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NOTE TO: Ashok Thadani, Assistant Director
for Systems
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FROM: M. Wayne Hodges, Chief
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SUBJECT: DPV CONCERNING CONTAINMENT ISOLATION VALVES AT ZION

The attached memorandum from Norm Lauben addresses most of the technical issues raised in the DPV. The analyses performed by Norm Lauben do indicate the potential for fuel pin rupture during blowdown for very high power pins. However, for pin powers which exist for current fuel designs, no blowdown rupture is predicted. Therefore, pin rupture during blowdown is not a problem for existing designs but should be checked for future designs.

The fuel failure criteria described in Chapter 4 of the Standard Review Plan (SRP) could be interpreted to apply to LOCA analyses in the absence of staff practice. However, staff practice has never (at least not since 1974 when I joined the staff) been to assume fuel failure upon inception of DNB for LOCA analyses. Perhaps, the SRP should be revised to more clearly describe staff practice, but I do not believe the effort to be worth the cost in staff resources.

Based upon the enclosed analyses and discussions with several staff experts (R. Meyer, R. Jones, L. Rubenstein), I do not believe that rupture of high burnup fuel pins during the blowdown transient to be credible for existing fuel designs. However, it is appropriate to verify that blowdown rupture does not occur for future designs.

original signed by
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