Indiana Michigan
Power Company
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November 1, 2001

C1101-06
10 CFR 50.90

Docket No.: 50-315
50-316

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
TECHNICAL SPECIFICATION CHANGE REQUEST
FOR THE DC DISTRIBUTION SYSTEM DURING OPERATION AND THE
TRAIN N BATTERY SYSTEM DURING OPERATION

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to revise TS 3.8.2.3, "DC Distribution - Operating," and TS 3.8.2.5, "DC Distribution - Operating - Train N Battery System," as described below.

I&M proposes to:

Revise TS surveillance requirements (SR) 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the cell-to-cell and terminal connections on the 250-volt DC batteries be free of corrosion.

Revise the TS 3/4.8 bases to clarify that the presence of visible corrosion during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 does not constitute a failure of these SRs providing the corrosion is removed.

Revise SR 4.8.2.3.2.c.3 to increase the required Train-AB and Train-CD battery charger current during surveillance testing.

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Revise SR 4.8.2.5.2.c.3 to increase the required Train-N battery charger current during surveillance testing.

Revise SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to delete the description of the composite load profile.

Revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d to delete the references to Table 4.8-2, "Battery Emergency Loads," and Table 4.8-3, "Battery Emergency Loads," respectively, and to delete Table 4.8-2 and Table 4.8-3. The pages on which the tables are located, 3/4 8-14 and 3/4 8-18, will be revised to state "This page intentionally left blank."

Revise SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3. This is proposed for consistency with SR 4.8.2.3.2.d.

I&M is also proposing the following editorial revision:

Revise SRs 4.8.2.3.2.c and 4.8.2.5.2.c to relocate the term "verifying that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3.

I&M is submitting the request to revise SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to eliminate the burden of entering the TS action statement due to not meeting an SR when corrosion is observed on the battery, as the presence of corrosion does not necessarily impact battery performance. This request also addresses an I&M commitment to revise SR 4.8.2.3.2.c.2 to update the battery maintenance requirements to those of the industry. In conjunction with this request, I&M will follow the guidance in IEEE Standard 450-1995, paragraphs 4.4.1.b and 4.4.1.c, to remove visible corrosion and to perform a connection resistance check. All other battery maintenance activities will be in accordance with the CNP licensing basis.

I&M is submitting the request to revise the TS 3/4.8 bases to provide clarification that the presence of visible corrosion does not constitute a failure of the SRs.

I&M is submitting the request to revise SR 4.8.2.3.2.c.3 in accordance with Nuclear Regulatory Commission Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," because the current requirements are non-conservative. I&M has determined that the value in the current TS is not adequate for the present battery system design.

I&M is submitting the request to revise SR 4.8.2.5.2.c.3 to incorporate a requirement that provides a better measure of the Train-N battery charger's ability to perform its safety function.

I&M is submitting the request to revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d, and to delete Table 4.8-2 and Table 4.8-3 to make the TS consistent with the June 2001 version of the Westinghouse Standard Technical Specifications (SR 3.8.4.3). This will eliminate the need to revise the TS when changes to the battery system occur.

I&M is submitting the editorial change request because of the revision to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

Attachment 1 provides a detailed description and safety analysis to support the proposed changes. Attachments 2A and 2B provide marked up TS pages for Unit 1 and Unit 2, respectively. Attachments 3A and 3B provide the proposed TS pages with the changes incorporated for Unit 1 and Unit 2, respectively. Attachment 4 describes the evaluation performed in accordance with 10 CFR 50.92(c), which concludes that no significant hazard is involved. Attachment 5 provides the environmental assessment. Attachment 6 contains a new commitment made in this letter.

I&M requests approval of this request by March 7, 2002, in order to support the implementation of a design change that removes some non-emergency loads from the emergency batteries. The loads that are being removed are currently listed in Table 4.8-2, and the design change cannot be implemented until the revision request is approved. I&M requests a 60-day implementation period.

No previous submittals affect the TS pages that are submitted in this request. If any future submittals affect these TS pages, I&M will coordinate the changes to the pages with the NRC Project Manager to ensure proper TS page control when the associated license amendment requests are approved.

Should you have any questions, please contact Mr. Ronald W. Gaston, Manager of Regulatory Affairs, at (616) 697-5020.

Sincerely,

M. W. Rencheck
Vice President Nuclear Engineering

\bjb

Attachments

c: J. E. Dyer
MDEQ - DW & RPD
NRC Resident Inspector
R. Whale

AFFIRMATION

I, Michael W. Rencheck, being duly sworn, state that I am Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

M. W. Rencheck
Vice President Nuclear Engineering

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 1 DAY OF NOVEMBER, 2001

Notary Public

My Commission Expires 5/26/05

JENNIFER L KERNOSKY
Notary Public, Berrien County, Michigan
My Commission Expires May 26, 2005

ATTACHMENT 1 TO C1101-06

DESCRIPTION AND SAFETY ANALYSIS FOR THE PROPOSED CHANGES

A. Summary of the Proposed Changes

Indiana Michigan Power Company (I&M) proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to revise TS 3.8.2.3, "DC Distribution - Operating," and TS 3.8.2.5, "DC Distribution - Operating - Train N Battery System," as described below.

I&M proposes to:

Revise TS surveillance requirements (SR) 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the cell-to-cell and terminal connections on the 250-volt DC batteries be free of corrosion.

Revise the TS 3/4.8 bases to clarify that the presence of visible corrosion during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 does not constitute a failure of these SRs providing the corrosion is removed.

Revise SR 4.8.2.3.2.c.3 to increase the required Train-AB and Train-CD battery charger current during surveillance testing.

Revise SR 4.8.2.5.2.c.3 to increase the required Train-N battery charger current during surveillance testing.

Revise SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to delete the description of the composite load profile.

Revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d to delete the references to Table 4.8-2, "Battery Emergency Loads," and Table 4.8-3, "Battery Emergency Loads," respectively, and to delete Table 4.8-2 and Table 4.8-3. The pages on which the tables are located, 3/4 8-14 and 3/4 8-18, will be revised to state "This page intentionally left blank."

Revise SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3. This is proposed for consistency with SR 4.8.2.3.2.d.

I&M is also proposing the following editorial revision:

> Revise SRs 4.8.2.3.2.c and 4.8.2.5.2.c to relocate the term "verifying that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3.

The proposed changes are described in detail in Section E of this attachment. TS pages that are marked to show the proposed changes are provided in Attachments 2A and 2B for Unit 1 and Unit 2, respectively. The proposed TS pages, with the changes incorporated, are provided in Attachments 3A and 3B for Unit 1 and Unit 2, respectively.

B. Description of the Current Requirements

TS 3.8.2.3 requires the following DC bus trains to be energized and operable with tie breakers between bus trains open in operational Modes 1 through 4:

> Train AB consisting of 250-volt DC bus AB, 250-volt DC battery bank number AB, and a full capacity charger.
>
> Train CD consisting of 250-volt DC bus CD, 250-volt DC battery bank number CD, and a full capacity charger.

SR 4.8.2.3.2.c.2 requires that the battery cell-to-cell and terminal connections be clean, tight, free of corrosion and coated with anti-corrosion material.

SR 4.8.2.3.2.c.3 requires that the battery charger supply at least 140 amperes at greater than or equal to 250 volts for at least 4 hours.

A related SR, 4.8.2.4.2, requires that a 250-volt battery bank and charger be demonstrated operable per SR 4.8.2.3.2 when the reactor is in operational Modes 5 and 6.

SR 4.8.2.3.2.d requires that at least once per 18 months, a battery service test be performed during shutdown (Modes 5 or 6) by verifying that the battery capacity is adequate to supply and maintain in operable status the actual or simulated emergency loads for the design duty cycle which is based on the composite load profile. The composite load profile envelopes both the loss-of-coolant accident/loss-of-offsite power and station blackout profiles and provides the basis for the times listed in Table 4.8-2. The battery charger will be disconnected throughout the test. The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout this test.

TS 3.8.2.5 requires the DC bus train, consisting of 250-volt DC bus N, 250-volt DC battery bank N, and a full capacity charger, be energized and operable in Modes 1 through 3.

SR 4.8.2.5.2.c.2 requires that the battery cell-to-cell and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material.

SR 4.8.2.5.2.c.3 requires that the battery charger be capable of supplying at least 10 amperes at greater than or equal to 250 volts for at least 4 hours.

SR 4.8.2.5.2.d requires that at least once per 18 months, a battery service test be performed during shutdown (Modes 5 or 6) by verifying that the battery capacity is adequate to supply and maintain in operable status the actual or simulated emergency loads for the times specified in Table 4.8-3 with the battery charger disconnected. The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout the battery service test.

C. Bases for the Current Requirements

The operability of the DC power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety-related equipment required for 1) the safe shutdown of the facility, and 2) the mitigation and control of accident conditions within the facility.

The AB and CD station battery systems provide a reliable source of continuous power for supply and control of plant loads such as switchgear and annunciator control circuits, static inverters, valve control centers, emergency lighting, and motor control centers. The design duty cycles of these batteries are composite load profiles resulting from the combination of the three-hour loss-of-coolant accident/loss-of-offsite power battery load profiles and the four hour station blackout battery load profiles.

The Train-N station battery system provides an independent 250-volt DC power supply for power and control of the turbine driven auxiliary feedwater pump (TDAFP) train, and the anticipated transient without scram mitigation system actuation circuitry (AMSAC) inverter. The Train-N battery loads are derived from equipment in the TDAFP train and the AMSAC inverter. The battery sizing is consistent with the functional requirements of these components. Simulated loads for battery tests are loads equivalent to measured actual loads.

D. Need for Revision of the Requirement

The current wording of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 requires that the TS action statement be entered when corrosion is discovered whether or not the corrosion impacts the ability of the battery to perform its function. This is overly restrictive because the resistance value of the cell-to-cell and terminal connections, not the presence of corrosion, determines whether the battery is capable of performing its safety function. The proposed revision makes the SRs more consistent with the Westinghouse Standard Technical Specifications (WSTS). The proposed TS 3/4.8 bases change is being made for clarification and is consistent with the WSTS.

The current SR 4.8.2.3.2.c.3 requirement that the Train-AB and Train-CD battery chargers be capable of providing 140 amperes at greater than or equal to 250 volts throughout the test is non-conservative relative to system requirements. The present maximum system-required current exceeds the SR's 140-ampere value, and interim measures have been implemented to address this discrepancy. The proposed requirement, 300 amperes, is equal to the battery charger rating. Failure to meet the rated value is more indicative of a battery charger malfunction than the failure to meet the system-required current.

The current SR 4.8.2.5.2.c.3 requires that the Train-N battery charger be capable of providing 10 amperes at 250 volts or greater. The change to 25 amperes reflects the rated capacity of the battery charger, and the failure to meet this value is more indicative of a malfunctioning battery charger than the failure to meet the system-required current.

The current SR 4.8.2.3.2.d requirement to maintain the battery terminal voltage greater than 210 volts during the battery service test is not included in the WSTS. The battery terminal voltage is unique to each battery system and may change with time, necessitating SR changes whenever system design changes are made. Deleting this requirement and maintaining it in owner-controlled documents will minimize the need for future license amendments to revise the SR, and makes the SR more consistent with the WSTS. The description of the composite load profile is being deleted to make the SR consistent with the WSTS. The composite load profile description is, however, contained in the TS basis.

The list of battery loads in Tables 4.8-2 and 4.8-3 are not used by plant personnel when performing surveillance testing (battery surveillance testing is performed using a simulated load profile). The lists are subject to change when design changes are made, requiring the coordination of the design change and a license amendment. Additionally, the lists are not included in the WSTS. Deleting these lists from the TS will minimize the need for future license amendments, and makes the SR more consistent with the WSTS.

The deletion of the requirement to maintain the battery terminal voltage greater than 210 volts during the battery service test, and the addition of the term "design duty cycle" to SR 4.8.2.5.2.d makes the TS consistent with SR 4.8.2.3.2.d.

The editorial change to relocate the term "verifying that" is required because of the revision to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

E. Description of the Proposed Changes

I&M proposes to revise SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement to verify that the cell-to-cell and terminal connections on the 250-volt DC batteries are free of corrosion. In accordance with the guidance

in IEEE Standard 450-1995, I&M will implement procedures to remove visible corrosion and perform resistance checks if visible corrosion is detected on the battery terminals.

I&M proposes to revise the TS 3/4.8 bases to clarify that the presence of visible corrosion during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 does not constitute a failure of these SRs providing the corrosion is removed.

I&M proposes to revise SR 4.8.2.3.2.c.3 to require that the Train-AB and Train-CD battery chargers supply a current of at least 300 amperes.

I&M proposes to revise SR 4.8.2.5.2.c.3 to require that the Train-N battery charger supply a current of at least 25 amperes.

I&M proposes to revise SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to delete the description of the composite load profile.

I&M proposes to revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d to delete the references to Table 4.8-2, "Battery Emergency Loads," and Table 4.8-3, "Battery Emergency Loads," respectively, and to delete Table 4.8-2 and Table 4.8-3. The pages on which the tables are located, 3/4 8-14 and 3/4 8-18, will be revised to state "This page intentionally left blank."

I&M proposes to revise SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3. This is proposed for consistency with SR 4.8.2.3.2.d.

I&M proposes to make an editorial change to SRs 4.8.2.3.2.c and 4.8.2.5.3.2.c to relocate the term "verifying that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3.

F. Bases for the Proposed Changes

The emergency battery systems provide DC power for operation of turbine generator emergency auxiliaries, switchgear, annunciators, vital bus inverters, motor operated valves, and emergency lighting. There are two separate criteria which size the station batteries: the Loss of Offsite Power (LOOP) event, in which the emergency diesel generators are available, and the Loss of All AC (station blackout) event in which no source of AC power is available. For the LOOP event, the batteries are sized for three hours of continuous operation, predicated upon continuous operation of all required DC emergency equipment. Upon start-up of the emergency diesel generators, the battery chargers are energized to take over the load and recharge their associated

battery. For the station blackout event, the batteries are sized for four hours of continuous operation, predicated upon the continuous operation of all required DC emergency equipment.

The TS changes do not impact the battery requirements. After the implementation of the proposed SR changes, the batteries will continue to be required to supply power for 3 hours for a LOOP and 4 hours for a station blackout. The revised SRs will continue to provide assurance that this capability exists.

The addition of the requirement to remove visible corrosion and the deletion of the "free of corrosion" requirement from SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 will not impact the battery's ability to perform its safety-related function. The presence of corrosion, by itself, is not indicative of a malfunctioning battery, and the April 7, 1995, version of the WSTS (SR 3.8.4.4 basis) does not consider the presence of visible corrosion to be an SR failure, providing the corrosion is removed. When visible corrosion is detected, I&M will remove the corrosion and perform a resistance check to assure that the battery is capable of performing its intended function. The performance of a resistance check when visible corrosion is detected is consistent with the guidance provided in IEEE Standard 450-1995, which states that, if terminal corrosion is noted, clean the visible corrosion off of the terminal and check the resistance of the connection. The proposed change makes the SRs more consistent with the WSTS.

The proposed change to the TS 3/4.8 bases provides clarification to the TS and is consistent with the WSTS.

The increase in the Train-AB and Train-CD battery charger current for SR 4.8.2.3.2.c.3 requires that the battery chargers be capable of providing their rated current. This is more indicative of battery charger performance than the current SR value.

The increase in the Train-N battery charger current for SR 4.8.2.5.2.c.3 requires that the battery charger be capable of providing its rated current. This is more indicative of battery charger performance than the current SR value.

The increase in the acceptance criterion for all battery chargers reflects the present demand on the battery charger when it is simultaneously supplying power to emergency equipment and charging a discharged battery. The increase in the acceptance criterion is within the capability of the battery chargers.

The deletion of the requirement that the battery voltage be maintained greater than or equal to 210 volts during the battery service test from SR 4.8.2.3.2.d is proposed because it is not necessary to state an end-of-test battery terminal voltage, and the deletion of the requirement makes the SR more consistent with the WSTS. The SR will continue to require that testing be performed to assure that each battery has adequate capacity to supply its associated emergency loads. Assuring that the battery capacity is adequate to supply the emergency loads requires that

I&M calculate the required terminal voltage for each battery system and incorporate that value into the battery test procedure as the acceptance criterion. The deletion of the requirement from the SR does not relieve I&M of this responsibility. The proposed change is consistent with both the Fall 1981 version of the WSTS (SR 4.8.2.1.d) and the June 2001 version of the WSTS (SR 3.8.4.3). Neither of these SRs specifies a minimum battery terminal voltage during the performance of the battery service test. Rather, they require only that the battery be verified to have adequate capacity to supply and maintain in operable status, the required emergency loads for the design duty cycle when subjected to a battery service test. The deletion of the description of the composite load profile also makes the SR consistent with the WSTS.

The deletion of Table 4.8-2 and Table 4.8-3 will reduce the administrative burden associated with changes in the load profiles (such as might occur following a design change) and makes the TS more consistent with the WSTS. These tables are not used directly by plant personnel when performing battery surveillance tests. Rather, the tables contain a partial list of the battery loads. The list of battery loads is maintained in controlled documents. The emergency battery systems are designed to provide power to emergency equipment following a LOOP or a station blackout. In accordance with 10 CFR 50, Appendix B, this design requirement is implemented via a controlled process. As part of this process, calculations, in which a load profile is developed, are performed, and the results are incorporated into battery test procedures. The incorporation of the statement "this page intentionally left blank" retains the present page numbering following the deletion of the tables.

The deletion of the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test and the addition of the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3 in SR 4.8.2.5.2.d provide consistency with SR 4.8.2.3.2.d.

The editorial change to relocate the term "verifying that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3 is required because of the revision to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

ATTACHMENT 2A TO C1101-06

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 1

3/4 8-13
3/4 8-14
3/4 8-17
3/4 8-18
B3/4 8-1

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is greater than or equal to 2.13 volts under float charge.

2. The specific gravity, corrected to 77°F, and full electrolyte level (fluid at the bottom of the maximum level indication mark), of each connected cell is greater than or equal to 1.200 and has not decreased more than 0.03 from the value observed during the previous test, and

3. The electrolyte level of each connected cell is between the top of the minimum level indication mark and the bottom of the maximum level indication mark.

c. At least once per 18 months by ~~verifying that~~:

1. Verifying that ~~T~~the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

2. Removing visible corrosion and verifying that ~~T~~the cell-to-cell and terminal connections are clean, tight, ~~free of corrosion~~ and coated with anti-corrosion material,

3. Verifying that ~~T~~the battery charger will supply at least 300~~140~~ amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle ~~which is based on the composite load profile. The composite load profile envelopes both the LOCA/LOOP and Station Blackout profiles and provides the basis for the times listed in Table 4.8-2.~~ The battery charger will be disconnected throughout the test. ~~The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout this test.~~

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

~~TABLE 4.8-2~~

~~BATTERY EMERGENCY LOADS~~

~~AB Battery Loads~~	~~Minimum Time~~
~~1. Channel III static inverter~~	~~4 hrs~~
~~2. Channel IV static inverter~~	~~4 hrs~~
~~3. East feed pump turbine emergency oil pump~~	~~1 hr~~
~~4. Control room emergency lighting~~	~~4 hrs~~
~~5. Main turbine backup oil pump~~	~~1 hr~~
~~6. Isolation valve control~~	~~4 hrs~~
~~7. All control circuits~~	~~4 hrs~~

~~CD Battery Loads~~	
~~1. Channel I static inverter~~	~~4 hrs~~
~~2. Channel II static inverter~~	~~4 hrs~~
~~3. BOP static inverter~~	~~4 hrs~~
~~4. West feed pump turbine emergency oil pump~~	~~1 hr~~
~~5. Generator hydrogen emergency seal oil pump~~	~~4 hrs~~
~~6. Main turbine emergency oil pump~~	~~1 hr~~
~~7. Isolation valves~~	~~4 hrs~~
~~8. Annunciators~~	~~4 hrs~~
~~9. All control circuits~~	~~4 hrs~~

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~~* AC power sources to the inverters shall be turned off at the start of the test and may be turned on at the end of the specified time interval. Inverters may be left in this operating mode for the duration of the discharge test.~~

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by ~~verifying that~~:

1. Verifying that ~~T~~the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

2. Removing visible corrosion and verifying that ~~T~~the cell-to-cell and terminal connections are clean, tight, ~~free of corrosion~~ and coated with anti-corrosion material.

3. Verifying that ~~T~~the battery charger will supply at least ~~10~~25 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle~~times specified of Table 4.8-3~~ with the battery charger disconnected. ~~The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout the battery service test.~~

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

~~TABLE 4.8-3~~

~~BATTERY EMERGENCY LOADS~~

~~"N" Battery Loads~~	~~Minimum Time~~
~~Auxiliary feedwater turbine control bus~~	~~4 hours~~
~~FMO-211 valve~~	~~4 hours~~
~~FMO-221 valve~~	~~4 hours~~
~~FMO-231 valve~~	~~4 hours~~
~~FMO-241 valve~~	~~4 hours~~
~~TDTV valve~~	~~4 hours~~

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The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

Surveillance requirement 4.8.1.1.1.a ensures proper circuit continuity for the offsite A.C. power sources and the associated distribution system by verifying correct breaker alignment and indicated power availability. The 7-day frequency is adequate since information is available to the control room to alert operators, and the offsite transmission network has been analyzed to ensure adequacy with minimum predicted low voltage occurrences.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

Specific surveillance requirements (SRs) of SR 4.8.1.2 may be delayed one time until just prior to the first entry into MODE 4 following the extended outage that commenced in 1997. The delay is permitted to recognize the significant ongoing maintenance to safety systems and components that would be required to be OPERABLE solely to support the referenced surveillances. The delay recognizes the reduced decay heat load and fission product activities resulting from the extended shutdown and consequently the small benefit from performing the surveillances prior to the next entry into MODE 4. It is the intent that these SRs must still be capable of being met, but actual performance is not required until the required safety systems are ready to support entry into MODE 4.

The AB and CD station battery systems provide a reliable source of continuous power for supply and control of plant loads such as switchgear and annunciator control circuits, static inverters, valve control centers, emergency lighting and motor control centers. The design duty cycles of these batteries are composite load profiles resulting from the combination of the three hour Loss Of Coolant Accident/Loss Of Offsite Power battery load profiles and the four hour Station Blackout battery load profiles.

The train N station battery system provides an independent 250 volt DC power supply for power and control of the turbine driven auxiliary feedwater pump train. The limiting conditions of operation for the train N battery are consistent with the requirements of the auxiliary feedwater system. The surveillance requirements for the train N battery system are consistent with the requirements of the AB and CD station batteries. The train N battery loads are derived from equipment in the turbine driven auxiliary feedwater pump train and battery sizing is consistent with the functional requirements of these components. Simulated loads for battery tests are loads equivalent to measured actual loads.

The removal of visible corrosion is a preventive maintenance SR. The presence of visible corrosion does not necessarily represent a failure of this SR provided visible corrosion is removed during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

ATTACHMENT 2B TO C1101-06

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 2

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3/4	8-14
3/4	8-17
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B3/4	8-1

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is greater than or equal to 2.13 volts under float charge.

2. The specific gravity, corrected to 77°F, and full electrolyte level (fluid at the bottom of the maximum level indication mark), of each connected cell is greater than or equal to 1.200 and has not decreased more than 0.03 from the value observed during the previous test, and

3. The electrolyte level of each connected cell is between the top of the minimum level indication mark and the bottom of the maximum level indication mark.

c. At least once per 18 months by ~~verifying that~~:

1. Verifying that ~~T~~the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

2. Removing visible corrosion and verifying that ~~T~~the cell-to-cell and terminal connections are clean, tight, ~~free-of-corrosion~~ and coated with anti-corrosion material,

3. Verifying that ~~T~~the battery charger will supply at least ~~140~~300 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle ~~which is based on the composite load profile. The composite load profile envelopes both the LOCA/LOOP and Station Blackout profiles and provides the basis for the times listed in Table 4.8-2~~. The battery charger will be disconnected throughout the test. ~~The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout this test.~~

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

~~TABLE 4.8-2~~

~~BATTERY EMERGENCY LOADS~~

~~AB Battery Loads~~	~~Minimum Time~~
~~1. Channel III static inverter~~	~~4 hrs~~
~~2. Channel IV static inverter~~	~~4 hrs~~
~~3. BOP static inverter**~~	~~4 hrs~~
~~4. East feed pump turbine emergency oil pump~~	~~1 hr~~
~~5. Control room emergency lighting~~	~~4 hrs~~
~~6. Main turbine east emergency oil pump~~	~~1 hr~~
~~7. Isolation valve control~~	~~4 hrs~~
~~8. All control circuits~~	~~4 hrs~~

~~CD Battery Loads~~	
~~1. Channel I static inverter~~	~~4 hrs~~
~~2. Channel II static inverter~~	~~4 hrs~~
~~3. West feed pump turbine emergency oil pump~~	~~1 hr~~
~~4. Generator hydrogen emergency seal air oil pump~~	~~4 hrs~~
~~5. Main turbine west emergency oil pump~~	~~1 hr~~
~~6. Isolation valves~~	~~4 hrs~~
~~7. Annunciators~~	~~4 hrs~~
~~8. All control circuits~~	~~4 hrs~~

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~~** AC power sources to the inverters shall be turned off at the start of the test and may be turned onat the end of the specified time interval. Inverters may be left in this operating mode for the duration of the discharge test.~~

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by ~~verifying that~~:

1. Verifying that ~~T~~the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

2. Removing visible corrosion and verifying that ~~T~~the cell-to-cell and terminal connections are clean, tight, ~~free-of-corrosion~~ and coated with anti-corrosion material.

3. Verifying that ~~T~~the battery charger will supply at least ~~10~~25 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle ~~times specified of Table 4.8-3~~ with the battery charger disconnected. ~~The battery terminal voltage shall be maintained greater than or equal to 210 volts throughout the battery service test.~~

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

~~TABLE 4.8-3~~

~~BATTERY EMERGENCY LOADS~~

~~"N" Battery Loads~~	~~Minimum Time~~
~~Auxiliary feedwater turbine control bus~~	~~4 hours~~
~~FMO-211 valve~~	~~4 hours~~
~~FMO-221 valve~~	~~4 hours~~
~~FMO-231 valve~~	~~4 hours~~
~~FMO-241 valve~~	~~4 hours~~
~~TDTV valve~~	~~4 hours~~

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The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

Surveillance requirement 4.8.1.1.1.a ensures proper circuit continuity for the offsite A.C. power sources and the associated distribution system by verifying correct breaker alignment and indicated power availability. The 7-day frequency is adequate since information is available to the control room to alert operators, and the offsite transmission network has been analyzed to ensure adequacy with minimum predicted low voltage occurrences.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

Specific surveillance requirements (SRs) of SR 4.8.1.2 may be delayed one time until just prior to the first entry into MODE 4 following the extended outage that commenced in 1997. The delay is permitted to recognize the significant ongoing maintenance to safety systems and components that would be required to be OPERABLE solely to support the referenced surveillances. The delay recognizes the reduced decay heat load and reduced fission product activities resulting from the extended shutdown and consequently the small benefit from performing the surveillances prior to the next entry into MODE 4. It is the intent that these SRs must still be capable of being met, but actual performance is not required until the required safety systems are ready to support entry into MODE 4.

The AB and CD station battery systems provide a reliable source of continuous power for supply and control of plant loads such as switchgear and annunciator control circuits, static inverters, valve control centers, emergency lighting and motor control centers. The design duty cycles of these batteries are composite load profiles resulting from the combination of the three hour Loss Of Coolant Accident/Loss Of Offsite Power battery load profiles and the four hour Station Blackout battery load profiles.

The train N station battery system provides an independent 250 volt DC power supply for power and control of the turbine driven auxiliary feedwater pump train. The limiting conditions of operation for the train N battery are consistent with the requirements of the auxiliary feedwater system. The surveillance requirements for the train N battery system are consistent with the requirements of the AB and CD station batteries. The train N battery loads are derived from equipment in the turbine driven auxiliary feedwater pump train and battery sizing is consistent with the functional requirements of these components. Simulated loads for battery tests are loads equivalent to measured actual loads.

The removal of visible corrosion is a preventive maintenance SR. The presence of visible corrosion does not necessarily represent a failure of this SR provided visible corrosion is removed during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

ATTACHMENT 3A TO C1101-06

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 1

3/4 8-13
3/4 8-14
3/4 8-17
3/4 8-18
B3/4 8-1

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is greater than or equal to 2.13 volts under float charge.

2. The specific gravity, corrected to 77°F, and full electrolyte level (fluid at the bottom of the maximum level indication mark), of each connected cell is greater than or equal to 1.200 and has not decreased more than 0.03 from the value observed during the previous test, and

3. The electrolyte level of each connected cell is between the top of the minimum level indication mark and the bottom of the maximum level indication mark.

c. At least once per 18 months by:

1. Verifying that the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

2. Removing visible corrosion and verifying that the cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material,

3. Verifying that the battery charger will supply at least 300 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle. The battery charger will be disconnected throughout the test.

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

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SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by:

1. Verifying that the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

2. Removing visible corrosion and verifying that the cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material.

3. Verifying that the battery charger will supply at least 25 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle with the battery charger disconnected.

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

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The OPERABILITY of the A.C. and D.C power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

Surveillance requirement 4.8.1.1.1.a ensures proper circuit continuity for the offsite A.C. power sources and the associated distribution system by verifying correct breaker alignment and indicated power availability. The 7-day frequency is adequate since information is available to the control room to alert operators, and the offsite transmission network has been analyzed to ensure adequacy with minimum predicted low voltage occurrences.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

Specific surveillance requirements (SRs) of SR 4.8.1.2 may be delayed one time until just prior to the first entry into MODE 4 following the extended outage that commenced in 1997. The delay is permitted to recognize the significant ongoing maintenance to safety systems and components that would be required to be OPERABLE solely to support the referenced surveillances. The delay recognizes the reduced decay heat load and fission product activities resulting from the extended shutdown and consequently the small benefit from performing the surveillances prior to the next entry into MODE 4. It is the intent that these SRs must still be capable of being met, but actual performance is not required until the required safety systems are ready to support entry into MODE 4.

The AB and CD station battery systems provide a reliable source of continuous power for supply and control of plant loads such as switchgear and annunciator control circuits, static inverters, valve control centers, emergency lighting and motor control centers. The design duty cycles of these batteries are composite load profiles resulting from the combination of the three hour Loss Of Coolant Accident/Loss Of Offsite Power battery load profiles and the four hour Station Blackout battery load profiles.

The train N station battery system provides an independent 250 volt DC power supply for power and control of the turbine driven auxiliary feedwater pump train. The limiting conditions of operation for the train N battery are consistent with the requirements of the auxiliary feedwater system. The surveillance requirements for the train N battery system are consistent with the requirements of the AB and CD station batteries. The train N battery loads are derived from equipment in the turbine driven auxiliary feedwater pump train and battery sizing is consistent with the functional requirements of these components. Simulated loads for battery tests are loads equivalent to measured actual loads.

The removal of visible corrosion is a preventive maintenance SR. The presence of visible corrosion does not necessarily represent a failure of this SR provided visible corrosion is removed during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

ATTACHMENT 3B TO C1101-06

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 2

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3/4	8-14
3/4	8-17
3/4	8-18
B3/4	8-1

SURVEILLANCE REQUIREMENTS (Continued)

b. At least once per 92 days by verifying that:

1. The voltage of each connected cell is greater than or equal to 2.13 volts under float charge.

2. The specific gravity, corrected to 77°F, and full electrolyte level (fluid at the bottom of the maximum level indication mark), of each connected cell is greater than or equal to 1.200 and has not decreased more than 0.03 from the value observed during the previous test, and

3. The electrolyte level of each connected cell is between the top of the minimum level indication mark and the bottom of the maximum level indication mark.

c. At least once per 18 months by:

1. Verifying that the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration,

2. Removing visible corrosion and verifying that the cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material,

3. Verifying that the battery charger will supply at least 300 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months, perform a battery service test during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle. The battery charger will be disconnected throughout the test.

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

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SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by:

1. Verifying that the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

2. Removing visible corrosion and verifying that the cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material.

3. Verifying that the battery charger will supply at least 25 amperes at greater than or equal to 250 volts for at least 4 hours.

d. At least once per 18 months perform a battery service test, during shutdown (MODES 5 or 6), by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status the actual or simulated emergency loads for the design duty cycle with the battery charger disconnected.

e. At least once per 60 months, conduct a performance test of battery capacity during shutdown (MODES 5 or 6), by verifying that the battery capacity is at least 80% of the manufacturer's rating. When this test is performed in place of a battery service test, a modified performance test shall be conducted.

Annual performance tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity, and has shown no signs of degradation, performance testing at two year intervals is acceptable until the battery shows signs of degradation.

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Surveillance requirement 4.8.1.1.1.a ensures proper circuit continuity for the offsite A.C. power sources and the associated distribution system by verifying correct breaker alignment and indicated power availability. The 7-day frequency is adequate since information is available to the control room to alert operators, and the offsite transmission network has been analyzed to ensure adequacy with minimum predicted low voltage occurrences.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

Specific surveillance requirements (SRs) of SR 4.8.1.2 may be delayed one time until just prior to the first entry into MODE 4 following the extended outage that commenced in 1997. The delay is permitted to recognize the significant ongoing maintenance to safety systems and components that would be required to be OPERABLE solely to support the referenced surveillances. The delay recognizes the reduced decay heat load and reduced fission product activities resulting from the extended shutdown and consequently the small benefit from performing the surveillances prior to the next entry into MODE 4. It is the intent that these SRs must still be capable of being met, but actual performance is not required until the required safety systems are ready to support entry into MODE 4.

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The train N station battery system provides an independent 250 volt DC power supply for power and control of the turbine driven auxiliary feedwater pump train. The limiting conditions of operation for the train N battery are consistent with the requirements of the auxiliary feedwater system. The surveillance requirements for the train N battery system are consistent with the requirements of the AB and CD station batteries. The train N battery loads are derived from equipment in the turbine driven auxiliary feedwater pump train and battery sizing is consistent with the functional requirements of these components. Simulated loads for battery tests are loads equivalent to measured actual loads.

The removal of visible corrosion is a preventive maintenance SR. The presence of visible corrosion does not necessarily represent a failure of this SR provided visible corrosion is removed during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2.

ATTACHMENT 4 TO C1101-06

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

Indiana Michigan Power Company (I&M) has evaluated this proposed amendment and determined that it does not involve a significant hazard. According to 10 CFR 50.92(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 of occurrence or consequences of an accident previously evaluated;

2. create the possibility of a new or different kind of accident from any previously analyzed; or

3. involve a significant reduction in a margin of safety.

I&M proposes to revise Technical Specifications (TS) 3.8.2.3, "DC Distribution - Operating," and 3.8.2.5, "DC Distribution - Operating - Train N Battery System," as described below.

I&M proposes to:

Revise TS surveillance requirements (SR) 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the cell-to-cell and terminal connections on the 250-volt DC batteries be free of corrosion.

Revise the TS 3/4.8 bases to clarify that the presence of visible corrosion during the performance of SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 does not constitute a failure of these SRs providing the corrosion is removed.

Revise SR 4.8.2.3.2.c.3 to increase the required Train-AB and Train-CD battery charger current during surveillance testing.

Revise SR 4.8.2.5.2.c.3 to increase the required Train-N battery charger current during surveillance testing.

Revise SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to delete the description of the composite load profile.

Revise SRs 4.8.2.3.2.d and 4.8.2.5.2.d to delete the references to Table 4.8-2, "Battery Emergency Loads," and Table 4.8-3, "Battery Emergency Loads," respectively, and to delete Table 4.8-2 and Table 4.8-3. The pages on which the tables are located, 3/4 8-14 and 3/4 8-18, will be revised to state "This page intentionally left blank."

Revise SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" as a substitute for the deleted reference to Table 4.8-3. This is proposed for consistency with SR 4.8.2.3.2.d.

I&M is also proposing the following editorial revision:

Revise SRs 4.8.2.3.2.c and 4.8.2.5.2.c to relocate the term "verify that" to SRs 4.8.2.3.2.c.1, 4.8.2.3.2.c.2, 4.8.2.3.2.c.3, 4.8.2.5.2.c.1, 4.8.2.5.2.c.2 and 4.8.2.5.2.c.3.

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

1. Does the change involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated?

Probability of Occurrence of an Accident Previously Evaluated

The proposed change to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the battery be free of corrosion does not affect any accident initiators or precursors. The batteries perform a mitigating function following a loss of AC power, and the presence of corrosion will not adversely impact components whose failure would initiate an accident. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The proposed change to the TS 3/4.8 bases provides clarification and does not affect any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The proposed change to SRs 4.8.2.3.2.c.3 and 4.8.2.5.2.c.3 increases the battery charger current required during surveillance testing. The required value is within the capability of the battery charger. Thus, the battery charger is not degraded by this change, and the change does not affect any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The proposed changes to SR 4.8.2.3.2.d delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and delete the description of the composite load profile. The removal of the requirement and the description from the SR do not affect any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The deletion of Tables 4.8-2 and 4.8-3, the incorporation of the words "this page intentionally left blank," and the deletion of the SR 4.8.2.3.2.d and SR 4.8.2.5.2.d references to the tables do not impact battery operation as the tables summarize information used as calculation inputs. These changes do not affect any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The proposed changes to SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" does not affect any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

The editorial change does not impact any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

Consequences of an Accident Previously Evaluated

The batteries and their associated chargers provide power to emergency equipment that is used in the mitigation of accidents. The batteries provide power to this equipment following a loss of AC power until the battery chargers are powered by the emergency diesel generators.

The proposed change to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 to add a requirement to remove visible corrosion and to delete the requirement that the battery connections be free of corrosion does not impact a battery's capability to power its safety-related loads as the presence of corrosion at the terminal connections does not indicate that the battery is unable to perform its function. Rather, it is the impact of the corrosion on the connections that is of concern. This concern will be addressed by performing a resistance check to verify that battery performance is acceptable. Therefore, this change does not result in an increase in offsite doses. Thus, the consequences of an accident previously analyzed are not increased.

The proposed change to the TS 3/4.8 bases provides clarification and does not impact the battery's capability to power its safety-related loads. Thus, the consequences of an accident previously analyzed are not increased.

The proposed change to SRs 4.8.2.3.2.c.3 and 4.8.2.5.2.c.3 to increase the required battery charger current ensures that the battery charger has sufficient capacity to provide power to emergency equipment while simultaneously recharging batteries that were discharged following a loss of AC power. This ensures that emergency equipment connected to the battery will continue to operate as designed, and offsite doses will not be increased. Thus, the consequences of an accident previously analyzed are not increased.

The proposed changes to SR 4.8.2.3.2.d delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and delete the

description of the composite load profile. However, the SR will still require that the service test demonstrate that the battery capacity is adequate to supply emergency loads. The voltage requirements for the batteries are determined by battery-system specific calculations, and the calculation results are incorporated into the test procedures. This assures that the equipment connected to the battery will continue to operate as designed, and offsite doses will not be increased. Thus, the consequences of an accident previously analyzed are not increased.

The deletion of Tables 4.8-2 and 4.8-3, the addition of the words "this page intentionally left blank," and the deletion of the SR 4.8.2.3.2.d and SR 4.8.2.5.2.d references to the tables do not impact battery operation as the tables summarize information used as calculation inputs. The batteries are tested to a load profile that is developed on the basis of the battery loads for a loss of AC power, and the testing assures that the batteries are capable of performing their safety function. Thus, these changes will not impact battery capability, will not result in an increase in offsite doses, and the consequences of an accident previously analyzed are not increased.

The proposed changes to SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during the battery service test, and to add the term "design duty cycle" requires that the battery be tested in accordance with a load profile developed on the basis of the battery loads for a loss of AC power. The testing of the battery assures that it is capable of performing its safety function. Thus, the capability of the battery is not impacted, there will be no increase in offsite doses, and the consequences of an accident previously analyzed are not increased.

The editorial change does not impact battery capability. Thus, there will be no increase in offsite doses, and the consequences of an accident previously analyzed are not increased.

Therefore, the probability of occurrence or the consequences of accidents previously evaluated are not increased.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The batteries perform a mitigating function by providing power to emergency equipment following a loss of AC power.

The proposed change to SRs 4.8.2.3.2.c.2 and 4.8.2.5.2.c.2 adds a requirement to remove visible corrosion and deletes the requirement that the battery terminals be free of corrosion. The presence of corrosion on the battery terminals does not introduce a mechanism that would cause a plant transient, and I&M will ensure that the corrosion does not impact the battery's function. Thus, the possibility of a new or different kind of accident is not created.

The proposed change to the TS 3/4.8 bases provides clarification and does not introduce a mechanism that would cause a plant transient. Thus, the possibility of a new or different kind of accident is not created.

The proposed change to SRs 4.8.2.3.2.c.3 and 4.8.2.5.2.c.3 increases the acceptance criterion for battery charger current to reflect the present demand on the battery charger when it is simultaneously supplying power to emergency equipment and charging a discharged battery. The increase in the acceptance criterion is within the capability of the battery charger, and no failure mechanisms are introduced by this change. Thus, the change does not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes to SR 4.8.2.3.2.d to delete the requirement that the battery terminal voltage be maintained greater than or equal to 210 volts during a battery service test, and to delete the load profile description do not directly impact any emergency equipment as the SR continues to require that the battery service test demonstrate that the battery is capable of supplying power to connected equipment, and this change does not introduce any battery failure mechanisms. Thus, the change does not create the possibility of a new or different kind of accident from any previously evaluated.

The deletion of Tables 4.8-2 and 4.8-3, the incorporation of the words "this page intentionally left blank," and the deletion of the SR 4.8.2.3.2.d and SR 4.8.2.5.2.d references to the tables do not impact battery operation as the tables summarize information used as calculation inputs. Thus, the changes do not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes to SR 4.8.2.5.2.d to delete the requirement that the battery terminal voltage be maintained greater than 210 volts during a battery service test, and to add the term "design duty cycle" do not introduce any battery failure mechanisms as they do not alter the battery's physical characteristics or the battery testing requirements. Additionally, the term "design duty cycle" more accurately reflects the use of a simulated load for the battery test. Thus, the change does not create the possibility of a new or different kind of accident from any previously evaluated.

The editorial change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

3. Does the change involve a significant reduction in a margin of safety?

The proposed changes do not impact the functional requirements of either the batteries or the battery chargers, nor do the changes impact the operational characteristics of the equipment that is connected to the battery. The batteries will continue to be subjected to a system test to verify that the battery capacity is adequate, and the battery chargers will be tested to verify that they are capable of meeting their rated capacity. These tests will demonstrate that the batteries and the battery chargers are capable of performing their mitigation function for analyzed accidents.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

In summary, based upon the above evaluation, I&M has concluded that the proposed amendment involves no significant hazards consideration.

ATTACHMENT 5 TO C1101-06

ENVIRONMENTAL ASSESSMENT

Indiana Michigan Power Company (I&M) has evaluated this license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. I&M has determined that this license amendment request meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). 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 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, 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 4, this proposed amendment does not involve 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 significant change in the types or significant increase in the amounts of any effluents released offsite.

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

The proposed changes will not result in significant changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no significant increase in individual or cumulative occupational radiation exposure resulting from this change.

ATTACHMENT 6 TO C1101-06

COMMITMENTS

The following table identifies those actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments.

Commitment	Date
I&M commits to implement procedures to remove visible corrosion and perform resistance checks if visible corrosion is detected on the battery terminals.	Upon implementation of this license amendment request.