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February 28, 1979  
GQL 0233

Director of Nuclear Reactor Regulation  
Attn: R. W. Reid, Chief  
Operating Reactors Branch No. 4  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
Operating License No. DPR-50  
Docket No. 50-289  
Decay Heat Pumps

In response to your letter of January 29, 1979, the following information is submitted to verify that Decay Heat Pump impeller to casing rubbing is not of concern for the Decay Heat Pumps installed at TMI-1.

1. The impeller-casing rubbing at Crystal River 3 (CR-3) was apparently the result of a tolerance interference caused during manufacture of the pump casing. The TMI-1 casings and the CR-3 casings were manufactured at different times and cast by different foundries. Therefore, it is highly unlikely that the casing defect is generic and present in the TMI-1 pump casings.
2. A TMI-1 spare pump casing, which was manufactured about the same time and cast at the same foundry as the TMI-1 installed casings, was examined at TMI-1, and the results were discussed with Worthington. Worthington confirmed that the measurements taken indicate acceptable tolerances, and that there is no reason to believe that the installed casings are of lesser quality.
3. TMI-1 has never experienced any abnormal operation of the pumps that could indicate interference rubbing.
4. TMI-1 replaced the pump shafts during the 1978 refueling outage and performed NDT on the replaced shafts. There were no linear indications in the area where bending fatigue due to interference rubbing would occur.
5. When the pumps were disassembled for shaft replacement during the 1978 refueling outage, the impellers were examined, and no indications of rubbing were found.

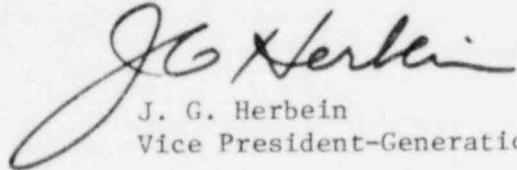
Based on the above, in addition to the many hours of reliable operation (2493.6 hours on DH-PlA and 3688.2 hours on DH-PlB), Met-Ed has concluded, and both Worthington and B&W concur, that the problem experienced at Crystal River is of

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no concern relative to the TMI-1 Decay Heat Pumps. Furthermore, Met-Ed is extremely confident that the TMI-1 Decay Heat Pumps will maintain their high degree of reliability and will be capable of performing their safety functions as described in the TMI-1 FSAR. Continued assurance of the reliability of the TMI-1 pumps is obtained during the monthly Inservice Inspection Testing performed in accordance with the requirements of ASME Section XI.

Sincerely,

A handwritten signature in cursive script, appearing to read "JG Herbein".

J. G. Herbein  
Vice President-Generation

JGH:RJS:tas