

May 4, 2004

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING BULLETIN 2003-01
BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1
AND 2 (TAC NOS. MB9560, MB9561, MB9558, AND MB9559)

Dear Mr. Crane:

By letter dated August 6, 2003, Exelon Generation Company, LLC (Exelon) responded to NRC Bulletin 2003-01, Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors. During the course of the review of Exelon's response, the Nuclear Regulatory Commission staff has determined that it needs additional information. Enclosed is a Request for Additional Information (RAI), of which your staff has been advised.

In order to support our technical review schedule, we request Exelon's RAI response within 60 days of receipt of this request.

Please contact me if there are questions regarding the RAI.

Sincerely,

/RA/

George F. Dick, Jr., Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

Enclosure: RAI

cc w/encl: See next page

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Byron/Braidwood Stations

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REQUEST FOR ADDITIONAL INFORMATION
BULLETIN 2003-01, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON
EMERGENCY SUMP RECIRCULATION AT PRESSURIZED WATER REACTORS"
EXELON GENERATION COMPANY, LLC
BYRON STATION, UNITS 1 and 2
BRAIDWOOD STATION, UNITS 1 AND 2
DOCKET NOS. STN 50-454, STN-455, STN-456, AND STN-457

By letter dated August 6, 2003, Exelon Generation Company, LLC (Exelon, the licensee) responded to NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors," for Byron Station, Units 1 and 2, (Byron) and Braidwood Station, Units 1 and 2 (Braidwood).

During the course of review of the licensee's bulletin response, the staff has determined that it needs the following information:

1. The Westinghouse Owners Group (WOG) has developed operational guidance in response to Bulletin 2003-01 for Westinghouse and Combustion Engineering type PWR's. For Byron and Braidwood, the licensee's response stated that they will monitor the WOG activities and will consider implementation of any issued guidance. Please provide a discussion of the WOG recommended compensatory measures that have been or will be implemented for the plants. Include a discussion of the evaluations or analyses performed to determine that these compensatory measures are acceptable for Byron and Braidwood, and provide technical justification for those WOG compensatory measures not being implemented. Also include a detailed discussion of the procedures being modified, the operator training being implemented, and the schedule for implementing these compensatory measures.
2. In response to Bulletin 2003-01, the licensee stated that guidance is given in emergency procedures to address refueling water storage tank (RWST) refill once it has been determined that a complete loss of emergency coolant recirculation capability exists. The intent of Bulletin 2003-01 is for licensees to consider implementing compensatory measures to reduce the risk associated with potentially degraded or nonconforming emergency core cooling systems (ECCS) and containment spray system recirculation functions. As such, the timing of implementing this guidance in the plants' emergency procedures may not be consistent with the intent of the bulletin. For large break sizes, refilling the RWST upon switchover to sump recirculation, or soon thereafter, could provide a ready source of additional makeup inventory should sump recirculation be lost. For smaller break sizes, early initiation of RWST refill, such as prior to sump recirculation, could effectively prolong the time to switchover and possibly increase the opportunity for plant recovery without necessitating switchover, thereby reducing the potential for ECCS recirculation sump blockage. In the August 6, 2003, response, the licensee did not commit to modifying the procedures to include refilling the RWST prior to or upon switchover to ECCS recirculation. Given the uncertainty associated with this

issue, and the potential benefits of implementing this compensatory measure, please explain the basis for not including refilling the RWST earlier in the procedures.

In addition, please provide a detailed description of how the current emergency operating procedures address a loss of ECCS recirculation capability.

3. NRC Bulletin 2003-01 provides possible interim compensatory measures licensees could consider to reduce risks associated with sump clogging. In addition to those compensatory measures listed in Bulletin 2003-01, licensees may also consider implementing unique or plant-specific compensatory measures, as applicable. Please discuss any possible unique or plant-specific compensatory measures that were considered for implementation at Byron and Braidwood. Include a basis for rejecting any of these additional measures considered.