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MURRAY R. EDELMAN

VICE PRESIDENT
NUCLEAR

February 13, 1985

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Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant Units 1 & 2
Docket Nos. 50-440; 50-441
Control Complex Chilled
Water Technical Specification

Dear Mr. Youngblood:

This letter provides additional information to address the SER requirement, Section 9.2.2 (p. 9-15, attached), for a Technical Specification for the Control Complex Chilled Water System (CCCWS). The Perry Technical Specifications (Surveillance Requirement 4.7.2.a) require that the control room temperature be verified to be less than or equal to 90°F at least once per 12 hours. A failure of the CCCWS would be detected when this surveillance is performed.

The requirement for a Technical Specification related to a control room chilled water system does not exist in the Standard Technical Specifications. We feel that a specific Technical Specification for the CCCWS is not required because its operability is indirectly verified by Surveillance Requirement 4.7.2.a.

We believe that this information is responsive to staff concerns, and request the SER be changed to delete the requirement for a Technical Specification for the CCCWS.

Very truly yours,

Murray R. Edelman
Vice President
Nuclear Group

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- control room;
- motor control center, switchgear, and miscellaneous areas;
- emergency closed cooling pump area.

It also provides cooling water to the cooling coils of the following redundant nonsafety-related and nonseismic air-handling units:

- controlled access,
- miscellaneous equipment areas,
- computer room.

Motor-operated isolation valves will automatically isolate these coils if a failure occurs. The CCCWS consists of three 100%-capacity water chillers and three 100%-capacity circulating pumps connected to two redundant chilled water piping systems, one of which is normally operating with the other on manual standby. Loop A can be connected to chiller A or C, and loop B can be connected to chiller B or C. One chiller and circulating pump are connected to the Unit 1 division 1 emergency bus. Another chiller and pump are connected to the Unit 1 division 2 emergency bus. The third chiller and pump are connected to the Unit 2 division 1 emergency bus. This provides redundant availability of power during all periods of normal or emergency operation of the plant. Heat rejected by the mechanical chillers is absorbed by the nonsafety-related nuclear closed cooling water system during normal plant operation. During emergency conditions, the safety-related emergency closed cooling water system is used. Thus, the requirements of GDC 44 are satisfied.

As described above, portions of the CCCWS are normally operating. The availability of the CCCWS is ensured by periodic functional tests and inspections as delineated in the plant Technical Specifications. The system design also incorporates provisions for accessibility to permit inservice inspection as required. Thus, the staff concludes that the requirements of GDC 45 and GDC 46 are satisfied.

The system is housed in the control building which is seismic Category I flood- and tornado-protected, and all the components, piping, and valves are designed to seismic Category I, Quality Group C, requirements, thereby satisfying the requirements of GDC 2 and the guidelines of Regulatory Guide 1.29, Positions C.1 and C.2. The system is separated from high-energy piping systems and internally generated missiles. Shared cooling of Unit 1 and Unit 2 safety-related equipment is the result of this design. Because of equipment redundancy and separation--both in the equipment to be cooled and in the cooling system--such sharing does not significantly impact their ability to perform their safety functions, and thus the requirements of GDC 5 are met.

Based on the above, the staff concludes that the emergency closed cooling system and the control complex chilled water system meet the requirements of GDC 2, 5, 44, 45, and 46 with respect to the system's protection against natural phenomena, shared functions, capability for transferring the required heat loads, inservice inspection and functional testing, and the guidelines of Regulatory Guide 1.29, Positions C.1 and C.2, with respect to the system's seismic classification and is, therefore, acceptable. Additionally, the staff concludes that the nuclear closed cooling system meets the requirements of GDC 2 and 5 with respect to the system's protection against natural phenomena, and shared functions and the guidelines of Regulatory Guide 1.29, Positions C.1