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

September 26, 1980

Docket No. 50-334

Duquesne Light Company
ATTN: Mr. C. N. Dunn
Vice President
Operations Division
435 Sixth Avenue
Pittsburgh, Pennsylvania 15219

Gentlemen:

The enclosed IE Information Notice No. 80-34, "Boron Dilution of Reactor Coolant During Steam Generator Decontamination" is forwarded to you for information. No written response is required. If you desire additional information regarding this matter, please contact this office.

Sincerely,

Boyce H. Grier
Boyce H. Grier
Director

Enclosures:

1. IE Information Notice No. 80-34
2. List of Recently Issued IE Information Notices

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cc w/encls:

- F. Bissert, Technical Assistant Nuclear
- R. Washabaugh, QA Manager
- J. Werling, Station Superintendent
- G. Moore, General Superintendent, Power Stations Department
- J. J. Carey, Director of Nuclear Operations
- R. Martin, Nuclear Engineer
- J. Sieber, Superintendent of Licensing and Compliance, BVPS

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DUPLICATE

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Accession No.:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

September 26, 1980

IE Information Notice No. 80-34: BORON DILUTION OF REACTOR COOLANT DURING
STEAM GENERATOR DECONTAMINATION

Description of Circumstances:

Recently two instances of boron dilution of the reactor coolant system have occurred. Both cases were a result of high pressure washing of the steam generator tube sheets for decontamination to reduce the radiation levels during eddy current testing and related steam generator work.

On May 29, 1980, Trojan Nuclear Plant miscalculated the excess boric acid required to offset the demineralized water used in washing the tube sheets. This resulted in the boron concentration of the primary coolant being reduced to less than the minimum required by the Technical Specifications. The dilution was, however, expected since the wash water was allowed to enter the reactor vessel through the nozzles.

On July 5, 1980, San Onofre Unit 1 inadvertently diluted the reactor coolant boron concentration when the high pressure demineralized flushing water leaked by a dislodged nozzle seal. The inflatable seals had been installed to prevent the non-borated water from entering the reactor. The resulting boron concentration was greater than required for shutdown margin, but the positive reactivity added was in excess of that allowed by the Technical Specifications.

This Information Notice is provided to identify potential problem areas involved with decontaminating specific areas of steam generators. It is expected that recipients will review the potential hazards involved and consider increased monitoring of 1) inflatable seal performance, 2) vessel level, and 3) boron concentration. Increasing the boron concentration of the primary system prior to performing any decontamination activities or using borated water for washing should also be considered.

It is expected that recipients will review this information for possible applicability to their facilities. 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 Regional Office.

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date Issued	Issued to
80-33	Determination of Teletherapy Timer Accuracy	9/15/80	All holders of a teletherapy license
80-32	Clarification of Certain Requirements for Exclusive-use Shipments of Radioactive Materials	9/12/80	All holders of an NRC or Agreement State License
80-31	Maloperation of Gould-Brown Boveri 480V-Type K-600S and K-Don 600S Circuit Breakers	8/27/80	All holders of a power reactor OL or CP
80-30	Potential for Unacceptable Interaction Between the Control Rod Drive Scram Function and Non-essential Control Air at Certain BWR Facilities	8/27/80	All holders of a BWR power reactor OL or CP
80-29	Broken Studs on Terry Turbine Steam Inlet Flange	8/7/80	All holders of a power reactor OL or CP
Supplement to 80-06	Notification of Significant Events at Operating Power Reactor Facilities	7/29/80	All holders of a power reactor OL and near term OL applicants
80-28	Prompt Reporting of Required Information To NRC	6/13/80	All applicants for and holders of a power reactor construction permit
80-27	Degradation of Reactor Coolant Pump Studs	6/11/80	All holders of a pressurized water power reactor OL or CP