

June 12, 1979

P. O. Box 1625
Idaho Falls, Idaho 83401

R. E. Tiller, Director
Reactor Operations & Programs Division
Idaho Operations Office - DOE
Idaho Falls, Idaho 83401

KEWAUNEE POWER STATION STEAM GENERATOR WATER HAMMER TECHNICAL
EVALUATION (A6257) - JAD-129-79

Ref: Victor Stello Ltr to C. E. Williams, dated March 23, 1979

Dear Mr. Tiller:

The attachment completes the assessment of the effectiveness of the existing means to reduce the potential for steam generator water hammer at the Kewaunee Power Station (KPS).

The assessment has shown that under conditions which are most conducive to water hammer in the feedwater system (specifically, uncovered and draining feedrings and feedwater piping subjected to admission of cold auxiliary feedwater), the means to reduce the potential for water hammer at this facility are inadequate to maintain sufficiently full feedrings and feedwater piping until feeding recovery occurs. Therefore, since keeping the feedrings and feedwater piping full of water is the criterion for this evaluation, we find that the means to reduce the potential for generator water hammer at this facility are inadequate.

We therefore recommend plugging of all bottom discharge holes and installation of "J" shaped discharge tubes on all steam generator feedrings. However, the KPS, along with other plants with similar auxiliary feedwater line inlet geometries, has not reported a feedwater water hammer to date. We therefore recommend (as an alternative to steam generator feeding modifications) implementation of: (1) a test program to qualify the effect of the auxiliary feedwater line inlet configuration on the inducement of feedwater water hammer and (2) administrative controls to limit auxiliary feedwater flow to 150 gpm or less per steam generator during periods of feeding uncover.

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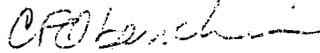
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This transmittal constitutes partial fulfillment (one of the four plants to be reviewed) of Node LA2 of the A6257 PERT Chart dated May 17, 1979.

Very truly yours,



for J. A. Dearien, Manager
Code Assessment and
Applications Program

DDC:tn

Attachment:
As stated

cc: S. D. MacKay, NRC-DOR (Proj. Mgr.) - 10
R. W. Kiehn, EG&G Idaho, w/o Attach.