

10 CFR 50.90

RS-01-117

June 15, 2001

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374Subject: Request for Amendment to Technical Specifications
Related to ATRIUM 10 Fuel Analytical Methods

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, the proposed changes add the ATRIUM 10 fuel analytical methods to TS Section 5.6.5, "Core Operating Limits Report (COLR)." The proposed changes support the initial insertion of Framatome Advanced Nuclear Fuel, Inc. (i.e., Framatome), formerly Siemens Power Corporation (SPC), ATRIUM 10 fuel into LaSalle County Station Unit 1, during the upcoming refueling outage, scheduled to begin on November 24, 2001.

The information supporting the proposed TS changes is subdivided as follows.

1. Attachment A gives a description and safety analysis for the proposed TS changes.
2. Attachment B includes the marked-up and retyped TS pages with the proposed changes indicated.
3. Attachment C describes our evaluation performed using the criteria in 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (a)(1) which provides information supporting a finding of no significant hazards consideration in accordance with 10 CFR 50.92, "Issuance of amendment," paragraph (c).
4. Attachment D provides information supporting an Environmental Assessment.

The proposed TS changes have been reviewed by the LaSalle County Station Plant Operations Review Committee (PORC) and approved by the Nuclear Safety Review Board (NSRB) in accordance with the Quality Assurance Program.

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EGC is notifying the State of Illinois of this application for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

We request approval of these proposed changes by November 23, 2001 to support the startup of LaSalle County Station, Unit 1.

Should you have any questions concerning this submittal, please contact Mr. T. W. Simpkin at (603) 663-3019.

Respectfully,

A handwritten signature in black ink, appearing to read 'R. M. Krich', is written over the typed name.

R. M. Krich
Director-Licensing
Mid-West Regional Operating Group

Attachments:

Attachment A.	Description and Safety Analysis for the Proposed TS Changes
Attachment B.	Marked-up and Retyped TS Pages for the Proposed TS Changes
Attachment C.	Information Supporting a Finding of No Significant Hazards Consideration
Attachment D.	Information Supporting an Environmental Assessment

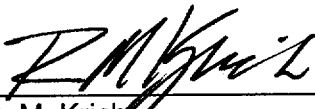
cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS)
IN THE MATTER OF:)
EXELON GENERATION COMPANY (EGC), LLC) Docket Numbers
LASALLE COUNTY STATION - UNIT 1 and UNIT 2) 50-373 and 50-374

SUBJECT: Request for Amendment to Technical Specifications
Related to ATRIUM 10 Fuel Analytical Methods

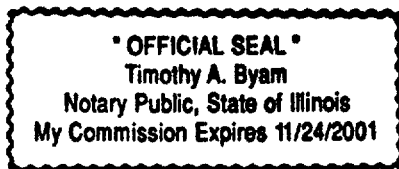
AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information, and belief.



R. M. Krich
Director-Licensing
Mid-West Regional Operating Group

Subscribed and sworn to before me, a Notary Public in and
for the State above named, this 15th day of
June, 2001





Notary Public

ATTACHMENT A
Proposed Technical Specifications Changes
LaSalle County Station, Units 1 and 2
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DESCRIPTION AND SAFETY ANALYSIS
FOR PROPOSED TECHNICAL SPECIFICATIONS CHANGES

A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, proposes changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, the proposed changes add certain Framatome Advanced Nuclear Fuel, Inc. (i.e., Framatome), formerly Siemens Power Corporation (SPC), fuel analytical methods to TS Section 5.6.5, "Core Operating Limits Report (COLR)" in support of the insertion of ATRIUM 10 fuel into LaSalle County Station, Unit 1 and Unit 2.

The proposed changes are described in Section E of this Attachment. The marked up and retyped TS pages are shown in Attachment B.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

TS Section 5.6.5 requires that a COLR be established and that the analytical methods used to determine the core operating limits be those previously reviewed and approved by the NRC. The approved analytical methods are listed in TS Section 5.6.5.b.

C. BASES FOR THE CURRENT REQUIREMENTS

The analytical methods listed in TS Section 5.6.5.b support operation of certain types of fuel contained in the reactor core and list the analytical codes used to calculate operating parameters. Currently, LaSalle County Station, Unit 1 and Unit 2, contain General Electric (GE) 8x8 and Framatome ATRIUM 9B fuel in their cores. The analytical codes are utilized to predict the core behavior under normal and accident conditions.

D. NEED FOR REVISION OF THE REQUIREMENTS

LaSalle County Station, Unit 1, is currently scheduled to load ATRIUM 10 fuel into the core during the November 2001 refueling outage. The ATRIUM 10 fuel design is different than fuel that has been previously inserted into the core. The proposed changes to TS Section 5.6.5.b incorporate references to the new NRC reviewed and approved analytical methods in support of the loading of the ATRIUM 10 fuel.

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E. DESCRIPTION OF THE PROPOSED CHANGES

The proposed changes to TS 5.6.5.b will modify the references listed in item 9 to "Volume 4 – BWR Stability Analysis: Assessment of STAIF with Input from MICROBURN-B2, EMF-CC-074(P)(A)," item 13 to "SPCB Critical Power Correlation, EMF-2209(P)(A)" and add item 20, "RODEX2A (BWR) Fuel Rod Thermal-Mechanical Evaluation Model, EMF-85-74(P)(A)."

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

These proposed changes reference the methodologies that are currently being used in the design and analysis of the core reload. The methodologies that are being referenced have been previously reviewed and approved by the NRC. Brief descriptions of the methodologies are provided below.

The proposed change to TS 5.6.5.b item 9 updates the current reference with a more recent version of the STAIF code. The new version of the STAIF code is used to ensure the points that identify the Interim Corrective Action (ICA) boundary maintain core stability. The code utilizes an improved core stability model that is more accurate than the version used for previous analyses. The new version of the STAIF code has been previously reviewed and approved by the NRC in a letter to SPC, dated August 16, 2000.

The proposed change to TS 5.6.5.b item 13 will remove a reference to an outdated analytical method not currently utilized at LaSalle County Station for transient analysis and replace it with an analytical method required for critical power ratio (CPR) monitoring of the ATRIUM 10 fuel. The new analytical method is a correlation designed and developed to address the critical power behavior of the ATRIUM 9B and ATRIUM 10 fuel designs and is utilized in the safety analysis. The correlation is applicable to steady state, transient, and loss-of-coolant accident (LOCA) critical heat flux calculations for the fuel design. SPC Topical Report EMF-2209(P) was previously reviewed and approved by the NRC in a letter to SPC, dated July 3, 2000.

The proposed change to TS 5.6.5.b item 20 will allow the use of the Framatome fuel performance code RODEX2A to higher fuel burnup limits. In a letter to SPC, dated May 14, 1998, the NRC approved increases in the applicability of the fuel performance code for fuel rod average exposure from 60 gigawatts-days per metric ton (GWD/MT) to 62 GWD/MT and average fuel assembly exposure from 48 GWD/MT to 54 GWD/MT. The increases in the applicability of the burnup limits for the fuel performance code is necessary to support the design and operation of the ATRIUM 9B and ATRIUM 10 fuel in LaSalle County Station, Unit 1 and Unit 2, to the predicted end of cycle burnup.

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G. IMPACT ON PREVIOUS SUBMITTALS

The proposed changes have no impact on any outstanding submittal.

H. SCHEDULE REQUIREMENTS

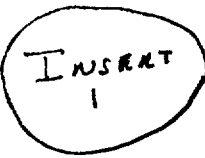
Approval of these proposed changes is requested by November 23, 2001, to support the LaSalle County Station Unit 1 refueling outage scheduled for November 2001.

ATTACHMENT B
Proposed Technical Specifications Changes
LaSalle County Station, Units 1 and 2

MARKED-UP AND RETYPED TECHNICAL SPECIFICATION PAGES
FOR THE PROPOSED CHANGES

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

4. The Rod Block Monitor Upscale Instrumentation Setpoint for the Rod Block Monitor-Upscale Function Allowable Value for Specification 3.3.2.1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
 1. ANFB Critical Power Correlation, ANF-1125(P)(A).
 2. Letter, Ashok C. Thadani (NRC) to R.A. Copeland (SPC), "Acceptance for Referencing of ULTRAFLOW™ Spacer on 9x9-IX/X BWR Fuel Design," July 28, 1993.
 3. Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors/Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors: Methodology for Analysis of Assembly Channel Bowing Effects/NRC Correspondence, XN-NF-524(P)(A).
 4. COTRANSA 2: A Computer Program for Boiling Water Reactor Transient Analysis, ANF-913(P)(A).
 5. HUXY: A Generalized Multirod Heatup Code with 10 CFR 50, Appendix K Heatup Option, ANF-CC-33(P)(A).
 6. Advanced Nuclear Fuel Methodology for Boiling Water Reactors, XN-NF-80-19(P)(A).
 7. Generic Mechanical Design for Exxon Nuclear Jet Pump BWR Reload Fuel, XN-NF-85-67(P)(A).
 8. Advanced Nuclear Fuels Corporation Generic Mechanical Design for Advanced Nuclear Fuels Corporation 9x9-IX and 9x9-9X BWR Reload Fuel, ANF-89-014(P)(A).
 9.  ~~Volume 1 - STAIF - A Computer Program for BWR Stability Analysis in the Frequency Domain, Volume 2 - STAIF - A Computer Program for BWR Stability Analysis in the Frequency Domain, Code Qualification Report, EMF-CC-074(P)(A).~~

(continued)

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

10. RODEX2 Fuel Rod Thermal-Mechanical Response Evaluation Model, XN-NF-81-58(P)(A).
11. XCOBRA-T: A Computer Code for BWR Transient Thermal-Hydraulic Core Analysis, XN-NF-84-105(P)(A).
12. Advanced Nuclear Fuels Corporation Methodology for Boiling Water Reactors EXEM BWR Evaluation Model, ANF-91-048(P)(A).
13. ~~Exxon Nuclear Plant Transient Methodology for Boiling Water Reactors, XN-NF-79-71(P)(A).~~
14. Generic Mechanical Design Criteria for BWR Fuel Designs, ANF-89-98(P)(A).
15. NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel."
16. Commonwealth Edison Topical Report NFSR-0085, "Benchmark of BWR Nuclear Design Methods."
17. Commonwealth Edison Topical Report NFSR-0091, "Benchmark of CASMO/MICROBURN BWR Nuclear Design Methods."
18. ANFB Critical Power Correlation Application for Coresident Fuel, EMF-1125(P)(A).
19. ANFB Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties, ANF-1125(P)(A).

INSERT
2

INSERT
3

The COLR will contain the complete identification for each of the TS referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).

(continued)

Insert 1

Volume 4 – BWR Stability Analysis: Assessment of STAIF with Input from MICROBURN-B2, EMF-CC-074(P)(A).

Insert 2

SPCB Critical Power Correlation, EMF-2209(P)(A).

Insert 3

20. RODEX2A (BWR) Fuel Rod Thermal-Mechanical Evaluation Model, EMF-85-74(P)(A).

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

4. The Rod Block Monitor Upscale Instrumentation Setpoint for the Rod Block Monitor—Upscale Function Allowable Value for Specification 3.3.2.1.
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 8. Advanced Nuclear Fuels Corporation Generic Mechanical Design for Advanced Nuclear Fuels Corporation 9x9-IX and 9x9-9X BWR Reload Fuel, ANF-89-014(P)(A).
 9. Volume 4 - BWR Stability Analysis: Assessment of STAIF with input from MICROBURN-B2, EMF-CC-074(P)(A).

(continued)

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

10. RODEX2 Fuel Rod Thermal-Mechanical Response Evaluation Model, XN-NF-81-58(P)(A).
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17. Commonwealth Edison Topical Report NFSR-0091, "Benchmark of CASMO/MICROBURN BWR Nuclear Design Methods."
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19. ANFB Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties, ANF-1125(P)(A).
20. RODEX2A (BWR) Fuel Rod Thermal-Mechanical Evaluation Model, EMF-85-74(P)(A).

The COLR will contain the complete identification for each of the TS referenced topical reports used to prepare the COLR (i.e., report number, title, revision, date, and any supplements).

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ATTACHMENT C
Proposed Technical Specifications Changes
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**INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS
CONSIDERATION**

Exelon Generation Company (EGC), LLC, has evaluated the proposed changes to the Technical Specifications (TS) for LaSalle County Station, Unit 1 and Unit 2, and has determined that the proposed changes do not involve a significant hazards consideration and is providing the following information to support a finding of no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

Involve a significant increase in the probability or consequences of an accident previously evaluated;

Create the possibility of a new or different kind of accident from any previously evaluated; or

Involve a significant reduction in a margin of safety.

The proposed changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18 would add the Framatome Advanced Nuclear Fuel, Inc. (i.e., Framatome) ATRIUM 10 fuel analytical methods to TS Section 5.6.5, "Core Operating Limits Report (COLR)."

The information supporting the determination that the criteria set forth in 10 CFR 50.92 are met for these proposed changes is provided below.

Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed changes to LaSalle County Station, Unit 1 and Unit 2 Technical Specification (TS), add the fuel analytical methods to TS Section 5.6.5, "Core Operating Limits Report (COLR)," that support insertion of Framatome Advanced Nuclear Fuel, Inc. (i.e., Framatome) ATRIUM 10 fuel.

LaSalle County Station Unit 1, is scheduled to load ATRIUM 10 fuel during its upcoming outage in November 2001. The proposed changes to TS Section 5.6.5 will add the fuel analytical methods that support the initial insertion of ATRIUM 10 fuel to the list of methods used to determine the core operating limits. The addition of approved methods to TS Section 5.6.5 has no effect on any accident initiator or precursor previously evaluated and does not change the manner in which the core is operated. The NRC approved methods have been reviewed to ensure that the output accurately models predicted core behavior, have no effect on the type or amount of radiation released, and have no effect on predicted offsite doses in the event of an accident.

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Proposed Technical Specifications Changes
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Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes to TS Section 5.6.5 do not affect the performance of any LaSalle County Station structure, system, or component credited with mitigating any accident previously evaluated. The insertion of a new generation of fuel which has been analyzed with NRC approved methodologies will not affect the control parameters governing unit operation or the response of plant equipment to transient conditions. The proposed changes do not introduce any new modes of system operation or failure mechanisms.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

Does the change involve a significant reduction in a margin of safety?

The proposed changes to TS Section 5.6.5 will add the ATRIUM 10 fuel analytical methods to the list of methods used to determine the core operating limits. The additional methods have been previously approved by the NRC for use by licensees. The proposed changes do not modify the safety limits or setpoints at which protective actions are initiated, and do not change the requirements governing operation or availability of safety equipment assumed to operate to preserve the margin of safety.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Therefore, based upon the above, it is concluded that the proposed changes involve no significant hazards consideration.

ATTACHMENT D
Proposed Technical Specifications Changes
LaSalle County Station, Units 1 and 2

INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

Exelon Generation Company (EGC), LLC, has evaluated the proposed changes against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21, "Criteria for and identification of licensing and regulatory actions requiring environmental assessments." EGC has determined that these proposed changes meet the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that these changes are being proposed as an amendment to a license issued pursuant to 10 CFR 50, that the proposed changes are to a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes are proposed to an inspection or a surveillance requirement, and the amendment meets the following specific criteria.

- (i) The proposed changes involve no significant hazards consideration.

As demonstrated in Attachment C, these proposed changes involve no significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

The proposed changes do not affect the types or amount of any effluent that may be released offsite. Therefore, there will be no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no significant increase in individual or cumulative occupational radiation exposure resulting from these proposed changes.