July 8, 1981

Docket No. 50-219
LS05-81-07-013

Mr. I. R. Finfrock, Jr.
Vice President - Jersey Central
Power & Light Company
Post Office Box 388
Forked River, New Jersey 08731

Dear Mr. Finfrock:

SUBJECT: SEP TOPIC V-11.A, REQUIREMENTS FOR ISOLATION OF HIGH AND LOW PRESSURE SYSTEMS, SAFETY EVALUATION FOR OYSTER CREEK

The enclosed staff safety evaluation supplements our contractor's evaluation that has been made available to you previously. This evaluation is consistent with the findings in our safety evaluation on Topic V-11.A which proposes modifications to the RWCU valve indication and control circuits.

The need to actually implement these changes will be determined during the integrated plant safety assessment. This topic assessment may be revised in the future if your facility design is changed or if NRC criteria relating to this topic are modified before the integrated assessment is completed.

Sincerely,

Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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NRC FORM 318 (10/80) NRCM 0240 OFFICIAL RECORD COPY USGPO 1980—329-824

Mr. I. R. Finfrock, Jr.

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TOPIC: V-11.A REQUIREMENTS FOR ISOLATION OF HIGH AND LOW PRESSURE SYSTEMS

I. INTRODUCTION

Several systems that have a relatively low design pressure are connected to the reactor coolant pressure boundary. The valves that form the interface between the high and low pressure systems must have sufficient redundancy and interlocks to assure that the low pressure systems are not subjected to coolant pressures that exceed design limits. The problem is complicated since under certain operating modes (e.g., shutdown cooling and ECCS injection) these valves must open to assure adequate reactor safety.

II. REVIEW CRITERIA

The review criteria are presented in Section 2 of EG&G Report 1309F, "Isolation of High and Low Pressure Systems."

III. RELATED SAFETY TOPICS AND INTERFACES

The scope of review for this topic was limited to avoid duplication of effort since some aspects of the review were performed under related topics. The related topics and the subject matter are identified below. Each of the related topic reports contain the criteria and review guidance for its subject matter.

V-10.B RHR Reliability
VI-4 Containment Isolation

Topic V-11.B is dependent on the present topic information for completion.

IV. REVIEW GUIDELINES

The review guidelines are presented is Section 7.3 of the Standard Review Plan.

V. EVALUATION

As noted in EG&G Report 1309F, "Isolation of High and Low Pressure Systems," the Oyster Creek Nuclear Station has two systems with a lower design pressure rating than the RCS that are directly connected to the RCS. These systems are the Core Spray (CS) and the Reactor Water Cleanup (RWCU) Systems. The RWCU system does not satisfy the staff's requirements because the redundant pressure interlocks are not provided and the check valves do not have position indication in the control room.

VI. CONCLUSIONS

Because of the severe consequences of a LOCA outside of containment the staff proposes that: 1) redundant interlocks should be installed on the RWCU suction valve; 2) the indication and control of the RWCU discharge valves should be modified to satisfy the interlock provisions of SRP Section 6.3 and BTP RSB 5-1; and/or 3) RWCU discharge check valve position indication circuits as specified in BTP-ICSB 3 should be provided.