



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

July 10, 2017

LICENSEE: Exelon Generation Company, LLC

FACILITIES: Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 2 and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Oyster Creek Nuclear Generating Station; Peach Bottom Atomic Power Station, Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2; R. E. Ginna Nuclear Power Plant; and Three Mile Island Nuclear Station, Unit 1

SUBJECT: SUMMARY OF JUNE 29, 2017, MEETING WITH EXELON GENERATION COMPANY, LLC, ON PROPOSED CHANGES TO EMERGENCY PLANS TO REVISE EMERGENCY ACTION LEVELS (CAC NOS. MF9779–MF9801)

On June 29, 2017, a Category 1 public meeting was held via teleconference between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generation Company, LLC (Exelon). The purpose of the meeting was to discuss Exelon's proposed changes to the emergency plans for its facilities to revise emergency action levels (EALs). The meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML17156A039. A list of attendees is enclosed.

Exelon stated that it is planning on submitting a license amendment request (LAR) by October 31, 2017, to revise several EALs for its facilities. The request would be for Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 2 and 3; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2; and Three Mile Island Nuclear Station, Unit 1. Exelon stated it would also supplement its May 31, 2017, application (ADAMS Accession No. ML17164A139) for Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; and R. E. Ginna Nuclear Power Plant to revise the EAL schemes at these facilities to include additional EAL changes.

The EALs discussed during the meeting are described in the Nuclear Energy Institute's (NEI's) guidance in NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors" (ADAMS Accession No. ML12326A805), which was endorsed by the NRC by letter dated March 28, 2013 (ADAMS Accession No. ML12346A463). Many of the EAL changes proposed by the licensee are discussed in emergency plan frequently asked questions (EPFAQs), which are available on the NRC public Web site.¹

EPFAQ 2015-008 (ADAMS Accession No. ML16013A178) relates to EALs associated with the loss of alternating-current (ac) power. This EPFAQ discusses potential changes to EALs to account for equipment which is credited as part of the facility's diverse and flexible coping

¹ <https://www.nrc.gov/about-nrc/emerg-preparedness/faq/faq-contactus.html>

strategy (FLEX). Exelon stated that it plans to clarify EAL SG1, which is a general emergency EAL for the prolonged loss of all ac power to emergency buses, to take credit for FLEX equipment. The NRC staff stated that if safety systems still had power, then a general emergency is not necessary. For the general emergency and cold shutdown EALs addressing a loss of ac power, the staff stated that a specific listing of ac power sources is not preferred since it eliminates licensee flexibility when other power sources may be available.

EPFAQ 2015-013 (ADAMS Accession No. ML16166A366) relates to EAL HG1, which is a general emergency EAL for a hostile action that results in a loss of physical control of the facility. Exelon is proposing to eliminate EAL HG1. The NRC staff noted that the submittal should demonstrate that other EALs are bounding, as discussed in the EPFAQ. An official from the Pennsylvania Department of Environmental Protection (DEP) expressed concerns about the elimination of EAL HG1. The official stated that he would not consider EAL HG7, which is sited in the EPFAQ, to be bounding as it relies on the judgment of the emergency director. EAL HG7 is an EAL for other conditions which in the judgment of the emergency director warrant declaration of a general emergency, and includes hostile actions that result in an actual loss of physical control of the facility. The NRC staff noted that the general emergency should be for near term concerns regarding public health and safety, and not for conditions such as loss of spent fuel pool cooling that can be addressed over a longer timeframe. However, the staff recommended that Exelon discuss this proposed change with the Pennsylvania DEP. Exelon stated that it has discussed the change with the Pennsylvania DEP official and agreed to continue these discussions.

Exelon plans to clarify the applicable operating modes for key safety functions listed in EAL HS6 as discussed in EPFAQ 2015-014 (ADAMS Accession No. ML16166A240). EAL HS6 is a site area emergency EAL for the inability to control a key safety function from outside the control room.

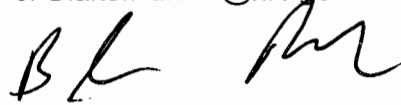
Exelon plans to clarify the definition of "visible damage" in EALs CA6 and SA9 based on EPFAQ 2016-002 (ADAMS Accession No. ML17096A388). EALs CA6 and SA9 are alert EALs for hazardous events (e.g., earthquake, fire) affecting a safety system needed for the current operating mode. This EPFAQ has passed the public comment phase, but has not yet been finalized. Exelon indicated they would follow the final EPFAQ in their LAR.

Exelon plans to revise EAL E-HU1, which is a notification of unusual event EAL for damage to a loaded spent fuel cask confinement boundary in an independent spent fuel storage installation (ISFSI). Currently, this EAL is based on a radiation reading greater than 2 times the allowable radiation level listed in the cask technical specifications. Exelon notes that ISFSIs may have different casks with different limits. Exelon plans to revise the EAL to use the most limiting cask allowable radiation level to make the EAL easier to follow.

Exelon plans to revise EALs AS1 and AG1 to eliminate the thresholds which are based on specified radiation monitor readings. Exelon would retain the thresholds for these EALs that are based on dose assessment and field survey results. These changes are related to EPFAQ 2015-009 (ADAMS Accession No. ML16166A431). Exelon stated that these EALs are difficult to implement and are bounded by several other EALs. The NRC staff noted that the monitors can cover events which could occur on a timeframe that is shorter than what can be addressed by a dose assessment. The staff also stated that it is important to maintain some redundancy in the EAL scheme. The staff suggested that it may be better to address the calculation methods used to establish the specific monitor readings on an industry-wide bases.

The Pennsylvania DEP official also expressed concern with the removal of the monitoring thresholds.

Please direct any inquiries to me at 301-415-1380 or Blake.Purnell@nrc.gov.

Handwritten signature of Blake Purnell in black ink.

Blake Purnell, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456, STN 50-457,
STN 50-454, STN 50-455, 50-317,
50-318, 50-461, 50-237, 50-249,
50-244, 50-373, 50-374, 50-352,
50-353, 50-220, 50-410, 50-219,
50-277, 50-278, 50-254, 50-265,
50-333, and 50-289

Enclosure:
List of Attendees

cc w/encls: Distribution via Listserv

LIST OF ATTENDEES

JUNE 29, 2017, MEETING WITH EXELON GENERATION COMPANY, LLC

NRC

Blake Purnell, NRR
Joseph Anderson, NSIR
Don Johnson, NSIR
Michael Wasem, NSIR
Raymond Hoffman, NSIR

Exelon Generation Company, LLC

Jessica Krejcie
James Larry Baker
Timothy Barton
Vince Cwietniewicz
Jermaine Pickett

Pennsylvania Department of Environmental Protection

Rich Janati, Bureau of Radiation Protection
Sandra L. Martin, Bureau of Radiation Protection

New Jersey Department of Environmental Protection

Veena Gubbi, Bureau of Nuclear Engineering

Public

Rodney Brown, Energy Compliance Consultants, LLC
Marvin Lewis
Sam Miranda

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RidsNrrPMBraidwood Resource	TWertz, NRR
RidsNrrPMByron Resource	TClark, EDO
RidsNrrPMCalvertCliffs Resource	JAnderson, NSIR
RidsNrrPMClinton Resource	DJohnson, NSIR
RidsNrrPMDresden Resource	MWasem, NSIR
RidsNrrPMFitzPatrick Resource	RHoffman, NSIR

ADAMS Accession No.: ML17184A009

Meeting Notice: ML17156A039

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/DORL/LPL3/BC	NRR/DORL/LPL3/PM
NAME	BPurnell	SRohrer	DWrona	BPurnell
DATE	7/6/17	7/5/17	7/7/17	7/10/17

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