

NRR-PMDAPEm Resource

From: DiFrancesco, Nicholas
Sent: Tuesday, August 28, 2012 4:57 PM
To: 'Mitchel.Mathews@exeloncorp.com'
Cc: Lisa.Simpson@exeloncorp.com; 'David.Gullott@exeloncorp.com'; Dudek, Michael; DiFrancesco, Nicholas
Subject: Draft - LaSalle UHS LAR Supplement Request (TAC No. ME9076 and ME9077)

Mr. Mathews,

Please find below the staff's draft supplemental information request related to the LaSalle UHS License Amendment Requests dated July 12, 2012. The information below is being requested to support the NRC staff acceptance review. Consistent with LIC-109, following the clarification call tomorrow (@ 2pm EDT) the supplement response will be due September 18, 2012. The draft requests are being provided to facilitate the clarification call tomorrow between NRC and Exelon staff.

Sincerely,

Nicholas DiFrancesco

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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. Please revise the Title 10 of the Code of Federal Regulations (10 CFR), Section 50.92, "Issuance of amendment" [significant hazards consideration (SHC)] to reflect whether there is an impact to increasing the transient UHS temperature in safety analysis limits and operations of safety-related plant systems. 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 SHC concludes that there is "no impact to safety analysis" without clarification or explanation. Please identify the affected analysis and explain how these were not impacted.

2. Surveillance requirement (SR) 3.7.3.2 verifies sediment level in the intake flume and core standby cooling system (CSCS) pond. The SR has a frequency in accordance with the Surveillance Frequency Control Program. Explain how often the SR is performed now and how often do you plan to perform the SR in the future.
3. The license amendment request (LAR) involves 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 the station during design basis events. The staff requests following Engineering Design Analyses:
 - 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 DegF Temperature."
 - 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.
4. The proposed LAR references an approved setpoint methodology used in LaSalle's Amendment No. 183. The proposed LAR 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 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 (between 101.25°F to 107°F) does not adversely affect the loop accuracy or uncertainty of the UHS temperature instruments.
5. The NRC staff plans to conduct an independent confirmatory analysis of the UHS pool heat transfer calculations and the identification of the bounding weather conditions for the UHS design. The staff requests additional description of the LAKET-PC code, input and output files used for the LAKET-PC model runs. Justify that the assumptions, inputs, and LAKET-PC code adequately apply to the LaSalle site, facility, and facility operations.

In support of the independent review of the bounding weather conditions, the NRC staff requests the following to support analysis:

- (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.

In addition to this data set, the NRC staff is requesting that a description of the onsite meteorological monitoring program be provided. This description should include (but not limited to):

- A description, in detail, of 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 (such as buildings, paved and improved surfaces, and cooling towers and ponds), topographic features (such as

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 (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

(b) 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.

6. In addition to the meteorological data provided in supplemental request 5 (i.e., meteorological data through September 2010), please provide the onsite and offsite data for the summers of 2011 and 2012 with measurement intervals of approximately 1-hour or provide justification for how the proposed license amendment ensures that the maximum temperatures of the cooling water supplied to plant safety systems during the UHS design basis event remains ≤ 107 °F.

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