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June 27, 1984

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HAND DELIVERED

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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

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SHAW, PITTMAN, POTTS & TROWBRIDGE
A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

to the NRC staff reporting on steam generator leakage recently detected at TMI-1.

Sincerely,

Bruce W. Churchill

Bruce W. Churchill per DET

BWC/pp
Enclosure
cc: Service List

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

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

SERVICE LIST

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5211-84-2161

June 27, 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 Leakage Testing

This letter is to provide you with additional information now available on the condition of the TMI-1 steam generators.

As you are aware, secondary chemistry data are routinely monitored and evaluated for trends at TMI-1 as part of our steam generator leakage monitoring program. Late last week, gradually increasing boron, cesium and tritium concentrations, as well as slight decreases in pH, were found to indicate a small increase in leakage in the "B" steam generator. The leak rate was determined to be approximately 1.5 gph under the current cold RCS conditions (about 300 psig). Although a rough projection to hot RCS conditions indicates a primary-to-secondary leak rate below the GPU administrative limit of 7 gph (and the Technical Specification limit of 60 gph), additional investigations of the change in leak rate are being conducted.

Bubble tests of tubing above approximately the eleventh tube support plate have been conducted in the "A" and "B" steam generators. One tube (80-45) in the "B" steam generator was identified as bubbling significantly. Tube 80-45 has bubbled slightly and intermittantly during past bubble tests. By using stoppers at various levels in the bubbling tube, it has been determined that primary coolant can pass through a crack very high in the upper tube sheet, then down through the tight tube-to-tubesheet crevice

5211-84-2161
Mr. John F. Stolz

comprising the new joint, and into the secondary system. Some leakage via such pathways has always been predicted for the mechanical tube-to-tubesheet joints. Because of the high bubble rate for this joint, the tube will be plugged before return to service.

Additional inspection of the leaking joint is planned using a fibroscope. Drip tests of the "B" lower tubesheet area are also scheduled to identify significant leakage contributors, if any, in the lower regions of the steam generator. Eddy current testing of the full length of the tube is also planned as confirmation that leakage is past the joint, not from lower in the tube. While the ECT equipment is in place, a sample population of other tubes will also be monitored. All these tests are scheduled for completion this week or early next week.

In the course of performing the highly sensitive bubble testing, 14 other tubes, 6 plugged and 8 unplugged were seen to have faintly visible, very slight bubble formation. Seven tubes were in the "B" OTSG and seven in the "A" OTSG (which had no evidence of a leakage increase based on chemistry monitoring). Stopper tests of the unplugged bubbling tubes indicated leakage past the tube-to-tubesheet joint in all cases. This type of bubbling has been seen in past tests, and is considered to be acceptable and not unexpected for mechanical joints such as the kinetic expansion and the mechanical rolled plug. No repairs are planned or considered necessary for these tubes, but their locations have been noted for special observation during any future bubble tests.

Subject to review as further testing and examinations are completed, GPU has concluded that earlier evaluations of acceptability of the steam generators for service are unaffected by the additional information.

Sincerely,

H. D. Hukill

H. D. Hukill
Director TMI-1

HDH/MJG/CWS/mle

cc: R. Conte
C. McCracken
H. Silver