



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

September 18, 2017

**LICENSEE:** Exelon Generation Company, LLC

**FACILITY:** CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

**SUBJECT:** SUMMARY OF AUGUST 16, 2017, MEETING WITH EXELON GENERATION COMPANY, LLC, ON PLANNED SUBMITTAL OF RISK-INFORMED LICENSE AMENDMENT AND EXEMPTION REQUESTS CONCERNING RESOLUTION OF GENERIC ISSUE 191 (CAC NOS. MF8521 AND MF8522)

On August 16, 2017, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generation Company, LLC (Exelon, the licensee) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was for Exelon Generation Company, LLC to provide an overview of its planned license amendment and exemption requests concerning the risk-informed resolution of Generic Issue (GI) 191, "Assessment of Debris Accumulation on PWR [Pressurized Water Reactor] Sump Performance," for Calvert Cliffs Nuclear Power Plant, Units 1 and 2 (Calvert Cliffs). The licensee plans to submit the requests to the NRC in February or March 2018. The meeting notice and agenda, dated August 1, 2017, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML17213A824. A list of attendees is enclosed.

The licensee presented information (ADAMS Accession No. ML17249A325) on the technical bases for its planned license amendment and exemption requests concerning the risk-informed resolution of GI 191 for Calvert Cliffs. During its presentation, Exelon emphasized that the approach it plans to use in the submittal relies on methods described in WCAP-16793, Revision 2, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in Recirculating Fluid" (ADAMS Accession No. ML13239A114), and not WCAP-17788, Revision 0, "Comprehensive Analysis and Test Program for GI 191 Closure (PA-SEE-1090)" (ADAMS Package Accession No. ML15210A667), which is a topical report currently being reviewed by the NRC. Specifically, the licensee plans to use a deterministic approach regarding post loss-of-coolant accident debris effects in the reactor vessel. Also, Exelon emphasized that a simplified risk-informed approach would be used in determining conditional failure probabilities and changes in core damage frequencies. The simplified risk-informed approach was described during the meeting. The licensee stated that longitudinal (or "shop") welds would be considered in the population of postulated break locations. The licensee also discussed probabilistic risk assessment acceptability topics such as its planned use of the probabilistic risk assessment from the Calvert Cliffs National Fire Protection Association 805 license amendment request with a gap analysis.

In response to NRC staff questions, the licensee stated that each item in the revised Content Guide for Generic Letter 2004-02 Supplemental Responses (ADAMS Accession

No. ML073110278) for "head loss and vortexing" would be addressed. Also, in response to NRC staff questions, Exelon stated that the following would be included in its submittal:

- a sensitivity assessment of bin sizes used in determining conditional failure probabilities;
- an explanation of test data validity and discrepancies, using graphs and tables as needed; and
- a description of weld conditions for each of the welds considered as a possible break location.

Additionally, the NRC staff suggested that the licensee include in its submittal an explanation justifying the selection and use of a single plant configuration in evaluating the effects of debris recirculation and descriptions of other possible, credible plant configurations.

Members of the public were in attendance. NRC staff did not receive any questions or comments from the members of the public in attendance. No Public Meeting Feedback forms were received.

Please direct any inquiries to me at (301) 415-2871 or [Michael.Marshall@nrc.gov](mailto:Michael.Marshall@nrc.gov).



Michael L. Marshall, Jr., Senior Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosure:  
List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES

AUGUST 16, 2017, MEETING WITH EXELON GENERATION COMPANY, LLC, ON PLANNED  
SUBMITTAL OF RISK-INFORMED LICENSE AMENDMENT AND EXEMPTION REQUESTS  
FOR CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2, CONCERNING  
RESOLUTION OF GENERIC ISSUE 191

<b>Name</b>	<b>Organization</b>
Eric Federline	MPR Associates, Inc.
Tim Sande	ENERCON
Ron Holloway	Wolf Creek Nuclear Operating Corporation
André Drake	Exelon Generation Company, LLC (Exelon)
Enrique Villar	Exelon
John Tsao	U.S. Nuclear Regulatory Commission (NRC)
John Hanson	Exelon
Steve Smith	NRC
Vic Cusumano	NRC
CJ Fong	NRC
Craig Sellers	Exelon
Matthew Yoder	NRC
Paul Klein	NRC
Candace de Messieres	NRC
Jeff Chizever	Exelon
Bryce Lehman	NRC
Kip Walker	ENERCON
John Hardin	Exelon
Michael Marshall	NRC

SUBJECT: SUMMARY OF AUGUST 16, 2017, MEETING WITH EXELON GENERATION COMPANY, LLC, ON PLANNED SUBMITTAL OF RISK-INFORMED LICENSE AMENDMENT AND EXEMPTION REQUESTS CONCERNING RESOLUTION OF GENERIC ISSUE 191 (CAC NOS. MF8521 AND MF8522) DATED SEPTEMBER 18, 2017

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**ADAMS Accession No.: ML17249A320**

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NAME	MMarshall	LRonewicz	JDanna	MMarshall
DATE	09/18/2017	09/08/2017	09/18/2017	09/18/2017

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