



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

August 2, 2012

Mr. Michael J. Pacilio  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO)  
Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: REQUEST FOR VOLUNTARY RESPONSE TO PETITION FROM BARRY  
QUIGLEY REGARDING BYRON STATION, UNIT NOS. 1 AND 2, AND  
BRAIDWOOD STATION, UNITS 1 AND 2 HIGH-ENERGY LINE BREAK  
ANALYSIS (TAC NOS. ME8462, ME8463, ME8464, AND ME8465)

Dear Mr. Pacilio:

By e-mail dated April 20, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12130A318), the U.S. Nuclear Regulatory Commission (NRC) received a Petition pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 2.206, from Mr. Barry Quigley requesting that Byron Station, Unit Nos. 1 and 2, and Braidwood Station, Units 1 and 2, be immediately shutdown until all turbine building high-energy line break concerns are identified and those important to safety are corrected.

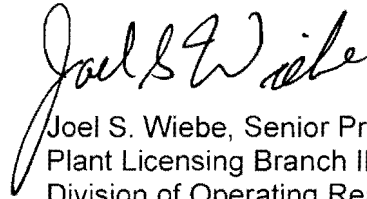
As Petition Manager, I would like to inform you that you have the right to submit a voluntary response to the issues identified in the Petition in accordance with NRC Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions" (ADAMS Accession No. ML041770328). If you choose to provide a voluntary response, the response will be made publicly available unless a request for withholding is submitted and granted in accordance with 10 CFR 2.390. Your response should include the items listed in the enclosure to this letter and will be used by the NRC to determine what, if any, additional action should be taken regarding the Petition. Your response should also be sent to Mr. Barry Quigley, the petitioner, for his information.

M. Pacilio

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If you choose to respond, I am asking that you provide your response within 30 days of the date of this letter.

Sincerely,

A handwritten signature in black ink that reads "Joel S. Wiebe". The signature is written in a cursive style with a large, sweeping initial 'J'.

Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456, STN 50-457,  
STN 50-454 and STN 50-455

Enclosure:  
Request for Voluntary Response

cc: Mr. Barry Quigley  
3512 Louisiana Rd.  
Rockford, IL 61108

cc w/encl: Distribution via Listserv

REQUEST FOR VOLUNTARY RESPONSE  
BYRON STATION, UNIT NOS. 1 AND 2,  
AND BRAIDWOOD STATION, UNITS 1 AND 2  
DOCKET NOS. STN 50-454, STN 50-455,  
STN 50-456 AND STN 50-457

The following information is requested to be included in your voluntary response:

- a. Provide the current emergency diesel generator operability evaluation and prior revisions, including the consideration of the potential for combustion air intake to be diluted with steam. Include the basis documents referenced in the operability evaluations, including calculations and supporting analysis. If engineering judgment is relied on, provide the qualitative basis for this judgment if not clearly specified in the operability evaluation.
- b. Provide the current engineered safety feature (ESF) switchgear room protective relay operability determination and prior revisions, including the consideration of high temperatures on setpoints. Include the basis documents referenced in the operability evaluations, including calculations and supporting analysis. If engineering judgment is relied on, provide the qualitative basis for this judgment if not clearly specified in the operability evaluation.
- c. Provide the analysis of the Turbine Building high-energy line break (HELB) impact on the structural integrity of ESF switchgear room walls.
- d. Provide a description of the methodology used for Turbine Building HELB analysis (i.e., "lumped volume," or "sub-divided volume" as available in the GOTHIC Code, or other methodology), including the basis for its use and if and when the NRC has approved such methodology for this application. Include a discussion of the code of record (Kitty6) and whether or not its use is appropriate.
- e. Provide the plan and schedule for completing an assessment of the Turbine Building HELB issues, including an analysis of licensing basis and impact on equipment operability. Also include the following information:
  1. The plan and schedule for extent of condition review of HELB areas other than the Turbine Building,
  2. The plan and schedule for any decisions related to use of methodology such as when to use the GOTHIC or Kitty6 Code,
  3. The plan for keeping up-to-date equipment operability evaluations for Braidwood and Byron, and

Enclosure

4. Whether Exelon has considered having an independent third-party review the plan scope, plan implementation, and resolution of assessment results. If Exelon plans to have an independent third party review performed, include the plan and schedule for this review.
- f. Provide any other information that you believe would be helpful to the NRC in resolving the April 20, 2012, 10 CFR 2.206, petition.

M. Pacilio

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If you choose to respond, I am asking that you provide your response within 30 days of the date of this letter.

Sincerely,

*/ RA /*

Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456, STN 50-457,  
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LPL3-2 R/F

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RidsNrrPMBraidwood Resource

RidsRgn3MailCenter Resource

RidsNrrDorIDpr Resource

ADAMS Accession No.:ML12208A338

OFFICE	LPL3-2/PM	LPL3-2/LA	LPL3-2/BC	NRR/DSS	LPL3-2/PM
NAME	JWiebe	SRohrer	MDudek	WRuland	JWiebe
DATE	8/1/12	8/01 /12	8/ 01 /12	8/02/12	8/02 /12

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