

April 26, 2007

Mr. Christopher M. Crane  
President and Chief Nuclear Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: BYRON STATION, UNIT NOS. 1 AND 2 - REQUEST FOR ADDITIONAL  
INFORMATION RELATED TO REQUEST TO CHANGE THE TORNADO  
MISSILE PROTECTION METHODOLOGY (TAC NOS. MD2371 AND MD2372)

Dear Mr. Crane:

By letter to the Nuclear Regulatory Commission (NRC) dated June 16, 2006, as supplemented by letter dated September 14, 2006, Exelon Generation Company, LLC (the licensee), submitted a license amendment request to approve the use of TORMIS for tornado missile protection analysis at Byron Station, Unit Nos. 1 and 2.

The NRC staff is reviewing the information contained in the letters and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter, a draft of which was sent by facsimile to Mr. David Chrzanowski of your staff on April 12, 2007. During a call on April 24, 2007, Mr. Chrzanowski indicated that a followup call was not needed to clarify the intent of the NRC staff questions. The NRC staff requests that you respond to the enclosed information request by May 10, 2007.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1055.

Sincerely,

*/RA/*

Christopher Gratton, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

Enclosure:  
Request for Additional Information

cc w/encl: See next page

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Division of Operating Reactor Licensing  
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Docket Nos. STN 50-454 and STN 50-455

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Request for Additional Information

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DATE	4/25/07	4/25/07	4/25/07	4/26/07

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REQUEST FOR ADDITIONAL INFORMATION

BYRON STATION, UNIT NOS. 1 AND 2

DOCKET NOS. STN 50-454 AND STN 50-455

The following questions pertain to your application dated June 16, 2006, as supplemented by your letter dated September 14, 2006:

1. The licensee's response to issue 11 in its letter dated September 14, 2006, explains the methodology for conversion of the soil thickness to an equivalent thickness of concrete. Please provide the minimum soil thickness, as well equivalent concrete thickness, which is adequate to protect the buried piping from tornado generated missiles.
  
2. The licensee's response to issue 11 also indicates that the tornado wind and differential pressure effects on the soil are not accounted for. Since a soil barrier, which cannot be modeled by TORMIS, is not as stable as concrete or steel barriers, the vortex of the tornado can remove some amount of the soil over the area in question. Regulatory Guide 1.76 calls out the design-basis tornado characteristics including pressure drop due to tornados. Please address the possibility that the tornado vortex may remove a certain amount of the soil cover and provide an estimate of the soil thickness that can be removed.

Enclosure

Byron Station, Unit Nos. 1 and 2

cc:

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Byron Station, Unit Nos. 1 and 2

cc:

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