

RS-06-008

March 17, 2006

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2  
Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: Partial Withdrawal of Changes Related to Request for License Amendment  
Related to Application of Alternative Source Term

- References:
- (1) Letter from K. R. Jury (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Request for License Amendment Related to Application of Alternative Source Term," dated February 15, 2005
  - (2) Letter from J. A. Benjamin (Exelon Generation Company, LLC/AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, "Exelon/Amergen Request for Amendment to Technical Specifications Administrative Controls to Incorporate Requirement for Control Room Envelope Integrity Program," dated November 29, 2004
  - (3) Letter from K. R. Jury (Exelon Generation Company, LLC/AmerGen Energy Company, LLC) to U. S. Nuclear Regulatory Commission, "Withdrawal of Exelon/AmerGen License Amendment Request Related to Administrative Controls Incorporating Requirements for Control Room Envelope Integrity Program," dated July 11, 2005

In Reference 1, Exelon Generation Company, LLC (EGC) requested an amendment to Appendix A Technical Specifications (TS), of Facility Operating License Nos. NPF-72, NPF-77, NPF-37, and NPF-66 for Braidwood Station, Units 1 and 2, and Byron Station, Units 1 and 2, respectively. The proposed changes were requested to support application of an alternative source term methodology in accordance with 10 CFR 50.67, "Accident Source Term." The proposed TS changes included changes to TS 3.7.10, "Control Room Ventilation (VC) Filtration System," Surveillance Requirement (SR) 3.7.10.4. The proposed changes to TS SR 3.7.10.4 were justified, in part, by the requirements of the Braidwood Station and Byron Station Control Room Envelope Integrity Program proposed in Reference 2.

In Reference 3, Exelon Generation Company, LLC/AmerGen Energy Company, LLC, at the request of the NRC, withdrew the proposed license amendment request to incorporate the Control Room Envelope Integrity Program into the TS. Because the Control Room Envelope Integrity Program license amendment request was withdrawn, EGC has determined that the proposed associated changes to TS SR 3.7.10.4 should also be withdrawn. EGC intends to re-evaluate the change to TS SR 3.7.10.4 for possible submittal at a later date.

To aid in your review of the license amendment request provided in Reference 1, the following information is attached to this submittal:

Enclosure 1 shows page 5 of 72 of Reference 1, Attachment 1 with the proposed change to TS SR 3.7.10.4 marked for deletion.

Enclosure 2 provides a revised version of Reference 1, Attachment 1, page 5 of 72, following deletion of the text associated with the change to TS SR 3.7.10.4.

Enclosures 3-A and 3-B provide revised Reference 1, Attachments 3A, 3B, 2A, 2B cover pages and TS Bases pages, for information only, affected by the withdrawal of the Control Room Envelope Integrity Program for Braidwood Station and Byron Station, respectively.

Replacement pages for Braidwood Station and Byron Station TS page 3.7.10-4 are not included because this withdrawal restores TS page 3.7.10-4 to the current requirements. Changes to the requirements specified on TS page 3.7.10-4 are not required to support application of an alternative source term methodology.


This partial withdrawal does not affect the supporting analyses for the original license amendment request as described in Reference 1. No other information submitted with Reference 1 is affected by this change. The No Significant Hazards Consideration and the Environmental Consideration provided in Attachment 1 of Reference 1 are not affected by this change.

EGC is notifying the State of Illinois of this partial withdrawal by sending a copy of this letter and its attachments to the designated State Official.

If you have any questions about this letter, please contact David Chrzanowski at (630) 657-2816.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 17<sup>th</sup> day of March 2006.

Respectfully,

  
Joseph A. Bauer  
Manager – Licensing

U. S. Nuclear Regulatory Commission  
March 17, 2006  
Page 3

Enclosure 1: Markup of Attachment 1, Page 5

Enclosure 2: Revised Attachment 1, Page 5

Enclosure 3-A: Revised Attachments and Typed Technical Specifications Bases Pages for  
Braidwood Station

Enclosure 3-B: Revised Attachments and Typed Technical Specifications Bases Pages for  
Byron Station

**Enclosure 1**

**BRAIDWOOD STATION  
UNITS 1 AND 2**

Docket Nos. STN 50-456 and STN 50-457  
License Nos. NPF-72 and NPF-77

and

**BYRON STATION  
UNITS 1 AND 2**

Docket Nos. STN 50-454 and STN 50-455  
License Nos. NPF-37 and NPF-66

Partial Withdrawal of Changes Related to Request for License Amendment  
Related to Application of Alternative Source Term

Markup of Attachment 1, Page 5 of "Request for License Amendment Related to  
Application of Alternative Source Term," dated February 15, 2005 (Reference 1)

**ATTACHMENT 1**  
**Evaluation of Proposed Changes**

TS 3.7.10, "VC Filtration System" Condition C (page 3.7.10-2)

REQUIRED ACTION C.2.1 and its completion time regarding suspension of CORE ALTERATIONS are deleted. REQUIRED ACTION C.2.2 and C.2.3 are renumbered to support deletion of C.2.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS 3.7.10, "VC Filtration System" Condition D (page 3.7.10-3)

REQUIRED ACTION D.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. REQUIRED ACTION D.2 and D.3 are renumbered to support deletion of D.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS SR 3.7.10.4, "VC Filtration System" (page 3.7.10-4)

The words "the upper cable spreading room at positive pressure of  $\geq 0.02$  inches water gauge and" are removed. The word "area" (i.e., in the statement: "...adjacent to the control room area during ...") is replaced with the word "envelope". This change is consistent with NUREG 1431, "Standard Technical Specifications, Westinghouse Plants," and is further justified by the requirements of the proposed Byron Station and Braidwood Station Control Room Envelope Integrity Program which verifies that the control room envelope is maintained at a positive pressure.

TS LCO 3.7.11, "VC Temperature Control System" Condition C (page 3.7.11-2)

REQUIRED ACTION C.2.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. Required Action C.2.2 and C.2.3 are renumbered to support deletion of C.2.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS LCO 3.7.11, "VC Temperature Control System" Condition D (page 3.7.11-3)

REQUIRED ACTION D.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. Required Action D.2 and D.3 are renumbered to support deletion of D.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS LCO 3.7.13 Applicability Statement (page 3.7.13-1)

The term "irradiated fuel" is replaced with the words "RECENTLY IRRADIATED FUEL" in accordance with the guidance in TSTF-51. The reference to suspension of CORE ALTERATIONS is removed. This change is supported by the AST analysis.

TS LCO 3.7.13 Required Actions for Condition B (continued) (page 3.7.13-2)

The term "irradiated fuel" in REQUIRED ACTION B.2.1 and B.2.2 is replaced with the term "RECENTLY IRRADIATED FUEL". REQUIRED ACTION B.2.3 regarding the suspension of CORE ALTERATIONS is deleted. These changes are in accordance with the guidance in TSTF-51 and supported by the AST analysis.

**Enclosure 2**

**BRAIDWOOD STATION  
UNITS 1 AND 2**

Docket Nos. STN 50-456 and STN 50-457  
License Nos. NPF-72 and NPF-77

and

**BYRON STATION  
UNITS 1 AND 2**

Docket Nos. STN 50-454 and STN 50-455  
License Nos. NPF-37 and NPF-66

Partial Withdrawal of Changes Related to Request for License Amendment  
Related to Application of Alternative Source Term

Revised Attachment 1, Page 5 of "Request for License Amendment Related to  
Application of Alternative Source Term," dated February 15, 2005 (Reference 1)

**ATTACHMENT 1**  
**Evaluation of Proposed Changes**

TS 3.7.10, "VC Filtration System" Condition C (page 3.7.10-2)

REQUIRED ACTION C.2.1 and its completion time regarding suspension of CORE ALTERATIONS are deleted. REQUIRED ACTION C.2.2 and C.2.3 are renumbered to support deletion of C.2.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS 3.7.10, "VC Filtration System" Condition D (page 3.7.10-3)

REQUIRED ACTION D.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. REQUIRED ACTION D.2 and D.3 are renumbered to support deletion of D.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS LCO 3.7.11, "VC Temperature Control System" Condition C (page 3.7.11-2)

REQUIRED ACTION C.2.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. Required Action C.2.2 and C.2.3 are renumbered to support deletion of C.2.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS LCO 3.7.11, "VC Temperature Control System" Condition D (page 3.7.11-3)

REQUIRED ACTION D.1 and its completion time regarding suspension of CORE ALTERATIONS are removed. Required Action D.2 and D.3 are renumbered to support deletion of D.1. This is done in accordance with the guidance in TSTF-51 and supported by the AST analysis.

TS LCO 3.7.13 Applicability Statement (page 3.7.13-1)

The term "irradiated fuel" is replaced with the words "RECENTLY IRRADIATED FUEL" in accordance with the guidance in TSTF-51. The reference to suspension of CORE ALTERATIONS is removed. This change is supported by the AST analysis.

TS LCO 3.7.13 Required Actions for Condition B (continued) (page 3.7.13-2)

The term "irradiated fuel" in REQUIRED ACTION B.2.1 and B.2.2 is replaced with the term "RECENTLY IRRADIATED FUEL". REQUIRED ACTION B.2.3 regarding the suspension of CORE ALTERATIONS is deleted. These changes are in accordance with the guidance in TSTF-51 and supported by the AST analysis.

**Enclosure 3-A**

BRAIDWOOD STATION  
UNITS 1 AND 2

Docket Nos. STN 50-456 and STN 50-457

License Nos. NPF-72 and NPF-77

Partial Withdrawal of Changes Related to Request for License Amendment  
Related to Application of Alternative Source Term

Revised Reference 1, Attachments 2B and 3B  
and  
Typed Technical Specifications Bases Pages  
(For Information only)

B 3.7.10-2

B 3.7.10-4

B 3.7.10-8



## **ATTACHMENT 2B**

### **BRAIDWOOD STATION UNITS 1 AND 2**

Docket Nos. 50-456 and 50-457

License Nos. NPF-72 and NPF-77

License Amendment Request  
“Alternative Source Term Implementation”

#### **Markup of Technical Specification Pages**

1.1-3  
1.1-6  
3.3.7-2  
3.3.7-3  
3.3.7-4  
3.3.8-2  
3.3.8-4  
3.7.10-2  
3.7.10-3  
3.7.11-2  
3.7.11-3  
3.7.13-1  
3.7.13-2  
3.7.13-3  
3.7.13-4  
3.9.4-1  
3.9.4-2  
3.9.7-1  
5.5-17  
5.5-18  
5.5-24

## **ATTACHMENT 3B**

### **BRAIDWOOD STATION UNITS 1 AND 2**

Docket Nos. 50-456 and 50-457

License Nos. NPF-72 and NPF-77

License Amendment Request  
"Alternative Source Term Implementation"

Typed Technical Specification Pages

1.1-3  
1.1-6  
3.3.7-2  
3.3.7-3  
3.3.8-2  
3.3.8-4  
3.7.10-2  
3.7.10-3  
3.7.11-2  
3.7.11-3  
3.7.13-1  
3.7.13-2  
3.7.13-3  
3.7.13-4  
3.9.4-1  
3.9.4-2  
3.9.7-1  
5.5-17  
5.5-18  
5.5-24

## BASES

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### BACKGROUND (continued)

Actuation of the VC Filtration System places the system in the emergency mode of operation. Actuation of the system to the emergency mode of operation; starts the makeup fan, opens the turbine building intake damper, isolates the normal intake from outside dampers, isolates the purge dampers (if open), opens the recirculation charcoal adsorber dampers, and closes the recirculation charcoal adsorber bypass dampers. The operating supply and return fans continue to operate. Interlocks are provided such that the makeup fan will not start unless the associated supply fan is in operation. Outside air is filtered and then mixed with the air being recirculated through the control room. Pressurization of the control room minimizes infiltration of unfiltered air from the areas adjacent to the control room envelope.

The air entering the control room is continuously monitored by radiation detectors. One outside air intake detector output above the alarm setpoint will cause actuation of the emergency mode of operation and trip the Control Room Offices HVAC (VV), Laboratory HVAC (VL), and Radwaste Building Ventilation (VW) Systems.

The VC Filtration System will not automatically realign to the Turbine Building makeup air intake upon receipt of a high radiation or Safety Injection (SI) signal when a VC Filtration System Emergency Makeup Filter unit is in operation and aligned to the outside air intake.

One VC Filtration System train can pressurize the control room to  $\geq 0.125$  inches water gauge, relative to areas adjacent to the control room envelope.

The control room and the control room envelope are defined in UFSAR Section 6.4 (Ref. 1). The control room is contained within the control room envelope. The areas within the control room envelope, external to the control room, are maintained at a positive pressure.

Redundant filter trains are provided such that if an excessive pressure drop develops across one filter train, the other train is available to provide the required filtration.

BASES

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LCO Two independent and redundant VC Filtration System trains are required to be OPERABLE to ensure that at least one is available assuming a single failure disables the other train. Total system failure could result in exceeding a TEDE dose of 5 rem to the control room operator in the event of a large radioactive release.

The VC Filtration System is considered OPERABLE when the individual components necessary to limit operator exposure are OPERABLE in both trains. A VC Filtration System train is OPERABLE when the associated:

- a. Makeup air fan is OPERABLE;
- b. Supply fan is OPERABLE;
- c. Return air fan is OPERABLE;
- d. HEPA filters and charcoal adsorbers are not excessively restricting flow, and are capable of performing their filtration functions; and
- e. Makeup filter unit heater, ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained.

In addition, the control room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors.

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APPLICABILITY In MODES 1, 2, 3, 4, 5, and 6, and at all times during movement of irradiated fuel assemblies in the fuel handling building or containment, the VC Filtration System must be OPERABLE to control operator exposure during and following a DBA, including the release from a fuel handling accident.

In MODE 5 or 6, the VC Filtration System provides protection from significant radioactive releases.

BASES

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SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.10.4

This SR verifies the integrity of the control room enclosure, and the assumed inleakage rates of the potentially contaminated air. The control room positive pressure, with respect to potentially contaminated adjacent areas, is periodically tested to verify proper functioning of the VC Filtration System. During the emergency mode of operation, the VC Filtration System is designed to pressurize the upper cable spreading room to  $\geq 0.02$  inches water gauge and the control room to  $\geq 0.125$  inches water gauge, relative to areas adjacent to the control room area in order to minimize unfiltered inleakage. The VC Filtration System is designed to maintain this positive pressure with one train at a makeup flow rate  $\geq 5400$  cfm and  $\leq 6600$  cfm. The Frequency of 18 months on a STAGGERED TEST BASIS is consistent with the guidance provided in NUREG-0800 (Ref. 6).

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REFERENCES

1. UFSAR, Section 6.4.
2. UFSAR, Section 9.4.
3. UFSAR, Chapter 15.
4. UFSAR, Section 2.2.
5. Regulatory Guide 1.52, Rev. 2.
6. NUREG-0800, Section 6.4, Rev. 2, July 1981.
7. 10 CFR 50.67.

**Enclosure 3-B**

BYRON STATION  
UNITS 1 AND 2

Docket Nos. STN 50-454 and STN 50-455

License Nos. NPF-37 and NPF-66

Partial Withdrawal of Changes Related to Request for License Amendment  
Related to Application of Alternative Source Term

Revised Reference 1, Attachments 2A and 3A  
and  
Typed Technical Specifications Bases Pages  
(For Information only)

B 3.7.10-2

B 3.7.10-4

B 3.7.10-8

## **ATTACHMENT 2A**

### **BYRON STATION UNITS 1 AND 2**

Docket Nos. 50-454 and 50-455

License Nos. NPF-37 and NPF-66

License Amendment Request  
"Alternative Source Term Implementation"

#### **Markup of Technical Specification Pages**

1.1-3  
1.1-6  
3.3.7-2  
3.3.7-3  
3.3.7-4  
3.3.8-2  
3.3.8-4  
3.7.10-2  
3.7.10-3  
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3.7.13-1  
3.7.13-2  
3.7.13-3  
3.7.13-4  
3.9.4-1  
3.9.4-2  
3.9.7-1  
5.5-17  
5.5-18  
5.5-24

## **ATTACHMENT 3A**

### **BYRON STATION UNITS 1 AND 2**

Docket Nos. 50-454 and 50-455

License Nos. NPF-37 and NPF-66

License Amendment Request  
"Alternative Source Term Implementation"

Typed Technical Specification Pages

1.1-3  
1.1-6  
3.3.7-2  
3.3.7-3  
3.3.8-2  
3.3.8-4  
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2. UFSAR, Section 9.4.
3. UFSAR, Chapter 15.
4. UFSAR, Section 2.2.
5. Regulatory Guide 1.52, Rev. 2.
6. NUREG-0800, Section 6.4, Rev. 2, July 1981.
7. 10 CFR 50.67