GPU Nuclear

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

June 16, 1986
5000-86-0916

Mr. John A. Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Zwolinski:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Combustible Gas Control and Suppression
Pool Temperature Limits

Pursuant to your letter of May 5, 1986, please find attached the information requested relative to Generic Letter 84-09. We believe that this fulfills your request for information in this area.

With respect to the request for additional information concerning the suppression pool, because of the limited time provided, GPU Nuclear was unable to accommodate the requested May 15, 1986 response date. It is our intent to divide our response into two parts. In June we will address the issue of torus water temperature relative to safety relief discharges, and in July we will follow with the information on the relief valve quenchers, suction strainers, and temperature monitors. With respect to NPSH, TS 3.5.A.7 requires the plant to be in cold shutdown within 24 hours of exceeding the suppression pool temperature limit of 95°F during normal power operation. Therefore, the initial suppression pool temperature (95°F) which we assumed in the LOCA analysis and in the NPSH calculations is the maximum allowed by the Technical Specification for any extended period of time.

A001
1/1

In your letter of May 5, 1986, you concluded that Regulatory Guide 1.7 was appropriate for LOCA analysis to meet 10CFR50.44(g). GPU Nuclear does not agree with this conclusion, the NEDO-22155 analysis is a technically sound document which concludes that the peak oxygen concentrations for Mark I plants with inerted containments are below the allowable Regulatory Guide 1.7 assumptions without the need for venting and purging. Based on the above, GPUN would like to meet with you to discuss this issue in greater detail.

Very truly yours,

R. F. Wilson
Vice President
Technical Functions

RFW/pa (3383f)

Attachment

cc: Dr. Thomas E. Murley, 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

J. Donohew
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20014

ATTACHMENT

OYSTER CREEK NUCLEAR GENERATING STATION
DOCKET NO. 50-219
GENERIC LETTER 84-09

By a letter dated August 14, 1985 the licensee responded to the staff's request for additional information (RAI) dated April 29, 1985. The following RAI is based on the licensee's August 14 submittal:

1. In the response to question 1, you stated that the backup air supply to the nitrogen system will be automatically isolated when the primary containment isolation occurs for the design basis Loss-of-Coolant Accident (LOCA). Identify the components relied upon to isolate the backup air supply from the nitrogen system and verify that they are safety grade. Also, indicate if the response is valid for the situation of a failed-nitrogen system. Describe the inspection and testing program employed to assure the operability of these components.

   GPUN Response

   The components for isolating the instrument air/nitrogen system are valves V-6-393 and V-6-395. V-6-395 is an air operated valve located outside the drywell which closes upon any automatic Main Steam Isolation Valve (MSIV) isolation signal (low-low Rx water level, steam line high radiation, steam line break or steam line low pressure) from the reactor protection system. V-6-393 is a check valve located inside the drywell and is in series with V-6-395. V-6-395 will also fail closed on loss of air or loss of electric power. These valves are designed to ASME III criteria; V-6-395 as Nuclear Class IE and V-6-393 as Nuclear Class II. V-6-395 and the piping through and including V-6-393 were designed to meet seismic criteria Class I.

   As indicated above, V-6-395 and V-6-393 isolate the instrument air/nitrogen system from containment regardless of whether nitrogen or air is supplying the MSIVs. Since the MSIVs are air-to-open valves, a failure of the nitrogen system would cause the MSIVs to close, initiating a reactor scram and challenging the integrity of the safety shutdown systems. By switching over to instrument air upon low nitrogen header pressure, a spurious reactor trip is avoided. The MSIVs do not rely solely on the instrument air/nitrogen supply for closure. They can close on either actuator spring force or pressure stored in the accumulators. The switch over to instrument air upon nitrogen system failure, while still maintaining atmosphere control and reactor isolation capability, is considered a valid system response.

   Oyster Creek Plant Procedures contain prerequisites which require that all automatic containment isolation valves be operable or be secured in the closed position. In addition, the drywell isolation signal must be reset and the integrity of the containment system must be verified and approved (via a valve check-off list) to ensure system operability.

Operability of V-6-395 is demonstrated via test in accordance with Plant Procedure 652.3.001 "Instrument Air Isolation Surveillance Test". The valve also receives testing in accordance with the requirements of 10 CFR 50, Appendix J.

2. In the response to question 2, you stated that the service air and breathing air systems are not connected to the drywell during power operation. Furthermore, you stated the TIP purge system which may use nitrogen or air, uses nitrogen during power operation. Describe the administrative controls and/or interlocks used to prevent these systems from adding oxygen to the containment during power operation. Identify the components relied upon to isolate these potential oxygen contributors from the containment, and verify that these components are safety grade. Describe the inspection and testing program employed to assure the reliability of these components.

GPUN Response

There is no permanent piping for the service air and breathing air systems in the drywell. In order to support drywell outage work, hoses are routed through the drywell air locks. Containment integrity required to support power operation necessitates the closing of the air locks and removal of the hoses, thus ensuring that the service air and breathing air systems are not sources of oxygen.

Provisions for containment inerting specified by Plant Procedure requires that the operator open and tag (V-23-162) the nitrogen supply to the TIP indexer and, in addition, close and tag (V-6-1321) the air supply to the TIP indexer. The valve check-off list supporting this action must be verified and approved by three individuals. These provisions ensure that only nitrogen will be used in the TIP purge system during power operation.