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VPNPD-94-066
NRC-94-045

10CFR50.4
10CFR50.90

July 18, 1994

Document Control Desk
U.S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATIONS CHANGE REQUEST 167
BATTERY CHARGER ALLOWED OUTAGE TIME
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10 CFR 50.4 and 50.90, Wisconsin Electric Power Company (Licensee) hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBNP), Units 1 and 2, respectively, to incorporate changes to the plant Technical Specifications. The proposed changes modify Technical Specifications Section 15.3.7, "Auxiliary Electrical Systems," by including an allowed outage time (AOT) for one of the four connected station battery chargers and subsequent shutdown requirements. The basis for Section 15.3.7 is also being revised to support this change. Marked-up Technical Specifications pages, a safety evaluation, and a no significant hazards consideration are enclosed.

DESCRIPTION OF CURRENT LICENSE CONDITION

Technical Specifications Section 15.3.7, "Auxiliary Electrical Systems," applies to the availability of off-site and on-site electrical power for plant power operation and for the operation of plant auxiliaries. Section 15.3.7 defines those conditions of electrical power availability necessary to provide for safe reactor operation and for the continuing availability of engineered safeguards features.

DESCRIPTION OF PROPOSED CHANGES

1. Specification 15.3.7.B.1.j is being added to allow a 2-hour outage time for one of the four connected station battery chargers as follows:

A001
1/1

15.3.7.B.1

j. One of the four connected battery chargers may be inoperable for a period not to exceed 2 hours. If an operable battery charger is not connected to the affected DC distribution bus within 2 hours, the operating unit(s) shall be sequentially placed in hot shutdown within the following 6 hours and 9 hours respectively, and placed in cold shutdown within the following 36 hours.

2. The Basis for Section 15.3.7 is being revised to support the proposed AOT as follows:

...Under normal circumstances, one battery and one battery charger are connected in each main DC distribution bus. The battery charger normally shall be in service on each battery so that the batteries will always be at full charge in anticipation of a loss-of-AC power incident. However, one of the four connected battery chargers may be inoperable for up to 2 hours to allow the transfer to a standby battery charger or return the inoperable battery charger to service. The 2-hour outage time is based on Regulatory Guide 1.93 and reflects a reasonable time to assess plant status and either connect an operable battery charger to the affected DC bus or prepare to effect an orderly and safe shutdown of the operating unit(s). Under unusual circumstances, two of the five safety-related batteries may be out of service for a limited period of time...

BASIS AND JUSTIFICATION

On July 26, 1993, normal power was momentarily lost to 4kV Safeguards Bus 1A06 when the bus was stripped on an undervoltage signal caused by a blown fuse in a metering and relaying circuit. This resulted in a loss of Unit 1 B train safeguards power and caused one of the four station battery chargers (D-108) to trip off as designed. Technical Specification 15.3.7.A.1.h requires a battery charger to be in operation to each of the four DC buses. If this condition is not met, Technical Specification 15.3.0 stated that the units must be placed in the hot shutdown condition within 3 hours. Because the DC buses for PBNP are shared by both units, the loss of D-108 resulted in a dual unit 3-hour limiting condition for operation (LCO) based on Technical Specification 15.3.7.B.1.h. However, the battery charger was restored within 25 minutes, which ended the 3-hour LCO.

We believe the proposed 2-hour AOT is acceptable because it is prudent to attempt to restore the inoperable battery charger to service or connect a spare battery charger to the affected DC bus prior to commencing the shutdown of one or both operating units. As written in the NRC enforcement policy and modified in 58 FR 14309, the shutdown of the operating units could place them through unnecessary transients and increase the probability of initiating an event which would challenge the engineered safety features of

the reactor protection system. The 3-hour hot shutdown time under these circumstances is overly restrictive because it does not allow time to troubleshoot or connect an operable battery charger to the affected DC bus. In addition, the 125 VDC system provides sufficient redundancy to assure the initiation of proper protective actions during degraded system conditions. Thus, we propose to add a reasonable allowed outage time and action requirements for an inoperable battery charger to avoid unnecessary transients on the PBNP units. Also, the proposed AOT and shutdown requirements meet the intent of NUREG-1431, "WOG Improved Standard Technical Specifications," Revision 0.

We have determined that the proposed amendments do not involve a significant hazards consideration, authorize a significant change in the types or total amounts of any effluent release, or result in any significant increase in individual or cumulative occupational exposure. We therefore conclude that the proposed amendments meet the requirements of 10 CFR 51.22(c)(9) and that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared.

Please contact us if you have any questions.

Sincerely,

Bob Link
Vice President
Nuclear Power

DAW/jg

Enclosures

cc: NRC Resident Inspector
NRC Regional Administrator, Region III
Public Service Commission of Wisconsin

Subscribed and sworn before me on
this 18th day of July, 1994.

Notary Public, State of Wisconsin

My commission expires 7/28/97.

TECHNICAL SPECIFICATIONS CHANGE REQUEST 167
SAFETY EVALUATION

INTRODUCTION

Wisconsin Electric Power Company (Licensee) is applying for amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBNP), Units 1 and 2. The proposed changes modify Technical Specifications Section 15.3.7, "Auxiliary Electrical Systems," by including an allowed outage time (AOT) for one of the four connected station battery chargers and appropriate action requirements. The basis for Section 15.3.7 is also being revised to support this change.

EVALUATION

The General Design Criteria (GDCs) adopted for PBNP and documented in the PBNP Final Safety Analysis Report (FSAR) are similar in content to the proposed GDCs published by the Atomic Energy Commission (AEC) in 1967 and revised by the Atomic Industrial Forum (AIF). The applicable PBNP GDCs as defined in the PBNP FSAR for the 125 VDC system are GDC-2, "Performance Standards," and GDC-39, "Emergency Power." General Design Criterion 2 specifies the natural phenomenon design standards for systems and components which are essential for the prevention or mitigation of nuclear events which could cause undue risk to the public. General Design Criterion 39 requires an emergency power source to be provided and designed with adequate independency, redundancy, capacity, and testability to permit the functioning of the engineered safety features and protection systems required to avoid undue risk to the health and safety of the public and provide this capacity assuming a failure of a single active component.

The PBNP Final Safety Analysis Report (FSAR) states that GDC-39 is met, in part, by the 125 VDC system. Emergency power supply for vital instruments, control power, and for some DC emergency lighting of both units is supplied from the four 125 VDC station batteries which are common to both units. Station batteries D05, D06, D105, and D106 have been sized to carry their expected shutdown loads following a plant trip and loss of all AC power for a period of 1 hour without battery terminal voltage falling below 105 volts. Each of the six battery chargers have been sized to recharge any of their respective partially discharged batteries within 24 hours while carrying normal load. In addition, one swing battery and two swing battery chargers are available as back-ups to the operating batteries and their chargers.

The design of PBNP allows for operation with one instrument bus out of service with adequate redundancy in the loads supplied by the instrument bus to assure the initiation of proper protective

actions if a second instrument bus would fail. The best demonstration of this capability is in Technical Specifications Tables 15.3.5-2, 15.3.5-3, 15.3.5-4, and 15.3.5-5. In each of these tables, we do not drop below the required minimum number of operable channels with one instrument bus out of service. No automatic protective actions are initiated or LCOs entered until a second instrument channel fails. Therefore, sufficient redundancy exists with an inoperable battery charger to meet the requirements of GDC-39 even if the entire instrument bus would become inoperable.

Section B3.8.4 of NUREG-1431, "WOG Improved Standard Technical Specifications," Revision 0, states that if one of the required DC electrical power subsystems is inoperable (e.g., inoperable battery, inoperable battery charger(s), or inoperable battery charger and associated inoperable battery), the remaining DC electrical power subsystem has the capacity to support a safe shutdown and to mitigate an accident condition. Since a subsequent worst case single failure would result in the complete loss of the remaining 125 VDC electrical power subsystems with attendant loss of ESF functions, continued power operation should not exceed 2 hours. The 2-hour AOT is based on Regulatory Guide 1.93, "Availability of Electric Power Sources," dated December 1974, and reflects a reasonable time to assess unit status as a function of the inoperable DC electrical power subsystem and, if the DC electrical power subsystem is not restored to operable status, to prepare to effect an orderly and safe unit shutdown. The "Actions" section concludes by stating the AOTs are reasonable, based on operating experience, to reach the required unit conditions from full power operation in an orderly manner and without challenging plant systems. Therefore, our proposal adopts the STS requirements to allow 2 hours of operation with a battery charger inoperable. If an operable battery charger cannot be connected to the affected DC bus within 2 hours, we will sequentially place the operating unit(s) in hot shutdown within the following 6 hours and 9 hours respectively, and continue to cold shutdown if necessary within the following 36 hours. These action times are consistent with those proposed in our Technical Specifications Change Request 164, dated January 26, 1994.

CONCLUSIONS

In summary, the proposed amendment adds a 2-hour allowed outage time (AOT) for a connected station battery charger and subsequent shutdown requirements for the operating unit(s). The time intervals specified in this proposal meet the intent of NUREG-1431, "WOG Improved Standard Technical Specifications," Revision 0, and satisfy the requirements of the applicable PBNP GDCs. In addition, our proposal supports the basis of the NRC enforcement policy. Therefore, the proposed revisions will ensure and enhance the continued safe operation of Point Beach Nuclear Plant.

TECHNICAL SPECIFICATIONS CHANGE REQUEST 167
"NO SIGNIFICANT HAZARDS CONSIDERATION"

In accordance with the requirements of 10 CFR 50.91(a), Wisconsin Electric Power Company (Licensee) has evaluated the proposed changes against the standards of 10 CFR 50.92 and has determined that the operation of Point Beach Nuclear Plant, Units 1 and 2, in accordance with the proposed amendments, does not present a significant hazards consideration. A proposed facility operating license amendment does not present a significant hazards consideration if operation of the facility in accordance with the proposed amendment will not:

1. Create a significant increase in the probability or consequences of an accident previously evaluated; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. Will not create a significant reduction in a margin of safety.

The proposed amendment allows operation for up to two hours with one out of the four connected station battery chargers out of service. The 2-hour outage time is based on Regulatory Guide 1.93 and reflects a reasonable time to assess plant status and either connect an operable battery charger to the affected DC bus or prepare to effect an orderly and safe shutdown of the operating unit(s). Since the batteries, chargers, and their associated vital instrument buses provide sufficient redundancy to assure the initiation of proper protective actions during degraded system conditions, operation of PBNP in accordance with these proposed amendments cannot create an increase in the probability or consequences of an accident previously evaluated, create a new or different kind of accident, or result in a significant reduction in a margin of safety. Therefore, the proposed changes do not present a significant hazards consideration.