



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

April 25, 2016

LICENSEE: FirstEnergy Nuclear Operating Company

FACILITY: Beaver Valley Power Station, Units 1 and 2

SUBJECT: SUMMARY OF MARCH 30, 2016, MEETING WITH FIRSTENERGY NUCLEAR OPERATING COMPANY REGARDING DRAFT PROBABILISTIC RISK ASSESSMENT REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE LICENSE AMENDMENT REQUEST TO ADOPT NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805 (CAC NOS. MF3301 AND MF3302)

On March 30, 2016, the U.S. Nuclear Regulatory Commission (NRC or the Commission) staff conducted a Category 1 public meeting with FirstEnergy Nuclear Operating Company (the licensee) at NRC Headquarters, 11555 Rockville Pike, One White Flint North, Rockville, Maryland. The purpose of the meeting was to discuss the NRC staff's draft probabilistic risk assessment request for additional information (RAI) related to the licensee's license amendment request (LAR) to change the Beaver Valley Power Station (BVPS), Units 1 and 2, fire protection program to one based on the National Fire Protection Association Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as incorporated into Title 10 of the *Code of Federal Regulations* Section 50.48(c). The LAR was submitted by letter dated December 23, 2013 (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML14002A086), as supplemented by letters dated February 14, 2014; April 27, 2015; May 27, 2015; June 26, 2015; November 6, 2015; December 21, 2015; February 24, 2016; March 30, 2016; and April 7, 2016 (ADAMS Accession Nos. ML14051A499, ML15118A484, ML15147A372, ML15177A110, ML15313A306, ML15356A136, ML16055A160, ML16084A844, and ML16071A122, respectively). The meeting notice and agenda, dated March 7, 2016, are available in ADAMS at Accession No. ML16089A069. The talking points and presentation from the meeting can be found at ADAMS Package Accession No. ML16098A166.

In advance of the meeting, the NRC staff provided the licensee a set of questions (ADAMS Accession No. ML16099A011) in an RAI, which was the focus of the discussion. The purpose of the questions was to seek additional information regarding joint human error probabilities (HEPs). Specifically, the NRC staff sought information to conclude that the quantitative fire risk estimates exclude the impact of unrealistically low joint HEPs. The licensee requested technical clarification on the RAI, which resulted in the public meeting.

The licensee discussed the details of its probabilistic risk assessment (PRA) model and modelling approach. The licensee further clarified previous responses (ADAMS Accession No. ML16089A062) to NRC staff RAIs. The licensee stated an evaluation was performed consistent with NRC guidance, but only a small portion of the evaluation was described in the previous RAI response. During the meeting, the licensee described how its modelling approach evaluated and incorporated joint HEPs into the PRA model. The licensee explained that only one other NFPA 805 applicant used its modelling approach and, therefore, it could not respond

to the RAI as most other applicants had. After some discussion, the licensee indicated it could use its approach to support an RAI response similar to the response provided by the other applicant that uses its modelling approach. The NRC staff agreed to shorten and simplify the RAI but retain the original question. The RAI was edited and subsequently issued on April 7, 2016 (ADAMS Accession No. ML16071A122).

Members of the public were in attendance, but no comments were received at the end of the meeting. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-7128 or Taylor.Lamb@nrc.gov.

A handwritten signature in black ink, appearing to read "Taylor A. Lamb". The signature is fluid and cursive, with a large, stylized initial "T" and "L".

Taylor A. Lamb, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosure:
List of Attendees

cc w/enclosure: Distribution via Listserv

LIST OF ATTENDEES
MARCH 30, 2016, MEETING WITH
FIRSTENERGY NUCLEAR OPERATING COMPANY (FENOC)
BEAVER VALLEY POWER STATION'S DRAFT PROBABILISTIC RISK ASSESSMENT
REQUEST FOR ADDITIONAL INFORMATION

Name	Affiliation
Taylor Lamb	NRC
JS Hyslop	NRC
Stephen Dinsmore	NRC
Jay Robinson	NRC
Charles Moulton	NRC
Angela Wu	NRC
Todd Hilsmeier	NRC
Mehdi Reisifard	NRC
Mihaela Biro	NRC
Garrill Coles	Pacific Northwest National Laboratory
Mark Manoleras	FENOC
Carmen Mancuso	FENOC
Colin Keller	FENOC
Mike Testa	FENOC
Ray Fine	FENOC
Rick Stremple	FENOC
Bill Etzel	FENOC
Doug Rapp	FENOC
Tom Lentz	FENOC
Phil Lashley	FENOC
Dave McCreary	FENOC
Chris Lord	FENOC
Tom Collopy	FENOC
Sum Leung	FENOC
Dan Weller	FENOC
Jim Belfiore	FENOC
Paul Boulden	Appendix R Solutions, Inc.
Mike Roder	Appendix R Solutions, Inc.
Mike Smith	Appendix R Solutions, Inc.
Kelly Taylor	Appendix R Solutions, Inc.
Paul Bemis	Pacific Gas & Electric Company

Enclosure

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/RA/

Taylor A. Lamb, Project Manager
Plant Licensing Branch I-2
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ADAMS Accession Nos.: ML16105A008 Notice: ML16089A069 Handouts: ML16098A166

OFFICE	DORL/LPL1-2/PM	DORL/LPL1-2/LA	DORL/LPL1-2/BC	DORL/LPL1-2/PM
NAME	TLamb	LRonewicz	(TWengert for) DBroadus	TLamb
DATE	4/14/2016	4/14/2016	4/22/2016	4/25/2016

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