INTERIM REPORT

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

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INTERIM REPORT

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Department of Nuclear Energy (516) 345- 2144

June 21, 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
Prairie Island 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 Prairie Island 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 - DSER Section 4.3.1.3

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

Portable Gas Cylinders - DSER Section 5.12.6

We recommend that the 2 large flammable liquified gas cylinders located at elevation 715 feet in the Auxiliary Building be relocated out of the building. We recommend that pressure regulators be installed and the gas piped into the laboratory in accordance with applicable NFPA Standards, including No. 58.

The preceding statements are based on a detailed reevaluation of the fire protection program as implemented by the Northern States Power Company at the Prairie Island 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 Brookhaven National Laboratory (BNL) and the Nuclear Regulatory Commission Division of Operating Reactors staff.

The fire protection evaluation for the Prairie Island 1 and 2 plant is based on an analysis of documents submitted by the Northern States Power Company to the Nuclear Regulatory Commission and a site visit. The site visit was conducted by Mr. E. Sylvester and V. Panciera of the NRC; Mr. I. Asp of Gaye-Babcock and Associates, Inc. under contract to Brookhaven National Laboratory; and Mr. J. Riopelle consultant to BNL. Mr. Riopelle was under contract to BNL to review the manual fire fighting capabilities of the station along with administrative controls.

The Prairie Island 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

Robert E. Hall, Group Leader
Reactor Engineering Analysis

REH:EAM:sd

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