BALTIMORE
GAS AND
ELECTRIC

CHARLES CENTER · P. O. BOX 1475 · BALTIMORE, MARYLAND 21203

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

November 6, 1981

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 Units 1 and 2
Docket Nos. 50-317 and 50-318
Inservice Inspection and Pump and Valve Programs
Request for Relief from ASME Code
Section XI Requirements 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, certain examination requirements specified in our code requirements are impractical to accomplish for various reasons. These exams and proposed alternatives are listed as follows for Units 1 and 2:

A001
S
1/1
w/check:
$4400.00

A. Alert and Action Ranges for High Differential Pressure Across Centrifugal Pumps Deleted

Article IWP-3000 of ASME Code Section XI contains alert ranges and action ranges for high differential pressure across pumps. High differential pressure across a centrifugal pump in a fixed resistance

system does not indicate degradation of the pump and does not represent changes in the mechanical components which warrant corrective action. Relief is therefore requested from the requirement to observe the alert ranges and action ranges for high differential pressure across centrifugal pumps when tested in a fixed resistance system at the Calvert Cliffs Plant.

B. Quarterly Performance Tests on Pumps

It is proposed to perform quarterly performance tests on pumps rather than monthly tests as required by our current code edition and addenda. This change has been included in the 1980 Edition of ASME Code Section XI and has been proposed to be incorporated into 10 CFR 50.55a by invoking this edition of Section XI. This reduction in frequency will not reduce pump reliability, and may actually improve reliablity by eliminating unnecessary pump cycling.

C. Relaxation of Examination Requirements on Reactor Vessel Closure Head Cladding

ASME Code Section XI, 1974 Edition, with Addenda through Summer 1975, requires a visual and surface examination or a volumetric examination of the reactor vessel closure head cladding. Exemption is requested from the examination techniques required, such that only a visual examination need be performed. In past examinations we have performed a visual and a surface exam on the cladding areas required to be examined. We do not feel that the personnel radiation exposure encountered in performing a surface or volumetric examination is justified by any increased knowledge of the integrity of the cladding over and above the visual examination. The requirements to perform surface or volumetric examination of the reactor vessel head cladding has been deleted from later editions of the Code which have been endorsed by the NRC by incorporation into 10 CFR 50.55a.

D. Use of Code Case N-210 Accepted by Regulatory Guide 1.147

Code Case N-210 approved on March 20, 1978, and listed in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI Division 1", subject to the conditions specified in Regulatory Guide 1.147, is requested for use at Calvert Cliffs. This Code Case as modified by the Regulatory Guide allows the following repairs to be exempted from hydrostatic pressure testing:

1. Repairs to cladding

2. Heat exchanger tube plugging.

3. Repairs to piping, pumps, and valves where the depth of the repair cavity does not exceed 25 percent of the wall thickness.

4. Repairs to pressure vessels where the repaired cavity does not exceed 10% of the required design wall thickness.

5. Component connections, piping and associated valves that are one (1) inch nominal pipe size and smaller.

Repairs to vessels, piping, pumps, and valves made in accordance with a procedure which permits using the half-bead welding technique in lieu of the post-weld heat treatment shall not be exempted from the hydrostatic test requirement.

E. Use of Code Case N-307 for Centerdrilled Hole Ultrasonic Examination of Studs

It is requested that ASME Section XI Division 1 Code Case N-307 approved January 15, 1981, be acceptable for use at Calvert Cliffs. This Code Case was approved after March 18, 1980, and is therefore not presently included in Regulatory Guide 1.147. The subject of this Code Case is a change with respect to the examination volume for studs with the area of interest limited to the volume within 1/4 inch of the threaded surface when the ultrasonic examination is performed from the centerdrilled hole. A copy of Code Case N-307 is enclosed for your information.

F. Increased Inservice Leak Testing in Lieu of Hydrostatic Pressure Testing of Class III Component Cooling Water Systems

Paragraph IWD-2410 requires hydrostatic pressure testing of Class III systems every ten-year inspection interval to 1.10 x design pressure. On the Component Cooling Water System main headers, where butterfly valves are installed, sufficient seal to maintain pressure on isolated portions of the system cannot be completed. It is proposed that the Inservice Leak Test required every 40-month period be performed on an annual basis to substitute for hydrostatic pressure testing of this system.

The Component Cooling System is shown in Figure 9-25 of the FSAR. Its function is to provide cooling water to various safety related and non-safety related components within the Calvert Cliffs Plant. All portions of the system outside of the containment, including the containment penetration piping, are considered Class III. It is felt that the increasing frequency of Inservice Leak Testing will provide assurance of integrity beyond the testing and frequencies presently required by our ISI Code.

Unless otherwise notified, we expect to implement these changes 60 days from the date of this letter. Should you have any further questions concerning this subject, please do not hesitate to contact us.

We have determined that this request constitutes a Class III Amendment and a Class I Amendment pursuant to 10 CFR 170.22, and, accordingly, a check in

the amount of $4,400.00 is remitted herewith.

Very truly yours,

A. E. Lundvall, Jr.
Vice President-Supply

AEL/DWL/jmj
Attachments

cc: Messrs. J. A. Biddison, Jr., Esquire
G. F. Trowbridge, Esquire
D. H. Jaffe, NRC
E. Jernigan, NRC (King of Prussia)
T. T. Martin, NRC (King of Prussia)
R. E. Architzel, NRC (Calvert Cliffs)

Meeting of October 31, 1980
Approved by Council, January 15, 1981

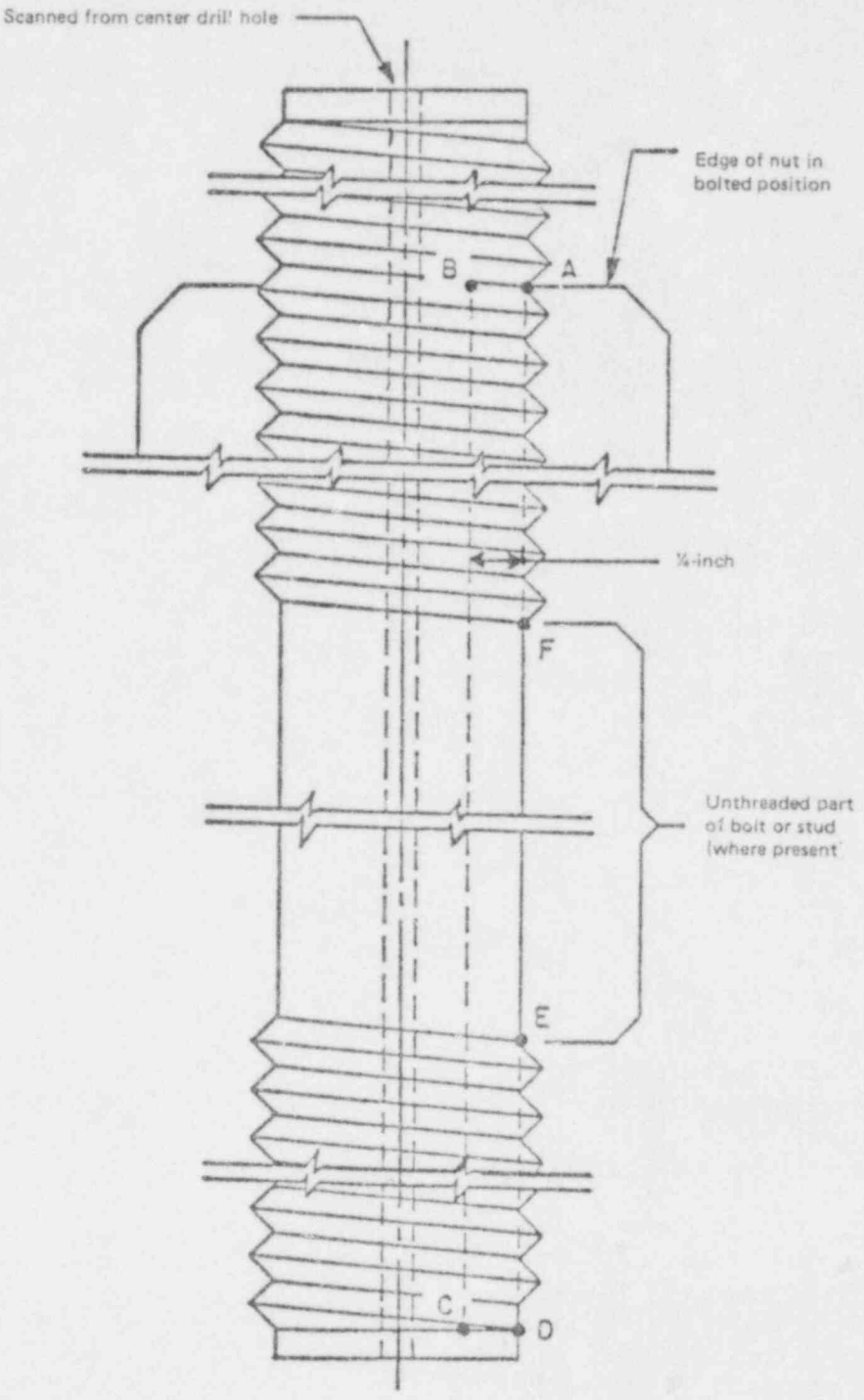
This Case shall expire on January 15, 1984 unless previously annulled or reaffirmed.

Case N-307
Revised Ultrasonic Examination Volume for Class 1 Bolting, Examination Category B-G-1, Section XI, Division 1, When the Examinations Are Conducted from the Center-Drilled Hole

Inquiry: When ultrasonic examinations are conducted from the center-drilled hole of Class 1 bolts or studs to satisfy the examination requirements of Examination Category B-G-1, may the examination volume be limited to the cylindrical region defined by A-B-C-D-E-F-A in the attached sketch?

(See next page for sketch)

Reply: It is the opinion of the Committee that, when conducting ultrasonic examinations from the center-drilled hole of Class 1 bolts or studs to satisfy the examination requirements of Examination Category B-G-1, the examination volume may be limited to the cylindrical region defined by A-B-C-D-E-F-A in the sketch referenced by the Inquiry.



REVISED EXAMINATION VOLUME FOR CLASS 1 BOLTING WHEN SCANNED FROM THE CENTER-DRILLED HOLE