

August 13, 1982

Mr. H. R. Denton, Director Office of Nuclear Reactor Regulation U. S. NUCLEAR REGULATORY COMMISSION Washington, D. C. 20555

Attention: Mr. R. A. Clark, Chief Operating Reactors Branch 3

Gentlemen:

DOCKET NOS. 50-266 AND 50-301 TECHNICAL SPECIFICATIONS FOR COMPLIANCE TO 10 CFR 50, APPENDIX J POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

On June 25, 1982, the Nuclear Regulatory Commission issued amendments to the operating licenses for the Point Beach Nuclear Plant, Units 1 and 2, which consisted of changes to the Technical Specification to bring the Specification in compliance, in part, with the requirements for containment integrated leakage rate testing as codified in 10 CFR Part 50, Appendix J. In a separate letter, also dated June 25, 1982, the Commission also approved exemptions from certain testing requirements of Appendix J. Besides granting several exemptions, this letter, signed by Mr. Darrell G. Eisenhut, also denied two other exemptions requested by Wisconsin Electric Power Company for the Point Beach Nuclear Plant. The exemptions denied concerned airlock testing requirements and substitution of a hydraulic test for the required pneumatic test of the containment spray isolation check valves. In addition, one exemption request concerning reduced duration Type A containment integrated leak rate tests was not evaluated by the NRC. Both the June 25 amendment letter and the exemption letter directed that Wisconsin Electric inform the NRC of its plans for meeting the requirements of Appendix J, including submission of Technical Specification changes as necessary.

Regarding the testing requirements for the containment spray system isolation valves, we are planning the following action. A plant design modification has been prepared, and is in the process of being reviewed and approved, which will add a drain line and appropriate isolation devices to the contairment spray system to permit the complete draining of the volume above the containment spray system isolation valves sealing surfaces. These drain lines will penetrate the cover flange of each isolation valve. This will permit air or nitrogen leak testing of these

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valves. Due to the nature of the modification, Technical Specification requirements, and the design of this piping system, these modifications must be performed on each unit during a cold shutdown outage. The modifications have, therefore, been scheduled for the next refueling outages for each unit. Unit 1 will be modified during its fall 1982 refueling outage. Full compliance with this testing requirement should be achieved in March 1983 upon completion of this modification on Point Beach Unit 2.

The second exemption request denied concerned the requirements of Section III.D.2 of Appendix J for Type B leakage testing of the containment airlocks. As mentioned in Mr. Colburn's June 25 letter, the NRC will accept reduced pressure tests extrapolated to design pressure if conducted in accordance with Appendix A to the Technical Evaluation Report provided with the Staff's Safety Evaluation. We have experimented with this testing method and have determined that this testing method will not provide acceptable testing criteria for the Point Beach Nuclear Plant. Accordingly, in an attempt to meet the 72-hour testing requirements of Appendix J, we are presently evaluating the performance of a vacuum test of the airlock door seals. It is expected that the leakage identifiel in the O-ring door seal vacuum test will be evaluated in the following way. For each unit, the leakage from the "worst" door of each airlock will be summed and converted per Appendix A of the safety evaluation. The resulting leakage will be deemed acceptable if the total Type B and C leakage, including the converted leakages from the O-ring test, is less than the Technical Specification allowables for the Type B and C testing program. If this criteria is not met, the airlock containing the worst door will be full pressure tested to determine the airlock's actual condition. Only the full pressure airlock test will be used to identify airlock performance as a basis for reportability. Maintenance of the doors will be performed as considered appropriate without a full pressure test for cases where the adjusted B and C leakage does not exceed the limit but is higher than desired.

To date, we have vacuum tested all eight airlock doors. Four of the doors had leakage of less than one liter per minute when vacuum tested in the as-is condition which is considered acceptable. One of the four doors that were considered as leaking excessively was repaired and retested satisfactorily. The problem with the door was in the alignment of the door with respect to the seating surface of the door jamb (misalignment of 60 thousands of an inch) caused by unbalanced latching forces imposed by the latching mechanisms. There were no problems with the O-rings themselves. We would note that for those doors which we considered to be leaking excessively, only one of the two O-rings per door was responsible for the leakage.

It should be noted that minor misalignment of this nature is critical to the vacuum pressure test of the O-ring seals, but insignificant to the full pressure airlock test due to the self-seating characteristic of the doors with a pressure differential in the designed direction. This is evident by the fact that the last 60 psig hatch tests on the doors, which were performed before the vacuum testing and maintenance, were satisfactory. There is some concern regarding the ability of the doors to remain within alignment such that the vacuum pressure test of the O-ring seals may be performed without continual maintenance activity in fine tuning the door's alignment each time.

We are presently conducting a similar investigation and maintenance of the other three doors. Upon completion of this maintenance and retesting, we will be in a position to determine if our proposed O-ring vacuum seal test is feasible without major modification or change to the airlock door. We expect to be completed with this evaluation by September 1, 1982. At that time we will propose a Technical Specification airlock testing commitment for review, internal approval, and submittal to the NRC.

The third item addressed in Mr. Eisenhut's exemption letter concerned methods and criteria for reduced duration Type A leakage rate tests. The NRC did not evaluate our proposed methods and criteria. Instead, we were requested to commit to either full-duration 24-hour testing or tests of less than 24-hour duration conducted in accordance with the NRC-approved Bechtel Topical Report BN-TOP-1.

In our opinion, BN-TOP-1, a relatively old topical report (1972), does not reflect "state-of-the-art" testing, nor provide verified criteria for short duration testing. Although this report has been approved by the NRC, its future is uncertain.

As you may be aware, Quadrex Corporation has just received EPRI authorization and funding to perform a study to define the technical acceptance criteria for short duration testing and demonstrate the validity of this criteria. It is estimated that this work will be completed within the next year. Considering the next integrated leakage rate test will not be performed until after the Unit 1 steam generator replacement outage, estimated to occur in Feburary 1984, we would consider delaying a commitment in this area until approximately six months prior to the next integrated leakage rate test or August 1983.

If this is unacceptable to your Staff, we would alternatively agree to providing a Technical Specification specifying that reduced duration Type A test will only be conducted in accordance with methods and criteria approved by the NRC Staff and request that you complete your evaluation of our testing methods and criteria and exemption request.

Very truly yours,

and for

C. W. Fay

Assistant Vice President

Copy to NRC Resident Inspector