

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

1/2/80

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

NRC STAFF RESPONSES TO THREE MILE ISLAND  
ALERT'S INTERROGATORIES TO THE  
NUCLEAR REGULATORY COMMISSION

In accordance with 10 C.F.R. §2.720 and 10 C.F.R. §2.744, the NRC Staff has responded to Three Mile Island Alert's (TMIA) Interrogatories to the Nuclear Regulatory Commission dated December 10, 1979. Each Interrogatory is restated and a response provided. Where appropriate, the NRC Staff has invoked that portion of the Commission's Order of August 9, 1979 (slip op. at 11) which allows as an adequate response to a discovery request a statement that information is available in the Local Public Document Rooms and guidance as to where the information can be found. Although the NRC Staff has provided, as requested, names, addresses, and telephone numbers of individuals participating in certain studies and reviews, parties are reminded that any contact with these individuals must be through the counsel for the NRC Staff. Following the responses to the Interrogatories are affidavits identifying the individuals who prepared the responses and verifying them.

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Question 1

Has the NRC evaluated the operating history of TMI-1 and looked for danger signals indicating possible generic safety problems?

Response

The NRC has not conducted a comprehensive evaluation of the operating history of TMI-1. The Staff has reviewed a study of TMI-1 transients similar to the Davis-Besse event which was done by the licensee. The results of this review will be contained in the NRC Staff's "Evaluation of Licensee's Compliance with the NRC Order Dated August 9, 1979" and Supplements.

The Staff has also examined feedwater transients at all Babcock & Wilcox-designed reactors, including TMI-1. The results of this review are contained in NUREG-0560, "Staff Report on the Generic Assessment of Feedwater Transients in Pressurized Water Reactors Designed by the Babcock and Wilcox Company." A copy of this document is in the Harrisburg and York Local Public Documents Rooms.

1726 277

Question 2

If so, state:

- (a) What problems were found;
- (b) How are the problems to be dealt with;
- (c) Who discovered the problems;
- (d) Supply any reports issued as a result of the evaluation.

Response

(a) and (b): The problems discovered in the review of transients at TMI and those discovered in the study of feedwater transients, as well as the methods for dealing with those problems can be found in the "Evaluation of Licensee's Compliance with the NRC Order Dated August 9, 1979" which will be issued by the NRC Staff and NUREG-0560, respectively.

(c): The Task Force which prepared NUREG-0560 consisted of:

Robert L. Tedesco  
Paul Check  
James Watt  
Stephen Hanuaer  
Rodney Satterfield  
Zolton Rosztoczy  
Richard Ireland  
Gus Lainas  
Paul Collins  
Newton Anderson

The person who reviewed Metropolitan Edison's study of transients was Scott Newberry.

(d):           The "Evaluation of Licensee's Compliance with the NRC Order Dated August 9, 1979" has not yet been issued by the NRC Staff but will be sent to all intervenors in this proceeding when it becomes available. NUREG-0560 can be found in the TMI-1 Local Public Document Rooms in Harrisburg and York, Pennsylvania.

1726 279

Question 3

Has the NRC examined Licensee's operator training program for TMI-1?

Response

Yes. The NRC reviewed the TMI-1 operator training program during the TMI-1 Operating License review. The TMI-1 operator requalification program was also reviewed by the NRC. In addition, the NRC has reviewed the Operator Accelerated Retraining Program (OARF) included as Section 6 of the licensee's restart submittal.

1726 280

Question 4

Have improvements in the program been recommended by the NRC to the Licensee?

Response

Yes, as noted below.

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Question 5

If so, state:

- (a) What type of improvements have been recommended;
- (b) Have these improvements been recommended to other utility training programs, and, if so, name the utilities;
- (c) Provide copies of all staff recommendations made since the accident to improve operator training programs.

Response

(a): The licensee was directed to augment the retraining of all Reactor Operators and Senior Reactor Operators in Order Item 1(e). Additional requirements were identified in parts 6 and 7 of Order Item 1(a). Furthermore, Items 3, 4, 5, 7, 8, 9, and 10 of IE Bulletin 79-05A; Items 1, 2, and 4 of IE Bulletin 79-05B; and Items 1, 4, and 5 of IE Bulletin 79-05C address training of operators or require changes to procedures which would necessitate retraining of operators. Finally, NUREG-0578 contains several sections (2.1.1, 2.1.3a and b, 2.1.5c, 2.1.7, 2.2.1a, b, and c) that require facility design and/or procedure changes which dictate retraining of operating personnel.

In general, these NRC requirements stress training in small break LOCA recognition and response, the TMI-2 accident and lessons learned, natural circulation, and prompt verification of proper emergency feedwater system operation.

(b): The NRC has issued similar requirements to all operating facilities. Short-term recommendations contained in NUREG-0578 apply to all facilities.

IE Bulletins were issued to all facilities according to the NSSS vendor; e.g., IE Bulletins 79-05A, B, and C to Babcock & Wilcox designed facilities; IE Bulletins 79-06A, B, and C to Westinghouse and Combustion Engineering designed facilities; and IE Bulletins 79-08A, B, and C to General Electric designed facilities. In addition, the NRC ordered all Babcock & Wilcox designed facilities to provide licensed operating personnel with additional training on small break LOCA's and the TMI-2 accident.

(c): The NRC has conducted a review of the Operator Licensing Program. Recommendations regarding improvements in this program were presented to the Commission in SECY-79-330E/330F. A copy of this paper can be found in the TMI-1 Local Public Documents Rooms.

1726 283



Question 6

Has the NRC performed any evaluations of the Licensee with respect to the operating performance of Licensee at TMI-1 for the twelve months prior to the accident?

Response

No.

1726 284

Question 7

If so:

- (a) List the name, address and phone number of each person that was involved in any evaluation;
- (b) Provide copies of all draft and final reports, and internal memoranda discussing the operating performance of Licensee.

Response

- (a): Not applicable.
- (b): Not applicable.

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Question 8

Has the NRC been asked to evaluate the problems associated with restarting TMI-1 while TMI-2 remains [contaminated]?

Response

The Nuclear Regulatory Commission's Order of August 9, 1979 directed that the licensee "demonstrate that decontamination and/or restoration operations at TMI-2 will not affect safe operations at TMI-1." Slip. op. at 6-7.

Pursuant to this directive, the NRC Staff will examine this issue in its "Evaluation of Licensee's Compliance with the NRC Order Dated August 9, 1979" and supplements.

1726 286

Question 9

If so:

- (a) List the name, address and telephone number of each person who participated in the evaluation;
- (b) Supply copies of every memorandum, report or other correspondence bearing upon this evaluation.

Response

(a):           John T. Collins  
                  United States Nuclear Regulatory Commission  
                  Office of Nuclear Reactor Regulation  
                  Washington, D. C. 20555  
                  (301) 492-8361

                  Jay Y. Lee  
                  United States Nuclear Regulatory Commission  
                  Office of Nuclear Reactor Regulation  
                  Washington, D. C. 20555  
                  (301) 492-7637

(b):       The primary document used in the evaluation of problems associated with restarting TMI-1 while TMI-2 is being decontaminated is the licensee's restart report entitled "Report in Response to NRC Staff Recommended Requirements for Restart of Three Mile Island Nuclear Station Unit 1" and all of the amendments to that report issued to date. A copy of the report and the amendments have been sent to all of the intervenors in this proceeding and are also available in the Harrisburg and York Local Public Documents Rooms. Other documents which may have been used but are not yet available will be distributed when they do become available.

1726 287

Question 10

Has the NRC been asked to review the ability of Met Ed to operate TMI-1 in the wake of the March 28 accident?

Response

The NRC Staff objects to Interrogatory 10 as vague because it is unclear what is meant by "ability." Despite this objection, the Staff has answered the question in terms of the management and financial capability of the licensee.

The Nuclear Regulatory Commission's Order of August 9, 1979 directed that the licensee "demonstrate his managerial capability and resources to operate Unit 1 while maintaining Unit 2 in a safe configuration and carrying out planned decontamination and/or restoration activities." Slip. op. at 7. The Commission also ordered that the licensee "demonstrate his financial qualifications to the extent relevant to his ability to operate TMI-1 safely." Id. Pursuant to this Order, the NRC Staff has reviewed and is continuing to review the management capabilities and resources of the licensee to operate Unit 1 of the Three Mile Island Nuclear facility. The results of this review will be contained in the NRC Staff's "Evaluation of Licensee's Compliance with the NRC Order dated August 9, 1979" and supplements.

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Question 11

If so:

- (a) List the name, address and telephone number of each person who participated in the review.
- (b) Supply copies of any memoranda, reports or other related correspondence bearing upon this review.

Response

(a): The review of the above-described subject is under way but has not been completed. Additional persons not yet identified may be asked to participate before the review is completed. Therefore, those listed below are those that have participated to date in the review identified in Interrogatory 10 above. We will identify at a later date any other persons who may subsequently participate in the review. In addition, the NRC Staff in its review of management capability also considered operator training, quality assurance, health physics, and emergency planning.

Harley Silver (Project Manager, TMI-1 Restart)  
Light Water Reactors Branch No. 4  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-8427

Frederick R. Allenspach (management capability)  
Quality Assurance Branch  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7741

John W. Gilray (quality assurance)  
Quality Assurance Branch  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7741

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Bruce A. Boger (operator training)  
Operator Licensing Branch  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7476

Jack Nehemias (health physics)  
Division of Site Safety and Environmental Analysis  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7574

Jack W. Roe (emergency planning)  
Reactor Safeguards Licensing Branch  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-8460

Jim C. Petersen (financial capability)  
Office of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7331

Louis Gittleman (financial capability)  
Office of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7331

Michael L. Karlowicz, Jr. (financial capability)  
Office of Nuclear Reactor Regulation  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555  
(301) 492-7331

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(b): The documents bearing upon the review of management capability are listed below. Those denoted by an asterisk are enclosed; the others can be found in the TMI-1 Local Public Documents Rooms.

- \*1. Letter dated June 29, 1979 from Harold R. Denton, Director, Office of Nuclear Reactor Regulation to All Power Reactor Licensees;
2. Metropolitan Edison submittal of August 6, 1979 in response to Harold Denton letter of June 29, 1979 to All Power Reactors Licensees;
- \*3. Memorandum dated October 5, 1979 from W. Haass to H. Silver - TMI-1 Review;
4. Letter dated October 19, 1979 from R. Vollmer, Director TMI Support to R. C. Arnold, Senior Vice President, Met-Ed Co.;
- \*5. Memorandum dated October 30, 1979 from W. Haass to H. Silver - TMI-1 Review;
6. Letter dated October 31, 1979 from R. Vollmer, Director TMI Support to R. C. Arnold, Senior Vice President, Met-Ed Co.;
- \*7. Memorandum dated November 21, 1979 from W. Haass to H. Silver - TMI-1 Review;
8. Letter dated November 21, 1979 from R. Vollmer, Director TMI Support to R. C. Arnold, Senior Vice President, Met-Ed Co.;
- \*9. Memorandum dated December 7, 1979 from D. J. Skovholt to H. Silver - Organizational and Administrative Controls SER Input for TMI-1 Restart.

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10. Metropolitan Edison Restart and Amendments Thereto;
- \*11. Metropolitan Edison letter dated November 8, 1979 from J. G. Herbein, Vice President-Nuclear Operations to R. Vollmer, Director TMI Support in response to NRC letter of October 31, 1979.

The documents bearing upon the review of Metropolitan Edison's financial resources are a series of correspondence between the licensee and the NRC Staff. The dates of this correspondence are:

Letters from NRC Staff posing questions to licensee:

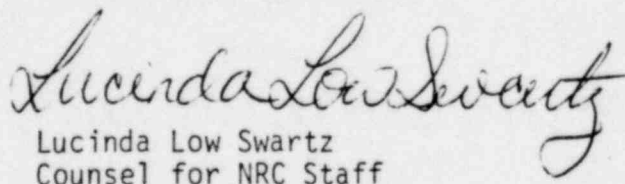
September 21, 1979  
December 6, 1979

Letters from licensee responding to questions:

October 15, 1979  
October 17, 1979  
October 19, 1979  
November 26, 1979  
November 27, 1979  
November 29, 1979  
December 3, 1979  
December 7, 1979

Copies of the correspondence can be found in the Local Public Documents Rooms located in Harrisburg and York, Pennsylvania.

Respectfully submitted,

  
Lucinda Low Swartz  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 2nd day of January, 1980.

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION


BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

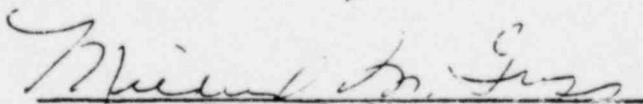
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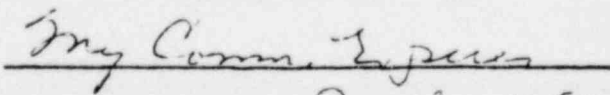
I, Harley Silver, being duly sworn, do depose and state:

1. I am a Senior Project Manager in the Division of Project Management, Office of Nuclear Reactor Regulation of the Nuclear Regulatory Commission. I am responsible for managing the safety review of assigned nuclear power plants, including Three Mile Island, Unit 1 Restart Program. My professional qualifications statement is attached.
2. The answers to TMIA Interrogatories 1, 2, 6, 7, 8, and 9 were prepared by me. I certify the answers given are true and accurate to the best of my knowledge.

  
\_\_\_\_\_  
Harley Silver

Subscribed and Sworn to before me this 20 day of January,  
1980.

  
\_\_\_\_\_  
Notary Public

  
\_\_\_\_\_  
July 1, 1982



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

AFFIDAVIT OF FREDRICK R. ALLENSPACH

I, Fredrick R. Allenspach, being duly sworn, do depose and state:

1. I am employed by the Quality Assurance Branch in the Division of Project Management of the Office of Nuclear Reactor Regulation in the Nuclear Regulatory Commission. I am responsible for the review and evaluation of applicant's organizational structure and technical and administrative qualifications of the proposed reactor operating organization. My professional qualifications statement is attached.
2. The answers to TMIA's Interrogatories 10 and 11 were partially prepared by me. I certify that the answers given are true and accurate to the best of my knowledge.

*Fredrick R. Allenspach*  
Fredrick R. Allenspach

Subscribed and sworn to  
before me this 2nd day of January, 1980.

*Elizabeth Ann Lipton*  
Notary Public

My Commission expires: July 1, 1982

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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, Unit 1) )

Docket No. 50-289

AFFIDAVIT OF JIM C. PETERSEN

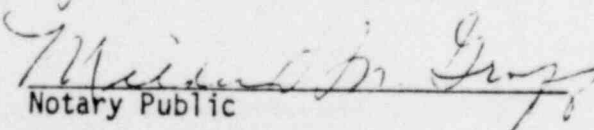
I, Jim C. Petersen, being duly sworn, do depose and state:

1. I am the Senior Financial Analyst in the Office of Nuclear Reactor Regulation in the Nuclear Regulatory Commission. I am responsible for the review and evaluation of the financial qualifications of nuclear facility license applicants to pursue proposed activities under a license. My professional qualifications statement is attached.
2. The answers to TMIA's Interrogatories 10 and 11 were partially prepared by me. I certify that the answers given are true and accurate to the best of my knowledge.

  
\_\_\_\_\_  
Jim C. Petersen

Subscribed and sworn to  
before me this 2<sup>nd</sup> day of

January, 1980.

  
\_\_\_\_\_  
Notary Public

My Commission expires:

July 11, 1982

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Harley Silver  
Senior Project Manager  
Division of Project Management  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Professional Qualifications

I am a Senior Project Manager, responsible for managing the safety review for the Nuclear Regulatory Commission of assigned plants, including Three Mile Island Unit 2. I have served in this capacity since October 1973, and had been assigned Three Mile Island Unit 2 from May 1975 until mid-1979. Since the fall of 1979, I have been assigned as the Project Manager of the TMI-1 Restart Program.

I received the degree of Bachelor of Mechanical Engineering from New York University in 1949 and have subsequently taken graduate level courses in Engineering and Business Administration.

Between 1950 and 1952, I served in the United States Air Force as a First Lieutenant. From 1952 to 1955 I was employed as a Design Engineer by the M. W. Kellogg Company.

From 1955 through 1962, I was employed as a Project Engineer by architect-engineering firms, including Hydrocarbon Research, Inc. and Bechtel Associates.

Between 1963 and 1970, I was employed by the Westinghouse Electric Corp. in both the Astronuclear Laboratory and Weapons Systems Department as, successively, Project Engineer, Supervisor of various design groups, and Manager of Systems Integration.

In 1971, I joined Offshore Power Systems as Manager of Component Engineering, in which capacity I remained until joining the Nuclear Regulatory Commission.

I am a Registered Professional Engineer in the State of New York (Certificate Number 32892).

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## PROFESSIONAL QUALIFICATIONS LIST

BRUCE A. BOGER

### Education

June 1971 Received BSNE - University of Virginia  
June 1972 Received MENE - University of Virginia

### Work Experience

June 1972 to June 1977 Virginia Electric and Power Company  
Surry Nuclear Power Station

Assistant Engineer - Performed startup testing on Unit No. 2.

Associate Engineer - Reviewed facility design modifications.

Engineer - Assisted the Supervisor-Engineering Services; trained for and received a Senior Reactor Operator License.

Supervisor - Engineering Services - Directed the activities of the onsite engineering staff.

June 1977 to September 1977 Virginia Electric and Power Company  
Richmond, Virginia

Supervisor - Nuclear Engineering Services - Directed the activities of the offsite engineering staff in support of Surry Power Station.

October 1977 to Present U. S. Nuclear Regulatory Commission  
Bethesda, Maryland

Reactor Engineer in the Operator Licensing Branch - Administer licensing examinations to nuclear power plant and research reactor personnel.

### Professional Affiliations

Registered Professional Engineer - State of Virginia  
Member - American Nuclear Society

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Frederick R. Allenspach

- June 1952
- Graduate - Polytechnic Institute of Brooklyn
  - Degree in Bachelor of Mechanical Engineering
- July 1952  
to August 1953
- New York Naval Shipyard
- August 1953  
to August 1954
- Republic Aviation Corporation
- August 1954  
to August 1956
- Military Service
- September 1956  
to June 1968
- Employed by the Brookhaven National Laboratory, Reactor Division. Approximately two years as operating shift supervisor in charge of an operating shift on the Brookhaven Graphite Research Reactor (BGRR). Approximately three years as BGRR day shift supervisor responsible for various reactor support activities.
- Approximately six years as BGRR Assistant Operations Group Leader primarily responsible for the temperature monitoring and reactor fuel management programs. One year as BGRR Operations Group Leader responsible for all operational aspects of the reactor.
- Included during this period at Brookhaven National Laboratory were several short term supplemental assignments to Brookhaven National Laboratory review and audit committees assigned the responsibility to determine if other Brookhaven nuclear reactors were being operated in accordance with the applicable rules and regulations.
- June 1968  
to June 1974
- Employed by the Atomic Energy Commission, Directorate of Licensing, Operational Safety Branch. My responsibilities include (as assigned); review and evaluation of applicants organizational structure, technical and administrative qualifications of applicants proposed reactor operating organization, including emergency plans and industrial security plans; development of guides and codification of

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present and proposed practices with respect to administrative procedures for the operation of licensed reactors; the review of operating reports from licensed reactors for safety related items; and the preparation of reports relative to operating experiences at licensed reactors.

June 1974  
to present

- Employed by the Atomic Energy Commission, Division of Project Management, Quality Assurance Branch. My responsibilities include review and evaluation of applicants organizational structure, technical and administrative qualifications of applicants proposed reactor operating organization, development of standards, codes and guides with respect to administrative procedures for the operation of licensed reactors; and the development of uniform acceptance criteria for subjects required to be addressed by license applicants relating to operational safety matters.

I have attended the MIT course on Light Water Reactor Safety, attended the POPO course in Industrial Defense and Disaster Planning for Privately Operated Facilities sponsored by the Dept. of Army at the Military Police School in Fort Gordon, Georgia, and a Babcock and Wilcox Simulator training course.

1726 300 =

JIM C. PETERSEN

PROFESSIONAL QUALIFICATIONS

OFFICE OF NUCLEAR REACTOR REGULATION

I am the Senior Financial Analyst in the Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission. I am responsible for the review and evaluation of the financial qualifications of nuclear facility license applicants to pursue proposed activities under a license, primarily the construction and operation of nuclear power plants. In this regard, I have prepared financial qualifications analyses for inclusion in the Staff's Safety Evaluations and for presentation as evidence on the record of the Atomic Safety and Licensing Board's safety hearings. I have served as a Staff witness before the Atomic Safety and Licensing Board in a number of proceedings. My work also involves keeping abreast of developments in the money and capital markets and in the electric utility industry.

I received a Bachelor of Science in Business Administration degree (awarded cum laude) with a major in Accounting from the University of Denver in 1968. I have continued my formal education through college and university courses in finance, math, economics and computer science and through several intensive short courses. I am a member of Beta Gamma Sigma, the national business administration honorary, and Beta Alpha Psi, the national accounting honorary. The latter organization presented me with its award for outstanding service.

From 1968 through 1973, I was employed in a number of assignments on the staff of the Controller of the Atomic Energy Commission. These assignments included reviewing, designing and implementing accounting systems and procedures for AEC offices and AEC contractors. I also assisted in the financial review of nuclear facility license applicants during the period when that function was performed by independent staff members of the AEC Office of the Controller. That function was subsequently transferred in its entirety to the NRC. In January of 1974, I joined the regulatory staff and assumed responsibilities in the financial qualifications review of nuclear facility license applicants. I have worked in NRC financial analysis since that time, except for a one-year assignment at the U. S. Department of Energy where I worked on the financing of emerging energy technologies.

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Walter W. Cohen, Consumer Advocate  
Department of Justice  
Strawberry Square, 14th Floor  
Harrisburg, Pennsylvania 17127

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Assistant Solicitor  
Knupp and Andrews  
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Harrisburg, Pennsylvania 17108

John E. Minnich, Chairman  
Dauphin Co. Board of Commissioners  
Dauphin County Courthouse  
Front and Market Sts.  
Harrisburg, Pennsylvania 17101

- \* Atomic Safety and Licensing Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555
- \* Atomic Safety and Licensing Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555
- \* Docketing and Service Section  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Robert Q. Pollard  
Chesapeake Energy Alliance  
609 Montpelier Street  
Baltimore, Maryland 21218

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

Ms. Frieda Berryhill, Chairman  
Coalition for Nuclear Power Plant  
Postponement  
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Wilmington, Delaware 19808

Holly S. Keck  
Anti-Nuclear Group Representing  
York  
245 W. Philadelphia Street  
York, Pennsylvania 17404

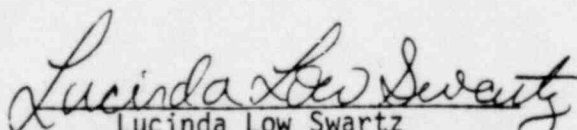
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Jordan D. Cunningham, Esq.  
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Ms. Marjorie M. Aamodt  
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Coatesville, Pennsylvania 19320

Ms. Karen Sheldon  
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1725 I Street, N. W.  
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Washington, D. C. 20006

  
Lucinda Low Swartz  
Counsel for NRC Staff

1776 303



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
JUN 29 1979

ALL POWER REACTOR LICENSEES

Gentlemen:

As one of the results of the recent Three Mile Island-2 accident, the NRC staff is conducting an overall review and evaluation of the management and technical resources available to utilities who own and operate nuclear power plants to handle unusual events of that type. The information required to perform this effort on your utility is identified in the enclosure.

You are requested to submit the information appropriate to your utility by July 30, 1979. If you cannot meet this date, please advise us promptly.

Should you have any questions relative to this request, please contact Mr. Walter P. Haass, Chief, Quality Assurance Branch, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission at (301) 492-7741.

Sincerely,

A handwritten signature in cursive script that reads "Harold R. Denton".

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosure:  
Information Required to Review  
Corporate Capabilities

1726 304

DUPLICATE DOCUMENT

Entire document previously  
entered into system under:

ANO

7908130333

No. of pages:

6

OCT 5 1979

Docket No. 50-289

MEMORANDUM FOR: Harley Silver, Project Manager, Light Water Reactors Branch No. 4,  
Division of Project Management

FROM: Walter P. Haass, Chief, Quality Assurance Branch,  
Division of Project Management

SUBJECT: TMI-1 REVIEW

Enclosed is the information we require in order to perform our part of the Board Order item 6. This should be transmitted to Metropolitan Edison so that they can begin to prepare any additional information, as necessary, without waiting for our review of their submittal.

Original signed by  
Walter P. Haass

Walter P. Haass, Chief  
Quality Assurance Branch  
Division of Project Management

Enclosure:  
Information Required for the  
TMI-1 Restart Review

1726 305

DUPLICATE DOCUMENT

Entire document previously  
entered into system under:

AND

7910250399

No. of pages: 5

OCT 30 1979

Docket No. 50-289

MEMORANDUM FOR: Harley Silver, Project Manager, Light Water Reactors Branch  
No. 4, Division of Project Management

FROM: Walter P. Haass, Chief, Quality Assurance Branch,  
Division of Project Management

SUBJECT: TMI-1 REVIEW

Enclosed is a supplemental request for information we require in order to perform our part of the Board Order item 6. This should be transmitted to Metropolitan Edison so that they can begin to prepare any additional information, as necessary, without waiting for our review of their submittal.

Walter P. Haass, Chief  
Quality Assurance Branch  
Division of Project Management

Enclosure:  
Information Required for the  
TMI-1 Restart Review

1726 306

DUPLICATE

7911140389

Information Required for the TMI-1 Restart Review

The staff review of your operational activities for the Three Mile Island Nuclear Station prior to and including the TMI-2 accident indicates a significant number of potential non-compliance items that place in question the adequacy of your management controls. These potential non-compliance items can be generally categorized as failure to adhere to Technical Specification requirements, failure to meet certain NRC Regulations, and failure to follow established procedures. Specific examples of such items are found in Appendices I-B and II-F of NUREG-0600.\*

In view of the above, describe the specific measures you have taken, or plan to take, to demonstrate that the Metropolitan Edison Company has established a clear commitment to operational safety through significant improvements in the management control of operational activities. Measures to be described should include, but not be limited to:

1. Organizational changes to improve management controls.
2. Upgrading of management and technical qualifications.
3. Changes to review and approve provisions for plant and emergency procedures.
4. Improvements in the review and audit programs for plant activities.
5. Independent verifications of operational activities affecting safety.
6. Establishment of and/or revisions to training programs for all levels of management and technical personnel involved with operation of the TMI NS.
7. Greater involvement of corporate management and staff in operational activities.
8. Upgrading of the operational quality assurance program.

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\* Investigation into the March 28, 1979 Three Mile Island Accident by Office of Inspection and Enforcement.



V 0 1 1979

Docket No. 50-289

MEMORANDUM FOR: Harley Silver, Project Manager, Light Water Reactors  
Branch No. 4, Division of Project Management

FROM: Walter P. Haass, Chief, Quality Assurance Branch,  
Division of Project Management

SUBJECT: TMI-1 REVIEW

We have reviewed the information the licensee has submitted in Sections 4 and 5 of the Three Mile Island Unit 1 restart report through Amendment 5. Enclosed is our request for additional information on the subject of management and technical resources that we need in order to continue our review.

Original signed by  
Walter P. Haass

Walter P. Haass, Chief  
Quality Assurance Branch  
Division of Project Management

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POOR ORIGINAL

Packet No. 50-289

MEMORANDUM FOR: Harley Silver, Light Water Reactors Branch No. 4,  
Division of Project Management

FROM: Donald J. Skovholt, Assistant Director for Quality  
Assurance and Operations, Division of Project Management

SUBJECT: ORGANIZATIONAL AND ADMINISTRATIVE CONTROLS SER INPUT  
FOR TMI-I RESTART

In item 6 of the Commission Order dated August 9, 1979, the Metropolitan Edison Company (Met-Ed) was asked to address managerial capabilities and resources to operate Three Mile Island Unit No. 1. We have evaluated the information relative to these items described in Sections 4 and 5 of the Met-Ed Restart Report and the letter from Met-Ed dated November 8, 1979. The enclosed SER input describes several aspects of the licensee's organization and managerial controls. However, it does not provide any conclusion as to the acceptability (or unacceptability) of these areas since the acceptance criteria in these areas are either being revised or are under development.

Original signed by  
Donald J. Skovholt

Donald J. Skovholt, Assistant Director  
for Quality Assurance & Operations  
Division of Project Management

Enclosure:  
SER Input for TMI-1 Restart

cc: R. Vollmer

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Three Mile Island 1 Restart

SER Input  
(Management Controls)

Metropolitan Edison Company (Met-Ed) has been and continues to be responsible for the operation of both Three Mile Island 1 (TMI-1) and Three Mile Island 2 (TMI-2). Part of this responsibility is to assure the adequacy of the plant staff and technical support (usually offsite) for the plant staff. At the time of startup of TMI-2, support to the plant staff was provided by General Public Utilities (GPU) Service Corporation but was transferred to the Met-Ed Generation Division at the time of commercial operation. This support by the Generation Division totalled about 18 engineers under the Manager, Generation Engineering, with other support provided in the areas of quality assurance and maintenance. The Generation Division support described above also provided support for other Met-Ed fossil-fueled generating stations consisting of over six stations. Additional technical support was dispersed throughout several departments of GPU Service Corporation, who had actual technical responsibilities for the design and startup of TMI-2.

Met-Ed has made significant organizational changes since the TMI-2 accident to provide strengthened management and technical support for the Three Mile Island Station, including TMI-1. One step has been to combine the technical and management resources of Met-Ed and GPU Service Corporation Generating Division into a single organizational entity identified as the TMI Generation Group. This group is headed by R. C. Arnold, Senior Vice President of Met-Ed. He also continues to serve as a Vice President of GPU Service Corporation. In his new capacity as head of the TMI Generation Group, he is responsible for the management of Three Mile Island activities, and support activities for

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Metropolitan Edison Company  
Post Office Box 480  
Middletown, Pennsylvania 17057  
717 944-4041

Writer's Direct Dial Number

November 8, 1979  
GQL 1400

TMI Support  
Attn: Richard Vollmer, Director  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)  
License No. DPR-50  
Docket No. 50-289  
TMI Restart Questions

Enclosed please find 10 copies of the response to your letter of October 31, 1979 concerning improvements in management control of operational activities. The following information will be included in the next amendment to the "TMI-1 Restart Report".

Sincerely,

J. G. Herbein  
Vice President-Nuclear Operations

JGH:LWH:rt

Enclosures

cc: J. T. Collins  
H. Silver  
R. Reid

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