UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

T/C

November 26, 1980

Docket Nos. 50-317
50-318

Baltimore Gas and Electric Company
ATTN: Mr. A. E. Lundvall, Jr.
Vice President, Supply
P. O. Box 1475
Baltimore, Maryland 21203

Gentlemen:

The enclosed IE Information Notice No. 80-29, "Broken Studs on Terry Turbine Steam Inlet Flange," Supplement No. 1, is forwarded to you for information. No written response is required. If you desire additional information regarding this matter, please contact this office.

Sincerely,

James M. Allan

Boyce H. Grier
Director

Enclosures:
1. IE Information Notice No. 80-29, Supplement No. 1
2. List of Recently Issued IE Information Notices

CONTACT: D. L. Caphton
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cc w/encls:
R. M. Douglas, Manager, Quality Assurance
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Q

SSINS No.: 6835
Accession No.:
8006190028
IN 80-29
Supplement No. 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

November 26, 1980

IE Information Notice No. 80-29 (Supplement No. 1): BROKEN STUDS ON TERRY TURBINE STEAM INLET FLANGE

Description of Circumstances:

In the original Information Notice the failed Terry Turbine steam inlet flange studs were identified as probably manufactured from ASTM-A193-Grade B7 steel. Subsequently, the vendor has informed the NRC that the bolting material used at ANO-1 was AISI C-1117 steel. Independent laboratory analyses by the NRC and Arkansas Power and Light have verified that the bolting material was a re-sulphurized, re-phosphorized cold drawn carbon steel.

From the analysis performed, the failure was caused by high overload which resulted in a primarily brittle transgranular fracture (cleavage) in probably less than 10 cycles. This is consistent with the operating experience (water slugging) and the inherent low toughness of the bolting material used.

Licensees are encouraged to review the materials selected for safety-related bolting applications considering especially those situations where impact loadings could occur. The use of low toughness carbon steel (re-sulphurized free machining plain carbon steel) for bolting is discouraged by the NRC; particularly in situations where possible high loading conditions could be anticipated.

This Information Notice is provided as an early notification of a possibly significant matter that is still under review by the NRC staff. It is expected that recipients will review the information for possible applicability to their facility. No specific action or response is requested at this time. If you have any questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date Issued	Issued to
80-41	Failure of Swing Check Valve in the Decay Heat Removal System at Davis-Besse Unit No. 1	11/10/80	All holders of a power reactor OL or CP
80-40	Excessive Nitrogen Supply Pressure Activates Safety-Relief Valve Operation to Cause Reactor Depressurization	11/6/80	All holders of a power reactor OL or CP
80-39	Malfunctions of Solenoid Valves Manufactured by Valcor Engineering Corporation	10/31/80	All holders of a power reactor OL or CP
80-38	Cracking in Charging Pump Casing Cladding	10/30/80	All holders of a PWR power reactor OL or CP
80-37	Containment Cooler Leaks and Reactor Cavity Flooding at Indian Point Unit 2	10/24/80	All holders of a power reactor OL or CP
80-36	Failure of Steam Generator Support Bolting	10/10/80	All holders of a power reactor OL or CP
80-35	Leaking and Dislodged Iodine-125 Implant Seeds	10/10/80	All holders of a Category G or G1 Medical License
80-34	Boron Dilution of Reactor Coolant During Steam Generator Decontamination	9/26/80	All holders of a PWR Power Reactor OL
80-33	Determination of Teletherapy Timer Accuracy	9/15/80	All holders of a teletherapy license