### May 20, 2005

### ORGANIZATION: EXELON GENERATION COMPANY, LLC

SUBJECT: SUMMARY OF MARCH 31, 2005, CATEGORY 1 MEETING WITH EXELON GENERATION COMPANY, LLC, REGARDING THE EXELON EARLY SITE PERMIT DRAFT SAFETY EVALUATION REPORT OPEN ITEMS

On March 31, 2005, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Exelon Generation Company, LLC (Exelon) at NRC Headquarters in Rockville, MD. The purpose of the meeting was to discuss the open items in the Exelon early site permit (ESP) draft safety evaluation report (DSER). A list of meeting attendees is included as Attachment 1, and the agenda is provided as Attachment 2. The meeting handout, which provides a description of the DSER open items is included as Attachment 3 (ADAMS Accession No. ML051260113).

The staff indicated that the main purpose of the meeting was to discuss the status of the open items (OI) and to provide clarification to Exelon, as appropriate, for future responses. The following is a brief summary of the open items discussed during the meeting and the outcome of each.

<u>Open Item 2.1-1.</u> Exelon provided an explanation of the relationship between Exelon and AmerGen. AmerGen is a subsidiary of Exelon Generation Company and, therefore, should have all the legal rights it needs to control the exclusion area. With regard to a planned merger with Public Service Enterprise Group (PSEG), Exelon stated that it should not have any effect on control of the exclusion area but that minor changes were going to be made to its response.

Open Item 2.3-1. Exelon provided temperatures as requested by RG 1.27,

- Maximum 30-day Average Wet Bulb Temperature: 74.7 °F
- Coincident 30-day Average Dry Bulb Temperature: 82 °F
- Maximum 1-day Average Wet Bulb Temperature: 81 °F
- Coincident 1-day Average Dry Bulb Temperature: 87.6 °F
- Maximum 5-day Average Wet Bulb Temperature: 79.7 °F
- Coincident 5-day Average Dry Bulb Temperature: 86.2 °F

taken from the historical meteorological data for both Peoria and Springfield, Illinois weather stations, and stated that they would be included in its response to DSER Open Item 2.3-1. Exelon also stated that it will revise the site safety analysis report (SSAR) to include these values as site characteristics.

<u>Open Item 2.3-2.</u> Exelon stated that it has chosen the number of degree days below freezing as a site characteristic. Exelon also stated that there may be differences between the methods and definitions used by the staff and Exelon in the determination of the number of degree days below freezing. This issue will be discussed further with Exelon at a later date.

<u>Open Item 2.3-3.</u> Exelon stated that it would recalculate the short term accident X/Q values using a conservative minimum distance of 805 meters to the exclusion area boundary (EAB) and 3 years of hourly meteorological data (January 2000 - December 2002) for distances of 805 meters and 4018 meters. The staff requested that Exelon submit a copy of the PAVAN computer code data for the Advisory Committee on Reactor Safeguards.

<u>Open Item 2.4-1.</u> Exelon discussed the three aspects of this open item with respect to flood protection of safety-related equipment in the intake structure. Exelon stated that it would be designed to consider flood protection. With respect to the extent of vertical disturbance, Exelon stated that the deepest foundation embedment is 140 feet below grade. Exelon also stated that the powerblock is 234 feet above grade and the natural draft cooling tower (if used) is 550 feet above grade. The staff stated that Exelon should clarify in its response that the embedment depth may not be the same as the depth of disturbance. Exelon stated that it would provide a clarification. With respect to the piping locations, Exelon stated that the ultimate heat sink (UHS) is design dependant and they do not have the detailed information at this time. The staff asked if Exelon could provide a conceptual sketch or a more detailed discussion in its response. Exelon stated that it would address these issues in its response to this open item.

<u>Open Item 2.4-2.</u> Exelon indicated that it would update Figure 3.2-1 of the SSAR to include blowdown. The staff requested that the schematic contain discharge values, but Exelon added, that it could only provide plant parameter envelope (PPE) values because it did not have the discharge values yet. The staff raised a question regarding a discussion in the application about pre-cooling associated with the cooling tower. Exelon stated that it would look into this issue.

<u>Open Item 2.4-3.</u> Exelon indicated that it had spoken with the administrator of the DeWitt County Planning and Zoning office and with the acting administrator of Farmer City. Both stated that any large-scale development projects in the Clinton Lake watershed did not exist, but that there did exist a long-range development plan in the lake watershed of which no approvals have been requested or issued yet. Exelon will provide a detailed explanation in its response.

<u>Open Item 2.4-4.</u> Based on conversations with the DeWitt County Administrator of planning and zoning, Exelon stated that practices implemented to handle storm water in urban developments significantly reduce the impact on soil erosion. Therefore, no significant changes would occur due to future increases in urban land use. Exelon mentioned that with the new developments on handling of storm water in combination with so little future development, there shouldn't be any impact to soil erosion. Exelon will explain this in further detail in its response.

<u>Open Item 2.4-5.</u> Exelon used Hydrometeorological Report 51(HMR-51) to generate new 24-hour and 48-hour probable maximum precipitation (PMP) values for Clinton Lake's watershed. Exelon stated that the new values that were generated were similar to the staff's and will be provided in its response.

<u>Open Item 2.4-6.</u> Exelon explained that this is similar to DSER Open Item 2.4-4 in that there is so little future development that the impact is small. Further detail will be provided in the response.

<u>Open Item 2.4-7.</u> Exelon explained that, as previously stated for DSER Open Item 2.4-3, both planning and zoning offices for DeWitt County and Farmer City were contacted and that there are currently no significant development plans.

<u>Open Item 2.4-8.</u> Exelon agreed with the NRC's estimates and will provide the new estimates generated using HMR-52. Previous estimates were generated using out-of-date guidance (HMR-33). These new estimates will be added as site characteristics.

<u>Open Item 2.4-9.</u> More specific information from the U.S. Army Corps of Engineers will be provided in Exelon's response but first Exelon wants to have a teleconference discussing the issue further with the staff.

<u>Open Item 2.4-10.</u> Exelon stated that there aren't any design drawings yet because a design has not been selected. As much detail as can be provided will be documented in its response.

<u>Open Item 2.4-11.</u> Exelon's response was that if the dam is lost then the ice will disperse as well, but if the dam is intact then how it affects the water storage capacity depends on the thickness of the ice. Exelon will provide more information on scenarios in the responses to other open items related to which unit/unit(s) are operating.

<u>Open Item 2.4-12.</u> Exelon stated that the difference between Exelon's and the staff's estimates of the 30-day makeup water needed for the ESP facility UHS system appears to be the result of double counting of the blowdown in the staff estimate and a 20-percent margin, which was included in the double counted blowdown value. Exelon will provide information describing the calculation used to generate current estimates in its response.

<u>Open Item 2.4-13.</u> For normal heat sink, Exelon stated that it will either be mechanical draft cooling or natural draft cooling towers. For the UHS, if one is required, Exelon will choose to implement mechanical draft cooling towers.

<u>Open Item 2.4-14.</u> Exelon generated some new volume requirements taking into account the latest power uprate. These requirements will be documented in the response.

<u>Open Item 2.4-15.</u> Exelon stated that short durations were looked at and it was concluded that 1 and 2 years were not a problem. With no inflow, it would take 20 months to get to low level and with little inflow it would take 29 months. The staff agreed to go back and review the calculations, but if 6 months is more critical, then a teleconference will need to be set up to discuss the issue further.

<u>Open Item 2.4-16.</u> Exelon will provide the staff with the numbers to show what the available volume in the pond is.

<u>Open Item 2.4-17.</u> If Exelon decides to build a UHS, it stated that it would need to be monitored and that dredging would have to be done every 80-85 years. Exelon explained that this issue would be discussed further in its response.

<u>OI 2.4-18.</u> Exelon stated that the overall result of construction would be localized and that the gradient would return to normal after dewatering during the construction of the plant. Exelon will provide additional information in response to this open item.

<u>OI 2.4-19.</u> Exelon chose the highest values from the Clinton Power Station data and these values were used as the most conservative numbers. Exelon stated that it would provide these numbers in its response or would have further discussions to clarify the issue.

<u>OI 2.4-20.</u> Exelon is currently looking into this issue, and stated that the issue is design-dependent and that it is therefore not sure that the information can be provided.

<u>OI 2.4-21.</u> The current description has already been provided by Exelon in Appendix A of the SSAR. Exelon will provide more information in its response.

<u>OI 3.3-1.</u> As discussed for DSER Open Item 2.3-3, Exelon stated that the short-term accident Q values had been recalculated using a minimum distance of 805 meters to the exclusion area boundary (EAB) and three years of hourly meteorological data (January 2000 - December 2002) for distances of 805 meters and 4018 meters.

<u>OI 13.3-1.</u> Exelon stated that it had already submitted the response to this issue on January 24, 2005, but that it was not in time to meet the issuance of the DSER. The staff indicated that it does not need additional information at this time.

<u>OI 13.3-2.</u> Exelon indicated that its response to this open item will clarify that the documentation of contacts and arrangements with local government agencies with emergency planning responsibilities within the plume exposure emergency planning zone (EPZ) is provided through Illinois Emergency Management Agency (IEMA) and the State of Illinois Statute 20 § ILCS 3305.

<u>OI 13.3-3.</u> Exelon stated that these facilities are design specific and therefore did not provide any further detail during the meeting. Exelon also stated that it would respond to the open item but that no new information would be provided.

<u>OI 13.3-4.</u> Exelon indicated that it submitted the responses for requests for additional information (RAI) 13.3-20(k-v) to the NRC on January 24, 2005. Exelon also stated that it would provide the estimated times for confirmation of evacuation in the response to this item.

<u>OI 13.3-5</u> Exelon stated that the draft evacuation time estimate (ETE) was provided to the State for comment. The comments from the State were implemented into the draft, and the final was issued to the State. Exelon stated that they would review how the ETE should be considered in the State and local emergency plans.

<u>OI 13.3-6.</u> Exelon stated that it would consider adding a reference to procedures in the State and local emergency plans.

<u>OI 17.1-1.</u> Exelon stated that since most of the contracted services have been completed, it plans to dedicate the completed services and assume the Part 21 reporting requirements.

In summary, Exelon stated that it would provide the available responses as soon as possible.

As for the remaining items, where satisfactory responses were not received, Exelon is working to get those out as quickly as possible. As a side note, Exelon expressed some concern with how permit conditions were being selected, but is aware that the NRC is currently working on developing criteria for establishing permit conditions. Exelon is looking forward to working together with the NRC on this matter.

The staff thanked all participants for their comments and adjourned the meeting.

#### /RA/

Christian Araguas, General Engineer New Reactors Section New, Research and Test Reactors Program Division of Regulatory Improvement Programs Office of Nuclear Reactor Regulation

Docket No. 52-007

Attachments 1. List of attendees 2. Agenda

cc w/atts: See next page

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## Agenda for Public Meeting with Exelon Generation Company, LLC (Exelon), Regarding the Exelon Early Site Permit (ESP) Draft Safety Evaluation Report Open Items March 31, 2005

9:00 am	Introductory Remarks	NRC/Exelon
9:15	Discussion on Exelon ESP Draft Safety Evaluation Report - Open Items - Other Technical Issues	NRC/Exelon
11:45	Opportunity for Public comment	
12:00 pm	Adjourn	

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