



SACRAMENTO MUNICIPAL UTILITY DISTRICT □ 6201 S Street, Box 15830, Sacramento, California 95813; (916) 452-3211

August 2, 1979

U. S. Nuclear Regulatory Commission  
ATTN: Mr. R. H. Engelken, Director  
Region V Office of Inspection & Enforcement  
1990 North California Boulevard  
Walnut Creek Plaza, Suite 202  
Walnut Creek, California 94596

Re: Operating License DPR-54  
Docket No. 50-312  
Reportable Occurrence No. 79-6

Dear Mr. Engelken:

In accordance with Technical Specifications for Rancho Seco Nuclear Generating Station, Section 6.9.4.1(h) and Regulatory Guide 1.16, Revision 4, Section C.2a(8), the Sacramento Municipal Utility District is hereby submitting a fourteen-day followup report to Reportable Occurrence 79-6, which was initially reported to your office July 20, 1979, via a telephone call and a confirmation letter the same day.

On July 20, 1979, Babcock and Wilcox, the NSS Supplier for Rancho Seco Unit 1, informed the District that they had recently completed additional small break LOCA analyses. These analyses identified a potentially unsafe condition. Basically, the analyses have shown that loss of reactor coolant pumps sometime after two minutes into an event involving a certain spectrum of small breaks (about 0.05 ft<sup>2</sup> to 0.20 ft<sup>2</sup>) could exceed 10 CFR 50, Appendix K criteria.

Reactor coolant pump operation tends to homogenize the steam-water mixture present during certain small breaks. In addition, the percent steam in the mixture, referred to as void fraction, can attain high values very quickly after such a break. If reactor coolant pumps are lost with a significant system void fraction, the steam water mixture separates. The analyses have shown that within the first two minutes of such an event, both the system void fraction and the mass of coolant lost through the break are insufficient to cause a problem on loss of reactor coolant pumps. However, after two minutes, the combination of high system void fraction, mass of coolant lost through the break, and separation of the steam-water mixture upon loss of the pumps could result in the core being partially uncovered.

This is considered a very low probability event. However, the consequences of the worst case event could result in major fuel damage. Accordingly, B&W has recommended that reactor coolant pumps be tripped within two minutes of a low pressure SF<sub>6</sub> signal.

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In our letter of July 20, 1979, the District stated that we could not immediately respond to this recommendation due to conflicts with requirements imposed by I&E Bulletins 79-05A and B. In the interim, the issuance and receipt of I&E Bulletin 79-05C and 79-06C have occurred. The immediate actions required by 79-05C and 79-06C have been implemented. Licensed operators are cognizant of the requirement to immediately trip all operating RCP's upon reactor trip and initiation of HPI caused by low reactor coolant system pressure. Two licensed operators are required to be in the control room at all times during operation to accomplish the above action and other immediate and followup actions required during such an occurrence. The analyses, development of new guidelines, procedure changes, and subsequent operator training will be done in accordance with the schedule delineated in the Bulletin.

There was no plant transient nor power reduction associated with this event.

Respectfully submitted,



J.J. Mattimoe  
Assistant General Manager  
and Chief Engineer

JJM:HH:jim

cs: Director, MIPC (3)  
Director, I&E (30)