



**Consumers  
Power**

**POWERING  
MICHIGAN'S PROGRESS**

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November 21, 1986

Director,  
Nuclear Reactor Regulation  
US Nuclear Regulatory Commission  
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -  
BASIS OF TECHNICAL SPECIFICATION SECTION 3.4 - CONTAINMENT COOLING -  
REVISION 1

Provided with the Technical Specification Change Request of October 20, 1986, was a change to the Basis of Section 3.4, Containment Cooling. The change contained an error in the description of the results of the Main Steam Line Break (MSLB) analysis resulting from LER 80-003. The analysis assumed the need for one containment spray pump and three containment air coolers in reducing containment pressure below the design value of 55 psig. The previously submitted Basis incorrectly stated the single containment spray pump on the associated 1-2 diesel generator bus could alone maintain pressure below the design value. The affected page change (page 3-36) has been revised and is attached as a replacement to the one submitted with the Technical Specification Change Request.

Although the effect of reducing containment pressure by the three containment air coolers is small in the superheated atmosphere resulting from a steam line break, prior to initiation of the containment spray which quenches the steam, this particular analysis did take credit for their use. However, containment air cooler VHX-4 and its associated fan V-4A powered from the 1-1 diesel generator bus was not considered in the MSLB analysis as the two containment spray pumps alone on this bus maintain pressure below the design value. As noted in our change request, no credit for VHX-4 has been taken in any accident analyses which provide the licensing basis for the Palisades Plant.

Consumers Power Company believes the analysis, resulting from LER 80-003, to be conservative because it assumes a loss of offsite power and a worse case single failure of a diesel generator. Our present understanding, which was discussed with your staff some years ago, is that the Standard Review Plan, Section 6.2.1, requires assumption of the most severe single active failure in the containment heat removal systems for an MSLB. An analysis based on this assumption would not require more than one containment spray pump to be

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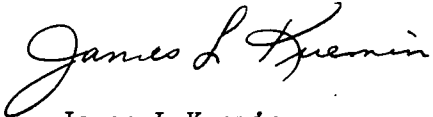
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inoperable and, therefore, would result in a reduction in the calculated peak containment pressure from that in our analysis associated with LER 80-003. It has been our intent to conclude an analysis based on the Standard Review Plan, but other priority work has intervened. When such an analysis is concluded, a revision to the FSAR and Technical Specification Basis will result.



James L. Kuemin  
Staff Licensing Engineer

CC Administrator, Region III, USNRC  
NRC Resident Inspector - Palisades

Attachment

ATTACHMENT

Consumers Power Company  
Palisades Plant  
Docket 50-255

PROPOSED TECHNICAL SPECIFICATION PAGE CHANGE

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CONTAINMENT COOLING (Contd)Basis (Contd)

cooling to limit containment pressure to less than the design condition. The three air coolers, fed from bus 1D and associated with diesel generator 1-2 were therefore considered redundant to the two spray pumps, on bus 1C associated with diesel generator 1-1. Additional excess containment cooling was provided with one spray pump on the 1D bus included with the three air coolers on that bus and one air cooler fed from bus 1C included with the two spray pumps on that bus. The LOCA analysis did not consider the use of either of these excess pieces of equipment.

In 1980, as reported in LER 80-003, reanalysis of the Palisades Main Steam Line Break Event resulted from a determination that the containment spray initiation time was longer than had been assumed in the FSAR analysis. Peak containment pressure for a MSLB is mitigated by the actuation of the containment cooling system whereas for a LOCA the peak pressure is initially limited by the heat sinks in containment. It was determined in the reanalysis that the peak containment pressure during a MSLB is mitigated by the use of the single containment spray pump and the three containment air coolers on the diesel generator 1-2 bus or by the two containment spray pumps on diesel generator 1-1 bus.