

BABCOCK & WILCOX COMPANY  
I R GENERATION GROUP  
dateYear1978Day3Month8August 3, 1978

TO: B.A. Karrasch, Manager, Plant Integration  
FROM: D.F. Hallman, Manager, Plant Performance Services Section  
(1149)  
SUBJECT: Operator Interruption of High Pressure Injection (HPI)

REFERENCES: (1) B.M. Dunn to J. Taylor, Operator Interruption of  
High Pressure Injection, dateYear1978Day9Month29  
February 1978  
(2) B.M. Dunn to J. Taylor, Operator Interruption of  
High Pressure Injection,  
dateYear1978Day16Month216 February 1978

References 1 and 2 (attached) recommend a change in Babcock & Wilcox's philosophy for HPI system use during low-pressure transients. Basically, they recommend leaving the HPI pumps on, once HPI has been indicated, until it can be determined that the hot leg temperature is more than 50°F below  $T_{sat}$  for the RCS pressure.

Nuclear Service believes this mode can cause the RCS (including the pressurizer) to be solid. The pressurizer reliefs will lift, with a water surge through the discharge piping into the quench tank.

We believe the following incidents should be evaluated:

If the pressurizer goes solid with one or more HPI pumps continuing to operate, would there be a pressure spike before the reliefs open which could cause damage to the RCS?  
What damage would the water surge through the relief valve discharge piping and quench tank cause?

To date, Nuclear Service has not notified our operating plants to change HPI consistent with References 1 and 2 because of our above-stated questions. Yet, the references suggest the possibility of uncovering the core if present HPI policy is continued. We request that Integration resolve the issue of how the HPI system should be used. We are available to help as needed.

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D.F. Hallman