

October 5, 1983

Docket No. 50-237/249
LS05-83-10-009

Mr. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

SUBJECT: LICENSEE ACTIONS FOLLOWING FAILURE OF CERTAIN ECCS/CONTAINMENT
ISOLATION VALVES

Dresden Nuclear Power Station, Unit Nos. 2 and 3

In Licensee Event Report (LER) #83-06/OIT-0, Docket No. 50-249, an incident at Dresden 3 was discussed in which LPCI pump suction valve, M03-1501-5D failed to open during testing. The valve, which has a dual ECCS/Containment Isolation capability, was opened manually and then electrically deactivated to maintain its ECCS function. This defeated its capability to perform its containment isolation capability. The event was also discussed in Region III Inspection Report No. 50-010/83-06(DPRP); 50-237/83-07(DPRP); 50-249/83-06 (DPRP).

Several concerns have resulted from an examination of the information in the LER and the Inspection Report. The staff has studied the implications of the event and has addressed those concerns in the enclosure. You should particularly note that it is the staff's position that the LPCI suction valves (4) and core spray suction valves (2) should be included in Table 3.7.1, Primary Containment Isolation, of the Dresden Unit 2 and Unit 3 Technical Specifications. You are hereby requested to submit an application for license amendments which will add them to Table 3.7.1 for each unit.

The staff also understands that there may be other valves not already so designated which serve such dual functions and which should also be in Table 3.7.1 of the Technical Specifications. You should examine your piping configurations and include these valves in your amendment submittal.

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Mr. Dennis L. Farrar

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October 5, 1983

This request only pertains to Dresden Nuclear Power Station, Units 2 and 3 (fewer than 10 respondents); therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

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CONCERNS RELATING TO FAILURE OF CERTAIN ECCS/CONTAINMENT

1. The LPCI (1501-5D) valve has an automatic open signal which opens the valve if closed when an ECCS automatic initiation signal is received. The automatic open portion of the valve was not operable because when the valve closed it was incapable of being automatically opened. The staff concern is whether the valve should be considered inoperable or operable with only the automatic open capability inoperable when the valve was open with the capability of closing.

The staff position is that, if any automatic function of an ECCS or Containment Isolation becomes inoperable, the valve is inoperable. The valve must be considered inoperable even if the automatic open function is not presently needed (e.g., valve open and automatic open function not operable). An intentional or unintentional closing of the valve without the automatic opening feature would leave the plant in a degraded condition. Such a position is consistent with the staff's intent as expressed in the Standard Technical Specification definition of Operable-Operability which all power reactor licensees were requested to adopt via the generic letter of April 10, 1980. It is the staff's position that if any function of the LPCI valve is inoperable, the valve must be declared inoperable. Furthermore, since opening of the valve is required for the LPCI system to perform its intended function, the LPCI system also must be declared inoperable.

2. When an ECCS/Containment Isolation valve is declared inoperable, the staff's position is that the licensee should follow the requirements of the applicable Technical Specification. In the event the applicable Technical Specification does not provide explicit criteria for positioning an inoperable ECCS/Containment Isolation valve, the staff believes that the valve should be closed so as to maintain containment integrity. Furthermore, the ECCS loop should be declared inoperable and its action statement complied with. In the case where such a valve was inoperable solely as a result of being unable to automatically open, the staff would consider it acceptable to maintain the valve in an open position provided the ECCS loop was declared inoperable, its action statement was complied with, and the valve was capable of being closed by an automatic containment isolation signal.
3. Once an ECCS/Containment Isolation valve is declared inoperable and the valve is then placed in a designated configuration (either open or closed), this valve should be electrically deactivated to preclude its subsequent inadvertent actuation. However, if a valve is inoperable and is being maintained in its open position in accordance with the criteria given above, it is the staff's position that this valve should not be electrically deactivated since it would then be incapable of closing to provide containment isolation. Furthermore, the staff does not believe that automatic initiation of the ECCS loop should be bypassed.

4. Since the 1501-5D valve was not in the Technical Specifications, the associated action statement was not apparent to the licensee. As part of the ECCS systems, these valves would not normally be listed separately since the definition of Operable-Operability (which all power reactor licensees were requested to adopt via the generic letter of April 10, 1980) would require these valves to be operable in order for the ECCS systems to be operable. However, since these valves are considered as part of the boundary for containment isolation, it is the staff's position that they should be included in Table 3.7.1, Primary Containment Isolation, of the Dresden Units 2 and 3 Technical Specifications.

5. The SEP topic recommendation was that appropriate procedures for operator action should be provided. The licensee had not issued these procedures. The licensee should follow the requirements of the applicable Technical Specification. In the event the applicable Technical Specification does not provide explicit criteria for positioning an inoperable ECCS/ Containment Isolation valve, the staff has determined that, in general, the valve should be closed so as to maintain containment integrity. Furthermore, the ECCS loop should be declared inoperable and its action statement complied with. In the case where such a valve was inoperable solely as a result of being unable to automatically open, the staff would consider it acceptable to maintain the valve in an open position provided the ECCS loop was declared inoperable, its action statement was complied with, and the valve was capable of being closed by an automatic containment isolation signal. However, there may be situations which can arise which will dictate different actions be taken concerning the disposition of these valves and they should be addressed on a plant specific basis by the licensee.