Washington Public Power Supply System
P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

Docket No. 50-508

November 11, 1982
G03-82-1135

Mr. G. W. Knighton
Chief Licensing Branch No. 3
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: NUCLEAR PROJECT 3 RESPONSES TO NRC QUESTIONS ON PIPE CLAMPS

References:
a) Letter F. J. Miraglia to R. L. Ferguson, dated June 25, 1982

b) Letter #G03-82-760, G. D. Bouchey to F. J. Miraglia, dated July 30, 1982 same subject

The testing program described in Reference b) in response to Reference a), question #8, is now complete.

A description of the test results is provided as an attachment to this letter.

Should you have any questions or desire further information, the Supply System point of contact in this matter is Mr. K. W. Cook, Licensing Project Manager (206 482-4428 ext. 5436).

Sincerely,

G D Bouchey

G. D. Bouchey, Manager (370)
Nuclear Safety and Licensing

GDB/hd

Attachment

cc: J. A. Adams, NESCO
Ebasco, Elma
D. J. Chin, NYO
D. Smithpeter, BPA
WNP-3 Files, Richland

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ATTACHMENT 1

QUESTION #8

The applicant should address the possibility of preloading relaxation due to thermal and pressure cycling of the pipe.

ANSWER #8

In response to this question, the preload relaxation due to thermal and pressure cycling was addressed in the following manner:

1. A size 2A Figure 215 Stiff Clamp was attached to an 8 inch schedule 160 stainless steel pipe spool at a torque of 40 foot pounds which is 15% in excess of the required installation torque (35 foot pounds). This was used to conservatively simulate the piping pressure.

2. The pipe spool and clamp were heated in an oven to a temperature of 650° Fahrenheit.

3. They were held at this temperature for an hour and then air cooled to room temperature a total of ten cycles at which time the torque was checked.

The results of the test were favorable in that there was no torque relaxation. Therefore, since no torque loss was evident the recommended loads and stiffnesses are still applicable.

The ITT Grinnell Test Report can be made available upon request.