

January 29, 2007

Mr. Christopher M. Crane  
President and Chief Nuclear Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2, ISSUANCE OF AMENDMENTS  
RE: EXTENSION OF TECHNICAL SPECIFICATION COMPLETION TIMES, ON  
A ONE TIME BASIS, ASSOCIATED WITH THE RESIDUAL HEAT REMOVAL  
SERVICE WATER SYSTEM, DIESEL GENERATOR COOLING WATER  
SYSTEM, AND THE CORE STANDBY COOLING SYSTEM (TAC NOS. MD2423  
AND MD2424)

Dear Mr. Crane:

The Commission has issued the enclosed Amendment No. 180 to Facility Operating License No. NPF-11 and Amendment No. 167 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively. The amendments are in response to your application dated April 13, 2005, as supplemented by letters dated December 22, 2005, June 12, 2006, and e-mail message dated January 4, 2007.

The amendments will extend the technical specification (TS) completion times, on a one-time basis, associated with the residual heat removal service water (RHRSW) system, diesel generator cooling water (DGCW) system, core standby cooling system (CSCS), and AC sources - Operating, during the replacement of CSCS valves. The TS changes associated with RHRSW system (TS 3.7.1), and the DGCW system (TS 3.7.2) were approved by the Nuclear Regulatory Commission on February 23, 2006. This amendment addresses the changes associated with TS 3.8.1, "AC Sources-Operating." These changes will be used during the upcoming refueling outage, spring 2007 for Unit 2, and spring 2008, for Unit 1.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA/**

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. Amendment No. 180 to NPF-11
2. Amendment No. 167 to NPF-18
3. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession Nos.: Amendment-ML063520278, Package-ML063520226, TS070310013

\*\* No major changes to SE dated 11/20/06

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 180  
License No. NPF-11

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated April 13, 2005, as supplemented by letters dated December 22, 2005, and June 12, 2006, and an e-mail message dated January 4, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-11 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 180, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Michael L. Marshall, Jr., Chief  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications  
and Operating License

Date of Issuance: January 29, 2007

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 167  
License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated April 13, 2005, as supplemented by letters dated December 22, 2005, June 12, 2006, and an e-mail message dated January 4, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-18 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 167, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Michael L. Marshall, Jr., Chief  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications  
and Operating License

Date of Issuance: January 29, 2007

ATTACHMENT TO LICENSE AMENDMENT NOS. 180 AND 167

FACILITY OPERATING LICENSE NOS. NPF-11 AND NPF-18

DOCKET NOS. 50-373 AND 50-374

Replace the following pages of the Facility Operating Licenses and Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

Insert

Unit 1 License Page 3

Unit 1 License Page 3

Unit 2 License Page 3

Unit 2 License Page 3

3.8.1-4

3.8.1-4

3.8.1-6

3.8.1-6

3.8.1-7

3.8.1-7

3.8.1-8

3.8.1-8

3.8.1-9

3.8.1-9

3.8.1-10

3.8.1-10

3.8.1-11

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3.8.1-12

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3.8.1-14

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3.8.1-15

3.8.1-15

3.8.1-16

3.8.1-16

3.8.1-17

3.8.1-17

3.8.1-18

3.8.1-18

3.8.1-19

3.8.1-19

3.8.1-20

3.8.1-20

- (4) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
  - (5) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of LaSalle County Station, Units 1 and 2.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of full power (3489 megawatts thermal).
  - (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 180, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
  - (3) Conduct of Work Activities During Fuel Load and Initial Startup

The licensee shall review by committee all Unit 1 Preoperational Testing and System Demonstration activities performed concurrently with Unit 1 initial fuel loading or with the Unit 1 Startup Test Program to assure that the activity will not affect the safe performance of the Unit 1 fuel loading or the portion of the Unit 1 Startup Program being performed. The review shall address, as a minimum, system interaction, span of control, staffing, security and health physics, with respect to performance of the activity concurrently with the Unit 1 fuel loading or the portion of the Unit 1 Startup Program being performed. The committee for the review shall be composed of at least three members, knowledgeable in the above areas, and who meet the qualifications for professional-technical personnel specified by

- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70 possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of LaSalle County Station Units 1 and 2.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

- (1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of full power (3489 megawatts thermal). Items in Attachment 1 shall be completed as specified. Attachment 1 is hereby incorporated into this license.

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 167, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

- (3) Conduct of Work Activities During Fuel Load and Initial Startup

The licensee shall review by committee all Unit 2 Preoperational Testing and System Demonstration activities performed concurrently with Unit 2 initial fuel loading or with the Unit 2 Startup Test Program to assure that the activity will not affect the safe performance of the Unit 2 fuel loading or the portion of the Unit 2 Startup Program being performed. The review shall address, as a minimum, system interaction, span of control, staffing, security and health physics, with respect to performance of the activity concurrently with the Unit 2 fuel loading or the portion of the Unit 2 Startup Program being performed. The committee for the review shall be composed of at least three members, knowledgeable in the above areas, and who meet the qualifications for professional-technical personnel specified by section 4.4 of ANSI N18.7-1971. At least one of these three shall be a senior member of the Assistant Superintendent of Operation's staff.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 180 TO FACILITY OPERATING LICENSE NO. NPF-11  
AND AMENDMENT NO. 167 TO FACILITY OPERATING LICENSE NO. NPF-18  
EXELON GENERATION COMPANY, LLC  
LASALLE COUNTY STATION, UNITS 1 AND 2  
DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, the Commission) dated April 13, 2005 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML051040149), as supplemented by letters dated December 22, 2005 (ADAMS Accession Number ML060030184), and June 12, 2006, (ADAMS Accession Number ML061640435), and an e-mail message dated January 4, 2007 (ADAMS Accession Number ML07009037), Exelon Generation Company, LLC (the licensee), requested changes to the technical specifications (TSs), facility operating license, and surveillance requirements (SRs) for LaSalle County Station, Units 1 and 2. The proposed changes would, on a temporary basis, extend the technical specification (TS) completion times (CTs) associated with Residual Heat Removal Service Water (RHRSW) System, Diesel Generator Cooling Water (DGCW) System, and AC Sources - Operating, during the replacement of Core Standby Cooling System (CSCS) valves. The TS changes associated with RHRSW system (change to TS 3.7.1), and DGCW system (change to TS 3.7.2) were approved by the NRC on February 23, 2006 (ADAMS Accession Number ML060270103). This evaluation addresses the changes associated with TS 3.8.1, "AC Sources-Operating." Specifically, the proposed changes would revise the CTs stated in TS Section 3.8.1 as described below:

- Extend the CT for Required Action C.4, "Restore required Diesel Generator (DG) to OPERABLE status," associated with TS Section 3.8.1, from 72 hours to 6 days. This proposed change will only be used during Unit 2 spring 2007 refueling outage, and during the subsequent Unit 1 spring 2008 refueling outage.
- Extend the CT for Required Action F.1, "Restore one required DG to OPERABLE status," associated with TS 3.8.1 from 2 hours to 6 days. This proposed change will only be used during the upcoming Unit 2 spring 2007 refueling outage, and during the subsequent Unit 1 spring 2008 refueling outage.

The supplements dated December 22, 2005, June 12, 2006, and January 4, 2007, provided additional information that clarified the application, did not expand the scope of the application

as originally noticed, and did not change the NRC staff's original proposed finding of no significant hazards consideration determination as published in the *Federal Register* on June 7, 2005, (70 FR 33213).

## 2.0 REGULATORY EVALUATION

The licensee, in Section 5.2 of Enclosure 1 of its submittal dated April 13, 2005, identified regulatory requirements and criteria that are applicable to the systems that are affected by the proposed one-time TS changes. However, the proposed changes pertain to TS allowed outage times and do not really pertain to the specific regulatory requirements that apply to the systems that are affected. Consequently, the regulatory requirements that were cited by the licensee are not particularly relevant for judging the merits of the requested changes to the TS allowed outage times. The NRC staff's determination of regulatory requirements and/or criteria that apply more directly to risk-informed changes to TS requirements are discussed below in Section 2.2.

### 2.1 Affected TS Requirements

Due to long-term wear and corrosion, many valves within the CSCS are degraded to the point that they must be replaced. As part of the CSCS reliability improvement effort, the licensee, in its letter dated April 13, 2005, proposed to replace the degraded valves for the Unit 1 Division 2 Fuel Pool Emergency Make-up (FC) system, the Unit 2 Division 2 FC system, the Unit 1 Division 2 DGCW system, and the Unit 2 Division 2 DGCW system. The licensee proposed to complete these replacements in two stages to be performed during Unit 2 Refueling Outage 11 (spring 2007) and Unit 1 Refueling Outage 12 (spring 2008).

To facilitate the valve replacements, the licensee proposed to use non-code line stops on a temporary basis to isolate the Unit 1 portion of the common discharge header from the Unit 2 portion of the header. The non-code line stops are designed to same pressure rating and seismic requirements as CSCS piping. Due to the non-code line stops, the above planned maintenance would result in declaration of the inoperability of the Division 2 DGs. In order to facilitate the replacement of the degraded valves, the licensee has requested a one-time change to extend the allowed outage times for the affected systems only while the replacement work is underway.

On January 4, 2007, EGC provided further clarifications regarding this one-time extension of the allowed outage time for the CSCS, clarifying that valve replacements would impact the following DGs:

Operating Unit:	Division 2 DG Available but TS inoperable (Division 1 and Division 3 DGs available)
Refueling Unit:	Division 2 DG Functional but TS inoperable, and Division 3 inoperable and not functional (Division 1 DG available)

The above scenario will lead to LCO TS 3.8.1, Required Actions C.4 and F.1 for the operating unit to the condition "Division 2 DG and the required opposite unit Division 2 DG inoperable". In this condition, the Required Action C.4 requires the operating unit to shutdown within 72 hours, and Required Action F.1 requires the operating unit to shutdown within 2 hours.

In order to temporarily extend the completion times to 6 days, the licensee proposed the following changes to TS Section 3.8.1:

TS 3.8.1, Conditions C and F would be proceeded with the following notes:

1. "Not applicable to Unit 1 during replacement of the Unit 2 Division 2 CSCS isolation valves during Unit 2 Refueling 11 while Unit 2 is in Mode 4, 5, or defueled."
2. "Not applicable to Unit 2 during replacement of the Unit 1 Division 2 CSCS isolation valves during Unit 1 Refueling 12 while Unit 1 is in Mode 4, 5, or defueled."

TS 3.8.1, Condition G will be a new condition as follows (present conditions G and H would become H and I, respectively):

Condition G: Division 2 DG and the required opposite unit Division 2 DG inoperable.  
Required Action: G.1: Restore required Division 2 DG to OPERABLE status within 6 days.

The condition G will proceed with the following notes:

1. "Only applicable to Unit 1 during replacement of the Unit 2 Division 2 CSCS isolation valves during Unit 2 Refueling 11 while Unit 2 is in Mode 4, 5, or defueled."
2. "Only applicable to Unit 2 during replacement of the Unit 1 Division 2 CSCS isolation valves during Unit 1 Refueling 12 while Unit 1 is in Mode 4, 5, or defueled."

As previously mentioned, present Conditions G and H would become H and I, respectively, but otherwise remain unchanged, as follows:

TS 3.8.1 "AC Sources-Operating"

Condition H: "Required Action and associated Completion Time of Condition A, B, C, D, E, F, or G not met."

Required Action: H.1: Be in MODE 3 in 12 hours, and  
H.2: Be in MODE 4 in 36 hours.

TS 3.8.1 "AC Sources-Operating"

Condition I: "Three or more required AC sources inoperable"

Required Action: I.1: Enter LCO 3.0.3, Immediately

## 2.2 Applicable Regulatory Requirements and Guidelines

The licensee, in Section 5.2 of Enclosure 1 of its submittal, identified regulatory requirements and criteria that are applicable to the systems that are affected by the proposed one-time TS changes. For the TSs, Section 50.36, "Technical Specifications," of Title 10 of the *Code of Federal Regulations* (10 CFR) establishes the regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs; (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. The rule does not specify the particular requirements to be included in a plant's TSs. As stated in 10 CFR 50.36(c)(2)(i), the "Limiting conditions for operation are

the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications.”

The design of the unit-specific CSCS must satisfy the requirements of 10 CFR 50.36(c)(2)(ii), Criterion 3. These requirements state the following:

A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one or more of the following criteria:

... *Criterion 3.* A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

General Design Criterion (GDC) 17, “Electric power systems,” of Appendix A, “General Design Criteria for Nuclear Power Plants,” to 10 CFR Part 50 requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components (SSC) that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies. The NRC staff performs its review of risk-informed changes to TS requirements in accordance with the guidance provided by Standard Review Plan (SRP) Chapter 16.1, “Risk-Informed Decisionmaking: Technical Specifications.” SRP Chapter 16.1 refers to Regulatory Guide (RG) 1.177, “An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications,” as an acceptable approach for assessing proposed risk-informed changes to TS allowed outage times. The phrase “completion time” used in the licensee’s TS is equivalent to the phrase “allowed outage time” used in RG 1.177 and in this safety evaluation.

One acceptable approach for making risk-informed decisions about proposed TS changes, including both permanent and temporary TS changes, is to show that the proposed changes meet the five key principles stated in RG 1.177, Section B:

1. The proposed change meets the current regulations unless it is explicitly related to a requested exemption or rule change.
2. The proposed change is consistent with the defense-in-depth philosophy.
3. The proposed change maintains sufficient safety margins.
4. When proposed changes result in an increase in core-damage frequency or risk, the increases should be small and consistent with the intent of the Commission’s Safety Goal Policy Statement.

5. The impact of the proposed change should be monitored using performance measurement strategies.

The first three principles pertain to traditional engineering considerations and are evaluated in Section 3, below. The last two principles, 4 and 5, involve risk considerations which were included within the scope of the NRC staff's evaluation on February 23, 2006. In that evaluation, the NRC staff found that the licensee's proposed, temporary CT extensions were acceptable because the five key principles of risk-informed decision making identified in RG 1.174 and RG 1.177 had been satisfied.

It should be noted that RG 1.174 and RG 1.177 are directly applicable only to permanent (as opposed to temporary, or "one-time") changes to TS requirements. However, the NRC staff has previously consulted these regulatory guides while making risk-informed decisions about temporary TS changes. In the context of risk-informed decisionmaking about TS changes, the risk acceptance guidelines in RG 1.174 and RG 1.177 are not applied in an overly prescriptive manner; rather, they provide an indication, in numerical terms, of what is considered acceptable. The intent in comparing risk results with the risk acceptance guidelines is to demonstrate, with reasonable assurance, that the fourth key principle has been satisfied.

The remedial actions in the TSs are specified in terms of conditions, required actions, and CTs to complete the required actions. When an LCO is not being met, the CTs specified in the TSs are the amount of time allowed in the TSs for completing the specified LCO required actions. The conditions and required actions specified in the TSs must be acceptable remedial actions for the LCO not being met, and the CTs must be reasonable for completing the required actions.

Other traditional engineering considerations that are listed in Sections II.A and III.A, of SRP Chapter 16.1, that are addressed in Section 3.1 of this evaluation, are the need for, and the adequacy of the proposed change.

### 3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's technical and regulatory analyses in support of its proposed license amendments which are described in Sections 4.0 and 5.0, respectively, of the licensee's license amendment request (LAR).

#### 3.1 Description of the Proposed Change

The licensee stated in the LAR dated April 13, 2005, that due to long term wear and corrosion, many valves within the CSCS are degrading such that isolation on a specific cooling line may not be adequate to perform maintenance on system components such as the DG coolers, room coolers, and other piping components. The licensee has proposed to replace the following Division 2 valves during next outages:

During Unit 2 Refueling Outage 11 (L2R11) scheduled for spring 2007, with Unit 1 at power: 2DG007 and 2FC046B.

During Unit 1 Refueling Outage 12 (L1R12) scheduled for spring 2008, with Unit 2 at power: 1DG007 and 1FC046B.

Other valves within the drained and isolated pipe sections may also be replaced during the same work windows. To facilitate the valve replacements, the licensee proposed to use non-code line stops on a temporary basis to isolate the Unit 1 portion of the common discharge header from the Unit 2 portion of the header. The non-code line stops are designed to the same pressure rating and seismic requirements as CSCS piping. The licensee stated in the LAR, that the maintenance evolutions are time consuming and include draining portions of the systems. Based on the historical data and best work planning estimates, completion of the entire evolution for each refueling outage cannot be assured with the existing CTs.

In their letter dated June 12, 2006, the licensee proposed to alter the location of two of the non-code mechanical line stops (illustrated in Figures 3 and 4 of the letter dated June 12, 2006) and add a temporary pipe line, from the exit side of the 1DG01A (2DG01A) cooler to the exit side of 1E22S001 (2E22S001) HPCS DG cooler, to support the functionality of the outage unit's Division 2 DG. The revised location of the non-code mechanical line stops will facilitate in the installation of additional American Society of Mechanical Engineers (ASME) code isolation valves (one per unit) to facilitate any future maintenance on CSCS strainer backwash lines or valves. The licensee stated that new isolation valves will not extend the CT extensions requested in its letter dated April 13, 2005.

Based on a review of the information provided by the licensee, it is the staff's conclusion that the proposed change will eliminate the regulatory burden of requiring both LaSalle units to be shutdown during the CSCS valve replacement activity. This consideration is consistent with the objectives of the Commission's Probabilistic Risk Assessment (PRA) Policy Statement and it establishes a suitable basis for proposing a risk-informed change to the LaSalle TS requirements.

### 3.2 Traditional Engineering Evaluation

The traditional engineering evaluation presented below addresses the first three key principles of the staff's philosophy of risk-informed decision making, which concern compliance with current regulations, evaluation of safety margins, and evaluation of defense-in-depth.

#### 3.2.1 Compliance with Current Regulations

The licensee does not propose to deviate from existing regulatory requirements and compliance with existing regulations is maintained by the proposed one-time change to the TS requirements. Therefore, with respect to compliance with current regulations, the NRC staff considers the proposed one-time TS change to be acceptable.

#### 3.2.2 Evaluation of Safety Margins

Design basis analyses and system design criteria are not impacted by the proposed change and consequently, safety margins are not affected.

### 3.2.3 Evaluation of Defense-in-Depth Attributes

The NRC staff has reviewed the information that was provided by the licensee in regard to the defense-in-depth attributes in accordance with the guidance that is specified by RG 1.177 for making risk-informed changes to TS requirements. The staff's evaluation of the defense-in-depth attributes is provided below.

- A reasonable balance among prevention of core damage, prevention of containment failure, and consequence mitigation is preserved.

The proposed change involves an extension of the current TS allowed outage times for systems that are impacted by the replacement of valves in the CSCS. The systems that are affected during the valve replacement process are associated with Division 2 of one unit at a time, leaving the safety equipment in the Division 2 of other unit fully operable and capable of performing its safety functions. Although Division 2 in the operating unit will be considered inoperable due to the use of non-code line stops, it will remain available to perform its safety functions. The non-code line stops are designed to the same pressure rating and seismic requirements as the CSCS piping. Consequently, the balance among the prevention of core damage, prevention of containment failure, and consequence mitigation is unaffected by the proposed change.

- Over-reliance on programmatic activities to compensate for weaknesses in plant design is avoided.

The proposed change involves an extension of the current TS allowed outage times for systems that are impacted by the valve replacement project. While performing the valve replacement the licensee has committed to implement certain contingencies in order to provide increased assurance that the operable systems will not be unnecessarily challenged or compromised during the work window. Some of the contingencies that have been identified do include programmatic activities, such as protecting the operable equipment by deferring (to the extent possible) the performance of any maintenance or testing related to the equipment of the operable Divisions and maintaining plant personnel awareness through pre-job briefings, posted signs, and outage communication bulletins. However, because this is a one-time change of limited duration and because these measures are consistent with normal plant practices, the staff considers the programmatic activities to be appropriate and necessary for minimizing the risks involved and for maintaining defense-in-depth. Accordingly, over reliance to compensate for any weaknesses in plant design is avoided.

- System redundancy, independence, and diversity are preserved commensurate with the expected frequency, consequences of challenges to the system, and uncertainties (e.g., no risk outliers).

The proposed change causes a temporary loss in redundancy, but the proposed change will not cause reduction of Division independence or the diversity of the equipment. The operable safety equipment will continue to be capable of performing the necessary assumed safety functions consistent with accident analysis assumptions. The licensee has committed to implement certain contingencies in order to assure the availability and

capability of the required operable equipment. These contingencies include deferring, to the extent possible, the performance of any maintenance or testing related to the protected equipment, barricades to segregate protected equipment, posted signs, and plant personnel awareness through pre-job briefings and outage communication bulletins. In its June 12, 2006, letter, the licensee stated that the integrity of the non-code mechanical line stops will be leak tested prior to cutting the existing piping systems. Damage control plugs will be pre-staged at each valve location in the unlikely event the mechanical line stops were to become ineffective. In addition, each area/room where the CSCS valves are scheduled to be replaced will be verified to have operable sump pumps(s) during the entire CSCS valve replacement window. To ensure that offsite power remain protected during this work, no switchyard work will be authorized on the operating unit's ring bus. In addition, no switching activities will be allowed during the subject maintenance window and the outage ring bus will be controlled such that the loss of a single ring bus breaker will not cause a subsequent loss of offsite power to the outage unit.

Given the above considerations, the staff agrees that sufficiently redundant, independent, and diverse capabilities will be maintained for performing critical safety functions during the proposed allowed outage time. Additionally, the staff determined that the frequency of challenges to required safety equipment during the short duration of the CT extension is low.

- Defenses against potential common cause failures are preserved, and the potential for the introduction of new common cause failure mechanisms is assessed.

As discussed in the previous bullet, the licensee has established contingencies to assure the availability and capability of redundant, independent, and diverse means of accomplishing critical safety functions during the proposed allowed outage time. Based on the information that was provided, the staff finds that the licensee has taken appropriate measures to preserve defenses against potential common cause failures and the introduction of new common cause failure mechanisms has been adequately assessed and none have been identified.

- Independence of barriers is not degraded.

The proposed changes and the valve replacement work does not directly impact the independence of the barriers or otherwise cause them to be degraded. Therefore, the staff finds that the independence of barriers will not be degraded by the proposed allowed outage time or by the valve replacement activities.

- Defenses against human errors are preserved.

The licensee has established contingencies for assuring that critical safety functions will be maintained during the proposed allowed outage time. The contingencies include posting signs, providing personnel with outage communication bulletins, and focused operator briefings to assure that operators are fully aware of the plant configuration and actions that may be needed in order to respond to problems that could arise during the proposed allowed outage time for performing the valve replacement activities. Administrative controls have been established to facilitate implementation of these

contingency measures. Also, contingencies to control maintenance on protected systems/equipment will help prevent operator distractions from occurring. Therefore, the staff finds that defenses against human errors will be adequately preserved during the proposed allowed outage time.

- The intent of the general design criteria in Appendix A to Title 10 of the *Code of Federal Regulations* Part 50 is maintained.

The proposed change does not modify the plant design bases or the design criteria that were applied to structures, systems, and components during plant licensing. Consequently, the plant design with respect to the general design criteria is not affected by the proposed change.

Based on the above review of defense-in-depth attributes, the staff finds that defense-in-depth will be adequately maintained during the valve replacement activities.

### 3.3 Risk Evaluation

The key information used in the NRC staff's February 23, 2006, review of the risk evaluation is contained in Attachment 1 to the licensee's submittal (Reference 1), as supplemented by the licensee in response to the NRC staff's request for additional information (Reference 2). The NRC staff also reviewed the safety evaluation reports (SERs) on the individual plant examination (IPE, Reference 3), the individual plant examination - external events (IPEEE, Reference 4), and three recent risk-informed applications (References 5, 6, and 7).

The licensee performed the Risk Evaluation for Tier 1, "PRA Capability and Insights," Tier 2, "Avoidance of Risk Significant Plant Configuration," and Tier 3, "Risk-informed Configuration Risk Management Program." The risk evaluation addressed the last two key principles of the NRC staff's philosophy of risk-informed decision making, which concern changes in risk and performance monitoring strategies. The NRC staff evaluated these key principles by using the three-tiered approach described in Chapter 16.1 of the SRP and RG 1.177. The NRC staff evaluated the licensee's risk evaluation in its February 23, 2006, safety evaluation, and found it to be acceptable.

#### 4.0 REGULATORY COMMITMENTS

The following table identifies the regulatory commitments made by the licensee in conjunction with the proposed CT extensions:

Regulatory Commitments	
Regulatory Commitment	Due Date/Event
Additional administrative controls/actions to protect equipment listed on Attachment D of LLP 2005-005 (also given in Table 4 of Reference 1), will be taken in accordance with station risk management procedures while Division 1 CSCS remains inoperable. The administrative actions include physical barricades to segregate protected equipment, posted signs and enhanced plant personnel awareness through pre-job briefings and outage communication bulletins.	Implemented by procedures while Division 1 CSCS remains inoperable during L1R11.
A qualified fire watch will be posted in the Unit 2 Division 2 Essential Switchgear Room.	Implemented by procedures while Division 1 CSCS remains inoperable during L1R11.
Installation of non-code line stops to isolate the Unit 1 portion of the common discharge header from the Unit 2 portion of the header. The non-code line stops are designed to the same pressure rating and seismic requirements as the CSCS piping and will maintain the availability of the online unit's Division 2 CSCS system.	The regulatory commitments for installation of the non-code line stops for L1R12 and L2R11 will be documented by specific procedures for Unit 1 Division 2 and Unit 2 Division 2 CSCS maintenance.

The NRC staff finds that reasonable controls for the implementation and for subsequent evaluation of proposed changes pertaining to the above regulatory commitment(s) are best provided by the licensee's administrative processes, including its commitment management program. The above regulatory commitments do not warrant the creation of license conditions (i.e., items requiring prior NRC approval of subsequent changes).

Based on the above review of defense-in-depth attributes, the NRC staff finds that defense-in-depth will be adequately maintained during the valve replacement activities.

The NRC staff finds that the licensee's proposed, temporary CT extensions are acceptable because the five key principles of risk-informed decision making identified in RG 1.174 and RG 1.177 have been satisfied.

In summary, as discussed above, the NRC staff has evaluated the proposed changes to the CTs for TS 3.8.1. Based on the above evaluation, which involves risk and deterministic considerations, the NRC staff concludes that it is safe to operate the plant using the proposed CTs and, therefore, the proposed CTs meet 10 CFR 50.36. The NRC staff concludes that the proposed amendments are acceptable.

## 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois State official was notified of the proposed issuance of the amendments. The State official had no comments.

## 6.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or use of the facilities components located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (70 FR 33213; June 7, 2005). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

## 8.0 REFERENCES

1. Letter from Joseph A. Bauer, Exelon Generation Company to U.S. Nuclear Regulatory Commission, "Request for a License Amendment to Extend the Completion Times Related to Technical Specifications Associated with Residual Heat Removal Service Water, Diesel Generator Cooling Water and the Opposite Unit Division 2 Diesel Generator," RS-05-0011, ADAMS Accession No. ML051040149, April 13, 2005.
2. Letter from Joseph A. Bauer, Exelon Generation Company to U.S. Nuclear Regulatory Commission, "Additional Information Supporting the Request for a License Amendment to Extend the Completion Times Related to Technical Specifications Associated with Residual Heat Removal Service Water, Diesel Generator Cooling Water and the Opposite Unit Division 2 Diesel Generator," RS-05-0172, ADAMS Accession No. ML060030184, December 22, 2005
3. Letter from U.S. Nuclear Regulatory Commission to D.L. Farrar, Commonwealth Edison Company, "Review of Individual Plant Examination Submittal - Internal Events - LaSalle County Nuclear Power Station, Units 1 and 2 (TAC Nos. M74425 and M74426)," March 14, 1996.

4. Letter from U.S. Nuclear Regulatory Commission to Oliver D. Kingsley, Commonwealth Edison Company, "LaSalle County Station, Units 1 and 2, NRC Staff Evaluation of the Individual Plant Examination of External Events (IPEEE) Submittal (TAC Nos. M83634 and M83635)," ADAMS Accession No. ML003776159 , December 8, 2000.
5. Letter from U.S. Nuclear Regulatory Commission to Oliver D. Kingsley, Exelon Generation Company, "LaSalle County Station, Units 1 and 2 - Issuance of Amendments (TAC NOS. MB1224 AND MB1225)," ADAMS Accession No. ML012780141, January 30, 2002.
6. Letter from U.S. Nuclear Regulatory Commission to Oliver D. Kingsley, Exelon Generation Company, "LaSalle County Station, Units 1 and 2 - Relief Request CR-35 (TAC NOS. MB1982 AND MB1983)," ADAMS Accession No. ML013610078, December 27, 2001.
7. Letter from U.S. Nuclear Regulatory Commission to John L. Skolds, Exelon Generation Company, "LaSalle County Station, Units 1 and 2, Issuance of Amendments Re: Integrated Leakage Rate Test Interval (TAC Nos. MB6574 and MB6575)," ADAMS Accession No. ML033010008, November 19, 2003.

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