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U. S. Nuclear Regulatory Commission
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Washington, D. C. 20555

LaSalle County Station, Unit 1
Facility Operating License Nos. NPF-11
NRC Docket No. 50-373

Subject: Additional Information Supporting Request for a License Amendment to Technical Specification 5.5.13, "Primary Containment Leakage Rate Testing Program"

Reference: Letter from D. M. Benyak (Exelon Generation Company, LLC) to U. S. NRC, "Request for Amendment to Technical Specification 5.5.13, 'Primary Containment Leakage Rate Testing Program'," dated June 18, 2006

In the referenced letter, Exelon Generation Company, LLC (EGC) requested an amendment to Appendix A, Technical Specifications (TS), of Facility Operating License No. NPF-11 for LaSalle County Station (LSCS) Unit 1. Specifically, the proposed change will revise TS 5.5.13, "Primary Containment Leakage Rate Testing Program," to reflect a one-time extension of the LSCS Unit 1 primary containment Type A Integrated Leak Rate Test (ILRT) date from the current requirement of no later than June 13, 2009, to prior to startup following the thirteenth LSCS Unit 1 refueling outage (L1R13) currently scheduled to begin in February 2010.

During a teleconference between the NRC and EGC on August 27, 2007, to discuss the LSCS Unit 1 ILRT extension request, EGC agreed to provide additional information supporting the request. The attachment to this letter provides the additional information requested.

EGC has reviewed the information supporting a finding of no significant hazards consideration that was previously provided to the NRC in Attachment 1 of the referenced letter. The additional information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration.

There are no regulatory commitments in this letter. Should you have any questions concerning this submittal, please contact Ms. Alison Mackellar at (630) 657-2817.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th day of September 2007.

Respectfully,

Patrick R. Simpson

Patrick R. Simpson
Manger – Licensing
Exelon Generation Company, LLC

Attachment: Additional Information Supporting LSCS Unit 1 ILRT Extension

ATTACHMENT
ADDITIONAL INFORMATION SUPPORTING LSCS UNIT 1 ILRT EXTENSION

Performing the LaSalle County Station (LSCS) Unit 1 Type A Integrated Leak Rate Test (ILRT) during the February 2010 Unit 1 refueling outage (L1R13) instead of the February 2008 Unit 1 refueling outage (L1R12) is preferable from both a dose savings and a safety significance standpoint.

Dose Savings

The current dose estimate for the Unit 1 Type A ILRT during L1R12 is 750 mRem. During L1R12, EGC plans to implement actions that will result in a reduction in the radioactive source term and radiation dose rates present during subsequent refueling outages (e.g., L1R13). These actions, combined with deferring the ILRT to L1R13, would reduce the projected total accumulated radiation exposure to perform the Unit 1 ILRT by approximately 6%.

The L1R12 activities that will directly lower the dose accumulated during performance of the Unit 1 ILRT Type A test include:

- Expanding the number of control blades to be replaced from 17 to 30.

  The control blades that are being replaced are constructed with stellite rollers. This replacement will decrease the radiation source term during L1R13 by reducing the number of highly activated stellite rollers, and as a result reduce the amount of Co-60 that is added to the Reactor Coolant System.

- Replacement of three Feedwater (FW) system heaters.

  These FW heaters are the major contributors to iron in the reactor coolant. Replacement during L1R12 will significantly reduce the concentration of elemental iron in the reactor coolant, thus reducing the levels of activated iron that are deposited throughout the primary system prior to L1R13.

Safety Significance

Numerous modifications and activities are planned for L1R12, which enhance the safety of Unit 1. The following provides a brief summary of each and its associated safety benefit:

- A CALDON system will be installed which enables utilization of a correction factor to the measured feedwater flow resulting in a more accurate input into the heat balance computer program used to determine reactor power. This will support ensuring the reactor continues to operate within licensed power limits.

- As previously mentioned, three FW heaters are being replaced since they are degraded both internally and at the shell. Temporary repairs were performed during the last refueling outage, but permanent replacement is required. The new FW heaters have a different nozzle arrangement than those being removed, which necessitates significant re-piping. The replacement is necessary to ensure the FW heaters will not initiate or contribute to complications during reactor scrams.

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- Rod Control Management System (RCMS) is currently scheduled to be installed this outage. This system replaces the existing Reactor Manual Control System (RMCS) that consists of the Rod Position Information System (RPIS), Rod Worth Minimizer (RWM) and the Rod Drive Control System (RDCS). These three existing systems are obsolete and in recent years have required increased resources to troubleshoot and repair. The new system also installs redundant and parallel modes of operation reducing the impact of any failure on the ability of the system to support plant operation. This will minimize the possibility of a failure of these systems resulting in a unit shutdown.

- The Core Standby Cooling System (CSCS) valve replacement during this outage is the last of a series of replacements spanning three refueling outages. These valve replacements are required to ensure that stem to disc separation does not result in loss of a division of Emergency Core Cooling System (ECCS) equipment. This work also installs an additional maintenance valve which allows for a single unit to be isolated preventing the need for a dual unit shutdown for future valve maintenance. These valve replacements were enabled with approval of Amendment Nos. 175/161 and Amendment Nos. 180/167 for LSCS Units 1 and 2.

- 78 fuel bundles are being rechanneled to mitigate channel bow. Performing the re-channeling minimizes the possibility of a stuck rod due to channel distortion issues in future operating cycles. Channel bow was a principal contributor to the 2006 Site Area Emergency experienced at LSCS.

- A new digital Electro-Hydraulic Control (DEHC) system will replace the existing analog EHC system. The new system is fault tolerant, redundant and parallel. This reduces the probability of a turbine transient resulting in a reactor scram.

Given the above modifications and activities planned for L1R12, the performance of an ILRT places additional unnecessary burden on station resources without a commensurate safety benefit. The appropriate level of attention and focus must be placed on the installation and testing associated with the planned L1R12 modifications and activities. Deferral of the ILRT by approximately eight months until L1R13 permits the ILRT to be performed during an outage in which the only significant outage activity currently scheduled is the Unit 1 turbine generator rewind.

Conclusion

Deferring the ILRT to L1R13 will result in dose savings and enhanced reactor safety as a direct result of the L1R12 planned activities. These dose savings would not be achieved if the ILRT were performed in L1R12. In addition, if the ILRT must be performed in L1R12 some of the currently planned modifications, which enhance reactor safety, may be deferred.