



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION III
 799 ROOSEVELT ROAD
 GLEN ELLYN, ILLINOIS 60137-5927

JCB/JCB (RDS)

FEB 23 1993

Docket Nos. 50-266; 50-301

Wisconsin Electric Power Company
 ATTN: Mr. R. E. Link
 Vice President
 Nuclear Power
 231 West Michigan Street - P379
 Milwaukee, WI 53201

SUBJECT: REQUEST FOR TEMPORARY WAIVER OF COMPLIANCE - TECHNICAL
 SPECIFICATION 15.3.7, AUXILIARY ELECTRICAL SYSTEMS

Dear Mr. Link:

This confirms the granting of a Temporary Waiver of Compliance (TWOC) for Point Beach Nuclear Plant (PBNP), Units 1 and 2, from the provisions of Technical Specification 15.3.0, "Limiting Conditions for Operation, General Considerations," and Section 15.3.7, "Auxiliary Electrical Systems," for a duration of up to 80 hours. Oral approval for this waiver was provided at about 10:15 p.m. on February 21, 1993, following a telephone conference between our respective staffs and members of NRR. On February 22, 1993, we received your letter requesting the TWOC. A copy of your letter is enclosed.

Point Beach, Units 1 and 2, were in Mode 1 at full power. Technical Specification Section 15.3.7.B.1.g, for power operation of one or both units, allows one diesel generator to be inoperable for a period not exceeding seven days. Technical Specification 15.3.0.A specifies that if the above condition cannot be met for a critical unit, the affected unit shall be placed in the hot shutdown condition within three hours.

On February 21, 1993, you orally informed the NRC that emergency diesel generator G01 was removed from service and declared inoperable at 4:25 a.m. on February 15, 1993, to perform annual emergency diesel generator preventive maintenance and other preplanned work activities. You further informed the NRC that due to problems encountered during the return-to-service testing you believed that the time required to restore the diesel generator to service would exceed the allowed 7-day LCO period. Although the diesel generator was successfully started and tied-in to both units' buses on February 21, 1993, start failure and fuel transfer alarms, which cannot prevent diesel start nor cause diesel shutdown, indicated that further adjustments may be necessary.

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You requested an additional 80 hours to perform further troubleshooting activities before both units would be required to comply with the Technical Specification requirement to be placed in hot shutdown condition. This waiver was requested to avoid unnecessary transients on the units which would result during unit shutdown. Continued operation of the units would also enhance the reliability of the off-site power grid.

You committed that before and during the effective period of time that this Waiver of Compliance is to be in effect, PBNP personnel have taken and will continue to take the following compensatory and corrective actions:

1. The combustion turbine generator G05 will not be taken out of service and will continue to be tested twice per week.
2. Temporary diesel generator G10 will remain available.
3. Emergency diesel generator G02 will continue to be tested daily.
4. No safeguards or periodic surveillance testing which could jeopardize the operating status of either operating unit will be conducted.
5. No work will be scheduled in the switchyard which could adversely affect the 345kV system.
6. No discretionary work on opposite train safeguards equipment will be scheduled.
7. Troubleshooting and repair efforts will continue on an around-the-clock basis until the problem is resolved.

We evaluated your oral request, preliminary written evaluations, and your subsequent written request and supporting documentation and determined that they adequately supported your request for a temporary waiver of compliance. Compensatory measures were taken by PBNP personnel to ensure the operability of the remaining emergency diesel generator and other on-site and off-site sources of electrical power. Only one emergency diesel generator is required following any design basis accident. Based on the low probability of a design basis accident occurring during the waiver period and having the emergency diesel generator G02 and other electrical power sources capable of placing and maintaining the units in a safe condition should such a design basis accident occur, with concurrence from NRR, I granted the requested relief

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Wisconsin Electric Power
Company

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on February 21, 1993, to begin at 4:25 a.m. February 22, 1993, and to expire
at 12:25 p.m. February 25, 1993.

Sincerely,



A. Bert Davis
Regional Administrator

Enclosure: As Stated

Distribution

cc w/enclosure:

G. J. Maxfield, Plant Manager

DCD/DCB (RIDS)

OC/LFDCB

Resident Inspector, RIII

Virgil Kanable, Chief

Boiler Section

Cheryl L. Parrino, Chairman

Wisconsin Public Service

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ENCLOSURE



231 W Michigan, P.O. Box 2046, Milwaukee WI 53201-2046

VPNPD-93-39
NRC-93-18

February 22, 1993

Mr. Bert Davis, Regional Administrator
U.S. NUCLEAR REGULATORY COMMISSION
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Davis:

DOCKET 80-266 AND 80-301
REQUEST FOR TEMPORARY WAIVER OF COMPLIANCE
DIESEL GENERATOR OPERABILITY
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

The purpose of this letter is to document the basis for Wisconsin Electric Power Company's request for an 80-hour Temporary Waiver of Compliance from Point Beach Nuclear Plant Technical Specification Section 15.3.0, "General Considerations," Specification A.

REQUIREMENT FOR WHICH A WAIVER IS REQUESTED

A summary of the governing Technical Specifications is as follows:

Technical Specification Section 15.3.7, "Auxiliary Electrical Systems," Specification B.1.g allows one diesel generator to be inoperable for a period not exceeding 7 days provided the other diesel generator is tested daily to ensure operability. The basis for this specification is to provide some limited relaxation of the single-failure criterion for the diesels to allow for periodic maintenance and repair.

The Point Beach diesel generators are each sized to supply one train of power for the loads necessary to mitigate the consequences of a design basis accident in one unit and to maintain the other unit in hot shutdown. The daily operability check conducted on the operable diesel generator is meant to assure that it is ready to perform safety-related functions.

Post-It™ brand fax transmittal memo 7071		# of pages = 7
To: BOB GREGER	From: MIKE BAUMANN	
Co. NRC P III	Co. WEPCO	
Dept.	Phone # 414-221-4683	
Fax #	Fax # 2010	

(414) 221-2345

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Technical Specification 15.3.0, "General Considerations," for Technical Specification Section 15.3, "Limiting Conditions for Operation," requires the affected unit, which is critical, to be placed in hot shutdown within three hours if the conditions prescribed by the limiting condition for operation (LCO) cannot be satisfied. Additionally, if the conditions which prompted the shutdown cannot be corrected and the LCO does not specify an additional time period, the unit shall be placed into cold shutdown within 48 hours. The basis for these general considerations is to delineate action to be taken for circumstances not directly provided for in the action statements of the specific LCO and whose occurrence would violate the intent of the specification.

CIRCUMSTANCES SURROUNDING THE SITUATION

On February 15, 1993, at 0425, emergency diesel generator (EDG) G01 was taken out of service to perform annual EDG preventive maintenance, rotor bolt inspection, electrical as-built walkdowns/verification, engine coolant conversion from glycol to treated water, and a modification to install ground detection capability. The LCO under Technical Specification 15.3.7.B.1.g was entered when the EDG was taken out of service.

Work was completed and return-to-service testing was started on the afternoon of February 19, 1993. During return-to-service testing, the following problems were encountered:

- 1) Blown fuses in potential transformers (PTs) caused voltage regulation difficulties. The cause of the blown fuses was attributed to a broken spring contact on the excitation fuse.
- 2) A damaged PT (with no spare available) which required changeout with an unused similar PT from another portion of the diesel generator protection circuitry.

A G01 operability test was successfully performed on February 21, 1993, in the exercise start (manual start) mode and loading of the machine to both Unit 1 and Unit 2 buses. This load test was performed in accordance with operations test procedure TS-1, "Emergency Diesel Generator G-01 Biweekly." During the exercise start, G01 experienced a start failure alarm and fuel transfer alarm. These alarms indicated that G01 may not be meeting its timing requirements during the exercise start; however, the diesel did start, reach rated speed, and load onto its associated buses. The G01 diesel start failure alarm and fuel transfer alarm cannot prevent a diesel start nor cause a diesel shutdown. The alarms provide indication that the start sequence may not meet its design or established timing sequence. Since the alarms indicate that an

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adjustment may be necessary, we desire to further pursue these concerns within an extended LCO time period. We can maintain G01 in an operable condition for a major portion of the time needed to troubleshoot and resolve the start sequence alarms.

A Regional Temporary Waiver of Compliance was granted by NRC Region III at 2215 on February 21, 1993, to extend the G01 maintenance outage for 60 hours beyond the 7 days allowed by Technical Specification 15.3.F.B.1.g.

Following NRC Region III granting the Temporary Waiver of Compliance, we "fast-started" G01 at 2242 on February 21, 1993, and demonstrated that it was ready to load in 4.8 seconds, which is within the 10 second requirement specified in PBNP Final Safety Analysis Report, Section 8.2.

The present state of the PBNP emergency power sources is as follows:

- a. Diesel Generator G01 (3050 KW peak) -- Out-of-Service
- b. Diesel Generator G02 (3050 KW peak) -- Operable
- c. Combustion Turbine Generator G05 (20 MW) -- Operable
- d. Temporary Diesel Generator G10 (1700 KW) -- Operable
- e. 345 KV Transmission Lines -- All 4 lines in service

We have reviewed the extension of the EDG maintenance outage based on the preliminary results of our probabilistic safety assessment (PSA) analysis. A base case core damage frequency (CDF) was determined assuming G01 is out-of-service for maintenance for 6.5 days. For this base case, the CDF is 1.1957E-04. Two additional cases were analyzed, (1) assuming G01 is out-of-service for 10 days, yielding a CDF of 1.2166E-04 or an increase of 1.7% over the base case, and (2) assuming G01 is out-of-service for 14 days, yielding a CDF of 1.2403E-04 or an increase of 3.7% over the base case.

Based partly on the PSA analysis, we believe the plant configuration with both units off-line, to which the Technical Specifications would direct us at this time, would not be in the best interest of protecting the public health and safety. There are multiple factors which determine the level of protection of the public health and safety associated with emergency diesel generator availability and the various operating modes of both units. Those factors pertinent to this request for a Temporary Waiver of Compliance are discussed below.

The most limiting initiating event for this diesel generator configuration is the station blackout event. This event assumes the loss of off-site power with subsequent failure of the diesel generator which is not out of service. Placing the units in a hot

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shutdown condition removes the turbine generators from the grid and thus reduces the reliability of off-site power.

The second factor to be considered is the availability of equipment to prevent core damage given the initiator has occurred. If both units are at power when a station blackout occurs, decay heat can be initially removed by the water in the steam generators and long term by the turbine-driven auxiliary feedwater pump. However, if a unit is in a condition such that steam is not available when the station blackout occurs, there is no circulation capability to remove decay heat from the previously shut down unit. Therefore, the availability of systems to remove decay heat and thus, the probability of preventing core damage during a station blackout sequence, is reduced for a unit in a cold shutdown condition.

In addition to the above factors, we believe the shutdown of both units is not prudent because the evolution places the units through simultaneous transients, and therefore, increases the probability of initiating an event which could challenge the engineered safety features of the reactor protection system.

We also believe that it is prudent to maintain both PBNP units at full power due to the present condition of the Wisconsin Electric Power Company electrical system. At the time of our discussion with the NRC regarding our request for a Temporary Waiver of Compliance, we were purchasing approximately 495 MW of power from outside sources. We prefer to maintain purchased power at less than 500 MW due to the increased potential for system reliability associated with purchased power levels of 700-800 MW. Coal-fired plants in the Wisconsin Electric system that are currently in maintenance or renovation outages can not be brought back into service in the short term. Therefore, the shutdown of one or both of the PBNP units may unnecessarily compromise the reliability of the electrical system of Wisconsin Electric. Complicating this issue was a failed transformer located at our Oak Creek Power Plant which limits output on one unit and our ability to import power from other regions.

In summary, we believe taking both units to hot shutdown and the turbine generators off-line as required by Technical Specification 15.3.0 is not in the best interest of public health and safety. We believe that this condition warrants a temporary relief from the requirements of Technical Specification 15.3.0 for 80 hours to begin at 0425 CST on February 22, 1993, to allow us to troubleshoot, obtain spare parts, and complete repairs to the alarm circuitry of G01 as necessary.

We have previously discussed this situation with the NRC Senior Resident Inspector and with Mr. Bob Greger of the Region III office at 2049 CST on February 21, 1993.

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COMPENSATORY ACTIONS

We have taken the following compensatory actions and will maintain them during this Temporary Waiver of Compliance period:

- Combustion turbine generator G05 will not be taken out of service and will continue to be tested twice per week.
- Temporary diesel generator G10 will remain available (this diesel supplies power to buses B08 and B09 for 10 CFR 50 Appendix R required loads).
- Emergency diesel generator G02 will continue to be tested daily.
- No safeguards or periodic surveillance testing which could jeopardize the operating status of either operating unit will be conducted.
- No work will be scheduled in the switchyard which could adversely affect the 345 KV system.
- No discretionary work on opposite train safeguards equipment will be scheduled.
- Troubleshooting and repair efforts will continue on an around-the-clock basis until the problem is resolved.

SAFETY SIGNIFICANCE AND POTENTIAL CONSEQUENCES

Each emergency diesel generator is sized specifically to provide power to one train of safeguards loads following a design basis accident coincident with a loss of off-site power. Emergency diesel generator G02 is operable and is capable of providing its full generating capacity.

JUSTIFICATION FOR THE DURATION OF THE WAIVER

We believe the requested 80-hour time period for the waiver will be sufficient to allow us to complete troubleshooting and repairs to G01 and allow us to return that unit to a fully operable status. Maintenance and Engineering personnel have been working two ten-hour shifts per day since the G01 outage commenced and around-the-clock during the past weekend, so worker fatigue is also a concern. Based upon a successful fast start test, we could declare G01 operable. However, we believe it is prudent to remain in the existing LCO rather than enter a subsequent LCO to continue troubleshooting the cause of the start failure alarm and fuel transfer alarm.

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SIGNIFICANT HAZARDS CONSIDERATIONS

We have reviewed this request for significant hazards considerations. The regulations at 10 CFR 50.92 essentially state that a significant hazards consideration is created if the action:

- a. Significantly increases the probability or consequences of an accident previously evaluated;
- b. Creates the possibility of a new or different type of accident; and
- c. Reduces the margin of safety.

The discussion below addresses each of these three criteria and demonstrates that this Temporary Waiver of Compliance does not involve a significant hazards consideration.

As discussed above, a significant increase in the probability or consequences of an accident previously evaluated will not occur if both operating units are allowed to continue steady state operation at power. In addition, the compensatory actions described above minimize the increase in the probability or consequences of an accident since emergency power is available from G02 to the safety-related equipment, if necessary. Additionally, having both units at power further minimizes the increase in the probability or consequences of an accident by providing a more reliable off-site power source and eliminating unnecessary simultaneous unit transients. Our actions do not create the possibility of a new or different type of accident.

Lastly, we believe that granting this Temporary Waiver of Compliance will actually prevent a reduction in the margin of safety which we believe would result from following the LCO and proceeding with transitioning both units to cold shutdown, for reasons previously described.

ENVIRONMENTAL CONSEQUENCES

We have determined that operation in this condition does 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 radiation exposure. Therefore, we conclude that this request meets the categorical exclusion 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.

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STATE NOTIFICATION STATEMENT

We notified the Public Service Commission of Wisconsin via telephone at 0837 on February 22, 1993. We will also notify the appropriate State of Wisconsin officials of the requested Temporary Waiver of Compliance by copy of this letter in accordance with 10 CFR 50.91(b).

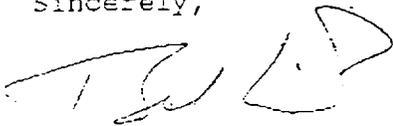
SUMMARY OF COMMUNICATIONS AND APPROVALS

The PBNP Manager's Supervisory Staff (on-site review committee) met and discussed this issue at 1930 on February 21, 1993, concurred with the decision to request this Temporary Waiver of Compliance, and concurred with the waiver's contents.

We received verbal approval of this request for a Temporary Waiver of Compliance from NRC Region III at 2215 CST on February 21, 1993, following our telephone conversation with Mr. Bob Greger and other members of NRC Region III and NRC Office of Nuclear Reactor Regulation (NRR) staff.

If you have any questions concerning this information, please contact us.

Sincerely,



Bob Link
Vice President
Nuclear Power

cc: NRC Document Control Desk
NRC Resident Inspector
Public Service Commission of Wisconsin

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