

### Washington Public Power Supply System

3000 George Washington Way P.O. Box 968 Richland, Washington 99352-0968 (509)372-5000

February 11, 1985

Mr. Richard C. DeYong, Director  
Office of Inspection and Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. DeYong:

I am a staff attorney representing the Washington Public Power Supply System (WPPSS). We are currently embroiled in litigation involving three Torrington, slip ring end, roller bearing failures on standby diesel generators assembled by Stewart and Stevenson Services, Inc. of Houston, Texas and manufactured by Parsons Peebles-Electric Products, Inc. of Cleveland, Ohio.

After the respective failures, the generators were disassembled, and it was found that the Torrington bearing on the rotor shaft had spun on the fiberglass sleeve on the shaft. Also, the fiberglass sleeve had turned on the shaft. This caused the shaft to drop in the bearing housing enough to let the seal area of the bearing housing come in contact with the shaft, resulting in considerable damage.

Thorough investigations of the failures by our engineers have led us to the conclusion that poor design was the cause of these failures. The inherent weakness in the design appears to be caused by the process of applying fiberglass insulation to the rotor shaft and then attaching the Torrington bearing over the fiberglass sleeve on the shaft. After one of the failures, this fiberglass was replaced by a metal sleeve over the shaft and the failure problem was resolved. Our engineers believe that this poor design was the cause of all three WPPSS generator failures, another generator failure that occurred in the Stewart and Stevenson factory in Houston, and also, possibly three generator failures that recently occurred at Watts Bar Nuclear Plant Units 1 and 2. In addition, it is also believed that this design may have been the cause of other similar failures of generators manufactured by Parsons Peebles and assembled by Stewart and Stevenson or assembled by other firms.

A review of the reporting requirements of 10 CFR 21 leads me to believe that you may have information regarding generator failures similar to those described herein above. I am interested in obtaining information from you concerning any and all reported generator failures involving circumstances similar to those I have described. Please provide me with information relating to those failures. I am particularly interested in failures involving generators manufactured

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by Parsons Peebles and assembled by Stewart and Stevenson, or assembled by other firms.

If I can provide you with further details regarding the nature of my request, please contact me at your earliest convenience. If you are unable to provide me with the information requested, please advise me of how or where I might obtain the same.

Your cooperation and assistance in consideration of my request is most appreciated.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael J. Davidson".

Michael J. Davidson  
Staff Attorney

ljk