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Department of Nuclear Energy

January 31, 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 - San Onofre Unit 1 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 San Onofre Unit 1, 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 provide significant enhancement of the fire protection program at the San Onofre Unit 1 plant, and thus, represents significant progress towards a comprehensive fire protection program. The following exceptions represent a differing engineering point of view that should be evaluated by the NRC staff:

1. 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.

2. Section 4.4.1 - The portable smoke venting equipment is a single large industrial blower and not portable smoke ejectors approved for fire fighting activity. We have recommended two 5000 CFM fire fighting smoke ejectors of the explosion proof type.

The preceding statements are based on a detailed reevaluation of the fire protection program as implemented by the Southern California Edison Company (SCEC) at the San Onofre Unit 1 Nuclear Power Station. The analysis covered a review of the fire prevention, detection and suppression capabilities of this unit 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 Reactors staff.

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The fire protection evaluation for San Onofre Unit 1 is based on an analysis of documents submitted by SCEC to the Nuclear Regulatory Commission and a site visit. The site visit was conducted by Mr. Thomas Dunning and Mr. Leo Derderian of the NRC; Mr. Mario Antonetti of Gage-Babcock and Associates, Inc. under contract to BNL; and Mr. J. Townley consultant to BNL. Mr. Townley was under contract to BNL to review the manual fire fighting capabilities of the station along with administrative controls.

The San Onofre Unit 1 review has been conducted under the direction of Mr. E. MacDougall and myself of the Reactor Engineering Analysis Group at BNL, and has had the following major milestone dates.

1. The SCEC "Fire Protection Program Evaluation" was transmitted to NRC on March 16, 1977.

2. On March 16, 1978, NRC transmitted Staff Positions and Requests for Additional Information based on an initial review of the SCEC submittal.

3. The site visit was conducted on July 10 - 13, 1978. Mr. Dunning served as team leader and spokesman.

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.

Respectfully yours,

Robert E. Hall

Robert E. Hall, Group Leader
Reactor Engineering Analysis

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