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November 7, 1997

JSPLTR: 97-0189

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

**SUBJECT:** Dresden Nuclear Power Station Units 2 and 3  
Request for Amendment to Facility Operating Licenses DPR-19 and DPR-25, Appendix A, Technical Specifications (TS),  
**Changes to Technical Specification 3/4.9.C "D. C. Sources - Operating", 3/4.9.D "D. C. Sources - Shutdown", 3/4.9.E "Distribution - Operating", and 3/4.9.F "Distribution - Shutdown."**  
NRC Docket Nos. 50-237 and 50-249

Reference: a) J.S. Perry (ComEd) to USNRC dated February 17, 1997  
b) J.S. Perry to USNRC dated April 3, 1997  
c) J.F. Stang (USNRC) to D.L. Farrar (ComEd) dated April 10, 1997

Pursuant to 10 CFR 50.90, ComEd proposes to amend Appendix A, Technical Specifications 3/4.9.C "D. C. Sources - Operating", 3/4.9.D "D. C. Sources - Shutdown", 3/4.9.E "Distribution - Operating", and 3/4.9.F "Distribution - Shutdown" of Facility Operating Licenses DPR-19 and DPR-25. The purpose of this amendment request is to relocate the Unit 2 24/48 Vdc batteries, chargers, and distribution systems from Technical Specifications to licensee administrative controls.

Reference a) transmitted a request to relocate the Technical Specification provisions for both the Unit 2 and Unit 3 24/48 batteries to licensee administrative controls to support facility changes planned for the fourteenth refueling outage on Unit 3. After discussions between the (NRC) Staff and ComEd, ComEd supplemented the Reference a) submittal with Reference b) which requested that only the Unit 3 24/48 Vdc battery TS provisions be relocated until facility changes could also be made on Unit 2.

During the upcoming fifteenth refueling outage of Unit 2 (D2R15), ComEd will change the power source of the Analog Trip System (ATS) loads. These loads are currently fed safety-related loads and the Dresden Unit 3 Division ATS loads were relocated to the 125

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from the Unit 2A 24/48 Vdc battery. The Unit 2B 24/48 Vdc battery has no ATS or Vdc system during D3R14. The process for re-powering of the ATS loads has been developed and approved under the station modification program and in accordance with 10 CFR 50.59. This facility change is similar to the modifications made to Unit 3. The Staff approved relocation of the Unit 3 provisions from the TS to licensee administrative controls in Reference c).

ComEd proposes to relocate the requirements for the Unit 2 24/48 Vdc batteries, chargers and distribution system to licensee administrative controls. Upon removal of the Unit 2 ATS loads from the batteries there will be no safety-related loads remaining; the batteries will no longer meet the criteria in the NRC's final policy statement specified for 10 CFR 50.36. The Unit 2 ATS loads are currently scheduled to be removed from the Unit 2 24/48 Vdc batteries during D2R15. Administrative controls for the Unit 2 24/48 volt battery will be in place prior to Mode 2 entry after D2R15.

These changes are based on NRC Administrative Letter 96-04 "Efficient Adoption of Improved Standard Technical Specifications." The changes are patterned after allowances provided in NUREG 1433, Revision 1 which specify the requirements for DC Sources and battery parameters. These changes are also patterned after ComEd's Quad Cities station which incorporated a similar change during TSUP implementation. The Quad Cities removal of the 24/48 Vdc system from the Quad Cities Technical Specifications was approved by the NRC in a Safety Evaluation Report dated September 18, 1995.

The proposed Technical Specification Amendment is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes.
2. Attachment B includes the proposed changes to the Technical Specifications pages, including marked-up versions of the current pages.
3. Attachment C describes ComEd's evaluation performed in accordance with 10 CFR 50.92 (c), which confirms that no significant hazards consideration is involved. In addition, ComEd's Environmental Assessment Applicability Review is included.

This proposed Technical Specification amendment has been reviewed and approved by ComEd On-Site and Off-Site Review in accordance with ComEd procedures.

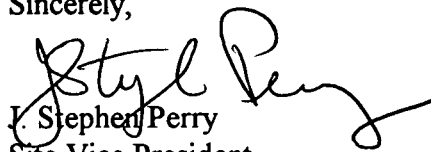
Approval of this amendment will provide Dresden flexibility within the provisions of 10CFR50.59 for control of the 24/48 Vdc batteries and will achieve consistency between ComEd's Dresden and Quad Cities stations. ComEd requests NRC approval of this request no later than March 1, 1998. The March 1, 1998, request is based on providing work scheduling flexibility during the upcoming Unit 2 refueling outage.

To the best of my knowledge and belief, the statements contained above are true and correct. In some respect these statements are not based on my personal knowledge, but obtained information furnished by other Commonwealth Edison employees, contractor employees, and consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

ComEd 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.

Please direct any questions you may have concerning this submittal to this office.

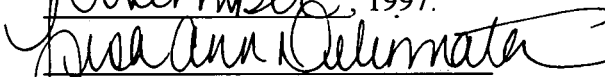
Sincerely,

  
J. Stephen Perry  
Site Vice President  
Dresden Station

Subscribed and Sworn to before me

on this 7<sup>th</sup> day of

November, 1997.

  
Notary Public



Attachments:

- A. Description and Safety Analysis of the Proposed Changes
- B. Marked-Up Technical Specification Pages
- C. Evaluation of Significant Hazards Considerations and Environmental Assessment Applicability Review

cc: A. Bill Beach, Regional Administrator - RIII  
K.R. Riemer, Senior Resident Inspector - Dresden  
J. F. Stang, Project Manager - NRR  
Office of Nuclear Facility Safety - IDNS

ATTACHMENT A  
DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED AMENDMENT

**Description of the Proposed Change**

ComEd proposes to remove the Unit 2 24/48 Vdc battery, charger, and distribution system requirements from the Dresden Technical Specifications and to relocate those requirements to licensee administrative control. On relocation to licensee control, those requirements would be under the provisions of 10 CFR 50.59. The proposed change will affect Technical Specifications for the DC sources required for operation (3.9.C), the DC sources required for shutdown (3.9.D), the distribution systems required for operation (3.9.E), the distribution systems required during shutdown (3.9.F) and the associated surveillance requirements for the respective operating condition.

The proposed change will;

1. Delete Technical Specification (TS) 3.9.C.3.
2. Delete the 24/48 Vdc batteries from Action 1 of TS 3.9.C.
3. Delete reference to the 24/48 Vdc batteries in the surveillance requirements for DC Sources required during operation.
4. Delete the total battery terminal voltage of  $\geq 26.0$  in Surveillance Requirement (SR) 4.9.C.1.b.
5. Delete the discharge battery terminal voltage of 21.7 and the battery overcharge voltage of 30 from SR 4.3.C.2 and delete footnote (d) from Page 3/4.9-12
6. Delete TS 3.9.D.3 and associated footnote (b).
7. Delete TS 3.9.E.5 and associated footnote (a).
8. Delete TS 3.9.F.4 and associated footnote (a).

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DESCRIPTION AND SAFETY ANALYSIS OF THE PROPOSED AMENDMENT

**Description and Bases of the Current Technical Specification Requirement**

Technical Specification 3.9.C.3 requires that, in modes 1, 2 or 3, two unit 24/48 Vdc batteries, each with a full capacity charger be operable for Unit 2. Unit 3 requirements for 24/48 were relocated to licensee control in Reference (c). The batteries must have the identified operating parameters within the limits of TS Table 4.9.C-1. In the event that one of the 24/48 batteries or chargers is not operable, the inoperable equipment is to be returned to operable status within 2 hours. If the battery or charger cannot be returned to operable status within the two hour time limit, then the plant must be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

The requirement for two batteries and associated chargers of Technical Specification 3.9.C is based on the Technical Specification 3/4.1.A requirement of two reactor protection trip channels being available during operation. During normal operation, the DC electrical loads are powered from the battery chargers with batteries floating on the system. In the event of loss of normal power, the loads from the Unit 2 24/48 Vdc system are automatically powered from the batteries.

The surveillance requirements for the Unit 2 24/48 Vdc batteries and chargers during operation are listed in Section 4.9.C. The Unit 2 24/48 Vdc batteries and chargers are required to operate within the parameters listed in Table 4.9.C-1. Additionally, the Unit 2 24/48 Vdc batteries and chargers must meet total battery terminal voltage requirements during the different conditions and at the frequencies listed in Section 4.9.C. The batteries and chargers are also subject to visual inspections, terminal resistance measurements, and electrolyte temperature limits.

The surveillance requirements of Section 4.9.C ensure that each connected cell has sufficient capacity to perform its intended function in the event of loss of normal power. The requirements to verify the battery terminal voltage while on float charge assures the battery charging system is operable. The values are based on the nominal battery design voltage and are consistent with the initial voltages assumed in the battery sizing calculations. Visual inspections, terminal resistance and temperature surveillance requirements are based on ensuring the general condition of the Unit 2 24/48 Vdc batteries.

Technical Specification 3.9.D.3, applicable in modes 4 and 5, requires the Unit 2A 24/48 Vdc battery and a charger to be operable when handling irradiated fuel. If this battery or charger is inoperable, then all CORE ALTERATIONS must be suspended, all handling of irradiated fuel in the secondary containment must be suspended, and all operations with potential for draining the reactor vessel must be suspended.

The requirement for the Unit 2A 24/48 Vdc battery and associated charger when in modes 4 and 5, when handling irradiated fuel, or when performing operations with the potential for draining the reactor vessel are based on ensuring the instrumentation and control

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systems used for monitoring and control of operations are available for these evolutions. The surveillance requirements for the batteries and chargers during shutdown conditions are the same as for operating conditions.

Technical Specification 3.9.E.5 requires both the A and B distribution buses be energized during modes 1, 2, or 3. Technical Specification 3.9.F.4 requires the 2A bus to be energized when in modes 4 or 5. The requirements of 3.9.E during operation ensures a supply to safety-related equipment required for safe shutdown, mitigation and control of accidents for ATS loads on the 2A battery. When the ATS loads were removed from the 2B 24/48 volt battery, the TS requirements of 3.9.E became overly restrictive. The requirements of 3.9.F ensure that during modes 4 and 5 the facility has sufficient power for instrumentation and control during evolutions which occur during these modes.

**Description of the Need and Bases for Amending the Technical Specifications**

Relocation of the 24/48 Vdc system requirements from the Technical Specifications to licensee administrative control will provide additional flexibility to station operations and remove battery requirements from the Dresden Technical Specifications.

Currently, Unit 2 Division I ATS loads are the only remaining ATS loads supplied by the 24/48 Vdc system. By plant modification, under 10CFR50.59, ComEd will repower the Division I ATS loads from the safety-related 125 Vdc system. Removal of the ATS loads from the Unit 2A 24/48 Vdc system removes the only loads required for safe shutdown and the batteries, chargers and distribution system will no longer satisfy the criteria for inclusion in the Technical Specifications as specified by the NRC's Final Policy Statement associated with 10 CFR 50.36.

The relocation of the requirements for the Unit 2 24/48 Vdc system and implementation of the amendment request is proposed after reactor shutdown for D2R15 and prior to Mode 2 entry after D2R15. The Standby Gas Treatment System is required during movement of irradiated fuel in the Secondary Containment. Flow instrumentation for the SGBT 2/3A train is powered by the Unit 2A 24/48 Vdc. Once the ATS loads are removed Bus 2A, the TS requirement to have the 2A Bus energized when handling irradiated fuel in the secondary containment (TS 3.9.F.4 applicability) would be overly restrictive. The 2/3 A SGBT flow instrumentation will be repowered from the safety-related 125 Vdc system.

On July 22, 1993, the NRC issued a Final Policy Statement associated with 10 CFR 50.36. The policy statement established the criteria for items required to be included into the Technical Specifications. The criteria, as applied to the Unit 2 24/48 Vdc system shows that the batteries, chargers, and distribution system do not comprise instrumentation, systems, components, process variables, design features or operating restrictions:

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1. Used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
2. Used as an initial condition of a Design Basis Accident or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
3. Used as part of the primary success path and which functions or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
4. Which operating experiences or probabilistic safety assessment has shown to be significant to public health and safety.

The requirements of TS 3/4.9.C and 3/4.9.D, 3/4.9.E, and 3/4.9.F as applied to the Unit 2 24/48 Vdc batteries, chargers, and distribution system can be relocated to licensee administrative controls. For those loads which will remain on the Unit 2 24/48 Vdc batteries, unavailability of the Unit 2 24/48 Vdc system will cause those instruments to fail in a conservative condition and annunciate their failure within the main control room or locally.

Dresden Unit 2 Division I ATS are currently supplied by the 24/48 Vdc batteries. The Division II ATS loads are supplied by the safety-related 125 Vdc batteries. The Unit 2 Division I ATS loads will be repowered from the safety-related 125 Vdc system during D2R15.

ComEd's basis for this proposal is the need to remove equipment from the TS that no longer meets the Staff's policy statement criteria for TS requirements. The Unit 2 2A 24/48 Vdc battery loads are shown in the attached table. Although, the batteries themselves do not provide any protection or mitigation functions they are a support function that provides attendant power to components which are required to provide protection and mitigation functions.

The non-ATS loads (Item 1-6) supplied by the Unit 2A 24/48 Vdc system (listed in the table) are non-safety-related. Unavailability of these loads will cause those instruments to fail in a conservative condition and annunciate their failure within the main control room or locally.

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2A 24/48 Vdc battery load	Failure Mode upon loss of Battery	Operator Awareness
1 Panel 902-36 IRM ch. 11, 12, 13, 14	will generate 1/2 scram in all modes except run.	Annunciator panel 902-5, windows A-5, C-5, C-10
2 Panel 902-36 SRM ch. 21 & 22	will generate full scram when shorting links are removed, which occurs only during certain refueling operations	Annunciator panel 902-5, windows A-4, C-4, E-4, B-12
3 Panel 902-5 LPRM display lights	indicating lights unavailable	loss of downscale indication in shutdown mode
4 Process Rad. Monitor	Stack Gas Monitor INOP and DOWNSCALE indication on panel 923-7. Operator may select alternate power supply by positioning panel switch for U2/3 CHMNY RAD MON PWR SPLY SELECT	Annunciator panel 923-7, window B-6, U2/3 Chimney Gas monitor trouble.
5 Process Rad. Monitor	loss of power to linear rad. monitor 1705-06 (902-10) & signals to Off Gas level recorder 1705-14 (902-2) fail downscale	no alarms or trips associated with these failures.
6 Process Rad. Monitor	loss of power to HOLD UP OFF GAS TO STACK CIRCUITRY will result in isolation of Off Gas and may require Ops. to enter DOA 3300-02, Loss of Condenser Vacuum	Annunciator panel 902-54, window A-5, Press Drain Tank Outlet Valve Closed Annunciator panel 902-54, window D-8, Off Gas to Stack Valve Closed
7 <u>Panel 2202-73A Analog Trip Sys U2 Div I**</u> 2/3 SBTG A Trn Flow Htr Cont. /B Trn Init U2 LPCI Loop I Hdr. Min. Flow Valve Cont. U2 Rx Low Wtr. SCRAM & Isol. U2 HPCI Steam Line Low Rx Press. Isol. U2 HPCI Steam Line Low Rx Press. Isol. U2 HPCI Steam Line High Flow Isol. U2 Rx Wide Range Pressure	ATS instruments fail downscale	Annunciator panel 902-4, window G-20, Analog Trip Sys. Div. I 2202-73A Trouble
8 Scram Inst. Volume D/P Level Switches	will generate 1/2 scram in RPS channel A	Annunciator panel 902-5, window A-14, Channel A/B Instrument Volume Level Hi

\*\* note- - this load to be moved to 125 Vdc