



GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054
201 263-6500
TELEX 136-482
Writer's Direct Dial Number:

September 1, 1983

Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Crutchfield:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
SEP Topic IX-5 Ventilation Systems

During the integrated assessment of the subject SEP topic, the NRC staff indicated that the motors for the core spray pump, the core spray booster pump and the containment spray pump may not be qualified to operate in environmental temperatures that would occur upon a loss in Reactor Building ventilation. The staff requested GPUN to either (1) demonstrate that these motors are qualified, (2) replace these motors with motors qualified for the environmental conditions or, (3) provide a safety-grade ventilation system to ensure adequate cooling to these motors.

The containment spray pump motors (PM-51-1-1,2,3,4) and core spray pump motors (NZ-01-A,B,C,D) are located in the Reactor Building corner rooms at Oyster Creek Nuclear Generating Station. Our analysis indicates that the maximum temperature expected in these corner rooms would be 173°F under the design basis loss of coolant accident with the rated 500 hp motor operating at the maximum expected continuous demand load of 485 hp and without fan cooling. Detailed calculations along with conservative assumptions used in the analysis, are provided in Amendment 42 to the Oyster Creek Facility Design Safety Analyses Report (FDSAR) dated October 23, 1968.

The latest System Component Evaluation Work (SCEW) sheets for Oyster Creek environmental qualification program submitted to you on October 23, 1981 show that the core spray and containment spray pump motors are designed to function in the environment with temperatures of up to 185°F and 203°F, respectively.

There are four full-capacity core spray booster pumps (NZ-03-A through D) in the Oyster Creek Reactor Building (outside the corner rooms). Two (NZ-03-B & D) of the four pumps, which are located at elevation 26 ft., are in a non-harsh temperature environment following a high energy line break. Also, these pumps (NZ-03-B & D) are energized by independent power supplies. With the single failure criterion, the core spray system can still function to maintain adequate cooling in the reactor vessel.


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Therefore, the core spray and containment spray pump motors in the corner rooms of the Reactor Building and two of the full-capacity core spray booster pump motors in the Reactor Building are adequately designed to cope with the temperatures expected at their locations following a high energy line break in the Reactor Building.

Very truly yours,


Peter B. Fiedler
Vice President and Director
Oyster Creek

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cc: Administrator
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pa. 19406

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, N.J. 08731