



**Wisconsin Electric** POWER COMPANY  
231 WEST MICHIGAN, MILWAUKEE, WISCONSIN 53201



July 22, 1974

Mr. John F. O'Leary, Director  
Directorate of Licensing  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. O'Leary:

DOCKET NOT. 50-266  
VIOLATION OF PART-LENGTH ROD INSERTION LIMIT  
POINT BEACH NUCLEAR PLANT

This is to report the details of an abnormal occurrence at the Point Beach Nuclear Plant, Unit 1, Facility Operating License No. DPR-24, as defined by Section 15.1.a.B of the Technical Specifications. This written report follows a telephone report on the subject to Mr. Dwane Boyd of Region III, Directorate of Regulatory Operations, on July 11, 1974, per Section 15.6.A.1 of the Point Beach Nuclear Plant Technical Specifications.

On July 11, 1974, during a re-review of recent Technical Specification changes, the Reactor Engineer at Point Beach Nuclear Plant noted a change to Section 15.3.10.A.3, the new specification reading:

"The part-length rods shall not be more than 70% inserted."

The date at which this new limiting condition for operation became effective was verified as May 23, 1974. A check of recent Unit 1 operating history showed that between May 29, 1974, at 11:00 A.M., and June 8, 1974, at 11:00 P.M., the part-length rods of this unit were 82.5% inserted.

On May 1, 1974, Wisconsin Electric Power Company and Wisconsin Michigan Power Company submitted proposed Technical Specification changes (Technical Specification No. 8 to Appendix A), which required AEC approval prior to operation of the Cycle III core. A new reduced reactor coolant system pressure (2000 psia) was also involved in the changes.

The Manager's Supervisory Staff reviewed the proposed Technical Specification changes as required by Section 15.6.1.C.2.c.3 of the Technical Specifications and, as part of this review, noted Section 15.3.10.A.3 which reads:

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"Part-length rods shall be inserted no further than the limits shown on Figure 15.3.10-1a."

The review of the figure showed that part-length rods could be inserted up to 90% at and below the 50% power level; the insertion limit then being reduced on a straight line graph to 70% at full power.

During discussions between Wisconsin Electric Power Company Nuclear Projects Office personnel and AEC officials in Washington, D. C. on May 21 and 22, 1974, it was agreed that the provisions of the proposed Section 15.3.10.A.3 would in fact be changed to restrict the insertion limit of the part-length rods to 70% at all power levels. The AEC approval of the Technical Specification change, dated May 23, 1974, reflected the above restriction.

The Unit 1 refueling shutdown drew to a close on May 23, 1974, and the unit was in the hot shutdown condition awaiting approval of the proposed Technical Specification changes at that date.

To expedite on-site receipt of the official approval of the new Technical Specifications, details of the AEC approval were transmitted via telephone, along with a telecopy of changed pages, including page 15.3.10-2, which contained the 70% restriction, to the site where a licensed operator operating document, consisting of the proposed Technical Specification Change No. 8 and the telecopied pages, was assembled on instruction of Wisconsin Electric Power Company Nuclear Projects Office personnel. Not being informed otherwise, the on-site operating document included the part-length rod insertion limit graph, Figure 15.3.10-1a.

In reviewing the operating document prior to initial criticality, the Reactor Engineer noted the agreement of the attached graph with that submitted in the Technical Specification proposed change and assumed the operating document was applicable. The changed words of Section 15.3.10.A.3 were not highlighted by the normal proposed change marking (/8) as is the finally approved version eventually distributed at the plant.

To reduce the boron concentration during initial criticality and initial power escalation, the Reactor Engineer directed that the part-length rods be inserted to their maximum integral worth (82.5%, 40 steps) on May 29, 1974, and they remained in that position until June 8, 1974, when they were withdrawn above the full power insertion limit of 70% in anticipation of a power increase. During the eleven days that the part-length rods were below the insertion limit, the reactor was at zero power for al-

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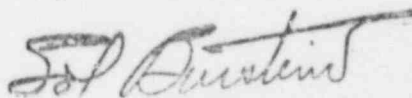
most ten days of the period, this being followed by one day at a 25% to 30% power level and approximately two hours at 50% power.

In evaluating the nuclear safety aspects of this violation, the Reactor Engineer reviewed WCAP-8325, "The Nuclear Design-Core Management of the Point Beach Unit 1 Nuclear Reactor Cycle 3". On page 5-7 of this analysis, it stated that the proposed insertion limit (as shown on graph 15.3.10-1a of the proposed Technical Specification change) was "based on the core power peaking analysis performed to develop the FQ flyspeck". The flyspeck, Figure 6.1, is used conservatively to set the axial offset limitations for accident analysis. Therefore, from a safety viewpoint, provided the limits on Figure 15.3.10-1a were observed, the core power distribution met the accident analysis criteria. The limits of 15.3.10-1a were in fact observed at all times. Therefore, it is not considered that this violation posed a hazard to the health and safety of the public.

The prime cause of this incident was delay experienced in the process of the vendor producing the core analysis and the reviews by Company personnel, followed by the processing time of the review through the AEC. In order to keep the approval paper ahead of the reactor restart schedule, oral and telecopier means of transmitting approvals and Technical Specifications were used. This led to a mixup in what constituted the finally approved documentation.

In order to prevent a recurrence of this type of situation, the Company will do its best to file similar requests with the AEC on as timely a basis as can be anticipated, and consistent with Mr. Karl R. Goller's letter of May 23, 1974.

Very truly yours,



Sol Burstein

Executive Vice President

cc: Mr. James G. Keppler, Regional Director  
Directorate of Regulatory Operations, Region III