

DMB-016

March 14, 1985

Docket No. 50-289

Mr. Henry D. Hukill, Vice President
and Director - TMI-1
GPU Nuclear Corporation
P. O. Box 480
Middletown, Pennsylvania 17057

DISTRIBUTION	JPartlow
<u>Docket File</u>	ACRS-10
NRC PDR	RIngram
L PDR	OThompson
ORB#4 Rdg	Gray File
HThompson	WRussell
OELD	EBlackwood
EJordan	HOornstein
BGrimes	

Dear Mr. Hukill:

By transmittal letter dated September 11, 1984 from P. Clark, GPUN, to H. Denton, NRC, you provided a copy of a report by Delian Associates, entitled "Assessment of the Risks to Safe Operation of TMI Unit 1 Resulting from TMI Unit 2 and Its Cleanup," dated August 27, 1984.

The staff has reviewed the Delian report on its own merits (i.e. without independently reviewing the report for completeness or accuracy) to determine if any of the Delian report conclusions could affect the Atomic Safety and Licensing Board (ASLB) Partial Initial Decision (PID) dated August 27, 1981. The ASLB concluded (PID at Section 591) that the actions taken by GPUN along with the conditions imposed by the Board are necessary and sufficient to resolve the concerns identified by the Commission with respect to potential interactions between Units 1 and 2. The Delian report findings are compatible with the Board conclusion because the Delian assessment revealed no event related to TMI-2 that poses a significant risk to the safe operation of TMI-1.

Based on the enclosed Report Evaluation, the staff concludes that the Delian report does not affect previous decisions because the Delian report does not identify any new (i.e. previously unidentified) interaction between Units 1 and 2, nor does it find invalid any previously identified interaction.

Sincerely,
*ORIGINAL SIGNED BY
JOHN F. STOLZ*

John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing

Enclosures:
As Stated

cc w/enclosures:
See next page

ORB#4:DL *OST*
OThompson;cr
3/14/85

ORB#4:DL *OST*
JThoma *for*
3/14/85

ORB#4:DL
JStolz
3/14/85 *[Signature]*

8503260285 850314
PDR ADOCK 05000289
P PDR

Mr. R. J. Toole
O&M Director, TMI-1
GPU Nuclear Corporation
P. O. Box 480
Middletown, Pennsylvania 17057

Board of Directors
P. A. N. E.
P. O. Box 268
Middletown, Pennsylvania 17057

Docketing and Service Section
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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

Judge Reginald L. Gotchy
Atomic Safety & Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Thomas E. Murley, Regional Administrator
U. S. N. R. C., Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

ANGRY/TMI PIRC
1037 Maclay Street
Harrisburg, Pennsylvania 17103

John Levin, Esq.
Pennsylvania Public Utilities
Commission
Box 3265
Harrisburg, Pennsylvania 17120

Jordan D. Cunningham, Esq.
Fox, Farr and Cunningham
2320 North 2nd Street
Harrisburg, Pennsylvania 17110

Ms. Louise Bradford
TMIA
1011 Green Street
Harrisburg, Pennsylvania 17102

Ms. Marjorie M. Aamodt
R. D. #5
Coatesville, Pennsylvania 19320

Earl B. Hoffman
Dauphin County Commissioner
Dauphin County Courthouse
Front and Market Streets
Harrisburg, Pennsylvania 17101

Ellyn R. Weiss
Harmon, Weiss & Jordan
2001 S Street
Suite 430
Washington, D.C. 20009

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

Gary J. Edles, Chairman
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

GPU Nuclear Corporation

- 2 -

General Counsel
Federal Emergency Management Agency
ATTN: Docket Clerk
1725 I Street, NW
Washington, DC 20472

Mr. Thomas M. Gerusky, Director
Bureau of Radiation Protection
Pennsylvania Department of
Environmental Resources
P. O. Box 2063
Harrisburg, Pennsylvania 17120

Karin W. Carter, Esq.
505 Executive House
P. O. Box 2357
Harrisburg, Pennsylvania 17120

Marvin I. Lewis
6504 Bradford Terrace
Philadelphia, Pennsylvania 19149

Dr. James Lamb
313 Woodhaven Road
Chapel Hill, North Carolina 27514

G. F. Trowbridge, Esq.
Shaw, Pittman, Potts & Trowbridge
1800 M Street, N.W.
Washington, D. C. 20036

Dauphin County Office Emergency
Preparedness
Court House, Room 7
Front & Market Streets
Harrisburg, Pennsylvania 17101

Richard J. McGoey
Manager, PWR Licensing
GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054

Christine N. Kohl, Esq.
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Ad Crable
Lancaster New Era
8 West King Street
Lancaster, Pennsylvania 17602

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Generation Division
Suite 220, 7910 Woodmont Avenue
Bethesda, Maryland 20814

Dr. David Hetrick
Professor of Nuclear Energy
University of Arizona
Tucson, Arizona 85721

Mr. Gustave A. Linenberger, Jr.
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. David D. Maxwell, Chairman
Board of Supervisors
Londonderry Township
RFD#1 - Geyers Church Road
Middletown, Pennsylvania 17057

Mr. C. W. Smyth
TMI-1 Licensing Manager
GPU Nuclear Corporation
P. O. Box 480
Middletown, Pennsylvania 17057

Regional Radiation Representative
EPA Region III
Curtis Building (Sixth Floor)
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Mr. Richard Conte
Senior Resident Inspector (TMI-1)
U.S.N.R.C.
P. O. Box 311
Middletown, Pennsylvania 17057

Governor's Office of State Planning
and Development
ATTN: Coordinator, Pennsylvania
State Clearinghouse
P. O. Box 1323
Harrisburg, Pennsylvania 17120

GPU Nuclear Corporation

- 3 -

Sheldon J. Wolfe, Esq., Chairman
Atomic Safety & Licensing Board
Washington, D.C. 20555

Ms. Jane Perkins
City Government Center
10 North Market Square
Harrisburg, Pennsylvania 17101

Jane Lee
183 Valley Road
Etters, Pennsylvania 17319

Bruce Molholt
Haverford College
Haverford, Pennsylvania 19041

Norman Aamodt
R. D. #5, Box 428
Coatesville, Pennsylvania 19320

Michael McBride, Esq.
LeBoeuf, Lamb, Leiby & McRae
Suite 1100
1333 New Hampshire Avenue, N.W.
Washington, D.C. 20036

REPORT EVALUATION BY OFFICE OF NPR
THREE MILE ISLAND, UNIT 1
GPU NUCLEAR CORPORATION
DOCKET NO. 50-289

The following is in response to your request (TAC #55965) asking us to read and comment on the Delian Corp. report (DCR), "Assessment of the Risks to Safe Operation of TMI Unit 1 resulting from TMI Unit 2 and its Cleanup", August 27, 1984. The DCR states, "No TMI-2 related event that was risk significant with respect to the maintenance of safe conditions at TMI-1 was discovered in this assessment." This is the same conclusion reached by the Atomic Safety and Licensing Board (ASLB) in their Partial Initial Decision (In the Matter of....(Three Mile Island Nuclear Station, Unit No. 1) of August 27, 1981; in section 591, "We find that the actions taken by the Licensee...along with conditions we impose are necessary and sufficient to resolve the concerns identified by the Commission with respect to the potential interactions between Units 1 and 2."

We read the report to see if it contained any conclusion that would stimulate a change in previous decisions that TMI-1 and TMI-2 are sufficiently independent that TMI-2 activities will not affect safe operation of TMI-1. We have not independently reviewed the material related to this question as a means of evaluating the completeness and accuracy of the Delian Corp. report. To stimulate a change, the report would need to describe (1) a discovery by the Delian Corp. review team of an interaction not previously found by either GPU, Bechtel Corp., or the NRC Staff during the years since the TMI-2 accident, or (2) an evaluation of one or more of those earlier interactions as impermissible.

The degree to which the DCR contributes a separate evaluation of the independence of TMI-1 from TMI-2 is addressed below. As they stated in the DCR, they used, "A logical approach based on risk and reliability principles [to]...assess the risks to safe operation of [TMI-1]...resulting from [TMI-2]...and its cleanup. Both original and work previously performed were used in support of the assessment." They have been logical - the bulk of the DCR consists of a classification scheme. The "risk and reliability principles" seem to be confined to a simple fault tree, Fig. 1.1. Although the DCR states several times that an analysis or an independent assessment has been made, the details of the assessments are not given. The classification logic used by the DCR is sufficiently described by Tables 1-1, C-3, C-4 (appended). The DCR tabulates the considerations given in the ASLB decision cited above, in NUREG-0680 and in the rest of the DCR references. "Three potentially significant events were identified as part of the effects analysis....

"These were...:

1. Fire in the shared Fuel Handling Building truck bay...which destroys, control and instrumentation circuits for TMI-1.
2. Fuel cask drop over the truck bay...which...severs redundant power cables to the Decay Heat River Water Pumps.

3. Fuel removal canister or [submerged demineralizer system] SDS resin canister drop over the truck bay which...ruptures inside a TMI-1 piping penetration room...."

The DCR concludes that each event is not a significant contributor to the overall risk of operation at TMI-1.

The DCR considers a number of interaction mechanisms in appendix A through F. In every case the procedure is the same, "each event...[is] assessed...with respect to its...effects upon TMI-1 barriers, safety equipment, and operating personnel." If no adverse effects were found, then no potentially significant event exists.

The interactions considered are all resolved by statements of the following kind:

"E.2.3.1 Site-imposed flooding [sic] No potential for precluding safe operation of TMI-1 can be identified in this event category.

"E.2.4.2 Toxic gases The likelihood that such operations would be required to assure plant safety is very low.

"E.2.4.3 Explosions (shocks) It is...highly unlikely that a detonation of...gases or...electrical components associated with TMI-2 could result in...damage [to] these structures or components...[in TMI-1].

Thus each tabulated interaction is disposed of by an assertion or a reference to an undesignated study or analysis. It is, therefore, difficult to independently assess their validity. However, from our reading we conclude that the DCR does not identify a previously undiscovered interaction nor does the DCR delete any previously identified interaction on the basis of it being infeasible.

This evaluation was prepared by C. Morris, RRAB