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RS-01-262

10 CFR 50.90

November 12, 2001

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Response to Request for Additional Information Concerning
Request for Amendment to Technical Specifications Related to
ATRIUM 10 Fuel Analytical Methods

Reference: (1) Letter from R. M. Krich (EGC) to the NRC, "Request for Amendment to
Technical Specifications Related to ATRIUM 10 Fuel Analytical
Methods," dated June 15, 2001

(2) Letter from the NRC to O. D. Kingsley (EGC), " LaSalle County Station -
Request for Additional Information (TAC NOS. MB2249 and MB2250), "
dated October 31, 2001

Exelon Generation Company (EGC), LLC, in accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," in Reference 1, proposed changes to Appendix A, Technical Specifications (TS), of Facility Operating License Nos. NPF-11 and NPF-18. Specifically, the proposed changes to the TS of LaSalle County Station, Units 1 and 2, add the ATRIUM 10 fuel analytical methods to TS Section 5.6.5, "Core Operating Limits Report (COLR)." The NRC, in Reference 2, requested additional information to complete their review of the EGC submittal. Attached to this letter is the requested information.

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Should you have any questions concerning this submittal, please contact Mr. T. W. Simpkin at (630) 657-2821.

Respectfully,

A handwritten signature in black ink that reads "K. A. Ainger". The signature is written in a cursive style with a large, looped initial "K".

K. A. Ainger
Director – Licensing
Mid-West Regional Operating Group

Attachment: Response to Request for Additional Information Concerning Request for
Amendment to Technical Specifications Related to ATRIUM 10 Fuel Analytical
Methods

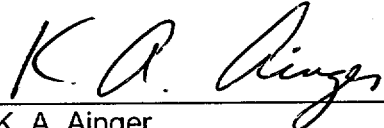
cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – LaSalle County Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

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

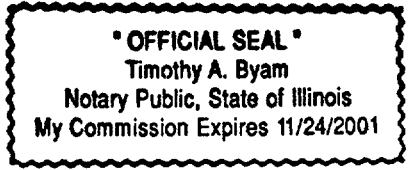
**SUBJECT: Response to Request for Additional Information Concerning
Request for Amendment to Technical Specifications Related
to ATRIUM 10 Fuel Analytical Methods**

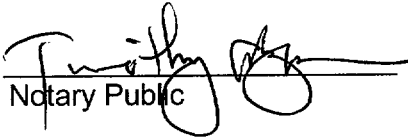
AFFIDAVIT

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


K. A. Ainger
Director – Licensing
Mid-West Regional Operating Group

Subscribed and sworn to before me, a Notary Public in and
for the State above named, this 12th day of
November, 2001




Notary Public

**ATTACHMENT
LASALLE COUNTY STATION, UNITS 1 AND 2**

**Response to Request for Additional Information Concerning
Request for Amendment to Technical Specifications Related to
ATRIUM 10 Fuel Analytical Methods**

NRC Question 1

Justify that the proposed changes to Technical Specifications (TS) 5.6.5.b of items 9, 13, and 20 are applicable to the coming cycle operation. Especially, item 20 may not be applicable to the coming cycle operation since the COLR TS is established to support the cycle operation not for the future convenience.

Exelon Generation Company (EGC), LLC Response

The proposed changes to Technical Specification (TS) 5.6.5.b, items 9, 13, and 20 are applicable and required for LaSalle County Station, Unit 1 Cycle 10 operation.

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 updated version of the Framatome Advanced Nuclear Fuel, Inc (Framatome) STAIF code is required to improve the accuracy of stability calculations and to validate adequate decay ratio margin in the stability region for the upcoming Unit 1 cycle.

The proposed change to TS 5.6.5.b item 13 removes a reference to an outdated analytical method not currently utilized for transient analysis and replaces it with an analytical method required for critical power ratio (CPR) monitoring of the ATRIUM 10 fuel. The item 13 correlation is required because it is the dryout critical power correlation that is NRC approved and applicable to ATRIUM 10 fuel. ATRIUM 10 fuel will be used in the upcoming Unit 1 cycle.

The proposed change to TS 5.6.5.b item 20 reflects the use of the Framatome fuel performance RODEX2A code in the analyses of the new ATRIUM 10 fuel that will be inserted into Unit 1 in the upcoming refueling outage. Also, the RODEX2A code was used in the analyses for the previously existing ATRIUM 9B fuel that is also being used in the upcoming Unit 1 cycle. The RODEX2A code was used to evaluate the performance of the ATRIUM 10 fuel throughout its burnup life and the reinserted ATRIUM 9B fuel throughout its burnup life.

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LASALLE COUNTY STATION, UNITS 1 AND 2**

The following is a table of the maximum burnups for each ATRIUM fuel type for the upcoming cycle.

Maximum Cycle 10 Burnup (MWD/MTU)

<u>Fuel Type</u>	<u>Bundle</u>	<u>Pellet</u>
ATRIUM 9B	45693	62991
ATRIUM 10	23178	34644

The RODEX2A code is a required methodology reference to allow the maximum burnup for the ATRIUM 9B at the end of cycle 10, to be increased from 50 gigawatts-days per metric ton uranium (GWD/MTU) to 55 GWD/MTU fuel rod average burnup and from 60 GWD/MTU to 66 GWD/MTU fuel pellet burnup.

NRC Question 2

It appears that the core loading will be ATRIUM 10, ATRIUM 9B, and GE8x8 fuel in the coming cycle operation. Describe the role for item 15 in the coming cycle operation. Also, identify the difference between item 10 and item 20.

EGC Response

The core loading for Unit 1 will include ATRIUM 10, ATRIUM 9B, and GE8x8 fuel.

Item 15, NEDE-24011-P-A, "General Electric Standard Application for Reactor Fuel," is required because GE8x8 fuel is still being utilized in the upcoming cycle core and the average planar linear heat generation limits that establish compliance with the loss of coolant (LOCA) analyses of record for that fuel have been determined with these Global Nuclear Fuel (GNF) methods.

The RODEX2 code referenced in item 10 is the Framatome NRC approved code for use in calculating initial conditions for the LOCA analyses. The RODEX2A code referenced in item 20 is the Framatome approved code for use in the mechanical analyses for calculating fuel temperatures, rod internal pressure, external oxidation and creep strain. Also, the RODEX2A code is used in calculating conditions for the cladding collapse analysis. The main difference between the two items is that item 20 (i.e., RODEX2A code) has a modified fission gas release model for specific application to boiling water reactor (BWR) fuel, while item 10 (i.e., RODEX2 code) was originally applied to both BWR and pressurized water reactor (PWR) fuel. Item 20 also provides the justification to extend the fuel rod design methodology to 62 GWD/MTU rod average burnup.

**ATTACHMENT
LASALLE COUNTY STATION, UNITS 1 AND 2**

NRC Question 3

Describe your update process and criteria versus Generic Letter 88-16 for TS 5.6.5.b to examine the needs for those approved methodologies to keep in the current list.

EGC Response

Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," dated October 3, 1988, allows the licensee to use appropriate NRC approved methodology for cycle-specific analysis. The methodologies that are referenced in TS 5.6.5.b are those used in the analyses for a particular cycle and in general do not indicate the specific revisions of the methodology being applied. The specific methodology, methodology revision and dates of issue for the revision, are documented in the reload 10 CFR 50.59, "Changes, tests and experiments," evaluations and issued COLRs for the cycle in question. This process compares the methodologies used in the 10 CFR 50.59 evaluations to the methodologies listed in TS 5.6.5.b to ensure that the methodologies listed in TS 5.6.5.b remain applicable.