanam, Project Manager, NRR/DORL/LPL4*

*via teleconference

Enclosure

June 13, 2012

Entergy Operations, Inc. (Entergy)

Dale James - Director, Nuclear Safety Assurance, Arkansas Nuclear One (ANO)
Jaime McCoy - Director, Engineering, ANO
Deepak Rao - PRA Supervisor, Entergy Corporate
Richard Harris - Lead PRA, ANO
Chris Little - NFPA 805 Safe Shutdown, ANO
Lori Potts - NFPA 805 PRA
Jessica Walker - Fire Protection, Kleinsorg Risk Group Services
Rick Nance - Entergy Fleet NFPA 805 Project Manager
George Woerner III - Mechanical Design Engineer Supervisor, ANO
Ronnie Hendrix - Lead Fire Protection, ANO
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Chuck Moulton, Fire Protection Engineer, NRR/DRA/AFPB*
Leslie Fields, Senior Project Manager, NRR/DRA/AHPB*
Mike Markley, Branch Chief, NRR/DORL/LPL4*
Kaly Kalyanam, Project Manager, NRR/DORL/LPL4*

*via teleconference

Please direct any inquiries to me at 301-415-1480 or kaly.kalyanam@nrc.gov.

/ra/

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

Docket No. 50-368

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List of Attendees

DISTRIBUTION:

PUBLIC	RidsNrrLAJBurkhardt Resource
LPL4 Reading	RidsOgcRp Resource
RidsAcrcAcnw_MailCTR Resource	RidsRgn4MailCenter Resource
RidsNrrDorLpl4 Resource	RGallucci, NRC/NRR/DRA
RidsNrrDraApla Resource	HBarrett, NRC/NRR/DRA
RidsNrrDraAfpb Resource	TWertz, NRR
RidsNrrPMANO Resource	MMcCoppin, EDO RIV

ADAMS Accession Nos.: Meeting Notice ML 121460017, Meeting Summary ML12171A366, Handouts ML12166A560 and ML12167A021

OFFICE	NRR/DORL/LPL4/PM	NRR/DORL/LPL4/LA	NRR/DRA/AFP/BC
NAME	NKalyanam	JBurkhardt	AKlein
DATE	6/22/12	6/21/12	7/10/12
OFFICE	NRR/DRA/APLA/BC	NRR/DORL/LPL4/BC	NRR/DORL/LPL4/PM
NAME	DHarrison (BBeasley for)	MMarkley (BSingal for)	NKalyanam
DATE	7/9/12	7/16/12	7/16/12

OFFICIAL RECORD COPY