VERMONT YANKEE NUCLEAR POWER CORPORATION

FVY 84-70



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

REPLY TO:

ENGINEERING OFFICE

1671 WORCESTER ROAD FRAMINGHAM, MASSACHUSETTS 01701 TELEPHONE 617-872-8100

June 29, 1984

U.S. Nuclear Regulatory Commission Office of Inspection & Enforcement Region I 631 Park Avenue King of Prussia, PA 19406

Attention:

Dr. Thomas E. Murley Regional Administrator

Reference:

a) License No. DPR-28 (Docket No. 50-271)

Dear Sir:

Subject:

Notification of the Potential Existence of a Defect

in Accordance with 10CFR21.21

In accordance with the provisions of 10CFR Part 21, Section 21, we are hereby notifying you that we have obtained information reasonably indicating that a defect may exist with respect to Uninterruptible Power Supply (UPS) batteries supplied to us by Exide Corporation.

Enclosure I to this letter documents the details of this notification and our plans for corrective actions. Should you have any questions regarding this matter, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION

Warren P. Murphy

Vice President and

Manager of Operations

WPM/dm

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VERMONT YANKEE NUCLEAR POWER CORPORATION

- cc: (3) USNRC
 Director, Office of Inspection & Enforcement
 Washington, D.C. 20555
 - (3) USNRC
 Director, Office of Management
 Information and Program Control
 Washington, D.C. 20555
 - (3) Chairman, Vermont Yankee Nuclear Safety Audit and Review Committee
 - (1) Manager, Operational Quality
 Assurance Department
 Yankee Atomic Electric Company
 - (1) Institute of Nuclear Power Operations (INPO)

EXIDE CORPORATION E SIZE UPS BATTERY PART 21 REPORT

COMPANY INFORMING THE COMMISSION Vermont Yankee Nuclear Power Corporation RD #5, Box 169 Ferry Road Brattleboro, Vermont 05301

FACILITY EXPERIENCING PROBLEM

Vermont Yankee Nuclear Power Station PO Box 157 Governor Hunt Road Vernon, Vermont 05354

FIRM SUPPLYING COMPONENT

Exide Corporation 101 Gilbralter Road Horsham, Pennsylvania 19044

NATURE OF DEFECT

Exide Corporation representatives have performed a detailed field inspection of the Vermont Yankee UPS batteries on March 28, 1984. The results of the inspection indicate that cracked boss seals found on many cells are a result of "nodular corrosion" of the lead posts. This corrosion can cause additional stress on the plastic components of the cover and may expose the copper insert inside the battery posts to the acid, resulting in copper contamination of the negative plates. This contamination indicates that the current carrying capability of the battery posts is degrading, and that the cells are approaching an advanced end-of-life state.

DATE ON WHICH DEFECT WAS DETECTED The problem was initially discovered during the March 28 inspection. By letter dated May 14, 1984. Exide provided additional details and recommendations to Vermont Yankee. Exide determined that the present batteries could still perform their safety function, but Exide strongly recommended replacement of the batteries during the 1984 refueling outage. In subsequent conversations with Exide, the manufacturer stated that the batteries were deteriorating and that they could not guarantee that the batteries could perform the safety function up to the 1985 outage.

NUMBER OF COMPONENTS AT THE FACILITY Vermont Yankee has two redundant UPS batteries, each consisting of 192 "E" size cells, Type EC11 purchased around 1979.

CORRECTIVE ACTION TAKEN

Vermont Yankee has agreed to purchase two 192 cell replacement batteries utilizing a new seal design. These batteries are being replaced during the current 1984 refueling outage.

ADVICE RELATED TO

We recommended that any nuclear installation which currently utilized an "E" size Exide battery inspect the seal area for the type of sealing method and any cracking or negative plate discoloration.