



Wisconsin Electric POWER COMPANY
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March 18, 1981

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

Dear Mr. Denton:

DOCKET NOS. 50-266 AND 50-301
FIRE PROTECTION EXEMPTION REQUEST
POINT BEACH NUCLEAR PLANT, UNIT NOS. 1 AND 2

This letter is to request, pursuant to 10 CFR Part 50.12(a), extension of certain of the schedule dates in Paragraph (c) of the newly enacted fire protection regulations in 10 CFR Part 50.48, and exemption from one of the substantive requirements of Section III.H of Appendix R to 10 CFR Part 50. In particular, Licensee, Wisconsin Electric Power Company, requests:

1. That the date in Paragraph (c)(5) for submitting plans and schedules for meeting the provisions of Paragraphs (c)(2), (c)(3), and (c)(4) with respect to the requirements of Section III.G of Appendix R to Part 50 be extended from March 19, 1981 to September 30, 1981, and with respect to the requirements of Section III.O of Appendix R to Part 50, be extended to June 30, 1981;
2. That the date in Paragraph (c)(5) for submitting design descriptions of modifications needed to satisfy Section III.G.3 of Appendix R be extended from March 19, 1981 to December 31, 1981;
3. That the implementation date in Paragraph (c)(2) for installation of modifications that do not require prior NRC approval or plant shutdown be extended from nine months after February 17, 1981, to nine months after September 30, 1981, for modifications required by Section III.G, and to nine months after June 30, 1981, for modifications required by Section III.O;

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4. That the implementation date in paragraph (c)(3) for the installation of modifications that do not require prior NRC approval, but require plant shutdown, be extended from before startup after the earliest of the specified events commencing 180 days or more after February 17, 1981, to before startup after the earliest of the specified events commencing 180 days or more after September 30, 1981, for modifications required by Section III.G, and to before startup after the earliest of the specified events commencing 180 days or more after June 30, 1981, for modifications required by Section III.O; and
5. That the Licensee be granted exemption from the requirement of Section III.H of Appendix R that the shift supervisor not be a member of the fire brigade.

Basis for Schedule Extension Requests

The plans and schedules now available for implementing modifications required by 10 CFR Part 50.48(c) are being submitted to you in a separate letter dated March 18, 1981. The schedule extensions requested herein relate only to those modifications which may be required to satisfy Sections III.G and III.O, and which cannot be specifically identified by March 19, 1981.

Section 50.48 requires certain fire protection features to be installed -- those required by Sections III.G, III.J, and III.O of Appendix R -- irrespective of previous discussions with the NRC Staff or NRC Staff approvals for alternative fire protection features tailored to the specific nuclear facility and appropriate for protection of the public health and safety. Generic Letter 81-12, dated February 20, 1981, from Darrell G. Eisenhut stated that, in implementation of Section III.G, the licensee is required to reassess all relevant areas of the plant to determine whether the requirements of Section III.G.2 are satisfied. The letter went on to say that if the reassessment shows that Section III.G.2 is not satisfied, the licensee must either provide alternative shutdown capability in accordance with Section III.G.3, or request an exemption.

The schedule requirements of Section 50.48 are unrealistic and unattainable. The reassessment effort for Point Beach is a far more involved and complex task than was apparently understood by the Commission when it established the scheduler requirements of the new regulation. It involves extensive research, analyses, and engineering design to determine what modifications are needed, and cannot possibly be accomplished by March 19. Until the

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reassessment is completed, we will be unable to develop the plans and schedules for those modifications. Completion of the reassessment is also needed prior to determining the need for requesting exemption from any of the requirements of Section III.G, and prior to determining whether, and the extent to which, alternative shutdown capability will be required under Section III.G.3.

There are several phases required in the reassessment program. The initial phase is an engineering effort to identify and locate components and cable routings for safety systems. This effort is followed by a site verification phase for actual as-built cable and conduit routing. There are many components in safety systems which would not affect safe shutdown capability if their function was lost because of a fire. Therefore, an evaluation of all identified items must be made to determine the necessity for each item for plant shutdown. This evaluation is followed by a fire protection engineering evaluation to determine compliance with the requirements of Paragraph III.G.2. The final phase of the reassessment program is the development of plans and schedules for modifications necessary to meet the requirements of Paragraphs III.G.2 and III.G.3 and the development of exemption requests thereto, if any are required. There can be some overlap of the time frame for performance of the first three phases of the reassessment. However, the evaluations for equipment location and shutdown requirements are performed on a system basis and the evaluation for compliance with Paragraph III.G.2 is required to be on a fire area basis. Therefore, the compliance determination cannot begin until the previous phases have been completed. Similarly, the formulation of plans and schedules cannot begin until the evaluations have been completed. Because of the sequential nature of the tasks, the duration of the work cannot be appreciably shortened by the assignment of additional personnel to the effort.

In June 1980 we requested Bechtel Power Corporation, the Point Beach engineer and constructor, to initiate the first phase of this reassessment program. Only preliminary identification and location of shutdown system cabling could be performed until the final requirements of Appendix R were published November 19, 1980. This initial phase of our program was completed in February 1981, with the exception of necessary associated circuit identification. The site verification effort began in February 1981, and is approximately fifty percent complete. Thus, even though we have been actively pursuing our reassessment program for nine months, we are not able to comply with the schedule requirements of Section 50.48.

Based on our experience to date, we estimate that the site verification effort will be completed by April 30, 1981. Sufficient information from this effort is now available to enable the beginning of our evaluation to determine the components

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necessary for safe shutdown. We estimate that this evaluation will be completed by May 30, 1981. At that time the required fire protection evaluation of necessary shutdown equipment and cables in each plant area can begin, followed by the development of modification plans and schedules. We believe that this work can be completed by September 30, 1981.

The requirement for consideration of associated circuits has added significantly to the difficulty and duration of the reassessment effort. While the published Appendix R stated that an evaluation of associated circuits was to be performed, it provided no clear definition of an associated circuit. A definition of an associated circuit was included in Enclosure 2 to Mr. Eisenhut's February 20, 1981 letter, which we received on March 2, 1981. It was not possible to perform a meaningful evaluation of associated circuits prior to this date. An evaluation of associated circuits is required both for the Paragraph III.G.2 reassessment and for the development of alternative or dedicated shutdown capability under Paragraph III.G.3. The scope, identification, and locations of associated circuits will be significantly different for Paragraphs III.G.2 and III.G.3. For this reason, reassessment program evaluations must be complete and the method of compliance with Section III.G must be established before a meaningful final evaluation of associated circuits can be performed.

We also note in Enclosure 2 to Mr. Eisenhut's letter that a significant quantity of tabulated design information must be submitted for each fire area where alternative or dedicated shutdown systems will be provided. We do not foresee being able to provide this information prior to December 31, 1981.

Our reassessment program has been set up as a series of evaluations leading up to the development of plans and schedules. We cannot submit plans and schedules prior to the reassessment report upon which such plans and schedules are based. We must assure ourselves that any planned modifications are feasible and will have no potential adverse impact on overall plant safety. This can be done only after the reassessment is completed.

It is essential to understand that the design and installation of fire protection features present significant problems and safety considerations which are much more difficult to accommodate in an operating nuclear power plant than during initial plant design and construction.

There are also many difficulties to be overcome in providing automatic fire suppression capability in an operating plant. Each fire area must be thoroughly evaluated. Gas suppression

systems require a tight enclosure. Liquid suppression systems require adequate drainage. The impact of a liquid suppression system on waste handling facilities must be considered. Safety-related equipment in the fire area must be protected from potential adverse effects of the fire suppression system and protection of personnel who may be in the fire area must be maintained. In addition, interferences from ductwork, piping, and equipment installed in the fire area will impact the design and installation of the selected fire suppression system. Onsite inspection and system design will be necessary.

The practice of defense in depth indicates that an ideal fire protection program would provide both passive barrier protection and active fire suppression. In reality there is an interaction between barriers and suppression which very often results in conflict rather than redundancy. Barriers may obstruct suppression systems, thus impairing the effectiveness of the suppression system. Some barrier materials are absorbent and will increase significantly in weight if wetted by liquid suppression systems. This requires additional barrier support design. These factors require continuous consideration in the design and location of both barriers and suppression systems.

It is readily recognized that the installed interferences encountered in an operating plant will require additional time for design and installation of fire protection features. Each of the above listed factors must be considered in each safety area of the plant. All factors must be compared and designs must be verified to be feasible. A great amount of time is required to evaluate all of these factors if fire protection features are to be provided which enhance fire protection and are not detrimental to overall plant safety.

The coordination of design and installation of fire protection features with other tasks required by the Commission presents additional difficulties. The implementation of TMI related modifications and masonry wall modifications are of particular concern. Cable tray penetration seals must be installed with the knowledge that a multitude of new cabling will be added. Fire barriers and radiation shield barriers must be provided and block wall masonry must be removed or upgraded. Emergency planning and environmental qualification of safety-related electrical equipment tasks also have schedules requiring actions concurrent with fire protection efforts. Because of the close relationship which must exist between these sometimes competing efforts, we do not believe it is reasonable to require all of this work, including Appendix R requirements, to be performed in accordance with the current NRC mandated schedules.

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In addition, we request the right to seek further exemption from one or more of the specific requirements of Appendix R which we believe to be justified on a sound technical basis after completion of our reassessment and preparation of our plans and schedules for necessary modifications.

The requested extensions in schedule requirements will not be detrimental to public health and safety. There are no urgent considerations which would mandate the immediate implementation of the Appendix R requirements. In promulgating the rule, the Commission indicated no sense of urgency and provided no basis or explanation of any safety need for the implementation schedule in Section 50.48. In the context of the Fire Protection Schedules for Operating Nuclear Plants, 45 Federal Register 71569 (October 29, 1980), the Commission pointed out that the fire protection measures already implemented give reasonable assurance that all operating nuclear plants may continue to operate safely even though the final rule will require additional fire protection measures at many plants. Fixed suppression systems have been added at Point Beach. Additional hose stations and standpipes are being installed, smoke exhaust capability has been provided, additional fire fighting equipment has been procured, fire barriers are being upgraded, and the fire brigade members are undergoing improved fire fighting training. Therefore, there will be no adverse effect on the health and safety of the public from granting our request for exemption from the stated schedules of Section 50.48.

The evaluation and development of plans for modifications which may be necessary to comply with Section III.O require on-site inspection and design. We are unable to proceed with the required inspection and design because of ALARA considerations while both Units 1 and 2 are operating. Our earliest opportunity to perform the required inspection and design efforts will be during the Unit 2 refueling outage presently scheduled to begin April 17, 1981. We cannot decide upon a definite plan of action before the suitability of such a plan has been verified. We estimate that we can provide plans and schedules for actions necessary to comply with Section III.O by June 30, 1981. It is not possible to accurately estimate the schedule for implementation of needed modifications before the plans for the modifications have been developed. Therefore, it may be necessary to request further changes in the implementation deadlines at a later date.

Licensee also requests that it be exempted from the requirement of Appendix R Section III.H that the shift supervisor not be a member of the fire brigade. Licensee believes that the designation of the shift supervisor as the fire brigade chief would strengthen the lines of authority controlling overall plant operations and enhance rapid fire control and extinguishment.

Accordingly, Licensee requests that it be permitted to assign its shift supervisor to the fire brigade. Under Licensee's proposal, the shift supervisor would be permitted, but not required, to serve in and lead the fire brigade.

Many commenters on the proposed rule objected to the exclusion of the shift supervisor from the fire brigade. The NRC's reason for rejecting those comments was a concern that the shift supervisor might be required elsewhere in the plant during the course of a fire. That concern is accommodated at Point Beach because the Licensee's organization assures that a total of at least five qualified people will be available to serve on the brigade at all times, such that the personnel requirements for the fire brigade in Section III.H will be satisfied, irrespective of the shift supervisor's presence on the brigade or availability to serve on the brigade.

All Point Beach shift personnel including the shift supervisor receive fire training and qualify as members of the brigade. In addition, selected maintenance and security personnel are trained and qualified for fire brigade duty. Thus, Licensee always has more than five people on shift qualified to serve on the fire brigade. With the shift supervisor at the head of the brigade, fire suppression activities, including rapid response capabilities, will be enhanced and the objectives of Appendix R will be fully served. Due to his general knowledge of and experience with total plant operations and safety, the shift supervisor is best qualified to assess rapidly a fire's plant-wide impact and personally direct the appropriate fire suppression activities. If the shift supervisor is serving on the fire brigade and determines that he is needed elsewhere in the plant during a fire emergency, he will delegate direction of fire suppression activities to another qualified fire brigade leader who also understands the effects of fire and fire suppressants on safe shutdown capability and who also is competent to assess the potential safety consequences of the fire and advise control room personnel. The shift supervisor will also direct another properly qualified person to replace him on the brigade as its fifth member.

Licensee's proposal to include the shift supervisor on the fire brigade does not constitute a deviation from the substantive five-man requirement of Section III.H. It in fact increases Licensee's ability to maintain the best qualified five-person brigade at all times and represents an improvement in fire protection measures over that prescribed in Section III.H.

Additional Considerations

We anticipate that the reassessment required by Mr. Eisenhut's February 20 letter will indicate the need to request exemptions from certain requirements of Section III.G.2 for certain areas of the plant as suggested in Generic Letter 81-12. The new rule, by generically imposing the requirements of Appendix R on all plants operating prior to January 1, 1976, ignores the unique and widely varying design features of individual facilities and the intensive efforts undertaken by the Licensee and the Staff in developing fire protection features which may be better suited to those individual facilities than the generic requirements of Appendix R. Compliance with the new regulation will not necessarily result in better protection of the public health and safety. In fact, unnecessarily increasing the complexity of power plant design features, particularly those involving circuitry or instrumentation, may even be detrimental to safety. Therefore, it is essential that any modifications to be implemented not invalidate previous safety analyses for the Point Beach Nuclear Plant.

The new Section 50.48 will require backfitting of operating nuclear plants. Yet the Licensee is afforded no opportunity for hearing on the imposed license modifications, as required by the Commission's regulations, and the Commission is unilaterally imposing backfit requirements without regard to its own backfitting standards specified in 10 CFR 50.109. It is already apparent to us that many of the modifications required by Appendix R will not provide "substantial, additional protection . . .," and that these modifications are not the only acceptable options which will satisfy the objectives of Appendix R. In fact, we find little or no basis of any sort in the record for the specific requirements articulated in Appendix R.

The new regulation also ignores the practical aspects of cost and feasibility or possibility of compliance. In many respects, the application of the new requirements to the Point Beach Nuclear Plant is technically and economically impracticable, without regard to whether there is a compensating benefit necessary for the protection of the public health and safety. For example, the costs of designing and implementing alternative shutdown capability, or modifications for compliance with Section III.G.2, could be substantial, without necessarily having met the Section 50.109 standard for requiring backfitting. If additional outage time were needed to implement the modifications, replacement power costs could be enormous.

Accordingly, we are at this time requesting the foregoing extensions of the schedule requirements specified in

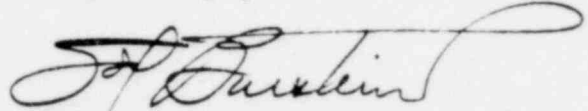
Mr. Harold R. Denton

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Paragraphs 50.48(c)(2), (3), and (5), and exemption from the specified substantive requirement in Section III.H.

Very truly yours,



Executive Vice President

Sol Burstein

Copies to: Mr. Samuel J. Chilk
Secretary of the Commission
Mr. R. A. Clark, Chief
Operating Reactors Branch 3
NRC Resident Inspector
Point Beach Nuclear Plant