



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 5, 1980

Docket Nos. 50-266
and 50-301

Mr. Sol Burstein
Executive Vice President
Wisconsin Electric Power Company
231 West Michigan Street
Milwaukee, Wisconsin 53201

Dear Mr. Burstein:

Our Safety Evaluation Report (SER) on the Point Beach fire protection program issued August 2, 1979 indicated that you would provide the details of certain proposed modifications for our review. In addition, certain issues were left open pending further staff review. Enclosure 1 summarizes the status of the open issues. Enclosure 2 provides our evaluation of the design description for proposed detector installations (Item 3.1.12 of the SER) and our resolution of the open issue related to detector placement and qualification (Item 3.2.5).

Because these two issues are interrelated we cannot approve the design of the detector systems of item 3.1.12 until the issues of detector placement method and detector qualification are resolved. Your letter of December 20, 1979 provides a description of detector systems and the proposed method for detector placement. We find these proposals to be acceptable. In a letter dated December 29, 1978, you proposed that the detector manufacturer's quality assurance tests be accepted in lieu of the bench tests for detector sensitivity required by item 3.2.5. We have concluded that a sufficient basis by which to judge the equivalence of these two test methods has not been provided. Our requirement for the resolution of this issue is provided in Enclosure 2. Satisfactory implementation of this requirement will resolve both item 3.1.12 and item 3.2.5.

We request a response within 30 days of your receipt of this letter indicating that this requirement will be satisfied. If, however, you do not agree with this position, we request that you meet with us in Bethesda in the same 30-day period to resolve this issue.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

8003280 029

Mr. Sol Burstein
Wisconsin Electric Power Company

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March 5, 1980

Enclosures:

1. Status Report
2. Evaluation of 3.1.12 and
3.2.5

cc: w/enclosures

Mr. Bruce Churchill, Esquire
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POINT BEACH UNITS 1 AND 2RESOLUTION OF INCOMPLETE ITEMS - STATUS

	<u>Staff Evaluation</u>	<u>Licensee Response Due</u>
3.1.2 Smoke Exhaust	Incomplete	None
3.1.4 Fixed Water Suppression System	Information	11/15/79
3.1.5 Water Damage Protection	Information	3/15/80
3.1.9 Fire Barriers	Information	1/1/80
3.1.12 Fire Detectors	Requirement	30 days
3.1.14 Cable Separators	Information	3/15/80
3.1.17 Hydrogen Hazard Protection	Incomplete	None
3.1.23 CO ₂ Hose Reel Nozzles	Incomplete	None
3.1.24 Diesel Generator Air Intake Structure	Information	1/15/80
3.1.25 Vent Duct Penetration Seals	Incomplete	None
3.1.26 Auxiliary Building Cable Tray Penetration Seals	Information	1/1/80
3.1.27 Containment Building Fire Stops	Information	1/1/80
3.1.28 Service Building Penetration Seals	Information	1/1/80
3.1.29 Cable Tray Penetration Seal Qualification	Information	1/1/80
3.1.32 Fire Hydrant Inspections	Information	11/1/79
3.1.33 Control Room Light Fixtures	Information	1/1/80

	<u>Staff Evaluation</u>	<u>Licensee Response Due</u>
3.2.1 Safe Shutdown Capability	Incomplete	None
3.2.2 Circulating Water Pump House Fire Protection	Incomplete	None
3.2.3 Fire Brigade Size	Incomplete	None
3.2.4 Fire Brigade Training Frequency	Incomplete	None
3.2.5 Smoke Detection System Qualification	Requirement	30 days
3.2.6 Reactor Coolant Pump Lube Oil Collection	Incomplete	None

POINT BEACH UNITS 1 AND 2FIRE PROTECTION REVIEWEVALUATION OF OPEN ITEMSFire Detectors (3.1.12 and 3.2.5)

Item 3.1.12 of the Point Beach SER deals with the licensee's proposal to provide additional detectors in areas that are presently unprotected or inadequately covered. Section 4.2 of the SER lists these areas as:

Location

1. Containment, Units 1 and 2
2. Diesel generator rooms
3. Cable spreading room
4. Battery rooms
5. Auxiliary building, all elevations
6. Control building, elevation 60 feet
7. Control room
8. Electric Switchgear room, elevation 8 feet
9. Auxiliary feed pump area
10. Pipeways, Units 1 and 2
11. Facade areas, Units 1 and 2
12. Auxiliary feed pump local control station
13. Auxiliary boiler day tank rooms
14. Service building corridor
15. Turbine building lube oil area, Units 1 and 2

Item 3.2.5 of the SER indicates the requirement of the licensee to verify the adequacy of the detectors used at the Point Beach Nuclear Plant and the locations at which the detectors are installed.

During the initial stages of the fire protection review, the licensee did not agree with the review team's recommendation that bench tests and insitu tests be conducted to demonstrate the adequacy of their detector installations. They argued that there does not exist an effective procedure for testing fire detectors in the insitu condition which has industry acceptance in general and NRC acceptance specifically. Therefore, in response to the requirements of the SER, the utility developed their own plan for locating fire detectors. This plan was submitted to the Nuclear Regulatory Commission with their letter dated December 20, 1979. The development of the plan included input from fire detection system installers as well as guidance from Draft Reg. Guide 1.120, and standards published by Underwriter Laboratories and the National Fire Protection Association.

The Point Beach plan consists of a fire detector location sheet which lists various physical and operating characteristics of the area with space for a drawing of the area. Based on the data assembled on the sheet along with site observations, the locations of the fire detectors can be determined using the knowledge and judgement of a qualified person. The sheet requires the signature of the person who engineers the evaluation, the person who performs the survey and the person approving the work. The same plan is applicable for determining the placement of new detectors and evaluating the adequacy of existing detector locations.

The material supporting the utility's plan for detector location includes a decision tree flow chart which identifies conditions affecting the type of detector best suited for the area. Also included is a detector spacing graph which plots ceiling height in feet against the recommended area coverage in square feet per detector. Noted as background material reviewed in preparation for developing this plan included: Sandia Laboratories NUREG/CR-0488, Nuclear Power Plant Fire Protection Fire Detection and National Bureau of Standards Publication, "Environments of Fire Detectors."

Based on our evaluation of the Point Beach letter of December 20, 1979, we find that this method of determining the spacing is adequate. Therefore, the modification of item 3.1.12 and the requirement of 3.2.5 of the SER with regard to detector locations are adequately resolved. However, in a letter dated December 29, 1978, the licensee proposed that manufacturer's quality assurance testing of detectors be accepted in lieu of the bench tests required in item 3.2.5. Therefore, items 3.1.12 and 3.2.5 cannot be totally resolved at this time since it has not been shown that the detectors used at Point Beach will have adequate sensitivity to the products of combustion for the combustibles in the areas where installed. The licensee did not verify that manufacturer's quality assurance tests are equivalent to bench tests done for the detectors and combustibles at the Point Beach plant. The licensee should therefore provide the results of bench tests to verify that the detectors provided at the plant will promptly detect products of combustion from the materials in the areas where detectors are installed.