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1800 M STREET, N. W.

WASHINGTON, D. C. 20036

RAMSAY D POTTS, P.C.
STEUART L. PITTMAN, P.C.
GEORGE F. TROWBRIDGE, P.C.
GEORGE F. TROWBRIDGE, P.C.
GERALD CHARDEN, P.C.
R TIMOTH D. BOSTWICK, P.C.
R TIMOTH TO BOSTWICK, P.C.
R TIMOTH TO BOSTWICK, P.C.
R TIMOTH TO BOSTWICK, P.C.
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MARTIN D. KRALL, P.C.
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JAMES M. BURGER, P.C.
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J. PATRICK HICKEY, P.C.
J. PATRICK HICKEY, P.C.
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DAVID M. RUBENSTEIN, P.C.
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JAYA. EPSTIEN, P.C.
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JACK MCKAY, P.C.
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PHILIP J. HARVEY
ROBERT M. GORDON
BARBARA J. MORGEN
BONNIE S. GOTTLIEB
HOWARD H. SHAFFERMAN

(202) 822 1000 TELECOPIER (202) 822-1099 & 822-1199 PAP TAX IOO F \ 1072 TELER 89 2693 (SHAWLAW WSH) CABLE SHAWLAW JOHN F. DEALY* B. SCOTT CUSTER, JR. COUNSEL

July 3, 1984

DEBORAH B BAUSER
SCOTT A ANENBERG
CAMPBELL KILLEFER
PAUL M THOMAS
JOHN M BRYSON. II
GEORGE F ALBRIGHT. JR.
DAVID J. CYNAMON
SETH H HOOGASIA
SHEILA MCC HARVEY
DELISSA A RIOGWAY
XENNETH J HAUTMAN
DAVID LAWRENCE MILLER
FREDERICK L KLEIN
STEVEN P PITLER
RICHARD J. PARRINO
ELLEN A FREDEL
HOBBERT C BOEHM
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THOMAS C. HILL
DIANE CHEEK
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HELEN TORELLI

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KENNETH R. MILLER
KENNETH R. WHITE

VIRGINIA S. RULLEDGE
KATHERINE P. CHEEK
TRAVIS T. BROWN, JR.
RICHARO H. KRONTHAL
STEPHEN B. HEIMANN
SANDRA E. BRUSCA
EILEEN L. BROWNELL
PAMELA H. ANDERSON
ALEXANDER D. TOMASZCZUK
JEFFREV J. A. GIBBS
LAURENCE W. COHEN
PHILIP O. PORTER
MICHAEL A. SWIGER
ELLEN SHERIFF
ANITA J. FINKELSTEIN
EILEEN M. GLEIMER
DAVID R. SAHR
C. BOWDOIN TRAIN
JEFFREY W. KAMPELMAN
KENNETH A. GALLO
KENNETH A. GALLO
KENNETH O. AUERBACH
ALAN O. WASSERMAN
DAVID K. RYAN
RICHARD K. A. BECKER
WILBERT WASHINGTON II

WRITER'S DIRECT DIAL NUMBER (202) 822-1051

HAND DELIVERED

Sheldon J. Wolfe Administrative Judge Chairman, Atomic Safety and Licensing Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

BY FEDERAL EXPRESS

Dr. David L. Hetrick Administrative Judge Atomic Safety and Licensing Board Professor of Nuclear Engineering University of Arizona Tucson, Arizona 85271

BY FEDERAL EXPRESS

Dr. James C. Lamb, III Administrative Judge Atomic Safety and Licensing Board 313 Woodhaven Road Chapel Hill, North Carolina 27514

In the Matter of Metropolitan Edison Company, Et Al. (Three Mile Island Nuclear Station, Unit No. 1) Docket No. 50-289-OLA and ASLBP 83-491-04-OLA (Steam Generator Repair)

Dear Administrative Judges:

For the information of the Hearing Board and the parties, I am enclosing a copy of a letter sent today by Licensee to the NRC staff which follows up on the letter of June 27, 1984 concerning the status of the TMI-1 steam generators.

Sincerely yours,

Churchill Bruce W.

Enclosure cc: Service List (attached)

8407090082 840703 PDR ADOCK 05000289



GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:

5211-84-2169 July 3, 1984

Office of Nuclear Reactor Regulations Attn: John F. Stolz, Chief Operating Reactors Branch No. 4 U. S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Stolz:

Three Mile Island Nuclear Station, Unit I (TMI-1)
Operating LIcense No. DPR-50
Docket No. 50-289
TMI-1 Steam Generator Inspection

In my letter of June 27, 1984, I described additional testing being conducted to investigate a small leakage increase in the "B" steam generator. This testing is now complete.

As reported previously, bubble testing identified only one tube as bubbling significantly, tube 80-45 in OTSG "B". A fibrescope was placed in tube 80-45 with the secondary pressurized. Water could be seen coming through a crack at a point above the kinetic expansion joint qualified length, confirming that the leakage path was between the tube and tubesheet. This tube has been plugged.

Drip tests of the "B" steam generator identified nine plugs in the lower tubesheet, and three tubes that were dripping very slightly. The three tubes (which included 80-45) had all been previously identified by the bubble test. Eight of the slightly dripping plugs were rolled plugs. Slight dripping or wetness is acceptable and not unexpected for this type of joint. A third plug was an explosively welded plug, which was repaired by placing a new plug below it.

Eddy current testing using a differential probe has now been conducted for all tubes identified as bubbling, all tubes with less than 40 percent through wall indications left in service in the "B" generator, and approximately seventy other tubes in the "B" generator which are part of the supplemental ECT sample population. No new eddy current indications were found. No known indications were found to have grown. No tubes that were bubbling have any ECT indications below the kinetic expansion joint, confirming that bubbling is past the joint in all cases. No additional ECT is planned.

One very low voltage ECT signal was noted by data analysts in tube 70-8 in the "B" generator, six inches above the lower face of the upper tube sheet. A review of previous inspections showed a signal of the same shape and voltage at that location for both pre- and post- expansion inspections. indicating that this signal does not represent a new or growing defect. This size and type of signal, which is very close to the threshold of detectability of the probe in use, cannot reliably be distinguished from background using this probe. This threshold of detectability has been considered and found acceptable in GPU's evaluation of the steam generators. When such small signals are identified, additional inspections using the more sensitive 8x1 probe are normally conducted to determine whether the anomalous signal represents an ECT indication or simply part of background. The additional time necessary to prepare equipment and to carry out this inspection is not considered warrented for one tube. Rather than leave the steam generators open to oxygen for the additional time period this tube will be plugged as a precautionary measure.

In addition to the two tubes described above, GPU plans to plug one additional tube in the "B" generator, tube 79-41. This is one of the slightly bubbling tubes identified in my June 27, 1984 letter. Although it bubbled so slightly that the water surface above remained undisturbed, bubble formation at the tube surface appeared somewhat more frequent than for other slight bubblers. In the interest of maintaining secondary activity levels as low as possible, this tube is being plugged.

GPU's investigations of the small leakage increase are now complete, and plugging is complete. The steam generators will be closed and returned to service this week. All evidence continues to support the conclusions drawn in GPU's submittals on the acceptability of the steam generators for return to service. Baseline leakage will be re-established, as required after plugging, prior to criticality.

Sincerely,

Vice President - TMI-1

HDH/MJG/RAS/mle

cc: R. Conte

J. Van Vliet

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of		
METROPOLITAN EDISON COMPANY,	ET AL.	Docket No. 50-289-OLA ASLBP 83-491-04-OLA (Steam Generator Repair)
(Three Mile Island Nuclear Station, Unit No. 1)		

SERVICE LIST

Sheldon J. Wolfe
Administrative Judge
Chairman, Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. David L. Hetrick
Administrative Judge
Atomic Safety and Licensing Board
Professor of Nuclear Engineering
University of Arizona
Tucson, Arizona 85271

Dr. James C. Lamb, III Administrative Judge Atomic Safety and Licensing Board 313 Woodhaven Road Chapel Hill, North Carolina 27514

Richard J. Rawson, Esq.
Mary E. Wagner, Esq.
Office of Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety and Licensing Appeal Board Panel U.S. Nuclear Regulatory Comission Washington, D.C. 20555 Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docketing and Service Section (3) Office of the Secretary U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Joanne Doroshow, Esq.
Louise Bradford
Three Mile Island Alert, Inc.
315 Peffer Street
Harrisburg, Pennsylvania 17102