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Fire Protection in Operating
Nuclear Power Stations

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Point Beach Units 1 and 2
Safety Evaluation Report Review

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Author(s):

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Responsible NRC Individual
and NRC Office or Division:Mr. R.L. Ferguson
Plant Systems Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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for the
U.S. Department of Energy

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INTERIM REPORT

NRC Research and Technical
Assistance Report

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Department of Nuclear Energy

(516) 345-2144

April 27, 1979

Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Robert L. Ferguson
Plant Systems Branch

Dear Bob:

Subject: Fire Protection in Operating Nuclear Power Stations
Point Beach Units 1 and 2 Safety Evaluation Report Review

The Safety Evaluation Report, as developed jointly by the NRC staff and Brookhaven National Laboratory, (BNL), adequately reflects the concerns and recommendations of the consultants. Throughout the reevaluation of Point Beach 1 and 2, there has been general agreement between the NRC staff and the BNL consultants. Based on present data, the proposed fire protection, as set forth in the SER, will give reasonable assurance that the health and safety of the public is not endangered. The following exception represents a differing engineering point of view that should be evaluated by the NRC staff.

Valve Supervision - Section 4.3.1

Electrical valve supervision should be provided on all valves controlling fire water systems and sectionalizing valves. The present proposal of incorporating administrative controls and locks should be unacceptable. See letter dated July 13, 1977 to Mr. R.L. Ferguson from Mr. R.E. Hall.

Flourescent Light Diffusers - Section 5.2

We recommend that the control room flourescent light diffusers have a flame spread rating not to exceed 25. If the licensee can demonstrate that the existing ones meet this criteria they are satisfactory; if not we recommend that the existing control room light diffusers be replaced by ones having a flame spread rating of 25 or less.

NRC Research and Technical
Assistance Report

433 009

April 27, 1979

Fire Hydrant Inspection - Section 4.3.1(3)

We recommend that the fire hydrants be inspected each fall for proper drainage and again in the spring after the freezing season is past, to assure that no freeze damage has occurred.

The preceding statements are based on a detailed reevaluation of the fire protection program as implemented by the Wisconsin Electric Power Company at the Point Beach Units 1 and 2 Nuclear Power Station. The analysis covered a review of the fire prevention, detection and suppression capabilities of the plant as interfaced with the nuclear systems requirements. This was accomplished by utilizing a review team concept with members from BNL and the Nuclear Regulatory Commission Division of Operating Reactor's staff.

The fire protection evaluation for the Point Beach Units 1 and 2 plant is based on an analysis of documents submitted by the Wisconsin Electric Power Company to the Nuclear Regulatory Commission and a site visit. The site visit was conducted by Mr. E. Sylvester and Mr. P. Atherton of the NRC, Mr. Ingemar Asp of Gage Babcock and Associates under contract to BNL, Mr. J. Riopelle, consultant to BNL, and myself. Mr. Riopelle was under contract to BNL to review the manual fire fighting capabilities of the station along with administrative controls.

The Point Beach Units 1 and 2 review has been conducted under the direction of Mr. E.A. MacDougall and myself of Reactor Engineering Analysis Group at BNL.

We have reviewed the analyses submitted by the licensee and have visited the facility to examine the relationship of safety-related components, systems and structures with both combustibles and the associated fire detection and suppression systems. Our review has been limited to the aspects of fire protection related to the protection of the public from the standpoint of radiological health and safety. We have not considered aspects of fire protection associated with life safety of onsite personnel and with property protection, unless they impact the health and safety of the public due to the release of radioactive material. The proposed modifications represent a significant increase in the level of protection against serious fire associated hazards.

Sincerely yours,


Robert E. Hall, Group Leader
Reactor Engineering Analysis

REH:EAM:sd

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433 011