



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

March 9, 2009

Mr. Charles G. Pardee
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS
RE: TECHNICAL SPECIFICATIONS REGARDING RELOCATING STORED
FUEL OIL VOLUMES TO LICENSEE CONTROL (TAC NOS. MD8674
AND MD8675)

Dear Mr. Pardee:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 191 to Facility Operating License No. NPF-11 and Amendment No. 178 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 May 2, 2008, as supplemented July 23, 2008.

The amendments modify technical specification (TS) 3.8.3, "Diesel Fuel Oil and Starting Air," to replace the numerical volume requirements for stored diesel fuel oil inventory with requirements that state that volumes equivalent to 7 days and 6 days of fuel oil are available, and to move the diesel fuel oil numerical volumes equivalent to 7 day and 6 day supplies to the TS Bases. The May 2, 2008, supplement was in response to the U.S. Nuclear Regulatory Commission staff's request for additional information.

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,

A handwritten signature in black ink that reads "Stephen P. Sands".

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. 191 to NPF-11
2. Amendment No. 178 to NPF-18
3. Safety Evaluation

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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 191
License No. NPF-11

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated May 2, 2008, as supplemented by letter dated July 23, 2008, 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. 191 , 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

A handwritten signature in black ink, appearing to read "Russell Gibbs", is written over the typed name.

Russell Gibbs, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Facility Operating License

Date of Issuance: March 9, 2009



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

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 178
License No. NPF-18

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated May 2, 2008, as supplemented by letter dated July 23, 2008, 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. 178 , 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



Russell Gibbs, Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Facility Operating License

Date of Issuance: March 9, 2009

ATTACHMENT TO LICENSE AMENDMENT NOS. 191 AND 178

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 NPF-11

Page 3

License NPF-18

Page 3

TSs

3.8.3-1

3.8.3-3

Insert

License NPF-11

Page 3

License NPF-18

Page 3

TSs

3.8.3-1

3.8.3-3

- (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. 191 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. 178 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.

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil and Starting Air

LCO 3.8.3 The stored diesel fuel oil and starting air subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each DG.

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|-----------------|
| <p>A. One or more DGs with stored fuel oil level:</p> <ol style="list-style-type: none"> 1. In the combined day tank and fuel oil storage tank for the Division 1 and Division 2 DGs, and the opposite unit Division 2 DG, less than a 7-day supply and greater than or equal to a 6-day supply; and 2. In the combined day tank and fuel oil storage tank for the Division 3 DG, less than a 7-day supply and greater than or equal to a 6-day supply. | <p>A.1 Restore stored fuel oil level to within limit.</p> | <p>48 hours</p> |

(continued)

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|---|--|
| SR 3.8.3.1 | Verify: a. \geq a 7-day supply of fuel in the combined fuel oil storage tank and day tank for the Division 1 and Division 2 DGs and the opposite unit Division 2 DG. b. \geq a 7-day supply of fuel in the combined fuel oil storage tank and day tank for the Division 3 DG. | 31 days |
| SR 3.8.3.2 | Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program. | In accordance with the Diesel Fuel Oil Testing Program |
| SR 3.8.3.3 | Verify each DG air start receiver pressure is \geq 200 psig. | 31 days |
| SR 3.8.3.4 | Check for and remove accumulated water from each fuel oil storage tank. | 92 days |



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 191 TO FACILITY OPERATING LICENSE NO. NPF-11
AND AMENDMENT NO. 178 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 dated May 2, 2008, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML081230594), Exelon Generation Company, LLC, (the licensee), submitted a license amendment request for LaSalle County Station (LSCS) Units 1 and 2. The proposed amendment would modify the Technical Specification (TS) requirements related to Diesel Fuel Oil and Starting Air by replacing the specific fuel oil volumes with a requirement to maintain greater than or equal to a 7 day and a 6 day supply for the diesel fuel oil while retaining the specific tank volumes needed to meet the 7 day and 6 day requirements in the TS Bases. By letter dated July 23, 2008, ADAMS Accession No. ML082060176, the licensee responded to the staff's request for additional information.

The July 23, 2008, supplement, contained clarifying information and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's initial proposed finding of no significant hazards consideration.

2.0 REGULATORY EVALUATION

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include TSs as part of the license. These TSs are derived from the plant safety analyses.

The onsite electrical power system includes standby power sources, distribution systems, and vital auxiliary supporting systems to supply power to safety-related equipment. Most commercial nuclear power plants use diesel generators as the emergency power source for the safety-related electrical buses. The importance of the diesel generators (or other standby power sources) is reflected in their incorporation into NRC regulations, TS, and other regulatory programs, including General Design Criterion (GDC) 17 ("Electric Power Systems") of Appendix A ("General Design Criteria for Nuclear Power Plants") and Appendix B ("Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants") to Part 50 of *Title 10 of the Code of Federal Regulations* (10 CFR Part 50).

Regulatory Guide (RG) 1.137, Regulatory Position 1, states that American National Standards Institute (ANSI) N195-1976, "Fuel Oil Systems for Standby Diesel-Generators" provides a method acceptable to the staff for complying with the pertinent requirements of GDC 17 of Appendix A to 10 CFR Part 50. Regulatory Position 1.c states that Section 5.4 of ANSI N195-1976, "Calculation of Fuel Oil Storage Requirements," sets forth two methods for the calculation of fuel oil storage requirements. These two methods are (1) calculations based on the assumption that the diesel generator operates continuously for 7 days at its rated capacity, and (2) calculations based on the time-dependent loads of the diesel generator. For the time-dependent load method, the minimum required capacity should include the capacity to power the engineered safety features. It is stated in Paragraph I.1.H of Section 9.5.4 of NUREG 0800 that "a minimum of seven days supply of fuel oil for each diesel generator system is onsite to meet the engineered safety feature load requirements following a loss of offsite power and a design-basis accident.

The application of this general framework is discussed in Section 3.0 for the specific proposed changes.

3.0 TECHNICAL EVALUATION

The proposed amendment would modify the TS requirements related to Diesel Fuel Oil and Starting Air by replacing the specific fuel oil storage volumetric requirements (in gallons) with a requirement to maintain less than a 7 day supply and greater than or equal to a 6 day supply for the diesel fuel oil while retaining the specific tank volumetric requirements (in gallons) needed to meet the 7 day and 6 day requirements in the TS Bases. These specific tank volumetric requirements for the Division 1, Division 2, and opposite unit Division 2 emergency diesel generators (EDGs) include a minimum of 250 gallons of fuel oil in the associated fuel oil day tank. For the Division 3 EDG a minimum of 550 gallons of fuel oil in the day tank is included in the 7 and 6 day volumetric requirements.

The requested changes to the Diesel Fuel Oil and Starting Air TS (LCO 3.8.3) ensure that the information required by 10 CFR 50.36 is maintained in the TS and that the specific design value for volume that needs to be maintained in the fuel oil storage tanks and day tanks (in gallons) are located in a licensee-controlled document (i.e., the TS Bases). The licensee's TS Bases are controlled in accordance with TS 5.5.11, "Technical Specifications (TS) Bases Control Program."

The licensee's TS currently have the specific amounts (in gallons) of fuel oil necessary for each EDG for 7 days and 6 days of continuous operation. These specific amounts are located in both the Limiting Conditions for Operation (LCO) and the Surveillance Requirements. The licensee proposes to replace these specific amounts of fuel oil with the required amount of time (7 days and 6 days). The specific amounts of fuel oil would be relocated to the TS Bases. The specific amounts of fuel are based on the properties of Ultra Low Sulfur Diesel (ULSD) fuel.

The Environmental Protection agency has finalized the Clean Diesel Trucks and Buses Rule and the Clean Nonroad Diesel Rule. These rules require sulfur reductions for land-based nonroad diesel fuel to be accomplished in two steps, with an interim step from currently uncontrolled sulfur content levels to a 500 parts per million (ppm) cap starting in June 2007, and the final step to 15 ppm sulfur content in June 2010. This 15 ppm sulfur content fuel is known as ULSD. The processing required to reduce the sulfur content to 15 ppm also reduces the aromatic content and the density of diesel fuel, which results in a reduction in volumetric energy content (British

Thermal Unit per gallon). This reduction in energy content will require the licensee to store more fuel in order to maintain an amount sufficient for 7 days of EDG operation.

As stated above, RG 1.137, Regulatory Position 1, states that ANSI N195-1976 provides a method acceptable to the staff for complying with the pertinent requirements of GDC 17 of Appendix A to 10 CFR Part 50. Regulatory Position 1.c states that Section 5.4 of ANSI N195-1976 sets forth two methods for the calculation of fuel oil storage requirements. The licensee's calculation follows the first of the two methods for determining the fuel oil storage requirements.

The licensee has calculated the required amount of stored fuel for 7 days and 6 days of EDG operation considering all ULSD across the allowable American Petroleum Institute (API) gravity band of 27 to 39, which is the API gravity band allowed by the LSCS Diesel Fuel Oil Testing Program. This evaluation determined that the maximum mass of fuel would be required when considering the properties of ULSD at an API gravity of 27 at 50°F. Since the measured fuel oil storage tank level is converted to gallons, and the licensee's fuel is ordered by the gallon, the licensee converted the maximum required mass of fuel to gallons using an API gravity of 30 at 60°F. The correlation between API gravity and energy content is well known. This correlation is documented by the National Bureau of Standards in their Miscellaneous Publication No. 97, "Thermal Properties of Petroleum Products," dated April 28, 1933.

Relocating the specific values of fuel oil equivalent to 7 and 6 day supplies to the TS Bases does not alter the licensing basis of the plant. The licensee is still required by TS to maintain these 7 and 6 day supplies. The proposed amendment will allow the licensee to adjust these specific values based on the properties of the fuel oil received without having to submit a license amendment request.

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. 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 (73 FR 46930; dated August 12, 2008). 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 licensee's proposed changes in this license amendment request are acceptable since the changes to LSCS TS requirements do not result in any substantive change in operating requirements, are consistent with the Commission's regulations, and conform to the requirements of 10 CFR 50.36. On this basis, the NRC staff concludes that the proposed TS changes are acceptable.

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: R. Wolfgang

Date: March 9, 2009

March 9, 2009

Mr. Charles G. Pardee
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS
RE: TECHNICAL SPECIFICATIONS REGARDING RELOCATING STORED
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AND MD8675)

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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:

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2. Amendment No. 178 to NPF-18
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