May 2, 2007

LICENSEE: Exelon Generation Company, LLC

FACILITY: LaSalle County Station, Units 1 and 2

SUBJECT: SUMMARY OF APRIL 5, 2007, MEETING WITH EXELON GENERATION COMPANY, LLC (TAC NOS. MD7434 AND MD7435)

On April 5, 2007, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Exelon Generating Company, LLC (Exelon) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meeting was to discuss regulatory resolution pathways for a proposed submittal, for the ultimate heat sink (UHS) for LaSalle County Station (LaSalle), Units 1 and 2. A list of attendees is provided as Enclosure 1.

BACKGROUND

On March 13, 2006, Exelon submitted a license amendment request (LAR) to the NRC to change the technical specification (TS) limit of the UHS from $\leq$ 100 °F to $\leq$ 101.5 °F by reducing the temperature measurement uncertainty by replacing the existing thermocouples with higher precision temperature measurement equipment. On June 15, 2006, the NRC staff forwarded a request for additional information (RAI) to Exelon. Exelon responded to the RAI on July 13, 2006. After a number of telephone conferences, Exelon submitted a supplemental response to the NRC on August 4, 2006. The NRC staff reviewed the material supplied by Exelon with respect to the UHS submittal, and on November 13, 2006, the NRC staff determined that the degree of measurement accuracy that would be required to support the LAR was not adequately demonstrated and denied the LAR. In a letter to the NRC dated January 24, 2007, Exelon stated that the NRC was challenging the current design and licensing basis and that the technical basis for the denial represented a change in NRC's position on the appropriate measurement uncertainty methodology applied to non-safety related, indication only instrumentation.

On January 26, 2007, a public meeting was held between the NRC and representatives of Exelon to discuss the denial of the UHS submittal and Exelon's plan for re-submittal of the proposed LAR. At that meeting a number of actions items were identified for both the NRC staff and Exelon to address before the April 5, 2007, meeting.

APRIL 5, 2007, MEETING SUMMARY

The action items discussed during the January 26, 2007, meeting and their disposition are discussed below. The NRC action items from the January 26, 2007, meeting are discussed in the body of the Exelon action items and are not covered separately.

Exelon's action items:

- Assess the acceptability of inserting a table in the LaSalle TS to address the loss of three out of four temperature detectors.

  Exelon determined this approach was not desirable and inconsistent with the integrated TSs and that this issue would be handled in the Bases section and maintained through their bases control program. The NRC staff agreed this was an acceptable approach.

- Correct the discrepancy in the updated final safety analysis report (UFSAR) that describes the post accident temperature limit of 102 °F versus the stated LAR value of 104 °F.

  Exelon stated this would be accomplished in the next UFSAR update.

- Verify the level of accuracy of the original thermocouple measurement uncertainty and the basis for it.

  Exelon stated that when the plant was initially licensed, the licensing basis for LaSalle, with respect to UHS, was a nominal plant value, and as such no measurement uncertainty calculations were performed in the initial treatment of non-safety instruments such as the UHS thermocouples. This was the basis for Exelon's statement in their January 24, 2007, letter responding to the NRC denial of the UHS LAR that the NRC challenged the current design and licensing basis of the LaSalle circulating water system. NRC Deputy Director, Ken O'Brien informed Exelon that the only aspect of the design basis being reviewed was the design limit of 102 °F for the UHS and not any associated uncertainty calculations. After the discussion, Exelon stated they no longer considered that the NRC challenged the LaSalle licensing or design basis.

- Determine if the NRC had approved a graded approach to setpoint methodology for other licensees.

  NRC has not approved the graded approach for setpoint methodology at LaSalle. In addition, the NRC staff has not approved a license amendment for other licensees, using the graded approach. This was also an issue in the Exelon letter of January 24, 2007. Exelon's position that the technical basis for the denial, as described in the NRC staff's safety evaluation (SE), represented a change in the NRC position on the appropriate measurement uncertainty methodology being applied to non-safety related, indication only instrumentation. The NRC staff informed Exelon that the graded approach was not approved nor accepted, and that if Exelon wished to use this approach, they would have to supply all supporting documentation for the NRC staff's review which would support their calculations and their approach to measurement uncertainty.

- Describe the industry standard for a graded approach to setpoint methodology

  Exelon presented the graded approach to setpoint methodology used by the industry. The NRC staff acknowledged that the industry may use the graded approach for some systems, however, for setpoint methodology, the NRC evaluates the information based on a two sigma (2σ) uncertainty analysis. The NRC staff discussed the Agency's

position on the graded approach to setpoint methodology as well as the position in Regulatory Guide 1.105, "Setpoints for Safety Related Instrumentation."

- The NRC staff discussed the value of completing the UHS uncertainty calculations using the 95/95 tolerance limit (2σ) as an acceptable method for uncertainties. This method ensures that there is a 95 percent probability that the constructed limits contain 95 percent of the population of interest for the surveillance interval selected.

  Exelon proposed that since the area of concern only relates to high temperature (not exceeding the design limit of 102 °F), they plan to use single sided uncertainty in their evaluation using the 95/95 tolerance limit which results in the uncertainty of about 0.49°F. This should be within the calculated range for uncertainty for it to be below the 102 °F design limit. The NRC staff pointed out that a licensee, with justification, may propose an alternative calculation other than the 95/95 tolerance limit, based on its particular setpoint methodology or license.

- A review of NRC's uncertainty calculation was discussed. The NRC's alternative calculation identified a possible discrepancy between the calibration data and some assumptions in the Exelon calculation. The alternative calculation also addressed possible discrepancies between the assumed and derived resistance-temperature detector characteristics, but because the discrepancies may be related to differing definitions or other conditions, the alternative calculation did not address them directly. Exelon indicated they would review the alternative calculations in detail, and plans to resubmit the amendment request by the end of May 2007.

Exelon presented information (See Enclosure 2 or the Agencywide Documents Access and Management System Accession No. ML071090218). Exelon's presentation provided a time line for the UHS as well as a listing of action items resulting from the previous public meeting on January 26, 2007.

Members of the public were not in attendance. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-3154, or sps1@nrc.gov.

/RA by RKuntz for/

Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosures: 1. List of Attendees
2. Licensee Handout

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PRE-APPLICATION MEETING TO DISCUSS THE ULTIMATE HEAT SINK (UHS) AMENDMENT REQUEST

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