

January 16, 1984

SBN- 614
T.F. Q2.2.2

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attention: Mr. Richard W. Starostecki, Director
Division of Project and Resident Programs

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket
Nos. 50-443 and 50-444
(b) Telecon of June 8, 1983, D. A. Maidrand (YAEC) to H. Kister
(NRC Region I)
(c) PSNH Letter, dated July 8, 1983, "Interim 10CFR50.55(e)
Report; Class 1E Hydrogen Analyzer", J. DeVincentis to
R. W. Starostecki

Subject: Interim 10CFR50.55(e) Report; Class 1E Hydrogen Analyzer

Dear Sir:

On July 8, 1983, we reported a 10CFR50.55(e) deficiency [Reference (c)],
regarding Class 1E hydrogen analyzer catalyst contamination by
fission-fragment iodine. We committed to providing a status report by
January 20, 1984, if a final report had not been filed by that time.

A. Description of Deficiency

Comsip Incorporated has indicated that the potential exists for
Class 1E hydrogen analyzer catalyst contamination by
fission-fragment iodine which may be present in the containment
atmosphere after LOCA.

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B. Analysis of Safety Implication

The Class 1E hydrogen analyzers are components of the Combustible Gas Control (CGC) System, and are used to monitor hydrogen concentration in the containment. The activation of the CGC System hydrogen recombiners and/or purge systems, etc., is based on the information obtained by the analyzers.

C. Corrective Action Taken

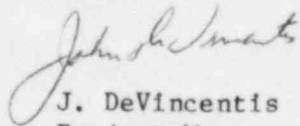
In order to determine the exact nature of contamination, several calculations were made. The results of these calculations were inconclusive. Comsip, therefore, initiated several tests to gather empirical data. Based on iodine partial pressure of 0.02 mm of Hg, Comsip tested two (2) catalyst bed configurations, the standard configuration which is in all systems shipped prior to April 1983 (Seabrook analyzer was shipped in November 1982), and a new configuration which significantly increases the path length and catalyst volume with the same overall dimensions. The new configuration showed no signs of catalyst degradation after five (5) months of continuous testing.

Comsip recommended that the standard configuration catalyst bed be upgraded to the new configuration by a modification kit.

We have issued a change order to Comsip for the modification kits. Delivery was made to the job-site on August 8, 1983. We will monitor the progress of the installation of the modification kits, and will submit a final report to Region I upon verification that the installation of these kits has been completed.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY


J. DeVincentis
Project Manager

cc: Atomic Safety and Licensing Board Service List

Director, Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

William S. Jordan, III, Esquire
Harmon & Weiss
1725 I Street, N.W. Suite 506
Washington, DC 20006

Roy P. Lessy, Jr., Esquire
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Robert A. Backus, Esquire
116 Lowell Street
P.O. Box 516
Manchester, NH 03105

Philip Ahrens, Esquire
Assistant Attorney General
Department of the Attorney General
Augusta, ME 04333

Mr. John B. Tanzer
Designated Representative of
the Town of Hampton
5 Morningside Drive
Hampton, NH 03842

Roberta C. Pevear
Designated Representative of
the Town of Hampton Falls
Drinkwater Road
Hampton Falls, NH 03844

Mrs. Sandra Gavutis
Designated Representative of
the Town of Kensington
RFD 1
East Kingston, NH 03827

Jo Ann Shotwell, Esquire
Assistant Attorney General
Environmental Protection Bureau
Department of the Attorney General
One Ashburton Place, 19th Floor
Boston, MA 02108

Senator Gordon J. Humphrey
U.S. Senate
Washington, DC 20510
(Attn: Tom Burack)

Diana P. Randall
70 Collins Street
SEabrook, NH 03874

Donald E. Chick
Town Manager
Town of Exeter
10 Front Street
Exeter, NH 03833

Brentwood Board of Selectmen
RED Dalton Road
Brentwood, New Hampshire 03833

Edward F. Meany
Designated Representative of
the Town of Rye
155 Washington Road
Rye, NH 03870

Calvin A. Canney
City Manager
City Hall
126 Daniel Street
Portsmouth, NH 03801

Dana Bisbee, Esquire
Assistant Attorney General
Office of the Attorney General
208 State House Annex
Concord, NH 03842

Anne Verge, Chairperson
Board of Selectmen
Town Hall
South Hampton, NH 03842

Patrick J. McKeon
Selectmen's Office
10 Central Road
Rye, NH 03870

Carole F. Kagan, Esq.
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Angie Machiros
Chairman of the Board of Selectmen
Town of Newbury
Newbury, MA 01950

Town Manager's Office
Town Hall - Friend Street
Amesbury, Ma. 01913

Senator Gordon J. Humphrey
1 Pillsbury Street
Concord, NH 03301
(Attn: Herb Boynton)

Richard E. Sullivan, Mayor
City Hall
Newburyport, MA 01950