

Douglas R. Gipson
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Detroit Edison



10CFR50.92

November 19, 1999
NRC-99-0107

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555-0001

- References: 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
- 2) Detroit Edison Letter to NRC, NRC-99-0072 "Proposed Technical Specification Change (License Amendment) for Division I 130/260 VDC Battery Replacement," dated September 10, 1999

Subject: Proposed Technical Specification Change (License Amendment) for Division I 130/260 VDC Battery Replacement Mark-Up Pages for Improved Technical Specifications (ITS)

Reference 2 proposed revising Fermi 2 Plant Operating License NPF-43, Appendix A, Technical Specifications (TS) Surveillance Requirements (SR) 3.8.4.1, 3.8.4.6, 3.8.6.2 and SR Bases Section 3.8.6.2 for the Division I Battery System to agree with the design of the new battery replacement. Because Fermi 2 was in the process of converting to the Improved Technical Specifications (ITS), Reference 2 provided the marked-up pages of the draft ITS based on the most recent ITS conversion package submitted to the NRC. However, since submittal of Reference 2, conversion of ITS has been completed and was implemented on October 31, 1999. Therefore, Enclosure 1 provides a marked-up copy of the approved ITS pages and a typed version of the affected ITS pages with the proposed changes incorporated.

Detroit Edison has evaluated the proposed Technical Specifications against the criteria of 10CFR50.92 and determined that no significant hazards consideration is

ADD 1

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involved. The significant hazards evaluation provided in Reference 2 remains valid for these changes.

To support the Seventh Refueling Outage (RFO7) schedule, Detroit Edison requests that the NRC approve and issue these changes by March 2000 for implementation prior to startup from RFO7.

Should you have any questions or require additional information, please contact Mr. Norman K. Peterson of my staff at (734) 586-4258.


Sincerely,



Enclosure

cc: A. J. Kugler
A. Vogel
NRC Resident Office
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission

I, DOUGLAS R. GIPSON, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.



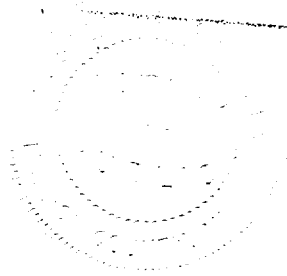
DOUGLAS R. GIPSON
Senior Vice President, Nuclear Generation

On this 19th day of November, 1999 before me personally appeared Douglas R. Gipson, being first duly sworn and says that he executed the foregoing as his free act and deed.



Notary Public

ROSALIE A. ARMETTA
Notary Public, Monroe County, MI
My Commission Expires Oct 11, 2003



**ENCLOSURE 1 TO
NRC-99-0107**

**FERMI 2
NRC DOCKET NO. 50-341
OPERATING LICENSE NPF-43**

**REQUEST TO REVISE TECHNICAL SPECIFICATIONS
FOR THE DIVISION I 130/260 VDC BATTERY REPLACEMENT**

Attached are mark-ups of the existing Improved Technical Specifications (ITS), indicating the proposed changes (Part 1) and a typed version of ITS incorporating the proposed changes with a list of included pages (Part 2).

**ENCLOSURE 1 - PART 1 TO
NRC-99-0107**

PROPOSED IMPROVED TECHNICAL SPECIFICATION MARK-UP PAGES

INCLUDED PAGES:

3.8-17
3.8-24
B 3.8.6-3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.4.1 Verify battery terminal voltage is ≥ 130 V for Division I and ≥ 125.7 V for Division II on float charge.	7 days
SR 3.8.4.2 Verify no visible corrosion at battery terminals and connectors. <u>OR</u> Verify each battery cell-to-cell and terminal connection resistance is ≤ 1.5E-4 ohm.	92 days
SR 3.8.4.3 Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	18 months
SR 3.8.4.4 Remove visible corrosion and verify battery cell to cell and terminal connections are coated with anti-corrosion material.	18 months
SR 3.8.4.5 Verify each battery cell-to-cell and terminal connection resistance is ≤ 1.5E-4 ohm.	18 months
SR 3.8.4.6 Verify each required battery charger supplies for Division I: ≥ 100 amps at ≥ 129 V for ≥ 4 hours, and for Division II: ≥ 100 amps at ≥ 124.7 V for ≥ 4 hours.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.6.2 Verify battery cell parameters meet Table 3.8.6-1 Category B limits.	92 days <u>AND</u> Once within 24 hours after battery discharge < 105 V <u>AND</u> Once within 24 hours after battery overcharge > 150 V for Division I and > 145 V for Division II
SR 3.8.6.3 Verify average electrolyte temperature of representative cells is > 60°F.	92 days

BASES

ACTIONS (continued)

Continued operation is only permitted for 31 days before battery cell parameters must be restored to within Category A and B limits. Taking into consideration that, while battery capacity is degraded, sufficient capacity exists to perform the intended function and to allow time to fully restore the battery cell parameters to normal limits, this time is acceptable for operation prior to declaring the DC batteries inoperable.

B.1

When any battery parameter is outside the Category C limit for any connected cell, sufficient capacity to supply the maximum expected load requirement is not ensured and the corresponding DC electrical power subsystem must be declared inoperable. Additionally, other potentially extreme conditions, such as not completing the Required Actions of Condition A within the required Completion Time or average electrolyte temperature of representative cells falling below 60°F, also are cause for immediately declaring the associated DC electrical power subsystem inoperable.

SURVEILLANCE
REQUIREMENTS

SR 3.8.6.1

This SR verifies that Category A battery cell parameters are consistent with IEEE-450 (Ref. 3), which recommends regular battery inspections (at least one per month) including voltage, specific gravity, and electrolyte temperature of pilot cells.

SR 3.8.6.2

The quarterly inspection of specific gravity and voltage is consistent with IEEE-450 (Ref. 3). In addition, within 24 hours of a battery discharge < 105 V or a battery overcharge ~~> 150 V for Division I and > 145 V, for Division II,~~ the battery must be demonstrated to meet Category B limits. Transients, such as motor starting transients, which may momentarily cause battery voltage to drop to ≤ 105 V, do not constitute a battery discharge provided the battery terminal voltage and float current

**ENCLOSURE 1 - PART 2 TO
NRC-99-0107**

PROPOSED IMPROVED TECHNICAL SPECIFICATION REVISED PAGES

INCLUDED PAGES:

3.8-17
3.8-24
B 3.8.6-3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	Verify battery terminal voltage is ≥ 125.7 V on float charge.	7 days
SR 3.8.4.2	Verify no visible corrosion at battery terminals and connectors. <u>OR</u> Verify each battery cell-to-cell and terminal connection resistance is $\leq 1.5E-4$ ohm.	92 days
SR 3.8.4.3	Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	18 months
SR 3.8.4.4	Remove visible corrosion and verify battery cell to cell and terminal connections are coated with anti-corrosion material.	18 months
SR 3.8.4.5	Verify each battery cell-to-cell and terminal connection resistance is $\leq 1.5E-4$ ohm.	18 months
SR 3.8.4.6	Verify each required battery charger supplies ≥ 100 amps at ≥ 124.7 V for ≥ 4 hours.	18 months

(continued)

BASES

ACTIONS (continued)

Continued operation is only permitted for 31 days before battery cell parameters must be restored to within Category A and B limits. Taking into consideration that, while battery capacity is degraded, sufficient capacity exists to perform the intended function and to allow time to fully restore the battery cell parameters to normal limits, this time is acceptable for operation prior to declaring the DC batteries inoperable.

B.1

When any battery parameter is outside the Category C limit for any connected cell, sufficient capacity to supply the maximum expected load requirement is not ensured and the corresponding DC electrical power subsystem must be declared inoperable. Additionally, other potentially extreme conditions, such as not completing the Required Actions of Condition A within the required Completion Time or average electrolyte temperature of representative cells falling below 60°F, also are cause for immediately declaring the associated DC electrical power subsystem inoperable.

SURVEILLANCE
REQUIREMENTSSR 3.8.6.1

This SR verifies that Category A battery cell parameters are consistent with IEEE-450 (Ref. 3), which recommends regular battery inspections (at least one per month) including voltage, specific gravity, and electrolyte temperature of pilot cells.

SR 3.8.6.2

The quarterly inspection of specific gravity and voltage is consistent with IEEE-450 (Ref. 3). In addition, within 24 hours of a battery discharge < 105 V or a battery overcharge > 145 V, the battery must be demonstrated to meet Category B limits. Transients, such as motor starting transients, which may momentarily cause battery voltage to drop to ≤ 105 V, do not constitute a battery discharge provided the battery terminal voltage and float current