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April 25, 1984
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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

NOTICE TO COMMISSION, APPEAL BOARD
AND LICENSING BOARD

As reflected in the enclosed press release issued today, Licensee has awarded a contract to NUS Corporation to provide staffing support to the Nuclear Safety and Compliance Committee, which is made up of outside members of GPU Nuclear's Board of Directors.

On November 22, 1983, Licensee provided to the Commission, Appeal Board, Licensing Board and parties copies of a report entitled, "An Assessment of the GPU Nuclear Corporation Organization and Senior Management and Its Competence to Operate TMI-1," by Admiral H. G. Rickover, USN, dated November 19,

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1983. Enclosed is a Status Report, dated April 18, 1984, on
Licensee's Responses to Admiral Rickover's Assessment.

Respectfully submitted,

Deborah B. Bauser

Deborah B. Bauser
SHAW, PITTMAN, POTTS & TROWBRIDGE
1800 M Street, N.W.
Washington, D.C. 20036
(202) 822-1215
Counsel for Licensee

Enclosures
cc: Attached Service List

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Station, Unit No. 1))

Docket No. 50-289

SERVICE LIST

Nunzio J. Palladino, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Victor Gilinsky, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Thomas M. Roberts, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

James K. Asselstine, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Frederick Bernthal, Commissioner
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

Administrative Judge
John H. Buck
Atomic Safety & Licensing Appeal
Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

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

Administrative Judge
Ivan W. Smith, Chairman
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge
Sheldon J. Wolfe
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Administrative Judge
Gustave A. Linenberger, Jr.
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docketing and Service Section (3)
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Board
Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Appeal
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Jack R. Goldberg, Esq. (4)
Office of the Executive Legal
Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Maxine Woelfling, Esquire
Assistant Counsel
Department of Environmental
Resources
514 Executive House
P.O. Box 2357
Harrisburg, PA 17120

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

Mr. Henry D. Hukill
Vice President
GPU Nuclear Corporation
P.O. Box 480
Middletown, PA 17057

Mr. and Mrs. Norman Aamodt
R.D. 5
Coatesville, PA 19320

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

Joanne Doroshow, Esquire
The Christic Institute
1324 North Capitol Street
Washington, D.C. 20002

Ms. Gail Phelps
ANGRY/TMI PIRC
1037 Maclay Street
Harrisburg, PA 17103

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

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

Michael W. Maupin, Esq.
Hunton & Williams
707 East Main Street
P.O. Box 1535
Richmond, VA 23212

David E. Cole, Esq.
Smith & Smith, P.C.
2931 Front Street
Harrisburg, PA 17110

**Three Mile Island
Nuclear Station**

Post Office Box 480
Middletown, PA 17057
717 948-8197

For Further Information
Contact:

Doug Bedell

For Release:

Immediately

News Release

GPU Nuclear

Public Information Services

Date:

April 25, 1984

#45-84N

GPU NUCLEAR SAFETY COMMITTEE SELECTS SUPPORT FIRM

Middletown, PA — The GPU Nuclear Corporation Board of Directors said today that the Board's Nuclear Safety and Compliance Committee (NSCC) has selected NUS Corporation of Gaithersburg, Maryland, to provide staff support for the committee's operations.

Robert V. Laney, Chairman of the NSCC Committee, said the technical and nuclear capabilities of NUS will support the NSCC Committee. The committee, made up of three outside directors of the GPU Nuclear Board with extensive experience in nuclear operations, was established on February 23, 1984, to help ensure nuclear and radiation safety by performing independent assessment monitoring of GPU Nuclear system activities. The committee reports its observations to the Board.

Laney said NUS is a nationally recognized organization with many years experience in providing specialized support to the U.S. nuclear industry and that the committee is pleased they can bring their expertise to the important tasks of this special safety committee.

Laney also said NUS Corporation will now proceed promptly to assign highly qualified staff to the GPU Nuclear operating sites, develop detailed plans and begin its support activities under committee direction.

The special committee will make written reports to the Board. The Board

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has stated previously its intention to make these reports available to the U.S. Nuclear Regulatory Commission and the public.

In addition to Laney, the other two members of the Nuclear Safety and Compliance Committee are Lawrence L. Humphreys and Warren F. Witzig. Laney is a consultant in nuclear and energy project management. Humphreys is chief executive officer of UNC Nuclear Industries. Witzig is chairman of the Nuclear Engineering Department at Pennsylvania State University.

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RESPONSES TO RECOMMENDATIONS OF
ADMIRAL H. G. RICKOVER, USN
AS SET FORTH IN THE NOVEMBER 19, 1983 REPORT ENTITLED

"AN ASSESSMENT OF THE GPU FUEL NUCLEAR CORPORATION
ORGANIZATION AND SENIOR MANAGEMENT AND
ITS COMPETENCE TO OPERATE TMI-1"

STATUS REPORT TO GPUNC BOARD OF DIRECTORS - APRIL 18, 1984

Preface

By letter of September 2, 1983, Mr. William G. Kuhns, Chairman, General Public Utilities, requested Admiral H. G. Rickover to "assess the GPU Nuclear Corporation, including the soundness of the organization and its senior management, in anticipation of the operation of the undamaged nuclear plant at Three Mile Island (TMI-1)."

The focus of the assessment was expressly on the present management and its qualifications to operate nuclear plants. The criteria used to assess the competence of GPUNC to operate TMI-1 were:

1. Require rising standards of adequacy.
2. Be technically self sufficient.
3. Face facts.
4. Respect even small amounts of radiation.
5. Require relentless training.
6. Require adherence to the concept of total responsibility.
7. Develop the capacity to learn from experience.

Admiral Rickover completed his evaluation and issued a report on November 19, 1983. The overall conclusion of the assessment was that "GPU Nuclear Corporation has the management competence and integrity to safely operate the TMI-1 plant." However, during the course of the investigation, several items were observed which, if adopted, would enhance the operation of TMI-1.

Those five recommendations are presented on the following pages. GPU has accepted the conclusions and recommendations of Admiral Rickover and plans for implementation are described in this first status report.

April 16, 1984

Rickover Assessment - GPUNC Responses

Recommendation 1: "GPU Nuclear should devise a plan to upgrade the operation and support of the TMI-1 and Oyster Creek plants, to achieve a ranking in the top one-sixth of all commercial nuclear plants in the Institute of Nuclear Power Operations (INPO) evaluations. Milestones should be set in each area and progress measured against these milestones."

Response:

1. GPUN accepts as a goal to be one of the best run nuclear utility operations. GPUN has established the following Corporate Goal and Objective as the proper mechanism for identifying and measuring progress:

1984 Corporate Objective #1: "Earn for GPUN recognition as a leader among all nuclear utilities by: - Improving technical competence and professionalism in all segments of the organization.

- Increasing the formality and procedural compliance with which engineering, maintenance and operations are conducted."

1984 Corporate Goal #1: "Establish and commence implementation of a definitive plan, including scheduled milestones, to further upgrade the operation and support of GPUN nuclear plants so as to warrant a ranking at the top, by the several regulatory and nuclear industry bodies who make evaluations of nuclear utility activities."

2. The GPU Nuclear Divisions have established numerous, specific goals for 1984 to support the corporate objective, "Earn for GPUN recognition as a leader among all nuclear utilities." This principle, however, shall be applied to all activities and operations of the corporation and is not limited to these specific goals.

A. The following 1984 TMI-1 Division goals have been established to support this corporate objective:

- (1) Commence a review of TMI-1 procedures to achieve compliance with the Corporate Policy and Procedure System. A goal of this review is to reduce the number, complexity, and length of existing procedures.

Recommendation 1: (Continued)

- (2) TMI management will review the GPU Nuclear Organization structure and the role, responsibilities, interrelations and goals of the various divisions with all members of the staff.
- (3) Support the Labor Relations group in the implementation of automatic mode of progression in Maintenance Technician classification and upgrade automatic mode of progression requirements for Auxiliary Operators to incorporate requalification requirements.
- (4) Establish a system for trending selected parameters of plant operations. Have the system firmly established and functioning by six months after restart.
- (5) Start a Control Room Operator class in early 1984 to insure sufficient licensed operators to support minimum staffing of two SRO's per shift on a six-shift rotation, and make provisions for some limited rotation out of licensed duties for selected individuals.
- (6) Maintain exempt staff and licensed operator turnover at a rate of five percent or less.
- (7) Increase shift supervisory involvement in activities outside the Control Room.
- (8) Implement Abnormal Transient Operator Guidelines (ATOG).
- (9) Modify the Page System to incorporate a separate circuit for the Control Room and to eliminate the Control Room from routine traffic on the system.
- (10) The plant director shall conduct weekly, unannounced plant tours with plant management to make observations of plant operations.
- (11) The plant director shall participate in one week of simulator training annually, participate in/observe each quarterly emergency preparedness exercise, participate in at least four hours of formal training per month, interview each licensed operator on a one-on-one basis at least annually and talk to each at least once a year.
- (12) Achieve the following radiological/contamination/radwaste goals:

Radiation Exposure	230	Person-Rem
Skin Contaminations	.0005	#/RWP Hour
Contaminated Area	4000	Square Ft. Released
Airborne Area	0	Square Ft.
Gaseous Effluents	9735	Curies/Year
Liquid Effluents	34	Curies/Year
Radwaste Shipped	200	Cubic Foot/Week (Average)

Recommendation 1: (Continued)

- (13) Reduce number of reportable and lost time accidents by 10% below 1983 experience level.
- (14) Complete items assigned in the Chemistry Upgrade Program as planned and scheduled.
- (15) A maximum leak rate of 300 gallons per day is established for the Auxiliary, Fuel Handling and Reactor Buildings.
- (16) Reduce TMI-1 Division GPUNC/Met-Ed employees to 333 from the 1983 authorized level of 340 without any increase in outside contractor manning.
- (17) Each TMI-1 Division Department head/manager review each exempt employees accountabilities, performance, goals, career potential and possible future assignments at least twice during the year.
- (18) The maximum personnel turnover rate for the TMI-1 exempt staff and licensed operators is established at 5%.

B. Oyster Creek has established the following goals to support the Corporate objective:

- (1) Develop a plan with milestones to improve the operation of Oyster Creek and achieve recognition by INPO and the NRC as a top level facility. (OC)
- (2) Review Oyster Creek INPO findings and evaluate the effectiveness of corrective action in remedying any underlying problems. (OC)
- (3) Maintain a zero backlog of outstanding NRC-related items, audit QA findings, commitments and other corrective actions for Oyster Creek. (OC)
- (4) Improve and upgrade the Oyster Creek Plant Chemistry and Radwaste Operations by: (OC)
 - Reducing INPO findings to zero.
 - Reducing NRC findings by 50%.
 - Reducing QA audits/QDRs and MNCRs by 50%.
 - Reducing personnel error incident by 50%.
- (5) Completely evaluate/review all Oyster Creek Operations & Material Departments procedures. (OC)

Recommendation 1: (Continued)

C. TMI-2 and the support divisions have established the following 1984 goals to support the Corporate objective:

- (1) Develop and issue a prioritized, mission-oriented Operations Analysis Plan. (ADM)
- (2) Reassess the Material Control & Warehousing operations and implement a corrective action plan to assure responsive and cost efficient programs in support of site operations. (ADM)
- (3) Establish GORB subcommittees to investigate and report on major identified issues according to the following categories: (GORB)
 - Risk Identification, Evaluation & Accident Prevention
 - Personnel, Organization & Human Factors
 - Hardware Status, Radiological & Chemical Control
 - Plant Modifications & Maintenance
 - Plant Modifications & Major Recovery Steps.
- (4) Recommend and establish an Interview Process to improve our ability to identify high quality people. (HR)
- (5) Identify organizational weaknesses relating to current needs (talent) vs. short and long term needs. (HR)
- (6) Recommend a Management Review System that supplements the Annual Performance Review and provides for top management visibility. (HR)
- (7) Establish a Career Counseling Program. (HR)
- (8) Provide technical training/qualifications program for maintenance personnel. (M&C)
- (9) Develop and implement a plan for TMI shift workers to pursue an after hours, on-site, engineering degree program. (NA)
- (10) Identify and improve methods to improve the Inservice Inspection Program's effectiveness and efficiency at TMI and Oyster Creek. (NA)
- (11) Develop training programs to support performance based mode of progression programs. (NA)

Recommendation 1: (Continued)

- (12) Complete the INPO accreditation process of an additional segment of four programs. (NA)
- (13) Assess the effectiveness of the Important to Safety guidelines and criteria. (NA)
- (14) Maintain ASME, NR and R stamp authorizations for performing repair and alterations to pressure boundary system. (NA)
- (15) Revise and consolidate the emergency preparedness plans for TMI and Oyster Creek into a single corporate plan. (NA)
- (16) Increase training involvement in the Recovery Program activities. (NA)
- (17) Complete the development of criteria for continuing operations. (NA)
- (18) Maintain a high state of emergency preparedness and achieve above-average ratings on NRC inspections, appraisals and graded exercises. (NA)
- (19) Continue to participate in joint utility conferences and other industry supported activities to facilitate the resolution of issues of common interests and coordinate mutual support for exercises and audits. (NA)
- (20) Review 100 percent of System Design Descriptions and work packages for radiological requirements. (R&EC)
- (21) Eliminate "Preliminary Safety Concerns" backlog. (TF)
- (22) Develop and implement a major upgrade to the Engineering Standards Manual. (TF)
- (23) Generate permanent generic structural shielding support schemes for use in TMI-1 and Oyster Creek ALARA efforts. (TF)
- (24) Establish system baseline engineering document files to enhance ability to respond to plant emergencies and to enhance responsible engineer cognizance of assigned systems. (TF)
- (25) Completely document the technical justification for the limits contained in the TMI-1 and Oyster Creek water chemistry. (TF)
- (26) Review existing Oyster Creek and TMI-1 technical manuals. (TF)

Recommendation 1: (Continued)

- (27) Implement the EPRI Simplified Piping Designs Methods & Procedures. (TF)
- (28) Complete modifications to the Corporate Water Chemistry Computerization Program. (TF)
- (29) Provide procedural guidelines and conceptual design changes for dealing with ATWS at OC. (TF)
- (30) Complete the field acceptance test of the Oyster Creek plant computer. (TF)
- (31) Start construction of the Five Year Rad Waste Facilities for Oyster Creek and TMI-1. (TF)
- (32) Complete a state-of-the-art Appendix K LOCA analysis for Oyster Creek. (TF)
- (33) Provide a one week simulator tour to each Startup & Test Engineer. (TF)
- (34) Attain and maintain six sections of qualified Shift Technical Advisors for TMI-1 and OC. (TF)
- (35) Participate and follow up on recommendations resulting from the current Organizational Development Program, which focuses on the identification and resolution of problems at various management and working levels. (TMI-2)
- (36) Improve TMI-2 procedural compliance through: (TMI-2)
 - Complete conversion of the plant administrative procedures;
 - Development/issuance of department/division level procedures as required to support TMI-2 activities and corporate procedures;
 - Training to support/enhance procedure compliance.
- (37) Provide job specifications and descriptions of their responsibilities, authorities and required products. (Various)
- (38) Conduct periodic meetings to communicate and reinforce the corporate mission and goals and responsibilities of all employees. (Various)

Rickover Assessment - GPUNC Responses

Recommendation 2: "GPU and GPU Nuclear senior management should become technically informed and personally familiar with conditions at the operating plant. They should visit the plants frequently, at irregular hours, inspect selected portions, and leave a written record of what they observed and how long they remained."

Response:

GPUN believes this recommendation encompasses:

- A. Formal training in the plants and their systems and operation;
- B. Mechanisms for staying aware, on a timely basis, of activities and problems at the plants; and
- C. Plant tours.

A. Formal Training

- (1) Office of the President - completion of training programs in 1984 as Emergency Support Director (ESD) for all three plants including Senior Management Technical Training for TMI-1 and Oyster Creek is planned for the President and Executive Vice President.
- (2) GORB's - Two hour period to be established at each GORB meeting for indoctrination on background information required concerning details of plant systems and their interactions.
- (3) TMI-1 Division Director will participate in one week of simulator training per year; attend at least four hours of formal training per month; Senior management observes requalification training, maintenance training, etc.
- (4) Oyster Creek Division Director will participate in Emergency Support Director Training Program.
- (5) Technical Functions - All senior Technical Functions managers, who have not already done so, will attend the Emergency Support Director Training for both Oyster Creek and TMI-1 prior to mid-1985.

Recommendation 2: (Continued)

- (6) Nuclear Assurance Division Director will participate in ESD training and TMI and Oyster Creek Basic Principles Simulator when available later in 1984.
- (7) Rad & Environmental Controls - All present senior management to receive systems training by end of 1984.
- (8) M&C - Qualify all M&C headquarters staff for unescorted access at each plant site; qualify M&C senior management in Oyster Creek/TMI-1 plant technical training as suggested by Training Department.

B. Mechanisms for Staying Aware:

- (1) Office of the President to review Weekly Significant Events Reports from plants and support divisions, Daily Operation Status Reports from each plant, deficiency reports, etc.
- (2) Director TMI-1 to attend 1600 meeting; managers meet with off-going and in-coming shifts.
- (3) Director TMI-1 participation and/or observation in quarterly emergency preparedness exercises.
- (4) All Directors - daily interaction with personnel, staff and project review meetings, review of Weekly Significant Events Reports, etc.
- (5) All Directors - awareness of plant activities and problems from various review committees, attendance at plant staff meetings, and information up the chain of command.

C. Plant Tours

- (1) GPUN President and Executive Vice President will make at least six tours at each plant for which he has lead responsibility and three for the other plants for the purpose of general observation.
- (2) Director TMI-1 plans to make two unannounced tours of the plant each week.
- (3) Off-shift tour program at TMI-1 and Oyster Creek for site (including support division) management personnel.

Recommendation 2: (Continued)

- (4) Senior Technical Functions management will annually conduct a total of 12 tours of Oyster Creek and TMI-1.
- (5) Nuclear Assurance Division Director and Department heads will periodically tour the plant facilities through scheduled backshift tours and non-scheduled tours.
- (6) R&EC division Director and Headquarter based senior management will make four tours per plant; plant based senior management in Rad Controls and Safety & Health will tour the plant once a week while site Environmental Controls senior management will make one plant tour per month.

Rickover Assessment - GPUNC Responses

Recommendation 3: "Some personnel in the TMI-1 Training Department responsible for training licensed operators are not yet qualified Senior Reactor Operators. We recommend that these personnel complete qualification procedures on TMI-1 as soon as possible."

Response:

1. The schedule to complete SRO qualification for senior operator training personnel for both TMI and Oyster Creek is as follows:
 - a. TMI Supervisor Licensed Operator Training - took the TMI-1 SRO Instructor Certification Licensing exam in March 1984 and did not pass. He will be re-evaluated and, if recommended, will retake the exam in August. He will continue to maintain his TMI-2 SRO license.
 - b. TMI Operator Training Manager - is pursuing a TMI-1 SRO license with completion scheduled for October 1984.
 - c. Two RO licensed instructors at TMI took the NRC SRO Instructor Certification Licensing exam in March. One passed and is certified. The other failed. He will be re-evaluated, and, if recommended, will retake the exam in August.
 - d. New Oyster Creek Operator Training Manager - is scheduled to obtain his Oyster Creek SRO license in December 1985. This individual has held SRO licenses on Dresden Units 2 and 3 and has been a certified simulator instructor on the Morris/Dresden simulator.
 - e. Oyster Creek Supervisor Licensed Operator Training - will continue to maintain his Oyster Creek SRO license.
2. Over the long-term at TMI-1, operations will be in a position to supply a majority of the Training Department's requirements for licensed personnel. The plant staff now has 18 licensed SRO's. A plan to rotate these SRO's through the Training Department to assist in instruction is being developed.

Rickover Assessment - GPUNC Responses

Recommendation 4: "GPU Nuclear should continue to reduce its dependence on the use of consultants. The organization should become self-sufficient to the point where use of such personnel would be necessary only in special circumstances where development of in-house capability could not be justified."

Response:

1. This matter was detailed in a memo from R. C. Arnold to W. G. Kuhns dated November 10, 1983 entitled "Use of Outside Professional Services by GPU Nuclear." Included in this report are projections for 1984.
2. Corporate Objective #5: "Improve GPU Nuclear's functional capabilities within the authorized manning levels" and Corporate Goal #7: "Maintain system manpower within 1984 authorized levels, while improving functional capabilities" relate to this matter.
3. A status and projection for use of consultants will be updated and reviewed every six months highlighting deviations or changes from the prior version. The first status is scheduled for May 1984.
4. Use of consultants vs. in-house personnel will be addressed by all divisions in the 1985-1989 GPUN Five Year Plan.

Rickover Assessment - GPUNC Responses

Recommendation 5: "The general announcing system for the TMI plant distracts personnel in the control room. The system should be modified to significantly reduce these broadcasts to the control room. This will prevent distraction of operators from their primary duties. Also, too many people are in the control room. Only those essential to the operation of the plant should be there. Instructions to this effect should be posted and complied with."

Response:

1. The Control Room Page System Modification for TMI is scheduled for completion in April 1984. A joint Plant Engineering/Technical Functions study is underway to examine the feasibility of installing equipment for the use of portable radios to communicate with operators in the plant.
2. Instructions regarding access to the Control Room have been reviewed at each plant and are adequate, posted and being enforced. Formality and professionalism in the Control Room are to be continually emphasized and specific actions sought out through observation in off shift and shift tours, standard dress code in the Control Room, and other appropriate steps.
3. At TMI-1, Startup and Test will take as much data as possible from the Technical Support Center vice the Control Room.
4. At Oyster Creek, the space adjacent to the Control Room for use as the Group Shift Supervisor's office when the plant computer is removed is under consideration. This re-arrangement would enable access to G.S.S. for authorization or information without entering the Control Room. Also, physical barriers will be installed in the Control Room during the current outage to reduce congestion around the control panels.