

SHAW, PITTMAN, POTTS & TROWBRIDGE

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

1800 M STREET, N. W.
WASHINGTON, D. C. 20036

TELEX
89-2693 (SHAWLAW WSH)
CABLE "SHAWLAW"
—
TELEPHONE
(202) 822-1130

DOCKETED
USNRC
*83 FEB 15 A10:30
TELECOPIER
(202) 822-1099 & 822-1199
OFFICE OF SECRETARY
DOCKETING BRANCH
FACSIMILE
(202) 822-1072

ROBERT E. ZAHLER, P. C.

February 8, 1983

Gary J. Edles, Esquire
Chairman
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. John H. Buck
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Reginald L. Gotchy
Atomic Safety and Licensing
Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

In the Matter of
Metropolitan Edison Company
(Three Mile Island Nuclear Station, Unit No. 1)
Docket No. 50-289 (Restart)

Dear Chairman Edles and Administrative Judges Buck and Gotchy:

Pursuant to the procedures outlined in Licensee counsel's letter to the Appeal Board of October 1, 1981, enclosed is a copy of a February 2, 1983 letter from H.D. Hukill, Vice President TMI-1, to J.F. Stolz, Office of Nuclear Reactor Regulation.

Mr. Hukill's letter sets forth a proposed alternative method for ensuring that potential exposures from fuel handling accidents at TMI-1 conform to current regulatory guidelines. As reflected in the Licensing Board's Partial Initial Decision on Plant Design and Procedures, Unit Separation, and Emergency Planning Issues, dated December 14, 1981, Licensee committed to upgrade the Fuel Handling

SHAW, PITTMAN, POTTS & TROWBRIDGE

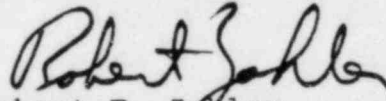
A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

Gary J. Edles, Esquire
Dr. John H. Buck
Dr. Reginald L. Gotchy
February 8, 1983
Page Two

Building Ventilation System to include a new engineered safety feature ("ESF") filter system prior to the first refueling outage after restart. The purpose of this upgrade was to bring TMI-1 into compliance with the guidance set forth in Regulatory Guide 1.52 (Rev. 2, March 1978). Upon further analysis, Licensee now proposes to satisfy Regulatory Guide 1.52 guidance by administratively revising fuel handling procedures to preclude the movement of irradiated fuel into the Fuel Handling Building until 12 days after shutdown. Calculations performed in accordance with NRC Staff guidelines show that such a delay prior to fuel movement in the Fuel Handling Building will allow sufficient decay time to keep the dose from postulated accident within the numerical guidelines of Standard Review Plan ("SRP") section 15.7.4.

Mr. Hukill's letter requests modification of Licensee's commitment to install an ESF filter system.

Respectfully submitted,



Robert E. Zoller
Counsel for Licensee

cc: Service List

ATTACHMENT 1

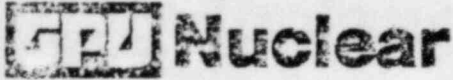
Assumption and Key Parameters

1. Power level of 2535 MWt
2. 288 hour decay period
3. Peaking factor of 1.68
4. 10% of noble gases and iodines from a damaged fuel assembly (208 fuel pins)
5. All the filtrations systems in the fuel handling building are inoperable.
6. Iodine partition factor of 100.
7. Breathing rate of $3.47 \times 10^{-4} \text{ m}^3/\text{sec}$.
8. Atmospheric diffusion factors were based on Pasquill stability condition F, wind speed of 1.75 mph:

$$\left[\begin{array}{c} X \\ / \\ Q \end{array} \right] \text{ at site boundary} = 6.8 \times 10^{-4} \text{ sec/m}^3$$

$$\left[\begin{array}{c} X \\ / \\ Q \end{array} \right] \text{ at LPZ} = 1.3 \times 10^{-4} \text{ sec/m}^3$$

R. Zahler



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

February 2, 1983

5211-83-023

Office of Nuclear Reactor Regulation
Attn: J. F. Stolz, Chief
Operating Reactor Branch No. 4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Engineered-Safety-Feature (ESF) Filter System

The ASLB Partial Initial Decision (PID) on Plant Design and Procedures dated December 14, 1981 states at Paragraphs 1265 and 1326(a) that GPUN shall upgrade the Fuel Handling Building Ventilation System to include a new engineered safety feature (ESF) filter system prior to the first refueling outage. The PID also states that this system will meet the guidelines of Regulatory Guide 1.52 (Rev. 2, March 1978) and must be in operation whenever Unit 1 fuel movements are in progress. We request that TMI-1 be relieved of the obligation of meeting this requirement.

Analyses for the radiological consequences of a postulated TMI-1 fuel handling accident (FHA) have been performed using the assumptions outlined in Attachment 1. These assumptions have incorporated the guidance of SRP. 15.7.2 and of Regulatory Guide 1.52, Rev. 2 (March 1978) with the exception of the item noted below. The results of these analyses are given below:

	<u>Exclusion Boundary</u>	<u>LPZ</u>	<u>SRP 15.7.4 Limit</u>	<u>10 CFR 100 Limit</u>
Thyroid (rem)	75	14.3	75	300
Whole Body Dose (rem)	0.15	0.03	6.25	25

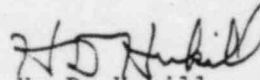
As can be seen from the assumptions in Attachment 1, an elapsed time period of twelve (12) days (288 hours) has been used to provide additional decay time for radioactive gases, and thus, reduced integrated doses (thyroid/whole body) at both the exclusion boundary and low population zone. The time period mentioned

8302080195
3pp

above represents the time elapsed between reactor shutdown (beginning of hot shutdown) and when the first spent fuel assembly is to be transferred into the Fuel Handling Building. Current defueling procedures will be amended to preclude moving irradiated fuel into the Fuel Handling Building before 12 days after shutdown.

The above analysis confirms the adequacy of the TMI-1 design with respect to off-site impacts. The ventilation separation modifications in place at restart assures no adverse impacts inplant from a fuel handling accident in the FHB. The commitment allows an alternative to the conditions imposed by the ASLB in Paragraph 1265.

Sincerely,



H. D. Hukill
Director, TMI-1

HDH:LWH:vjf
Attachment
cc: J. Van Vliet
R. C. Haynes

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)
)
METROPOLITAN EDISON COMPANY) Docket No. 50-289
) (Restart)
(Three Mile Island Nuclear)
Station, Unit No. 1))

SERVICE LIST

Gary J. Edles, Esquire
Chairman
Atomic Safety and Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. John H. Buck
Atomic Safety and Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Reginald L. Gotchy
Atomic Safety and Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Ivan W. Smith, Esquire
Chairman
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dr. Walter H. Jordan
Atomic Safety and Licensing Board
Panel
881 West Outer Drive
Oak Ridge, Tennessee 37830

Dr. Linda W. Little
Atomic Safety and Licensing Board
Panel
5000 Hermitage Drive
Raleigh, North Carolina 27612

James M. Cutchin, IV, Esquire
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

John A. Levin, Esquire
Assistant Counsel
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120

Robert Adler, Esquire
Assistant Attorney General
505 Executive House
P.O. Box 2357
Harrisburg, Pennsylvania 17120

Ms. Louise Bradford
TMI ALERT
1011 Green Street
Harrisburg, Pennsylvania 17102

Ellyn R. Weiss, Esquire
Harmon & Weiss
1725 Eye Street, N.W., Suite 506
Washington, D.C. 20006

Steven C. Sholly
Union of Concerned Scientists
1346 Connecticut Avenue, N.W., Suite 1101
Washington, D.C. 20036

Jordan D. Cunningham, Esquire
2320 North Second Street
Harrisburg, Pennsylvania 17110

ANGRY/TMI PIRC
1037 Maclay Street
Harrisburg, Pennsylvania 17103

William S. Jordan, III, Esquire
Harmon & Weiss
1725 Eye Street, N.W., Suite 506
Washington, D.C. 20006

Chauncey Kepford
Judith H. Johnsrud
Environmental Coalition on Nuclear Power
433 Orlando Avenue
State College, Pennsylvania 16801

Marjorie M. Asmodt
R. D. 5
Coatesville, Pennsylvania 19320