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ARTHUR E. LUNOVALL, JR.
VICE PRESIDENT
SUPPLY

August 30, 1982

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTENTION: Mr. Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Inservice Inspection and Pump and Valve Programs
Request for Relief from ASME Code Section XI
Requirement Determined to be Impractical

Dear Mr. Clark:

In accordance with 10 CFR 50.55a(g)(5), we are requesting an exemption from ASME Code Section XI requirements that have been determined to be impractical. In accordance with the NRC Staff Guidance letter, dated November 24, 1976, the information concerning these exemption requests is presented herein. These exemptions are requested for the remaining portion of the first 10-year intervals for Calvert Cliffs Units 1 and 2. Presently, we are following the requirements of ASME Code Section XI, 1974 Edition, with Addenda through Summer 1975 for Units 1 and 2 Inservice Inspection Programs and the Unit 1 Pump and Valve Testing Program. The Unit 2 Pump and Valve Testing Program has been optionally updated to ASME Code Section XI, 1977 Edition, with Addenda through Summer 1978, for the remainder of the first interval.

Based on experience gained in the course of inspections to date, some examination requirements specified in our code requirements are impractical to accomplish. Additional relief from ASME Code requirements is requested for Units 1 and 2 as follows:

- A. Calibration of bearing temperature thermocouples for pumps. Articles IWP-3000 and 4000 of ASME Code Section XI require calibration of thermocouples used for indication of bearing temperatures and used to perform surveillance testing of pumps. This requirement is impractical for the following reasons:
 - (1) Pump bearing temperatures are used for trending only. Thus, small amounts of instrument "drift" would be insignificant even if it exists and operating experience indicates otherwise.

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- (2) Many of these thermocouples are imbedded in the pump casing, and thus would require bearing destruction for removal and calibration. Contact pyrometers, the only suitable alternative to installed instrumentation can be calibrated, but are less accurate because they measure bearing housing temperature not bearing temperature.
- (3) The present requirements for vibration monitoring as a part of our surveillance monitoring program are sufficient to detect imminent failure of the pump bearings.
- (4) Operating experience has shown that bearing failure is characterized by sudden rapid rise in temperature, just prior to or during the failure, indicating that bearing temperature may not be useful in determining trends toward bearing failure.
- (5) Acceptance criteria for bearing temperatures is difficult to determine due to ambient temperature effects and lack of specific manufacturer guidelines.

Relief is, therefore, requested from the requirement to calibrate bearing temperature thermocouples that are used to perform surveillance testing on the following pumps at Calvert Cliffs:

- (a) Salt Water Pumps
- (b) Service Water Pumps
- (c) Component Cooling Pumps
- (d) Auxiliary Feed Pumps
- (e) Containment Spray Pumps

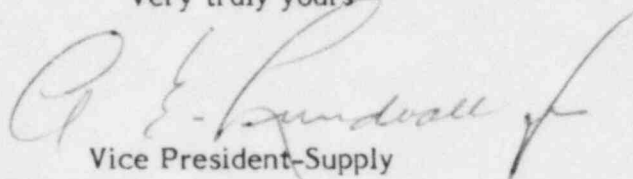
In previous correspondence to the NRC, we have obtained relief from ASME Code Requirements for measurement of bearing temperatures using installed instrumentation for low pressure safety injection pumps, charging pumps, and boric acid pumps for Unit 2. Further study of Code requirements has determined that this relief was not needed. Installed instrumentation was insufficient for measuring the bearing temperatures of these pumps, so contact pyrometers measuring bearing enclosure temperatures are utilized. It is our intention to utilize contact pyrometers for measurement of bearing temperatures on Unit 1 and 2 high and low pressure safety injection pumps, charging pumps, and boric acid pumps in the future.

We have determined, pursuant to 10 CFR Part 170, Paragraph 170.22, that this Amendment request consists of Class III and I amendments for Calvert Cliffs Unit No. 1 & 2, respectively, and accordingly, we are including a check in the amount of \$4,400.00 to cover the fee for this request.

Mr. R. A. Clark
August 30, 1982
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Should you have any further questions regarding this matter, please do not hesitate to contact us.

Very truly yours

A handwritten signature in cursive script, appearing to read "G. E. Lundvall". The signature is written in dark ink and is positioned above the typed name.

Vice President-Supply

AEL/LES/gla

cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
D. H. Jaffe, NRC
R. E. Architzel, NRC