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

September 14, 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: LASALLE COUNTY STATION, UNITS 1 AND 2 - SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF REQUESTED LICENSING ACTION REGARDING REQUEST FOR LICENSE AMENDMENT TO TECHNICAL SPECIFICATION 3.7.3 ULTIMATE HEAT SINK (TAC NOS. ME9076 AND ME9077)

Dear Mr. Pacilio:

By letter dated July 12, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12200A330), Exelon Generation Company, LLC (EGC) submitted a license amendment request for increasing Technical Specification (TS) 3.7.3 "Ultimate Heat Sink [UHS]" with a variable lake temperature between 101.25 °F to 104 °F on a diurnal cycle. The proposed amendment would allow the TS temperature limit of the cooling water supplied to the plant from the UHS to vary with the diurnal cycle with a maximum design temperature not to exceed 107 °F for plant safety systems. The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment/relief request in terms of regulatory requirements and the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that EGC supplement the application to address the information requested in the enclosure by September 18, 2012. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with Mitch Mathews of your staff on August 29, 2012.

If you have any questions, please contact me by phone at (301) 415-1115 or email at Nicholas.DiFrancesco@nrc.gov.

Sincerely,

Nicholas DiFrancesco, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosure:
As stated

cc w/encl: Distribution via Listserv

SUPPLEMENTAL INFORMATION NEEDED

LICENSE AMENDMENT REQUEST REGARDING

ULTIMATE HEAT SINK

EXELON GENERATION COMPANY, LLC

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. 50-373 AND 50-374

In reviewing the Exelon Generation Company's (Exelon's) submittal dated July 12, 2012, related to Technical Specification (TS) 3.7.3 "Ultimate Heat Sink [UHS]," for the LaSalle County Station (LSCS), Units 1 and 2, the NRC staff has determined that the following information is needed in order to complete its review:

1. The Regulatory Issue Summary [RIS]-2001-22, "Attributes of a Proposed No Significant Hazards Consideration Determination," states that licensees should "identify previously evaluated accidents that are affected by the proposed change and explain why any change in the probability, consequences, or margins of safety is or is not significant." The no significant hazards consideration (NSHC) in Exelon's submittal concludes that there is "no impact to safety analysis" without clarification or explanation. Please revise the NSHC submitted in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.92, "Issuance of amendment," to reflect whether there is an impact to increasing the transient UHS temperature in safety analysis limits and operations of safety-related plant systems. Also, please identify the affected analysis and explain how it is impacted by the NSHC.

2. The license amendment request (LAR) proposes a change to input parameters used in design analyses that demonstrate the heat removal capability of the safety-related heat exchangers/coolers credited in the safe shutdown and cooldown of LSCS during design basis events. Please provide the following Engineering Design Analyses to enable the NRC staff to review the LAR:

    a. Heat transfer calculations used to develop Attachment 5 in the LAR and its corresponding Table A5-1.

    b. L-002457, Revision 7, "LaSalle County Station Ultimate Heat Sink Analysis."

    c. L-003230, Revision 1b, "CW Inlet Temperature Uncertainty Analysis."

    d. EC 389677, Revision 0, "Evaluate UHS for 107°F Temperature."

Enclosure

e. EC-388666, Revision 0, "Revise Design Analyses for UHS Temperature of 107 °F."

f. Piping and instrumentation drawing (P&ID) for the UHS, residual heat removal system, and core standby cooling system.

3. The proposed LAR references an approved setpoint methodology used in LSCS Amendment No. 183, and describes the proposed revisions to the SR 3.7.3.1 temperature limit. However, the LAR does not demonstrate that the setpoint methodology remains bounded by the proposed Surveillance Requirement [SR] 3.7.3.1 limits (presented on Figure 3.7.3-1 of the LAR). Please provide justification that the increased range in the maximum cooling water temperatures does not adversely affect the loop accuracy or uncertainty of the UHS temperature instruments.

4. The proposed LAR references the computer program (LAKET-PC) used to model the LaSalle UHS during a design basis event. It is unclear whether the LAKET-PC code adequately applies to the LaSalle site, facility, and/or facility operations, however, please provide additional description of the LAKET-PC code's input and output file and describe any of the assumptions or inputs that were made.

5. To facilitate a staff analysis of the UHS pool heat transfer calculations and the bounding weather conditions of the UHS design, please provide the following information:

   (a) The final formatted onsite meteorological data set (i.e., data that have been verified through quality control) for the years used in the LAR UHS calculations. This data set should be accompanied by a description of the screening and review process used to identify and remove suspect or erroneous data.

   (b) A description of the onsite meteorological monitoring program. This description should include (but is not limited to):

   - How the meteorological data inputs and periods were determined to be most limiting.

   - A site map (drawn to scale) that shows the tower's grade elevation, plant and true north, and the tower's location with respect to man-made structures and plant features (buildings, paved and improved surfaces, and cooling towers and ponds), topographic features (hills, trees, and bodies of water), and any other man-made or natural features that may affect onsite meteorological measurements.

   - Measurements made, and elevations of measurements for, onsite and offsite sources.

   - Types of instruments used (e.g., cup, propeller, or sonic anemometers; resistance temperature detector or thermistor temperature sensors; chilled mirror or lithium chloride dew point sensors).

- Data recovery rates (in percent) for each of the recorded parameters.

(c) The final data sets of offsite (Peoria, IL, and Springfield, IL) meteorological information for the years used in the LAR UHS calculations. These data sets should be accompanied by a description of the screening and review process used to identify and remove suspect or erroneous data.

In order to make the application complete, the NRC staff requests that EGC supplement the application to address the information requested in the enclosure by September 18, 2012. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the staff's detailed technical review by separate correspondence.

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If you have any questions, please contact me by phone at (301) 415-1115 or email at Nicholas.DiFrancesco@nrc.gov.

Sincerely,

/RA/

Nicholas DiFrancesco, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosure:
As stated

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DATE	8/21/12	8/27/12	8/27/12	8/27/12	8/24/12
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