

July 10, 1981

Docket No. 50-237
LS05-81-07-031

Mr. J. S. Abel
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690



Dear Mr. Abel:

SUBJECT: SEP TOPIC V-11.A, REQUIREMENTS FOR ISOLATION OF HIGH AND
LOW PRESSURE SYSTEMS AND V-11.B, RHR INTERLOCK REQUIREMENTS
- SAFETY EVALUATION REPORT FOR DRESDEN UNIT 2

The enclosed staff safety evaluation supplements our contractor's evaluations that have been made available to you previously. This evaluation is consistent with the findings in our contractor's evaluations of Topics V-11.A and V-11.B. As a result of our safety evaluation of Topic V-11.A, we propose modifications to the RWCU suction valve control circuitry.

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

SE04
5/11

Add: Gary Stakeley

DSU USE E1(02)

Parker signed

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Sincerely,

Walter A. Paulson
for Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing

Enclosure:
As stated

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Mr. J. S. Abel

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

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 1269F, "Electrical Instrumentation and Control Features for 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

IV. REVIEW GUIDELINES

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

V. EVALUATION

As noted in EG&G Report 1269 F, Dresden Unit 2 has three systems with a lower design pressure rating than the RCS that are directly connected to the RCS. These are the Core Spray (CS), Low Pressure Coolant Injection (LPCI) and Reactor Water Cleanup (RWCU) systems. The CS and LPCI systems satisfy the review criteria.

The RWCU system does not have independent interlocks on the suction valves and, therefore, does not satisfy the staff's criteria.

VI. CONCLUSIONS

Because of the severe consequences of a LOCA outside of containment the staff proposes that redundant RWCU suction valve interlocks be installed.