



Idaho, Inc.

June 27, 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

PRAIRIE ISLAND POWER STATION STEAM GENERATOR WATER HAMMER TECHNICAL  
EVALUATION (A6257) - JAD-135-79

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 Prairie Island Power Station (PIPS).

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 feedring 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 steam generator water hammer at this facility are inadequate.

On the basis of this evaluation, we recommend installation of top discharge feedrings in all steam generators. However, the PIPS, 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 feedring modifications) implementation of a test program to qualify the effect of the auxiliary feedwater line inlet configuration on the inducement of feedwater water hammer. The test program need not be performed by the responsible utility.

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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,

A handwritten signature in dark ink, appearing to read "John A. Dearien". The signature is fluid and cursive, with a prominent loop at the end.

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.

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