



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

June 11, 2015

Mr. Bryan C. Hanson  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2 - RESPONSE REGARDING  
PHASE 2 STAFFING SUBMITTALS ASSOCIATED WITH NEAR-TERM TASK  
FORCE RECOMMENDATION 9.3 RELATED TO THE FUKUSHIMA DAI-ICHI  
NUCLEAR POWER PLANT ACCIDENT (TAC NOS. MF5340 AND MF5341)

Dear Mr. Hanson:

By letter dated March 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12053A340), the U.S. Nuclear Regulatory Commission (NRC) issued a request for information pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.54(f) (hereafter referred to as the 50.54(f) letter), regarding Recommendations 2.1 (seismic and flooding evaluations), 2.3 (seismic and flooding walkdowns), and 9.3 (emergency preparedness communication and staffing) of the Near-Term Task Force (NTTF) review of insights from the Fukushima Dai-ichi accident. With respect to Recommendation 9.3, Enclosure 5 to the NRC's letter requested licensees and holders of construction permits to assess their means to power communications equipment onsite and offsite during a prolonged station blackout (SBO) event and to perform a staffing assessment to determine the staff required to fill all necessary positions in response to a multi-unit event.

The 50.54(f) letter in part, required licensee responses pursuant to the provisions of 10 CFR 50.54(f) pertaining to onsite and augmented staff availability to implement the strategies discussed in the emergency plan and/or plant operating procedures including new staff or functions resulting from the assessment, any identified collateral duties, an implementation schedule to perform the assessments, any identified modifications, and any changes that have been made or will be made to the emergency plan regarding on-shift or augmented staffing. In addition, NTTF Recommendation 9.3 has a dependency on the implementation of NTTF Recommendation 4.2 (mitigating strategies). As a result of this dependency, licensees responded to the 50.54(f) letter in phases. The Phase 1 staffing assessment requested licensees to evaluate their ability to respond to a multi-unit extended loss of alternating current (ac) power (ELAP) event utilizing existing processes and procedures. The licensee responses to the 50.54(f) letter for Phase 1 staffing assessments for multi-unit sites were received and evaluated by the NRC staff by April 30, 2013. The NRC staff issued acknowledgement letters to all licensees with multi-unit sites, with the exception of San Onofre Nuclear Generating Station, by April 28, 2014.

Licensees were also requested to submit for NRC staff review a Phase 2 staffing assessment, which provides an assessment of the staffing necessary to perform the functions related to the strategies developed in response to NTTF Recommendation 4.2 and the resulting Order EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events [BDBEE]" (ADAMS Accession No. ML12054A736). Licensees were requested to provide their Phase 2 staffing assessments to the NRC no later than four months prior to the beginning of their second refueling outage (as used in the context of NRC Order EA-12-049).

By letter dated November 26, 2014 (ADAMS Accession No. ML14330A262), Exelon Generation Company, LLC (Exelon, the licensee) submitted its Phase 2 staffing assessment for Braidwood Station, Units 1 and 2 (Braidwood) to the NRC in response to the 50.54(f) letter. This submittal also references a non-public (Safeguards Information) attachment submitted by separate letter on the same date. By letter dated March 18, 2015 (ADAMS Accession No. ML15075A078, enclosure non-public Security Related Information), the NRC staff issued a request for additional information (RAI) regarding the 10 CFR 50.54(f) Phase 2 Staffing Assessment for Braidwood. The RAI requested clarification regarding the process, procedures, and training described in the Phase 2 submittal for the use of supplemental personnel in the response to a BDBEE. By letter dated April 13, 2015 (ADAMS Accession No. ML15103A499), Exelon provided a response to the RAI, which included the requested additional information and clarification on the process, procedures, and training for the response to a BDBEE, as described in the initial submittal.

The NRC staff reviewed your Phase 2 assessment and RAI response for staffing in accordance with the assumptions and guidelines of Sections 2.2, 2.3, and 3 of the Nuclear Energy Institute (NEI) guidance document NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," (ADAMS Accession No. ML12125A412), which was endorsed by the NRC staff by letter dated May 15, 2012 (ADAMS Accession No. ML12131A043). The NRC staff noted that you assessed your current onsite minimum staffing levels to identify any enhancements needed to respond following a beyond-design-basis large-scale natural event, and to ensure that the strategies contained in the existing emergency plan and/or plant operating procedures, such as those used in response to a SBO, can be performed by the site staff. Your assessment assumed that a large-scale natural event causes: (1) an ELAP, (2) all units on the site to be affected, and (3) access to the site to be impeded for a minimum of six hours. You also assessed your capability to perform the site specific functions related to the strategies developed in response to NTTF Recommendation 4.2 and the resulting Order EA-12-049. You conducted independent reviews and concluded, based on your staffing assessment, that the existing on-shift minimum staff is sufficient to implement the existing loss of all ac power, multi-unit event response strategies, including those strategies developed to support the requirements of NRC Order EA-12-049, while supporting performance of the required emergency planning duties without unacceptable collateral duties.

The NRC staff reviewed your Phase 2 staffing submittal and your RAI response and confirmed that your existing emergency response resources, as described in your emergency plan, are sufficient to perform the required plant actions and emergency plan functions, and implement the multi-unit event response strategies that were developed in response to NRC Order EA-12-049 without the assignment of collateral duties that would impact the performance of assigned emergency plan functions.

B. Hanson

- 3 -

As a result, the NRC staff concludes that your Phase 2 staffing submittal and RAI responses adequately address the response strategies needed to respond to a BDBEE using your procedures and guidelines. The NRC staff will verify the implementation of your staffing capabilities through the inspection program.

If you have any questions regarding this letter, please contact Stephen Philpott at (301) 415-2365 or via email at [Stephen.Philpott@nrc.gov](mailto:Stephen.Philpott@nrc.gov).

Sincerely,

A handwritten signature in black ink that reads "Mandy K. Halter". The signature is written in a cursive, flowing style.

Mandy K. Halter, Acting Chief  
Orders Management Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456 and STN 50-457

cc: Distribution via Listserv

B. Hanson

- 3 -

As a result, the NRC staff concludes that your Phase 2 staffing submittal and RAI response adequately addresses the response strategies needed to respond to a BDBEE using your procedures and guidelines. The NRC staff will verify the implementation of your staffing capabilities through the inspection program.

If you have any questions regarding this letter, please contact Stephen Philpott at (301) 415-2365 or via email at [Stephen.Philpott@nrc.gov](mailto:Stephen.Philpott@nrc.gov).

Sincerely,

/RA/

Mandy K. Halter, Acting Chief  
Orders Management Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456 and STN 50-457

cc: Distribution via Listserv

**DISTRIBUTION:**

PUBLIC	RidsOgcMailCenter	RidsNrrPMBraidwood	MMurray, NSIR
JOMB R/F	RidsNrrLASLent	RidsRgn3MailCenter	ARivera, NSIR
RidsNrrDorLpl3-2	VWilliams, NSIR	MHalter, NRR	SPhilpott, NRR
JHughey, NRR	TTate, NRR		

**ADAMS Accession No.: ML15156B260**

**\*via email**

OFFICE	NRR/JLD/JOMB/PM	NRR/JLD/LA	NSIR/DPR/DDEP/NRLB/BC*	NRR/JLD/JOMB/BC(A)
NAME	SPhilpott	SLent	ARivera (KThomas for)	MHalter
DATE	06/10/15	06/08/15	06/10/15	06/11/15

**OFFICIAL RECORD COPY**