

September 5, 2001

RS-01-179

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001Dresden Nuclear Power Station, Unit 2  
Facility Operating License No. DPR-19  
NRC Docket No. 50-237Subject: Request for Technical Specifications Change to Modify the  
Unit 2 125 Volt Direct Current Alternate Battery Supply Surveillance  
Requirement Acceptance Criterion

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC requests a change to the Technical Specifications (TS) of Facility Operating License No. DPR-19 for the Dresden Nuclear Power Station (DNPS), Unit 2. The proposed change is to the DNPS, Unit 2 125 volt direct current (DC) alternate battery TS Surveillance Requirement (SR) 3.8.4.1 acceptance criterion found in TS Section 3.8.4 "DC Sources – Operating." The proposed change revises the battery terminal voltage on float charge for the DNPS, Unit 2 alternate battery. The current battery terminal voltage on float charge for the alternate battery was determined to be non-conservative in light of a modification completed on the alternate battery. Administrative controls consistent with the guidelines of Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," were put in place to assure battery operability when it was determined the current voltage value was non-conservative.

The amendment request is subdivided as follows:

1. Attachment A contains a description and safety analysis of the proposed change.
2. Attachment B includes the marked-up TS page with the requested change indicated.
3. Attachment C provides information supporting a finding of no significant hazards consideration using the standards in 10 CFR 50.92(c), "Issuance of Amendment."
4. Attachment D provides information supporting an Environmental Assessment.

The proposed change has been reviewed by the Plant Operations Review Committee and the Nuclear Safety Review Board in accordance with the Quality Assurance Topical Report.

A001

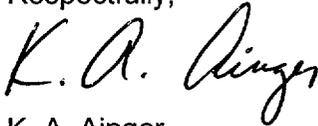
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We are notifying the State of Illinois of this request for change to the TS by sending a copy of this letter and its attachments to the designated State Official.

We request that the proposed change be approved by March 23, 2002, due to the current TS being non-conservative.

Should you have any questions concerning this letter, please contact P. R. Simpson at (630) 657-2823.

Respectfully,



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

Attachments:

Affidavit

Attachment A: Description and Safety Analysis for Proposed Change

Attachment B: Marked-Up TS Page for Proposed Change

Attachment C: Information Supporting a Finding of No Significant Hazards Consideration

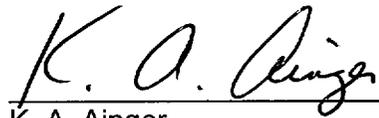
Attachment D: Information Supporting an Environmental Assessment

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

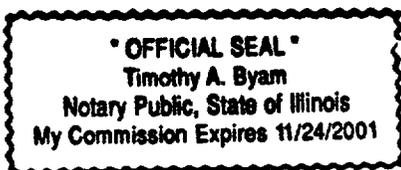
STATE OF ILLINOIS )  
COUNTY OF DUPAGE )  
IN THE MATTER OF )  
EXELON GENERATION COMPANY, LLC ) Docket Number  
DRESDEN NUCLEAR POWER STATION, UNIT 2 ) 50-237  
SUBJECT: Request for Technical Specifications Change to Modify the  
Unit 2 125 Volt Direct Current Alternate Battery Supply Surveillance Requirement  
Acceptance Criterion

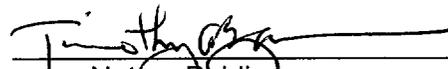
**AFFIDAVIT**

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 5<sup>th</sup> day of  
September, 2001



  
\_\_\_\_\_  
Notary Public

## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2

#### DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGE

##### A. SUMMARY OF PROPOSED CHANGE

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company (EGC), LLC, is requesting a change to the Technical Specifications (TS) of Facility Operating License No. DPR-19 for the Dresden Nuclear Power Station (DNPS), Unit 2. The proposed change modifies a TS Surveillance Requirement (SR) acceptance criterion in TS Section 3.8.4 "D.C. Sources – Operating." Specifically, the proposed change will revise the alternate battery total battery voltage on float charge in SR 3.8.4.1. Additionally, SR 3.8.5.1, which is required during shutdown conditions, references performance of SR 3.8.4.1. Although SR 3.8.5.1 is not being changed, its acceptance criterion is being changed indirectly with the proposed change to SR 3.8.4.1.

Currently, the alternate battery is operable based on an engineering operability evaluation that has instituted administrative controls that ensure that the total battery terminal voltage on float charge is within acceptable limits. The administrative controls currently in place verify on a weekly basis, when the Unit 2 alternate battery is required to be operable, that battery terminal voltage on float charge is  $\geq 134.5$  volts direct current (VDC). These administrative controls are consistent with the guidelines outlined in Administrative Letter (AL) 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety."

The proposed change is described in detail in Section E of this Attachment. The marked-up TS page is shown in Attachment B.

##### B. DESCRIPTION OF THE CURRENT REQUIREMENT

TS 3.8.4, "D.C. Sources – Operating," and TS 3.8.5, "D.C. Sources – Shutdown," require the following to be operable.

- the 250 VDC electrical power subsystems;
- Division 1 and Division 2 125 VDC electrical power subsystems;
- the opposite unit's Division 2 125 VDC electrical power subsystem capable of supporting equipment required to be operable by Limiting Conditions for Operation (LCO) 3.6.4.3, LCO 3.7.4, LCO 3.7.5, and LCO 3.8.1.

To verify operability, every seven days SR 3.8.4.1 requires verification that the Unit 2 alternate battery terminal voltage float charge is  $\geq 130.2$  VDC. Additionally, SR 3.8.5.1, which is required during shutdown conditions, references performance of SR 3.8.4.1.

##### C. BASES FOR THE CURRENT REQUIREMENT

During normal operation, the DC loads are powered from the battery chargers with the batteries floating on the system. In case of loss of normal power to the battery charger, the DC loads are automatically powered from the associated batteries.

## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2

Verifying terminal voltage while on float charge for the battery helps to ensure the effectiveness of the charging system and the ability of the batteries to perform their intended function. Float charge is the condition in which the charger is supplying the continuous charge required to overcome the internal losses of a battery and maintain the battery in a fully charged state. The voltage requirements are based on the nominal design voltage of the battery and are consistent with the initial voltages assumed in the battery sizing calculations.

#### D. NEED FOR REVISION OF THE REQUIREMENT

A plant modification was completed on October 7, 1999, that added three battery cells to the alternate battery. On July 18, 2000, station personnel determined that the TS SR value for the battery terminal voltage on float charge should have been revised as part of the modification. This self-identified deficiency was placed into the station's corrective action program. Because the current acceptance criterion in the TS is non-conservative, an operability determination was performed and administrative controls were implemented in accordance with the guidelines outlined in NRC Administrative Letter (AL) 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety."

#### E. DESCRIPTION OF THE PROPOSED CHANGE

The following TS change is proposed.

##### 1.) SR 3.8.4.1

- Revise  $\geq 130.2$  VDC to read  $\geq 134.5$  VDC

#### F. SAFETY ANALYSIS OF THE PROPOSED CHANGE

The function of the 125 VDC batteries is to supply electrical power to the DC distribution systems upon failure of the battery charger, which is the normal source of power. The 125 VDC electrical power system provides normal and emergency DC electrical power for the diesel generators, emergency auxiliaries, and control and switching during all modes of operation. The operability of the DC subsystems is consistent with the initial assumptions of the accident analysis and is based on meeting the design basis of the unit. This includes maintaining DC sources operable during accident conditions in the event of an assumed loss of all offsite alternating current (AC) power or all onsite AC power and a worst case single failure. The alternate battery allows battery testing and cell replacement for the normal station battery. TS SRs are provided for demonstrating the operability of the 125 VDC batteries. Verifying terminal voltage while on float charge for the battery helps to ensure the effectiveness of the charging system and the ability of the batteries to perform their intended function. Float charge is the condition in which the charger is supplying the continuous charge required to overcome the internal losses of a battery and maintain the battery in a fully charged state. The voltage requirements are based on the nominal design voltage of the battery and are consistent with the initial voltages assumed in the battery sizing calculations. The 125 VDC alternate battery continues to provide reliable DC power for operation of the required equipment. The acceptable float voltage range has been adjusted due to the addition of three cells to the alternate battery. The

## **ATTACHMENT A**

### **Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2**

proposed change associated with the alternate battery SR provides the acceptable float charge required to maintain operability. Therefore, there is no adverse impact on plant safety.

#### **G. IMPACT ON PREVIOUS SUBMITTALS**

We have reviewed the proposed change for impact on any previous submittals, and have determined that there is no impact on any outstanding previous submittals.

#### **H. SCHEDULE REQUIREMENTS**

We request approval of the proposed change by March 23, 2002, due to the current TS being non-conservative. In the interim, administrative controls consistent with the guidelines of AL 98-10 have been implemented.

**ATTACHMENT B**

**Proposed Change to Technical Specifications  
Dresden Nuclear Power Station, Unit 2**

**MARKED-UP TS PAGE FOR PROPOSED CHANGE**

Page 3.8.4-5

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	<p>Verify battery terminal voltage on float charge is:</p> <p>a. <math>\geq 260.4</math> VDC for each 250 VDC subsystem;</p> <p>b. <math>\geq 125.9</math> VDC for each 125 VDC subsystem; and</p> <p>c. -----NOTE----- Only required to be met when the Unit 2 alternate battery is required to be OPERABLE.</p> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 20px;">134.5</div> <p style="margin-left: 40px;">▼</p> <p><del><math>\geq 130.2</math></del> VDC for Unit 2 alternate battery.</p>	7 days
SR 3.8.4.2	<p>Verify no visible corrosion at battery terminals and connectors.</p> <p><u>OR</u></p> <p>Verify battery connection resistance is <math>\leq 1.5E-4</math> ohm for inter-cell connections and <math>\leq 1.5E-4</math> ohm for terminal connections.</p>	92 days
SR 3.8.4.3	<p>Verify each required 250 V battery charger supplies <math>\geq 200</math> amps at <math>\geq 260</math> VDC for <math>\geq 4</math> hours for the 250 VDC subsystems.</p>	18 months
SR 3.8.4.4	<p>Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.</p>	24 months

(continued)

## ATTACHMENT C

### Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2

#### INFORMATION SUPPORTING A FINDING OF NO SIGNIFICANT HAZARDS CONSIDERATION

According to 10 CFR 50.92, "Issuance of Amendment," paragraph (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:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or,
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

Exelon Generation Company, LLC is proposing to amend Technical Specifications (TS) 3.8.4, "D.C. Sources – Operating," for the Dresden Nuclear Power Station (DNPS), Unit 2. Specifically, the proposed change revises a Surveillance Requirement acceptance criterion associated with the alternate battery terminal voltage on float charge.

The determination that the criteria set forth in 10 CFR 50.92 is met for this amendment request is provided below.

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

The change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change is to a SR 3.8.4.1 acceptance criterion that will continue to ensure equipment operability. By continuing to ensure equipment operability, the probability or consequences of an accident previously evaluated are not increased. Float charge is the condition in which the charger is supplying the continuous charge required to overcome the internal losses of a battery and maintain the battery in a fully charged state. The voltage requirements are based on the nominal design voltage of the battery and are consistent with the initial voltages assumed in the battery sizing calculations. The 125 VDC alternate battery continues to provide reliable DC power for operation of the required equipment. The number of cells in the alternate battery was increased from sixty to sixty-three and the acceptable float voltage needed to be revised to reflect the additional cells. The addition of the three cells has been evaluated and documented in calculations. These calculations demonstrate that the batteries are appropriately sized to supply the required loads following a loss of offsite power. The ability of the battery to perform its intended function remains unchanged. In addition, the proposed change has no impact on any initial condition assumptions for accident scenarios. Onsite or offsite dose consequences

## ATTACHMENT C

### Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2

resulting from an accident previously evaluated are not affected by this proposed amendment request.

Accordingly, there is no significant change 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 license amendment provides a change in a TS Surveillance Requirement that continues to ensure equipment operability. The increase in terminal voltage specifically supports the increase in the number of cells for the battery. The operation of the safety-related equipment and components remains unchanged. As such, the relationship between the 125 VDC power system and plant transient response is maintained. The change in the acceptance criterion ensures that the equipment remains operable.

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

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

The proposed change does not involve a significant reduction in the margin of safety. The proposed change continues to ensure equipment operability. The increase in terminal voltage specifically supports the increase in the number of cells for the alternate battery. Since the change maintains the necessary level of system reliability, it does not involve a significant reduction in the margin of safety. The change in acceptance criterion is to reflect the increase in battery cells from sixty to sixty-three. This acceptance criterion ensures that the equipment remains operable.

#### **Conclusion**

Based upon the above evaluation, we have concluded that the three criteria of 10 CFR 50.92(c) are satisfied and that the proposed change to the TS involves no significant hazards consideration.

## ATTACHMENT D

### Proposed Change to Technical Specifications Dresden Nuclear Power Station, Unit 2

#### INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

Exelon Generation Company (EGC), LLC has evaluated this proposed change 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 this proposed change meets the criteria for a categorical exclusion set forth in 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92, "Issuance of amendment," paragraph (b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, "Domestic Licensing of Production and Utilization Facilities," which changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, "Standards for Protection Against Radiation," or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

- (i) the amendment involves no significant hazards consideration.

As demonstrated in Attachment C, this proposed amendment does not involve a 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.

There will be no change in the types or significant increase in the amounts of any effluents released offsite. The proposed change does not result in an increase in power level, does not increase the production, nor alter the flow path or method of disposal of radioactive waste or byproducts. Therefore, the proposed change will not affect the types or increase the amounts of any effluents released offsite.

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

The proposed change will not result in changes in the operation of the facility. There will be no change in the level of controls or methodology used for processing radioactive effluents or handling solid radioactive waste. The proposed change will not result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.