

December 19, 2006

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: TECHNICAL SPECIFICATION TASK FORCE STANDARD
TECHNICAL SPECIFICATION CHANGE TRAVELER 360, REVISION 1, "DC
ELECTRIC REWRITE" (TAC NOS. MD5771 and MD5772)

Dear Mr. Crane:

The Commission has issued the enclosed Amendment No. 179 to Facility Operating License No. NPF-11 and Amendment No. 165 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 December 9, 2004, as supplemented by letters dated August 16, August 24, September 13, and October 12, 2006.

The amendments adopt Technical Specification Task Force (TSTF) Standard Technical Specification (STS) Change Traveler 360 (TSTF-360), Revision 1, "DC Electric Rewrite." The changes revise Technical Specification (TS) Sections 3.8.4, "DC Sources-Operating," TS 3.8.5, "DC Sources-Shutdown," TS 3.8.6, "Battery Cell Parameters," and adds a new TS Section 5.5.14, "Battery Monitoring and Maintenance Program."

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. 179 to NPF-11
2. Amendment No. 165 to NPF-18
3. Safety Evaluation

cc w/encls: See next page

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 179
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 December 9, 2004, as supplemented by letters dated August 16, August 24, September 13, and October 12, 2006, 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. 179, 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 60 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

Enclosure: Changes to License No. NPF-11
and the Technical Specifications

Date of Issuance: December 19, 2006

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No.165
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 December 9, 2004, as supplemented by letters dated August 16, August 24, September 13, and October 12, 2006, 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. 165, 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 60 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

Enclosure: Changes to License No. NPF-18
and the Technical Specifications

Date of Issuance: December 19, 2006

ATTACHMENT TO LICENSE AMENDMENT NOS. 179 AND 165

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

License No. NPF-11 Page 3
License No. NPF-18 Page 3
iii
3.8.4-1
3.8.4-2
3.8.4-3
3.8.4-4
3.8.4-5
3.8.5-2
3.8.5-3
3.8.5-4
3.8.6-1
3.8.6-2
3.8.6-3
3.8.6-4
5.5-13
5.5-14

Insert

License No. NPF-11 Page 3
License No. NPF-18 Page 3
iii
3.8.4-1
3.8.4-2
3.8.4-3
3.8.4-4
3.8.4-5
3.8.5-2
3.8.5-3
3.8.5-4
3.8.6-1
3.8.6-2
3.8.6-3
3.8.6-4
5.5-13
5.5-14

- (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. 179, 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. 165, 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. 179 TO FACILITY OPERATING LICENSE NO. NPF-11
AND AMENDMENT NO. 165 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 December 9, 2004, Agencywide Documents Access and Management System (ADAMS) Accession No. ML043450492 as supplemented by letters dated August 16, (ADAMS Accession No. ML062290471), August 24 (ADAMS Accession No. ML062370054), September 13 (ADAMS Accession No. ML062560525), and October 12, 2006 (ADAMS Accession No. ML062860330), Exelon Generation Company, LLC (the licensee), requested an amendment to Facility Operating License Nos. NPF-11 and NPF-18 for LaSalle County Station (LSCS), Units 1 and 2. The proposed changes would adopt Technical Specification Task Force (TSTF) Standard Technical Specification (STS) Change Traveler 360 (TSTF-360), Revision 1, "DC [Direct Current] Electrical Rewrite." The proposed changes would revise TS Section 3.8.4, "DC Sources-Operating," TS Section 3.8.5, "DC Sources-Shutdown," TS Section 3.8.6, "Battery Cell Parameters," and would add a new TS Section 5.5.14, "Battery Monitoring and Maintenance Program."

The supplemental letters dated August 16, August 24, September 13, and October 12, 2006, 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 no significant hazards consideration determination as published in the *Federal Register* on April 12, 2005 (70 FR 19115).

2.0 REGULATORY EVALUATION

The following NRC requirements and guidance document are applicable to the staff's review of the licensee's amendment request.

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50 Appendix A, General Design Criterion (GDC) 17, "Electric power systems," requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components (SSCs) 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.

GDC 18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

10 CFR 50.63, "Loss of all alternating current power," requires that each light-water cooled nuclear power plant licensed to operate must be able to withstand for a specified duration and recover from a station blackout (SBO).

10 CFR 50.36, "Technical specifications," requires a licensee's TSs to establish limiting conditions for operation (LCOs), which include completion times (CTs) for equipment that is required for safe operation of the facility.

10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires that preventive maintenance activities must not reduce the overall availability of the SSCs.

Technical Specification Task Force STS Change Traveler 360 (TSTF-360), Revision 1, "DC [Direct Current] Electrical Rewrite."

Regulatory Guide (RG) 1.32, "Criteria For Safety-Related Electric Power Systems For Nuclear Power Plants," provides guidance for complying with GDC 17 and 18 with respect to design, operation, and testing of safety-related electric power systems of all types of nuclear power plants.

3.0 TECHNICAL EVALUATION

3.1 DC Electrical Power System Design

At LSCS, Units 1 and 2, the DC power-distribution system and batteries are designed to provide control power for switchgear groups, diesel generators (DGs), relays, solenoid valves, and other electric devices and components. The DC system and batteries are designed to provide control power for both normal and emergency operation of plant equipment and to provide power for automatic operation of the engineered safety feature (ESF) protection systems during abnormal and accident conditions. The DC power system of each LSCS unit includes the unit Class 1E DC power system and the non-Class 1E 24 volt (V) DC power system.

Each unit has one 250 V battery and three 125 V batteries located in ventilated rooms. The 250 V battery is adequately sized to supply its loads until alternating current (AC) power sources to redundant loads are restored. Each 125 V battery is sized to supply control power requirements of the switchgear and logic circuitry of one of the three ESF divisions.

Each LSCS battery has its own charger with a capacity for restoring it to full charge under normal load in a time commensurate with the recommendations of the battery vendor. Each

Division 1 and 2 125 V DC battery has two fully redundant battery chargers capable of supplying at least 200 amperes at a minimum of 130 V for at least 8 hours. The Division 3 battery charger is capable of supplying at least 50 amperes at a minimum of 130 V for at least 8 hours. The LSCS battery chargers are powered from AC sources, and in case of loss of normal AC power from both on-site and off-site sources, can be supplied from the standby DGs associated with their respective engineered safeguards divisions.

Each LSCS battery subsystem is complete with its main distribution center, battery charger, and accessory equipment. Each battery subsystem is physically separated from its redundant system so that any failure involving one system can not jeopardize the other system.

During an actual failure of normal power, the DG power supply establishes battery charger input and thereby reduces the drain on the battery subsystem. The ampere-hour capacity of each battery is sized to supply all essential loads until AC power is restored to power its battery chargers.

The battery charger associated with each Division 1 or 2 battery is rated to supply the normal plant DC loads while its battery is returned to or maintained in a fully charged state. The DC loads served by the battery subsystems include all the 125 V DC and 250 V DC loads of the station, both Class 1E and non-Class 1E. The DC loads of engineered safeguards Divisions 1, 2, and 3 are supplied from three independent DC systems.

3.2 Evaluation of Proposed Changes

In its letter dated December 9, 2004, the licensee proposed a license amendment to the TSs for LSCS, Units 1 and 2, using TSTF-360, Revision 1. The proposed changes would revise LCO 3.8.4, "DC Sources-Operating," LCO 3.8.5, "DC Sources-Shutdown," and LCO 3.8.6, "Battery Cell Parameters," and add a new TS Section 5.5.14, "Battery Monitoring and Maintenance Program."

The NRC staff reviewed and evaluated each of the proposed changes to the LSCS, Units 1 and 2, TSs as follows:

3.2.1 LCO 3.8.4 Proposed Changes

3.2.1.1 LCO 3.8.4 Change (1): The licensee proposed the following:

The existing Condition A, associated Required Actions and CTs will be renamed and replaced with the following:

- New Condition A, associated Required Actions and CTs for one required Division 1, 2, or 3 125 V DC battery charger on one division inoperable.

OR

- One required Division 2 or opposite unit Division 2 battery charger on one division inoperable.

OR

- One required Division 1 250 V DC battery charger inoperable.
- New Required Action A.1 would require restoring battery terminal voltage to greater than or equal to the minimum established float voltage within 2 hours.
- New Required Action A.2 would require verification that battery float current is less than or equal to 2 amps once per 12 hours.
- New Required Action A.3 would require restoring the battery charger(s) to OPERABLE status within 7 days.

Existing TS 3.8.4 Conditions A, B, C, D, and E will be re-assigned to reflect the addition of new Condition A.

Evaluation of LCO 3.8.4 Change (1)

The proposed change to LCO 3.8.4 addresses the condition where: (1) one required Division 1, 2, or 3 125 V DC battery charger on one division is inoperable; OR (2) one required Division 2 or opposite unit Division 2 battery charger on one division is inoperable; OR (3) one required Division 1 250 V DC battery charger is inoperable. The licensee proposed increasing the battery charger CT from 2 hours to 7 days provided that they are able to restore battery terminal voltage to greater than or equal to the minimum established float voltage within 2 hours, and are able to verify that battery float current is less than or equal to 2 amps once per 12 hours.

The battery charger, in addition to maintaining battery operability, provides DC control power to AC circuit breakers and thus supports the recovery of AC power following events such as loss of offsite power or station blackout (SBO). New Required Action A.1 would provide assurance that a battery discharge is terminated by requiring that the battery terminal voltage be restored to greater than or equal to the minimum established float voltage (129.3 V for a 58 cell battery and 258.7 V for a 116 cell battery) in 2 hours. This time period provides an allowance for returning an inoperable charger to operable status or for reestablishing an alternate means of restoring battery terminal voltage to greater than or equal to the minimum established float voltage. This provides assurance that the battery will be restored to its fully charged condition from any discharge that might have occurred due to the battery charger being inoperable. At the end of the 2 hours, a terminal voltage of at least the minimum established float voltage provides indication that the battery is on the exponential charging current portion of its recharging cycle.

In its September 13, 2006, supplemental letter, the licensee provided a revision to the LSCS TS Bases which stated that the backup battery chargers associated with the Division 1 and Division 2 125 V DC system are fully qualified chargers that are powered from a DG backed safety-related (Class 1E) distribution system, and are fully capable of supporting system design requirements. These 100 percent capacity battery chargers are the "alternate means" for supporting the Division 1 and 2 125 V systems.

In its August 16, 2006, response to an NRC staff request for additional information, the licensee stated that there are no plans to utilize an alternate battery charger to restore the LSCS, Units 1 and 2, Division 3 125 V DC battery terminal voltage within 2 hours. The licensee further stated

that TS LCO 3.8.4 Condition A would be entered with the Required Action to restore battery terminal voltage to greater than or equal to the minimum established float voltage within 2 hours. If the licensee does not meet the CT of Condition A of TS LCO 3.8.4 for the Division 3 DC electrical power subsystem, the high pressure core spray system would be declared inoperable immediately per TS LCO 3.8.4 Required Action C.1. For the LSCS, Units 1 and 2, Division 1 250 V DC battery chargers, the licensee stated that there are no plans to utilize an alternate battery charger to restore the battery terminal voltage within 2 hours. The licensee further stated that TS LCO 3.8.4 Condition A would be entered to restore battery terminal voltage to greater than or equal to the minimum established float voltage within 2 hours. If the licensee does not meet the CT of Condition A of TS LCO 3.8.4 for the Division 1 250 V DC electrical power subsystem, the associated supported features would be declared inoperable immediately per TS LCO 3.8.4 Required Action D.1. Therefore, due to the lack of an alternate means (i.e., spare battery charger) that is: (1) capable of being powered from a DG backed distribution system, and (2) fully capable of supporting system design requirements, the 7-day CT for the battery chargers is limited to the LSCS, Units 1 and 2, Division 1 and 2 125 V systems.

New Required Action A.2 would require that once per 12 hours, the battery float current be verified to be less than or equal to 2 amps. This provides an indication that, if the battery has been discharged as the result of an inoperable battery charger, it has now been fully charged. If at the expiration of the 12-hour period, the battery float current is not less than or equal to 2 amps, there may be additional problems and the battery must be declared inoperable (see NRC staff evaluation of Section 3.2.3.2 for a more detailed discussion on the 2-amp float current value). This verification provides assurance that the battery has sufficient capacity to perform its safety function.

Given that the DC bus remains energized, the battery discharge is terminated based on restoration of the battery terminal voltage (New Required Action A.1), and the battery is fully recharged based upon battery float current (New Required Action A.2), there is reasonable basis for extending the restoration time for an inoperable battery charger beyond the existing 2-hour limit to 7 days (New Required Action A.3). The NRC staff's approval of the extended CT for the battery charger is primarily based on the availability of a spare battery charger that is appropriately sized and capable of being powered from a DG backed distribution system.

Renaming existing TS 3.8.4 Conditions A, B, C, D, and E to reflect the addition of new Condition A is considered administrative in nature, and therefore, is acceptable.

Based on the above, the NRC staff concludes that the proposed change to LCO 3.8.4 is reasonable, maintains safe conditions, and therefore, is acceptable.

3.2.1.2 LCO 3.8.4 Change (2): The licensee proposed the following:

- SR 3.8.4.1 would be revised to replace the terminal voltage criteria with "greater than or equal to the minimum established float voltage."

Evaluation of Proposed LCO 3.8.4 Change (2)

The licensee proposed relocating the specific terminal voltage criteria currently identified in SR 3.8.4.1 to the TS Bases. The purpose of SR 3.8.4.1 is to verify the battery terminal voltage

while the system is on float charge which helps to ensure the effectiveness of the battery chargers. The battery manufacturer establishes the appropriate battery terminal voltage as the minimum established float voltage to provide optimum charge on the battery. This voltage will maintain the battery plates in a condition that supports maintaining the battery grid life. The licensee will define the minimum established float voltage in the LSCS, Unit 1 and 2, TS Bases. The NRC staff concludes that the minimum established float voltage values can be adequately controlled outside of the TSs, and therefore finds that the proposed change to SR 3.8.4.1 is acceptable.

3.2.1.3 LCO 3.8.4 Change (3): The licensee proposed the following:

- Delete SR 3.8.4.2, SR 3.8.4.3, SR 3.8.4.4, and SR 3.8.4.5 from the LSCS TSs and relocate these tests to a licensee-controlled program. This change requires renumbering SR 3.8.4.6 as SR 3.8.4.2, SR 3.8.4.7 as SR 3.8.4.3, and SR 3.8.4.9 as SR 3.8.4.4.
- New SR 3.8.4.2 would be revised to replace the terminal voltage criteria with “greater than or equal to the minimum established float voltage.”

Evaluation of Proposed LCO 3.8.4 Change (3)

In accordance with SR 3.0.1, when any SR is not met, the LCO is not met. This is based on the SRs representing the minimum acceptable requirements for operability of the required equipment. However, for SR 3.8.4.2, SR 3.8.4.3, SR 3.8.4.4, and SR 3.8.4.5, failure to meet the SR does not necessarily mean that the equipment is not capable of performing its safety function. Furthermore, the corrective action is generally a routine or preventive maintenance-type activity. These activities are inappropriate for SRs and can be controlled in the maintenance programs for batteries.

With regard to the resistance verifications of SR 3.8.4.2 and SR 3.8.4.5, the values are nominal values and represent limits at which some action should be taken, not necessarily when the operability of the battery is in question. The licensee’s safety analyses do not assume a specific battery resistance value, but typically assume that the batteries will supply adequate power. Therefore, the key issue is the overall battery resistance. Between surveillances, the resistance of each battery cell connection varies independently from all the others. Some of these connection resistance values may be higher or lower than others, and the battery may still be able to perform its function and should not be considered inoperable. Overall resistance has a direct impact on operability and is adequately determined as acceptable through completion of the battery service and discharge tests. Therefore, these activities are more appropriately controlled under the maintenance program for batteries. Specifically, the licensee stated that these surveillances will be addressed by the new battery monitoring and maintenance program described in proposed TS Section 5.5.14.

SR 3.8.4.2 specifies battery charger current requirements for each DC source, and its purpose is to verify the design capacity of each battery charger. SR 3.8.4.2 requires that each Division 1 and 2 battery charger be capable of supplying greater than or equal to 200 amps for greater than or equal to 4 hours, greater than or equal to 50 amps for the Division 3 125 V battery charger, and greater than or equal to 200 amps for the 250 V battery charger. The licensee has proposed revising this SR to be consistent with SR 3.8.4.1 by replacing the

specific voltage limits with "greater than or equal to the minimum established float voltages." The ampere requirements are based on the output rating of the chargers. The voltage requirements are based on the battery charger voltage level after a response to a loss of AC power. As stated in the NRC staff evaluation of LCO 3.8.4 Change (2) above, the battery manufacturer establishes this voltage limit to provide the optimum charge on the battery and to maintain the battery plates in a condition that supports maintaining the battery grid life. Maintaining the battery plates in a condition that supports maintaining the battery grid life provides assurance that the battery will be capable of providing its designed safety function.

Based on the above, the NRC staff concludes that the proposed changes to LCO 3.8.4 meet the 10 CFR 50.36 requirements, are reasonable, maintain safe conditions, and therefore, are acceptable.

3.2.1.4 LCO 3.8.4 Change (4): The licensee proposed the following:

- An alternative criteria would be added to SR 3.8.4.2 that allows the charger operability to be verified by recharging its associated battery to the fully charged state within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design-basis event discharge state.

Evaluation of Proposed LCO 3.8.4 Change (4)

The licensee proposed adding the following alternate acceptance criteria to SR 3.8.4.2: verify each battery charger can recharge the battery to the fully charged state within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design-basis event discharge state. This is an alternate method for verifying the design capacity of each battery charger. As described in the revised TS Bases for SR 3.8.4.2, this test would occur following a service test. The level of loading required may not normally be available following the battery service test and may need to be supplemented with additional loads. The duration of this test may be longer than the charger sizing criteria since the battery recharge is affected by float voltage, temperature, and the exponential decay in charging current. The licensee stated that each LSCS battery charger is capable of recharging its respective battery within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design-basis event discharge state. Therefore, the proposed alternate testing criteria would satisfy the purpose of SR 3.8.4.2. Based on this information, the NRC staff finds that the proposed change to add the alternate criteria to SR 3.8.4.2 is acceptable.

3.2.1.5 LCO 3.8.4 Change (5): The licensee proposed the following:

- Rename SR 3.8.4.7 to SR 3.8.4.3, SR 3.8.4.6 to SR 3.8.4.2, and SR 3.8.4.9 to SR 3.8.4.4 due to the elimination of existing SRs 3.8.4.2, 3.8.4.3, 3.8.4.4, 3.8.4.5. Additionally, the first Note of SR 3.8.4.7 is clarified to be consistent with TSTF-360, Revision 1.

Evaluation of Proposed LCO 3.8.4 Change (5)

The NRC staff finds that renaming SR 3.8.4.7 to SR 3.8.4.3, SR 3.8.4.6 to SR 3.8.4.2, and SR 3.8.4.9 to SR 3.8.4.4 is administrative in nature, and therefore, is acceptable.

The licensee proposed removing the words "the service test in" and "provided the modified performance discharge test completely envelops the service test," from the first Note of newly renamed SR 3.8.4.3 in order to be consistent with TSTF-360, Revision 1. Ensuring that the modified performance discharge completely envelops the service test when it is credited in lieu of a service test is considered standard practice and can be adequately controlled outside of the TSs. Therefore, the NRC staff finds that the proposed change to newly renamed SR 3.8.4.3 is acceptable.

3.2.2 LCO 3.8.5 Changes

3.2.2.1 LCO 3.8.5 Change (1): The licensee proposed the following:

- Replace existing TS 3.8.5 Condition A with a new Condition A that specifies Required Actions and associated CTs for one required battery charger on one division inoperable with the redundant required division battery and battery charger operable.
- Revise TS 3.8.5 Condition B to address the situation in which the Required Actions and associated CTs of revised Condition A are not met.

Evaluation of Proposed LCO 3.8.5 Change (1)

The licensee proposed replacing existing TS 3.8.5 Condition A with a new Condition A that specifies Required Actions and associated CTs for one required battery charger on one division inoperable with the redundant required division battery and battery charger operable. The basis for this change is similar to that which was provided for the LCO 3.8.4 Change (1) above, and therefore, is acceptable to the NRC staff. However, and as mentioned in the NRC staff evaluation of the LCO 3.8.4 Change (1) above, due to the lack of an alternate means (i.e., spare battery charger) that is: (1) capable of being powered from a DG backed distribution system, and (2) fully capable of supporting system design requirements, the 7-day CT for the battery chargers is limited to the LSCS, Units 1 and 2, Division 1 and 2 125 V systems.

The licensee also proposed revising TS 3.8.5 Condition B to address the situation in which the Required Actions and associated CTs of revised Condition A are not met. The NRC staff finds that this change is conservative in nature, and therefore, is acceptable.

3.2.2.1 LCO 3.8.5 Change (2): The licensee proposed the following:

- Existing SR 3.8.5.1 would be revised to reflect the relocation or elimination of SRs.

Evaluation of Proposed LCO 3.8.5 Change (2)

The NRC staff finds that the proposed changes to SR 3.8.5.1 are administrative in nature, do not change substantive requirements, and therefore, are acceptable.

3.2.3 LCO 3.8.6 Changes

3.2.3.1 LCO 3.8.6 Change (1): The licensee proposed the following:

- Relocate SR 3.8.4.8 to SR 3.8.6.6.
- Add two Notes to new SR 3.8.6.6 to clarify when the SR is required to be performed.

Evaluation of Proposed LCO 3.8.6 Change (1)

The NRC staff finds that relocating SR 3.8.4.8 to SR 3.8.6.6 is administrative in nature as it demonstrates the operability of the battery, and is therefore more appropriate to be included in TS Section 3.8.6.

The licensee proposed adding two additional Notes to new SR 3.8.6.6 to clarify when the SR is required to be performed. The purpose of the new second Note is to clarify that the surveillance is not required to be performed for an operating unit if the opposite unit is in MODE 4 or 5, or if the licensee is moving irradiated fuel assemblies in secondary containment. This provides assurance that a given operating unit SR will not require an opposite unit SR to be performed, when the opposite unit TSs exempts performance of an opposite unit SR. It also precludes requiring the operable DC source on the shutdown unit from being discharged below its capability to provide the required power supply or otherwise be rendered inoperable during the performance of this surveillance.

The purpose of the new third Note is to preclude requiring the operable DC sources on the shutdown unit from being discharged below their capability to provide the required power supply or otherwise to be rendered inoperable during the performance of this SR.

Based on the above information, the NRC staff finds that these changes are reasonable, maintain safe conditions, and therefore, are acceptable.

3.2.3.2 LCO 3.8.6 Change (2): The licensee proposed the following:

- Deletion of the word “cell” from TS 3.8.6, and the LCO statement is revised to delete reference to the specific limits of Table 3.8.6-1. With regard to the specific limits of Table 3.8.6-1, the following limits are relocated to the battery monitoring and maintenance program specified in new TS Section 5.5.14:
 - Category A and B limits for cell voltage and electrolyte level.
 - Category C specific value limit for electrolyte level.
 - The requirements for specific gravity will be replaced with float current monitoring.

Evaluation of Proposed LCO 3.8.6 Change (2)

The NRC staff considers deleting the word “cell” from TS 3.8.6 to be an editorial change, and therefore, is acceptable. Regarding TS Table 3.8.6-1, the table specifies the battery cell parameter requirements, including electrolyte level, float voltage, and specific gravity. Since the licensee proposed to delete Table 3.8.6-1, deleting references to Table 3.8.6-1 are administrative changes and do not change substantive requirements. Therefore, the NRC staff finds that these changes are acceptable.

The Category A and B values of TS Table 3.8.6-1 represent appropriate monitoring levels and appropriate preventive maintenance levels for long-term battery quality and extended battery life. The LCO category presented in 10 CFR 50.36 states that LCOs are “the lowest functional capability or performance levels of equipment required for safe operation of the facility.” As such, the Category A and B values for cell voltage and electrolyte level do not reflect the 10 CFR 50.36 criteria for LCOs. It is proposed that these values and the Required Actions associated with restoration be relocated to a licensee-controlled program. In its September 13, 2006, supplemental letter, the licensee provided a regulatory commitment to relocate the current battery parameters (i.e., specific gravity, electrolyte level, cell temperature, float voltage, connection resistance, and physical condition) to a new battery monitoring and maintenance program. This program will be located in the LSCS, Unit 1 and 2, Technical Requirements Manuals and described in TS 5.5.14. The NRC staff finds that the licensee’s regulatory commitment provides adequate assurance that the battery parameter values will continue to be controlled at their current level, and actions will be implemented in accordance with the licensee’s corrective action program. Furthermore, the battery and its preventive maintenance and monitoring program are under the regulatory requirements of 10 CFR 50.65, “Requirements for monitoring the effectiveness of maintenance at nuclear power plants.” This relocation will continue to assure the battery is maintained at current levels of performance, and allows the licensed operators to focus on the monitoring of battery parameter degradations.

The Category C specific limiting values of TS Table 3.8.6-1 for the battery electrolyte levels have also been proposed to be relocated to a licensee-controlled program. However, new TS 3.8.6, Conditions C and D, will require the electrolyte temperature (pilot cell only) and level (any battery cell) to be greater than or equal to minimum established design limits. The licensee proposed to relocate the electrolyte temperature and level criteria (i.e., the minimum established design limits) to the LCSC, Unit 1 and 2, TS Bases. Depending on the available excess capacity of the associated battery, the minimum temperature necessary to support operability of the battery can vary. Relocating these values to a licensee-controlled program will provide the licensee with added flexibility to monitor and control this limit at values directly related to the battery’s ability to perform its assumed function. Therefore, the NRC staff finds that these changes are acceptable.

The licensee proposed replacing the requirements to measure specific gravity with requirements to monitor float current. In its September 13, 2006, supplemental letter, the licensee provided letters from its battery manufacturers (C&D Technologies, GNB Industrial Power, and Nuclear Logistics Inc. (NLI)), which concurred with the use of float current monitoring for the purpose of determining the state-of-charge of the LSCS, Unit 1 and 2, batteries. More specifically, C&D Technologies stated that a float current value of less than 2 amps (TS 3.8.6 Condition B) is both a reliable and an accurate parameter to use to ascertain a state of full charge in lieu of specific gravity readings for the LSCS, Unit 1 and 2, batteries.

C&D Technologies also stated that the accuracy and reliability of this reading will hold true over the expected life of these batteries (i.e., 20 years). GNB Industrial Power and NLI provided similar statements in their letters further confirming that float current is both an accurate and reliable parameter to use to ascertain a state of full charge in lieu of specific gravity readings for the LSCS, Unit 1 and 2, batteries.

In its October 12, 2006, supplemental letter, the licensee provided additional information from GNB Industrial Power and NLI in response to an NRC staff request for clarification. Specifically, the licensee provided additional information that further supported the use of float current monitoring for the GNB Industrial Power and NLI batteries by clarifying that the float current value would only increase slightly as the batteries age. Based on this information, the NRC staff finds that a slight increase in the float current value over the life of the LSCS GNB Industrial Power and NLI batteries would represent a change in the conservative direction. Therefore, the proposed TS float current value (2 amps) for indicating a fully charged battery would remain bounded over the life of the LSCS, Unit 1 and 2, batteries.

Furthermore, in its September 13, 2006, supplemental letter, the licensee stated that the equipment that will be used to monitor float current will have the necessary accuracy and capability to measure electrical currents in the expected range.

Recognizing that the 2-amp float current value is an indication that the battery is 95 percent charged, the licensee provided a regulatory commitment to maintain a 5 percent design margin for the Division 1 and 2 batteries and a 10 percent design margin for the Division 3 batteries. The licensee also stated that it will list these values in the LSCS, Unit 1 and 2, TS Bases.

The NRC staff finds that the concurrence of the battery manufacturer coupled with the licensee's statement concerning the accuracy and capability of the float monitoring equipment provides adequate assurance that the deletion of the requirement for specific gravity measurements will not have a significant impact on safety or the ability to accurately determine the operability of the LSCS, Units 1 and 2, batteries.

The proposed changes by the licensee listed above ensure the battery parameters (maintenance, testing, and monitoring) are performed in accordance with the "Battery Monitoring and Maintenance Program," as specified in TS Section 5.5.14. The NRC staff finds that the proposed changes are reasonable, maintain safe conditions, and therefore, are acceptable.

3.2.3.3 LCO 3.8.6 Change (3): The licensee proposed the following:

- The existing Condition A, associated Required Actions and CTs will be deleted and replaced with the following new Conditions:
 - New Condition A addresses the condition where one or more batteries with one or more battery cells float voltage less than 2.07 V.
 - New Condition B addresses the condition where one or more batteries with float current greater than 2 amps.

- New Condition C addresses the condition where one or more batteries with one or more cells electrolyte level less than the minimum established design limits.
- New Condition D addresses the condition where one or more batteries with pilot cell electrolyte temperature less than minimum established design limits.
- New Condition E addresses the condition where two or more redundant division battery parameters not within established limits.
- Current Condition B will be renamed as new Condition F. The current Condition B consists of three separate entry conditions. As part of this proposed change, the last two entry conditions will be deleted. The deleted conditions will be replaced with a new condition requiring entry when one or more batteries with one or more battery cells float voltage of less than 2.07 V and float current greater than 2 amps.

Evaluation of Proposed LCO 3.8.6 Change (3)

The licensee proposed adding new TS 3.8.6, Condition A to address what was formerly the Category C limit for float voltage in TS Table 3.8.6-1. This new Condition would be applicable when one or more batteries is found with one or more battery cells with a float voltage less than 2.07 V. Once Condition A has been entered, the battery cell is considered degraded and the Required Actions are to verify: (a) the battery terminal voltage to be greater than or equal to the minimum established float voltage (SR 3.8.4.1), and (b) that each battery's float current is less than or equal to 2 amps (SR 3.8.6.1). The above actions assure that there is still sufficient battery capacity to perform its intended function without considering the battery inoperable. Continued operations up to 24 hours is proposed to allow the restoration of the affected cell(s) voltage to greater than or equal to 2.07 volts. The NRC staff concludes that the 24-hour restoration time is reasonable, maintains safe conditions, and therefore, is acceptable.

The licensee proposed adding new TS 3.8.6, Condition B to address battery state-of-charge. This new Condition B would be applicable when one or more batteries is found with a float current greater than 2 amps. A float current of greater than 2 amps provides an indication that a partial discharge has occurred. The Required Action is to verify within 2 hours that the battery terminal voltage is greater than or equal to the minimum established float voltage (SR 3.8.4.1), thus confirming battery charger operability. If the terminal voltage is satisfactory and there are no cells with a voltage less than 2.07 V, Required Action B.2 of Condition B assures that within 12 hours the battery will be restored to its fully-charged condition from any discharge that might have occurred due to a temporary loss of the battery charger.

If the terminal voltage is found to be less than the minimum established float voltage, it indicates that the battery charger is either inoperable or is operating in the current limit mode. If the battery charger is operating in the current limit mode for 2 hours, it is an indication that the battery has been substantially discharged and likely can not perform its required design functions.

If the float voltage is found to be satisfactory, but there are one or more battery cells with float voltage less than 2.07 V, the associated "OR" statement in the revised Condition F of LCO 3.8.6 would be applicable and the battery must be declared inoperable immediately. If

float voltage is satisfactory and there are no cells less than 2.07 V, and the out-of-limit float current condition is due to one or more battery cells with low voltage, the battery is not substantially discharged and the 12-hour CT to restore battery float current to within limit is reasonable. The NRC staff concludes that adding new TS 3.8.6, Condition B is reasonable, maintains safe conditions, and therefore, is acceptable.

The licensee proposed adding new TS 3.8.6, Condition C to address the level of the electrolyte in a cell. This new Condition C would be applicable when one or more batteries is found with one or more cells' electrolyte level is less than the minimum established design limits. If the level is above the top of the battery plates, but below the minimum limit (i.e., minimum level indication mark on the battery cell jar), the battery still has sufficient capacity to perform its intended safety function and is not considered inoperable. With the cell(s) electrolyte level below the top of the plates, there is a potential for dry-out and plate degradation. New Required Actions C.1 and C.2 (as well as provisions in new TS 5.5.14) restore the electrolyte level, ensure that the cause of the loss of electrolyte level is not due to a leak in the battery cell jar, and equalize and test battery cells that have been discovered with an electrolyte level below the top of the plates. The NRC staff concludes that these changes are adequate to ensure that minimum electrolyte levels are maintained, and therefore, are acceptable.

The licensee proposed adding new TS 3.8.6, Condition D which applies to a battery found with a pilot cell electrolyte temperature less than the minimum established design limit. This new Condition D would be applicable when one or more batteries has a pilot cell electrolyte temperature of less than the minimum established design limits. A low electrolyte temperature limits the current and power available from the battery.

In a letter dated June 2, 2006, the NRC staff requested that the licensee provide assurance that a battery with a battery pilot cell electrolyte temperature slightly greater than or equal to the minimum established design limit will remain capable of performing its minimum design function. In its August 16, 2006, response to an NRC staff request for additional information, the licensee stated that the design temperature for the LSCS, Unit 1 and 2, battery cells is 60 °F for the 125 V DC batteries and 65 °F for the 250 V DC batteries. The licensee also referenced that each LSCS battery is sized with correction factors that include temperature and aging, and as previously mentioned, have supplied a regulatory commitment to maintain a 5 percent design margin for the Division 1 and 2 batteries and a 10 percent design margin for the Division 3 batteries.

Furthermore, the licensee stated that the LSCS switchgear room temperatures (the LSCS battery rooms are contained in the switchgear rooms) are monitored by LSCS operations as part of rounds each shift. The licensee stated that the first indication of a problem with battery temperature would be the room temperature going out of tolerance low. Since batteries have very large thermal inertia, it is highly probable that the room temperature excursion would be corrected prior to the battery reaching minimum temperature. The licensee further stated that LSCS procedure LOA-VX-101/201, "Unit 1(2) Switchgear Heat Removal System Abnormal," would be entered on a decreasing switchgear room temperature of 65 °F. The procedure provides direction to determine and correct the cause of the low switchgear room temperatures and establishes a special log to monitor battery electrolyte temperature and switchgear room temperatures. The licensee also stated that monitoring would continue until the battery electrolyte and the room temperatures are restored. In addition, in accordance with LSCS procedure LOS-AA-S101/S201, "Unit 1/2 Shiftly Surveillance," if Division 1, 2, or 3 switchgear

room has temperature readings at or below 65 °F, pilot cell temperatures are recorded in accordance with applicable portions of LSCS procedure LOS-DC-W1.

The NRC staff concludes that the pilot cell temperature is an accurate representation of the temperature of the battery bank because: (1) batteries having very large thermal inertia; (2) the LSCS, Unit 1 and 2, batteries are designed with significant margins (i.e., temperature, aging, and design); and (3) the availability of procedures to monitor and correct the cause of low switchgear room temperatures. Therefore, the 12-hour CT provides a reasonable time to restore the electrolyte temperature within established limits. The NRC staff concludes that these changes are adequate to ensure that the minimum electrolyte temperature is maintained, and therefore, are acceptable.

The licensee proposed adding new TS 3.8.6, Condition E to address the condition where two or more redundant division battery parameters are not within established limits. If this condition exists, there is not sufficient assurance that the batteries will be capable of performing their intended safety function. With redundant batteries involved, loss of function is possible for multiple systems that depend upon the batteries. The licensee proposed that battery parameters for the affected battery in one division be restored to within limits within 2 hours. The NRC staff finds that this change is reasonable, maintains safe conditions, and therefore, is acceptable.

The licensee proposed adding new TS 3.8.6, Condition F to provide a default condition for battery parameters that fall outside the allowance of the Required Actions for Condition A, B, C, D, or E. Under this condition, it is assumed that there is not sufficient capacity to supply the maximum expected load requirements. New Condition F also addresses the case where one or more batteries is found with one or more battery cells having a float voltage less than 2.07 V and a float current greater than 2 amps. The NRC staff concludes that this change is reasonable, maintains safe conditions, and therefore, is acceptable.

3.2.3.4 LCO 3.8.6 Change (4): The licensee proposed the following:

- The existing SRs and TS Table 3.8.6-1 would be deleted and replaced with SR 3.8.6.1 for float current, SR 3.8.6.2 for pilot cell voltage, SR 3.8.6.3 for electrolyte level, SR 3.8.6.4 for pilot cell temperature, and SR 3.8.6.5 for connected cell voltage.

Evaluation of Proposed LCO 3.8.6 Change (4)

The licensee proposed adding new SR 3.8.6.1 which will require verification that the float current for each battery is less than or equal to 2 amps every 7 days. The purpose of this SR is to determine the state-of-charge of the battery. Float charge is the condition in which the battery charger is supplying the continuous small amount of current (i.e., less than 2 amps) required to overcome the internal losses of a battery to maintain the battery in a fully charged state. The float current requirements are based on the float current indicative of a charged battery. As stated in the NRC staff evaluation of the LCO 3.8.6 change (2) above, the use of float current to determine the state-of-charge of the battery is consistent with LSCS's battery manufacturer recommendations. The NRC staff concludes that this change is reasonable, maintains safe conditions, and therefore, is acceptable.

The licensee proposed adding new SR 3.8.6.2 and SR 3.8.6.5 which will require verification that the float voltage of pilot cells and all connected cells are greater than or equal to 2.07 V every 31 and 92 days, respectively. This voltage level represents the point where battery operability is in question. The battery monitoring and maintenance program under new TS Section 5.5.14 will include actions to restore battery cells with float voltage less than 2.13 V and actions to verify that the remaining cells are greater than or equal to 2.07 V when a cell or cells have been found to be less than 2.13 V. The NRC staff concludes that these changes are reasonable, maintain safe conditions, and therefore, are acceptable.

The licensee proposed adding SR 3.8.6.3 which will require verification that the connected cell electrolyte level of each battery is greater than or equal to the minimum established design limits every 31 days. Operation of the batteries at electrolyte levels greater than the minimum established design limit ensures that the battery plates do not suffer physical damage and continue to maintain adequate electron transfer capability. The NRC staff concludes that this change is adequate to ensure that minimum electrolyte levels are maintained, and therefore, is acceptable.

The licensee proposed adding SR 3.8.6.4 which will require verification that the temperature of each battery pilot cell is greater than or equal to the minimum established design limits every 31 days. As mentioned previously, since batteries have very large thermal inertia; the LSCS batteries are designed with significant margins (i.e., temperature, aging, and design); and the availability of procedures to monitor and correct the cause of low switchgear room temperatures, the NRC staff concludes that the pilot cell temperature is an accurate representation of the temperature of the battery bank. The NRC staff concludes that this change is adequate to ensure that the minimum electrolyte temperature is maintained, and therefore, is acceptable.

The NRC staff's review of the licensee's proposed addition of new SR 3.8.6.6 can be found in Section 3.2.3.1 of this safety evaluation.

3.2.3.5 LCO 3.8.6 Change (5): The licensee proposed the following:

- A new program, the Battery Monitoring and Maintenance Program, to be specified in new TS Section 5.5.14, will be created.

This program will have elements relocated from the different affected TSs. The program will be covered in the TSs as follows:

5.5.14 Battery Monitoring and Maintenance Program

This program provides for battery restoration and maintenance, which includes the following:

- a. Actions to restore battery cells with float voltage < 2.13 V;
- b. Actions to equalize and test battery cells that had been discovered with electrolyte level below the top of the plates; and
- c. Actions to verify that the remaining cells are ≥ 2.07 V when a cell or cells have been found to be < 2.13 V.

Evaluation of Proposed LCO 3.8.6 Change (5)

The licensee proposed adding a new program, the Battery Monitoring and Maintenance Program, to be specified in new TS Section 5.5.14. As mentioned earlier, the licensee provided a regulatory commitment in its September 13, 2006, supplemental letter, to relocate the current battery parameters (i.e., specific gravity, electrolyte level, cell temperature, float voltage, connection resistance, and physical condition) to a new battery monitoring and maintenance program. This program will be located in the LSCS, Unit 1 and 2, Technical Requirements Manual. The NRC staff finds that the licensee's regulatory commitment provides adequate assurance that the battery parameter values will continue to be controlled at their current level, and actions will be implemented in accordance with the licensee's corrective action program. Furthermore, the battery and its preventive maintenance and monitoring program are under the regulatory requirements of 10 CFR 50.65.

The NRC staff concludes that this change will continue to assure the battery is maintained at current levels of performance, and allows the licensed operators to focus on the monitoring of battery parameter degradations, and therefore, is acceptable.

Based on the above evaluation, the NRC staff finds the proposed revisions to the LSCS, Unit 1 and 2, TSs are reasonable and are designed to maintain battery parameters within their acceptable limits. The proposed changes continue to ensure the availability of the required DC power to shut down the reactor and to maintain the reactor in a safe condition after an anticipated operational occurrence or a postulated design basis accident. Therefore, the NRC staff finds the proposed changes acceptable.

4.0 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.

5.0 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 changes 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 19115; April 12, 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.

6.0 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.

Principal Contributor: M. McConnell, DE/EEEB

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