UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AUG 24 1979

MEMORANDUM FOR: Eldon J. Brunner, Chief, RONS Branch, RI ✓

FROM: Kermit W. Whitt, Chief, PAB, RCI, IE

SUBJECT: SPECIAL INSPECTION AT JERSEY CENTRAL POWER AND LIGHT COMPANY

By memorandum dated August 10, 1979, the Commission requested that reviews and evaluations be made of Jersey Central Power and Light Company. The responsibility for performing these requested reviews and evaluations has been assigned to the PAB. We are presently working on the detailed outline and schedule for accomplishing the requested functions. The plan will be submitted to the Commission for review by August 31, 1979.

Due to the scope and detail of the special request, we believe a licensee management appraisal inspection is appropriate. A management appraisal inspection plus an extensive procedure review effort should answer most of the Commission's concerns. We will probably ask Region I to assist in the evaluation of past operating history. Such assistance would be desirable in presenting an enforcement profile and discussing significant problems that the region has experienced with this licensee.

We presently plan to commence the inspection on October 1, 1979 at the licensee's corporate office. During the first week extensive interviews with licensee personnel will be conducted, and data will be collected for the necessary evaluations. Procedures in the areas of operations, maintenance, testing, radiation protection, etc., will be borrowed and taken to the regional offices. A technical review of the procedures will be done to the extent possible in the regional offices during the week of October 8, 1979. The week of October 15 will be spent at the Oyster Creek site conducting personnel interviews and continuing with the procedure review that could not be effectively done in the regions. During this week the inspectors will determine whether more time is necessary and whether a trip to Forked River is desirable.

The inspection team will be composed of the following PAB members:

Wayne Shafer - Team Leader, RIII
Marv Sinkule, RII
Darrell Hickley, RII
Tony Fasano, RI
Blaine Murray, RIV

The inspection plan is attached as Enclosure 1. A list of functional areas that will be covered by each inspector is provided in Enclosure 2. We request that you advise the licensee of the pending inspection.

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5pp.

As you indicated on August 21, 1979, Ebe McCabe will be the principal contact between Region I and the inspection team. Wayne Shafer will coordinate the inspection preparations with Region I and will answer questions specific to the subject inspection. Tony Fasano will also aid in the coordination effort during the periods that he is in the office. We request that the team be provided with copies of the utility onsite and offsite organization charts as soon as practical to allow the team members to identify the individuals having responsibilities in the indicated areas. Approximately one week after receipt of these charts the team will forward to you a list of the positions of people they wish to interview in each area. We request that this list be communicated to the licensee to enable the timely scheduling of their people for the interviews.

Site and corporate inspection activities include nightly team debriefings and management interviews at both locations. Regional attendance at debriefings and management interviews is welcome.

Should you have any questions regarding PAB plans for this inspection or the program in general, please call.

Kermit W. Whitt, Chief
Performance Appraisal Branch
Division of Reactor Construction
Inspection
Office of Inspection and Enforcement

Enclosures: As stated

ENCLOSURE 1

PAT MANAGEMENT INSPECTION OUTLINE

I. For each of the areas listed under item II below, determine the following:

A. Does the licensee have written procedures or policy documents to provide guidance in the management of the subject area?

B. Are the procedure and policy documents adequate for controlling the applicable activities in the subject to assure compliance with regulatory requirements?

C. Are the licensee personnel who have responsibilities in the subject area adequately qualified to perform their activities and have they been adequately trained and retrained to maintain their qualification level?

D. Do individuals who have been assigned responsibilities in the subject area understand their responsibilities?

E. Have the requirements for the subject area been implemented to achieve full compliance and are all activities appropriately documented?

II. Review the licensee's control of the following areas using the guidance of item I above:

A. Management's review and control of licensed activities

B. Engineering design, design change and modifications

C. Corrective action system and management of generic issues

D. Training

1. Corporate
2. On-Site

E. Inservice inspection and testing

F. Committee activities

1. Off-Site
2. On-Site

G. Maintenance

H. QA Audits

I. Procurement

J. Management of security controls

K. Management of radiation protection and rad waste

III. Review the technical content of the following procedures:

A. Normal, abnormal and emergency procedures as defined in Regulatory Guide 1.33, Appendix A, 1977.

B. ISI/Surveillance/Calibration test procedures.

C. Emergency plan implementing procedures.

The review for technical content shall be accomplished by sampling each of the above described areas as necessary to assure the adequacy of the licensee's procedures.

ENCLOSURE II

Inspection Assignments

Oyster Creek Inspection

W. Shafer (Team Leader)

Engineering Design, Design Changes and Modifications

Maintenance

Training

M. Sinkule

Corrective Action System and Management of Generic Issues

Management's Review and Control of Licensed Activities

Training

T. Fasano

Inservice Inspection and Testing

Procurement

Management of Security Controls

Training

D. Hinckley

Committee Activities On-Site and Off-Site

QA Audits

Training

B. Murray

Management's Review and Control of Rad Protection and Rad Waste

Training

AUG 2 1 1979

Distribution
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VAMoore
WKreger
MLErnst
RPDenise
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TBAbernathy
ACRS(16)

Docket No. 50-363

Mr. Ivan R. Finfrock, Jr.
Vice President
Jersey Central Power and Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07690

Dear Mr. Finfrock:

SUBJECT: FORKED RIVER NUCLEAR STATION

In light of your announced suspension of construction activities at the Forked River Nuclear Station, we need assurance that your quality assurance program includes appropriate measures to prevent degradation of quality that could result from such suspension. Therefore, please provide a description of the program measures you will initiate (or have initiated) to prevent degradation of quality of safety-related equipment, components, and structures during this delay. Your program may reference applicable portions of your current quality assurance program for design and construction, but should specifically discuss and amplify, as necessary, the following three aspects of your present program:

1. A requirement for the development and technical evaluation of procedures for preservation, packaging, storage, inspection, surveillance, and access control of complete or partially complete construction and installation of safety-related items.

2. A requirement for the qualification and training requirements for personnel developing, evaluating, and executing the procedures described in Item 1.

3. A requirement that as-built drawings be brought up-to-date to show the current status of plant completion.

Please provide your response within 30 days from the date of this letter. We will then review the adequacy of your program.

Sincerely,

~~7909270350~~ 2pp.

B/2

79-10

Original signed by
R A Benedict for
Robert L. Baer, Chief
Light Water Reactors Branch No. 2
Division of Project Management

OFFICE ▶	RAB	RAB				
SURNAME ▶	8/21/79	for RL Baer				
DATE ▶	See next page	8/21/79				

NRC FORM 318 (9-76) NRCM 0240 ★ U.S. GOVERNMENT PRINTING OFFICE: 1976 - 265 - 769

Mr. Ivan R. Finfrock, Jr.
Vice President
Jersey Central Power and Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

M. Kenneth Pastor, Project Manager
GPU Service Corporation
260 Cherry Hill Road
Parsippany, New Jersey 07054

Mr. E. G. Wallace
Licensing Manager
GPU Service Corporation
260 Cherry Hill Road
Parsippany, New Jersey 07054

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

Joseph W. Ferraro, Jr. Esq.
Deputy Attorney General
State of New Jersey
Department of Law & Public Safety
1100 Raymond Boulevard
Newark, New Jersey 07102

JCP&L / GPU

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

August 14, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region 1
United States Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Station
Docket No. 50-219
Monthly Operating Data

Enclosed are ten copies of the monthly operating data (Gray Book Information) regarding our Oyster Creek Nuclear Generating Station.

Very truly yours,

Ivan R. Finfrock, Jr.
Vice President

cs

Enclosures

cc: Director (2 copies)
Office of Management and Program Analysis
United States Nuclear Regulatory Commission
Washington, DC 20555

Director of Regulatory Operations (1 copy)
United States Nuclear Regulatory Commission
Washington, DC 20555

B/3

7908210426 9pp.

OPERATING STATUS

UNIT NAME...OYSTER CREEK

DOCKET NUMBER...50-219

UTILITY DATA PREPARED BY...C.M. MCCLAIN 201-455-8748

REPORTING PERIOD... July 1979

LICENSED THERMAL POWER(MWT)...1930

NAMEPLATE RATING(GROSS MWE)...650

DESIGN ELECTRICAL RATING(NET MWE)...650

MAXIMUM DEPENDABLE CAPACITY(GROSS MWE)...650

MAXIMUM DEPENDABLE CAPACITY(NET MWE)...620

IF CHANGES OCCUR IN CAPACITY RATING SINCE LAST REPORT, GIVE REASON...
NONE

POWER LEVEL TO WHICH RESTRICTED, IF ANY(NET MWE)... NO RESTRICTION

REASON FOR RESTRICTION, IF ANY...
NO RESTRICTION

	MONTH	YEAR	CUMULATIVE
HOURS IN PERIOD	744.0	5087.0	84191.0
HOURS RX CRITICAL	744.0	4005.0	65026.1
RX RESERVE SHUTDOWN HRS.	0.0	0.0	468.2
HRS. GEN ON LINE	744.0	3939.7	63721.0
UT RESERVE SHUTDOWN HRS	0.0	0.0	0.0
GROSS THERMAL ENERGY	1365852.0	7298901.4	107334896.4
GROSS ELEC ENERGY	459110.0	2507160.0	36647165.0
NET ELEC ENERGY	442284.0	2419487.0	35328277.0
UT SERVICE FACTOR	100.0	77.4	75.7
UT AVAILABILITY FACTOR	100.0	77.4	75.7
UT CAPACITY FACTOR MDC	95.9	76.4	69.5
UT CAPACITY FACTOR DER	91.5	72.9	64.6
FORCED OUTAGE FACTOR	0.0	22.6	6.7

THE NEXT SCHEDULED OUTAGE IS TO BEGIN ON JANUARY 5, 1979

AVERAGE DAILY POWER LEVEL

DOCKET # 50-219
UNIT..... O. C. #1
REPORT DATE... August 10, 1979
COMPILED BY... C.M. MCCLAIN
TELEPHONE..... 201-455-8748

MONTH July 1979

DAY	MW	DAY	MW
1.	616.	17.	581.
2.	628.	18.	588.
3.	630.	19.	576.
4.	632.	20.	454.
5.	633.	21.	599.
6.	636.	22.	608.
7.	636.	23.	615.
8.	632.	24.	617.
9.	625.	25.	616.
10.	625.	26.	606.
11.	628.	27.	610.
12.	626.	28.	614.
13.	591.	29.	613.
14.	354.	30.	615.
15.	444.	31.	608.
16.	574.		

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH July 1979

DOCKET NO. 50-219
UNIT NAME Oyster Creek #1
DATE August 10, 1979
COMPLETED BY C. M. McClain
TELEPHONE 201-455-8748

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
5	790715	F	0	H	N/A	N/A	ZZ	ZZZZZ	Load was reduced to clear debris from the north side of the circulating water intake.
6	790719	F	0	A	N/A	50-219/79-23	CB	ZZZZZZ	Load was reduced when "A" recirculating pump was removed from service to repair arcing brushes on the M-G set. "D" recirculating pump has remained non-operational.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)

MONTHLY OPERATING SUMMARY - JULY 1979

The unit was operating at near full power at the beginning of the report period. On July 13, load was reduced to approximately 40% to perform a control rod pattern exchange. On July 14, load was again reduced to approximately 45% to clear debris from the north side of the circulating water intake.

On July 16, 1979, adjustments were made to the steam jet air ejector steam supply pressure, correcting "C" condenser vacuum problem.

While reducing power to repair 1A3 feedwater heater relief valve, the "A" reactor recirculation pump was removed from service to repair arcing brushes on the M-G set. A reactor shutdown was commenced since only three recirculation pumps were in service. RO 79-23. The shutdown was terminated when the "A" recirc pump was returned to service. Load was reduced to approximately 40% to repair the heater relief valve.

Several load reductions were required to maintain condenser discharge temperature within the environmental Technical Specification limits. On July 25 and 26, 1979, the 106°F. condenser discharge limit was exceeded due to a calibration error. (Non-Routine Environmental Operating Report #79-1)

One reportable occurrence occurred during the month:

RO 79-23 occurred on July 19, 1979, when the reactor was operated with three (3) recirculation pumps in service.

CORRECTIVE ELECTRICAL MAINTENANCE ON QASL ITEMS FOR THE MONTH OF JULY 1979

Item #	J.O. #	QASL #	Equipment	Malfunction	Corrective Action
1			Emerg. Service Water	Replace control fuses with new	Changed fuses and tested system
2			No. 1 Condensate Transfer Pump	Breaker trips when pump turns off at local switch	Breaker found below trip specs -replaced with new breaker- tested OK
3			Torus to Drywell Vacuum Breakers	Check jam nuts on position switches	All jam nuts found OK Valves checked by operators after inspection
4			1-7 Sump Drain Valves	V-24-37 gives both open and close indication in test position	Found switch loose and mis-adjusted - readjusted
5			Personnel Airlock 23'NW	Interlocks not working properly	Tightened screws on bracket

CORRECTIVE MECHANICAL MAINTENANCE ON QASL ITEMS FOR THE MONTH OF JULY 1979

Item #	Equipment	Malfunction	Corrective Action
1	Cleanup system V-16-13	Packing leak	Adjusted packing
2	1-1 Diesel Fire Pump	Leakage in cooling system	Replaced cooling heat exchangers and o-rings
3	CRD accumulator 22-43	V-111 leaking	Replaced with a rebuilt bonnet
4	New radwaste service water pump A	Lower pump bearing running hot	Replaced bearings, couplings and bushings

CORRECTIVE INSTRUMENT MAINTENANCE ON QASL ITEMS FOR THE MONTH OF JULY 1979

Item #	Equipment	Malfunction	Corrective Action
1	Panel 10F Alarms	Various malfunctioning alarms	Replaced wobulator card
2	IRM Channel 12	Chart reading greater than ±3% of value	Cleaned slidewire and calibrated
3	Reactor Water Level	Control Room Yarways have different indications	Calibrated Yarway in System I
4	Area and Vent Radiation Monitor Recorder (10F)	Goes out of synch on every cycle	Adjusted stepping solenoid
5	Stack Gas "B" Recorder (10F)	Broken pen - isolates over 1000 cps	Replaced wiper assembly cleaned and lubricated - adjusted recorder to match front panel alarms
6	Rx Hi/Lo Water Level Alarm	Doesn't reset - switch hanging	Lubricated and reset swtich
7	CRD 18-23	No Red/Red on position 48	Found pin #21 bent and pushed back in connection
8	ADOG Radiation Monitor	Channel 2 did not initiating high alarm	Micro swtich on recorder found out of adjustment - adjusted to spec
9	Control Room Recorder	Alarm coming in every cycle - position #4 Cont. Spray Pump Temp.	Reset all alarm points and calibrated recorder
10	MSL Radiation Monitor	Discrepancy in alarms	Cleaned and lubricated switch contact

Oyster Creek Station #1
Docket No. 50-219

REFUELING INFORMATION - JULY 1979

Name of facility: Oyster Creek Station #1

Scheduled date for next refueling shutdown: January 5, 1980

Scheduled date for restart following refueling: March 15, 1980

Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

No Technical Specification change relative to the refueling is anticipated.

Scheduled date(s) for submitting proposed licensing action and supporting information:

1. October 1979 - Cycle independent General Electric fuel design information and safety analysis for future use.

2. No submittal is scheduled for the use of Exxon fuel.

Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:

1. General Electric Fuel Assemblies - Fuel design and performance analysis methods have been approved by NRC. New operating procedures, if necessary, will be submitted at a later date.

2. Exxon Fuel Assemblies - No major changes have been made, nor are there are any anticipated.

The number of fuel assemblies (a) in the core - 560
(b) in the spent fuel storage pool - 620

The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies:

Present: 1,800 Planned: 2,600

The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity:

The Spring 1987 Outage.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 13, 1979

Docket No. 50-219

MEMORANDUM FOR: Dennis L. Ziemann, Chief, Operating Reactors Branch #2, DOR

FROM: Thomas V. Wambach, SEPM, Operating Reactors Branch #2, DOR

SUBJECT: MEETING WITH JERSEY CENTRAL POWER & LIGHT COMPANY

Date and Time: Thursday
August 16, 1979
9:00 AM

Location: Room P-130A
Phillips Building

Purpose: To discuss Effects of Pipe Break on Structures, Systems and Components Inside Containment, SEP Topic III-5.A (Licensee's Submittal 7/30/79)

Participants: JCP&LCo

T. Tipton, J. Knubel

MPR Associates

W. Schmidt, D. Strawson

KMC

R. Schaffstall

NRC

K. Jabbour, R. Kiessel, P. DiBenedetto, C. Hofmayer, J. Shapaker, D. Crutchfield, D. Ziemann, T. Wambach

Thomas V. Wambach, SEPM
Operating Reactors Branch #2
Division of Operating Reactors

B/4

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2pp.

MEETING NOTICE DISTRIBUTION

Docket
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B. Grimes
G. Lainas
P. Check
J. Miller
R. Clark
F. Pagano
G. Knighton
Project Manager - T. Wambach
OELD
I&E (3)
OSD
Receptionist - Phillips Building
NRC Participants
J. R. Buchanan
TERA
ACRS (16)
PSS
C. Thayer

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 11, 1979

Docket No. 50-219

Mr. I. R. Finfrock, Jr.
Vice President - Generation
Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Dear Mr. Finfrock:

We are continuing our review of your April 18, 1977 submittal concerning degraded grid voltage. We have concluded that the use of the existing undervoltage relaying to protect against a sustained degraded grid condition is not acceptable. Therefore, please propose design modifications and changes in the Technical Specifications, based on the guidance contained in the staff positions submitted to you by our letter dated June 3, 1977.

Your response is requested within 45 days of the date of this letter.

Sincerely,

Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

cc: see next page

B/5

7909050072 2pp.

74-118
I

cc
G. F. Trowbridge, Esquire
Sh[illegible] Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

GPU Service Corporation
ATTN: Mr. E. G. Wallace
Licensing Manager
260 Cherry Hill Road
Parsippany, New Jersey 07054

Anthony Z. Roisman
Natural Resources Defense Council
917 15th Street, N. W.
Washington, D. C. 20005

Steven P. Russo, Esquire
248 Washington Street
P. O. Box 1060
Toms River, New Jersey 08753

Joseph W. Ferraro, Jr., Esquire
Deputy Attorney General
State of New Jersey
Department of Law and Public Safety
1100 Raymond Boulevard
Newark, New Jersey 07012

Ocean County Library
Brick Township Branch
401 Chambers Bridge Road
Brick Town, New Jersey 08723

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 10, 1979

Docket No. 50-219

Mr. I. R. Finfrock, Jr.
Vice President - Generation
Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Dear Mr. Finfrock:

In May 1976, we issued guidelines reflecting the NRC's policy regarding the implementation of General Design Criterion 3 - Fire Protection. Since that time, you have performed a fire hazards analysis for your facility and have compared its fire protection program with the NRC guidelines.

In late 1976, we set October 1980 as the date for completing the implementation of all modifications associated with this program. This implementation schedule recognized that such modifications should be completed as soon as practical, with due consideration of the nature of the modifications. For example, minor modifications, adoption of administrative controls and additional portable equipment would be completed within six months; however, major modifications would require a year or more to complete and some modifications would be coordinated with refueling outages.

By their Memorandum and Order in the matter of the Union of Concerned Scientists' Petition for Emergency and Remedial Action, dated April 13, 1978, the Commission directed the staff to use their best efforts to maintain this schedule, and also directed that the Commission be advised if any slippage is anticipated, along with suggested corrective actions.

We urge you to apply your best efforts to maintain your schedules for completion of all of the fire protection modifications at your facility (ies) and to submit, on an expedited basis, any information that is still outstanding with regard to open items and required design details.

Sincerely,

D. Eisenhut, Acting Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

B/6

7909170073 2pp.

79-14
I

cc
G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

GPU Service Corporation
ATTN: Mr. E. G. Wallace
Licensing Manager
260 Cherry Hill Road
Parsippany, New Jersey 07054

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Natural Resources Defense Council
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Deputy Attorney General
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401 Chambers Bridge Road
Brick Town, New Jersey 08723

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 8, 1979

Docket No. 50-219

Mr. I. R. Finfrock, Jr.
Vice President - Generation
Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Dear Mr. Finfrock:

We have reviewed your letters of April 7, August 1, and September 22, 1978 concerning incomplete items (Section 3.2) of our Fire Protection Safety Evaluation Report dated March 3, 1978. Additional information is required to complete our review of these items.

Please provide the information identified in the enclosure along with the Section 3.1 data you have scheduled to send to us August 31, 1979.

Sincerely,

Richard C. Eilen for

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosure:
Request for Additional
Information

cc:
See next page

B1

7908210033 3pp.

79-117
I

cc
G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

GPU Service Corporation
ATTN: Mr. E. G. Wallace
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Brick Township Branch
401 Chambers Bridge Road
Brick Town, New Jersey 08723

REQUEST FOR ADDITIONAL INFORMATION
FIRE PROTECTION EVALUATION
OYSTER CREEK NUCLEAR GENERATING STATION
DOCKET No. 50-219

SER Item

3.2.1 Administrative Controls

Provide an implementation schedule for changes to procedures identified in JCP&L letters of April 7, 1978 and September 22, 1978 concerning administrative controls.

3.2.2 Radwaste Fires

The radwaste facility evaluation provided by letter of April 7, 1978 indicates that solid wastes are stored in drums, but that there is an accumulation of combustible contaminated material waiting to be compacted. Provide the results of an evaluation in terms of off-site releases for a fire that consumes these combustibles.

3.2.3 Fire Barrier Penetrations

a. The JCP&L letter of August 1, 1978 provides an analysis of fire barrier penetration protection. Certain electrical cable penetration seals are to be upgraded to a 3-hour fire rating. Identify the construction of the new or modified cable penetration fire seals, and provide the results of tests to demonstrate the rating of these seals.

b. The above analysis indicates that the doors to the control room are being upgraded for security purposes, but will not be 3-hour fire rated doors. It appears from the drawings that all such doors are into corridors and not into other safety related areas or into the turbine building. Verify that no doors are provided between the turbine building and control room.

c. Provide an implementation schedule for completion of fire door and penetration modifications.

3.2.4 Communications Equipment

The JCP&L letter indicates that a modification to the communications system will be made to provide communications between the control room and all safety related areas, and that the use of a repeater system was being considered to provide this capability. Please identify the modification that will be used and the implementation date for completion of this modification.

JCP&L / GPU

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

August 6, 1979

Director
Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Review of Management and Technical Resources

The attached is in response to your letter of June 29, 1979 requesting information regarding corporate management and technical capabilities that are available to anticipate and preclude or respond to events such as the TMI-2 incident.

General Public Utilities Corporation (GPU) is composed of three subsidiary operating companies and General Public Utilities Service Corporation (GPUSC). Jersey Central Power & Light Company, together with Metropolitan Edison Company and Pennsylvania Electric Company are the operating companies. As a member of the GPU system, the technical and managerial resources of GPUSC are available to the Jersey Central Power & Light Company.

The organizational chart and position descriptions of the Oyster Creek Nuclear Generating Station as presented in this submittal are predicated on the existing organization. Please note that a change to our Technical Specifications has been requested, modifying the existing organization. This change, which was submitted April 10, 1979 (identified as Technical Specification Change Request No. 70) will be implemented after NRC approval.

A contractual arrangement between Jersey Central Power & Light and Radiation Management Corporation (RMC) exists as described in our Emergency Plan. The Radiation Management Corporation was formed by several Eastern Utility companies for the expressed purpose of providing the necessary personnel and facilities to meet the needs of any radiation incident. RMC has professional healthy physicists and experienced medical personnel on the permanent staff. Facilities are provided in Philadelphia, Pennsylvania, at the Hospital of the University of Pennsylvania at the University City Science Center for the specialized treatment of individuals involved in radiation incidents. They will also provide assistance and consultation services for all aspects of emergency planning and health physics programs for the member companies.

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If additional questions exist or further clarification is needed, please feel free to contact Jim Knubel, Supervisor, Nuclear Safety & Licensing (201-455-8753) or me.

Very truly yours,

Ivan R. Finfrock, Jr.
Vice President

la

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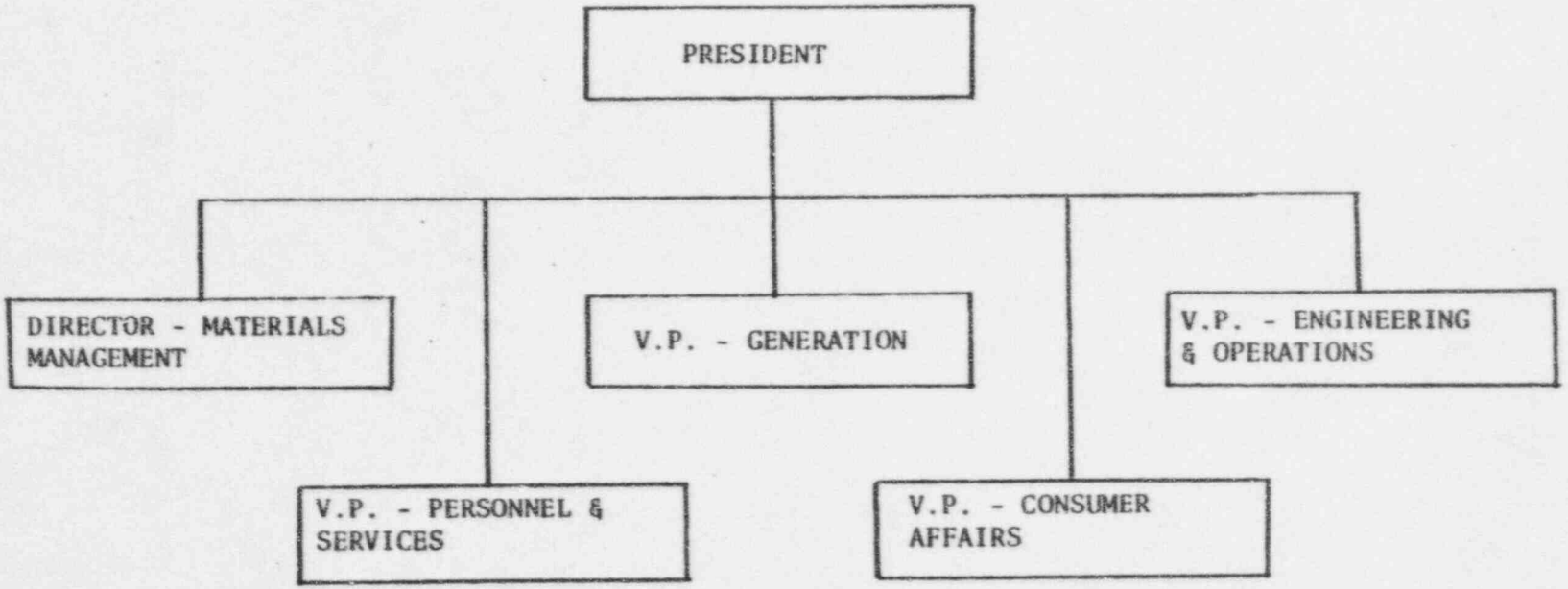
JERSEY CENTRAL POWER & LIGHT CO.

MANAGEMENT RESOURCES

J.C.P.&L. ORGANIZATIONAL CHART, MANAGEMENT RESOURCES



PRESIDENT, JCP&L - S. Bartnoff

This position manages all operational aspects of Jersey Central Power & Light by directing and coordinating engineering, generating, and operating functions, as well as determining overall policies for personnel, industrial relations, and purchasing.

This position is accountable for the following end results:

1. Contribute to the PROFITABILITY OF JCP&L through the effective management of engineering, operations and generating functions.

2. Ensure EFFECTIVE AND TIMELY DELIVERY OF SERVICE to JCP&L's customers by monitoring group performance and guiding the development and implementation of new and improved systems.

3. Develop and maintain an EFFECTIVE ORGANIZATIONAL STRUCTURE which deploys managerial, professional and other personnel effectively to meet the Company's needs.

4. Provide COMPETENT AND MOTIVATED STAFF by directing its selection and development to meet current and ongoing commitments, and by ensuring the orderly development of management succession.

5. Develop EFFECTIVE MANAGEMENT REPORTING SYSTEMS to provide accurate and timely information for critical decisions and to measure progress and results.

6. Ensure EFFECTIVE PERSONNEL AND INDUSTRIAL RELATIONS POLICIES by directing and coordinating that function.

7. Provide EFFECTIVE PURCHASING AND GENERAL SERVICES by capable management of the Staff.

8. Contribute to CORPORATE POLICY AND STRATEGY by counseling with top Company executives concerning external and internal influences and overall capabilities of GPU.

Educational Background

Syracuse University, A.B. Math 1941
Syracuse University, M.A. Physics 1944
Mass. Inst. of Tech., Ph.D. Physics 1949

Experience

9/72 to Present	- President (JCP&L)
5/71 to 9/72	- Director Environmental Affairs (GPUSC)
12/69 to 5/71	- Manager Engineering (JCP&L)
3/68 to 12/69	- Manager Fuels - Nuclear Power Activities Group (JCP&L)
1955 - 1968	- Reliability Manager of the Advanced Reactor Division - Westinghouse
1948 - 1955	- Associate Professor and Executive Officer - Tufts University
1945 - 1948	- Teaching and research while working of Ph.D.

VICE PRESIDENT - GENERATION - I. Finfrock

This position is accountable for directing the engineering, operation and maintenance of JCP&L's fossil fuel and nuclear power plants, and it is accountable for construction of additions to facilities.

This position is accountable for the following end results:

1. SAFE OPERATION OF NUCLEAR PLANTS through monitoring developing and implementing safety inspections and a quality assurance program.

2. EFFICIENT AND CONTINUOUS OPERATION OF THE COMPANY'S POWER PLANTS through the economical and timely maintenance of equipment and facilities.

3. TIMELY AND ECONOMICAL DESIGN AND CONSTRUCTION OF ADDITIONS TO EXISTING GENERATING FACILITIES through effective planning, scheduling, and management of personnel and resources.

4. EFFICIENT AND TIMELY POWER GENERATION through the effective management of JCP&L's power plants.

5. COMPETENT AND MOTIVATED STAFF by directing its slection and development to meet current and ongoing commitments.

6. AN INFORMED TOP MANAGEMENT through timely and effective communication.

Educational Background

Drexel University, B.S., EE, 1952
Argonne Nat'l Lab. - School of Nuclear Science & Engineering - Certificate 1956
Penn State University - Grad Extension Service - 9 credits - Math and Physics 1957-1959
Reactor Operator License 7/3/62, Saxton Power Reactor
Senior Reactor Operator License - 11/2/63, Saxton Power Reactor
Senior Reactor Operator License - 11/2/65, Saxton Power Reactor

Experience

9/72 to Present - Vice President Generation (JCP&L)
5/71 to 9/72 - Manager Nuclear Generation (JCP&L)
5/70 to 5/71 - Manager Nuclear Power Activities Group (GPUSC)
9/61 to 5/70 - Supervisor Reactor Plant Services - Saxton
3/61 to 9/61 - Nuclear Project Engr. - Saxton
9/59 to 9/61 - Nuclear Project Engr. - Met Ed
3/56 to 9/59 - Project Engineer - Met-Ed
6/56 to 3/56 - Electrical Engineer Cadet - Met Ed

VICE PRESIDENT - CONSUMER AFFAIRS - J. Leva

This position is accountable for ensuring that the needs of the customers are met through (1) development of an equitable and adequate rate structure (2) operation of local business offices (3) reduction of the capital needs of the company by load management, and (4) effective communication of precise information about the Company.

This position is accountable for the following end results:

1. RECOVERY OF REVENUES FROM EACH CUSTOMER CLASS through effective and timely administration of the rate structure.

2. REDUCTION OF CAPITAL NEEDS OF THE COMPANY AND COST OF SERVICE TO THE CUSTOMERS through developing, implementing, and monitoring a load management program.

3. ESTABLISHMENT OF A POSITIVE IMAGE OF THE COMPANY through communication to customers, employees, and the public of adequate, precise, and timely information on the Company.

4. MAINTENANCE OF DIRECT CONTACT WITH customers through operation of field business offices.

5. A FULLY COMPETENT AND MOTIVATED STAFF that meets departmental objectives through effective direction, selection, and development of personnel.

6. AN INFORMED TOP MANAGEMENT THROUGH clear, timely and effective communication.

Educational Background:

B.S. in Electrical Engineering
Post Graduate Work - Management
64 Credits Toward - Juris Doctorate

Experience:

3 years in Engineering Management - Electrical
27 years Total Utility Experience

VICE PRESIDENT - ENGINEERING AND OPERATIONS - G. P. Mundrane

This position directs all operation, construction, and maintenance of JCP&L's electrical system from the generator to the customer by managing the transmission and distribution system.

This position is accountable for planning, designing, scheduling, and construction of transmission and distribution facilities for JCP&L.

This position is accountable for the following end results:

1. MEETING THE CURRENT AND FUTURE POWER NEEDS OF THE CUSTOMERS OF JCP&L through planning and design of transmission and distribution systems.

2. MINIMUM COST OF ELECTRIC POWER by economic and efficient planning and design of transmission and distribution systems.

3. MINIMUM CAPITAL INVESTMENT through using the load forecasts to plan a construction budget while meeting the needs of the customers.

4. AN EFFECTIVE ENGINEERING DEPARTMENT through the development of policies and procedures for design, planning, construction, and budgeting.

5. A MOTIVATED AND COMPETENT STAFF by directing its selection and development to meet current and ongoing commitments.

6. AN INFORMED TOP MANAGEMENT through timely and effective communcations.

7. RELIABLE AND SATISFACTORY ELECTRIC SERVICE to all JCP&L customers through the effective management of the transmission and distribution system.

8. EFFICIENT AND CONTINUOUS OPERATION OF JCP&L'S TRANSMISSION AND DISTRIBUTION SYSTEM through the economical and timely maintenance of equipment and facilities.

9. TIMELY AND ECONOMICAL CONSTRUCTION OF TRANSMISSION AND DISTRIBUTION FACILITIES through the effective planning, scheduling, budgeting, and management of resources and personnel.

10. COMPETENT AND MOTIVATED STAFF by directing its selection and development to meet current and ongoing commitments.

11. AN INFORMED TOP MANAGEMENT through timely and effective communication.

Educational Background:

B.S. Electrical Engineering

Experience:

Total experience is in transmission and distribution engineering and operations.

19 years total experience in the utility field

14 years of the total 19 in engineering management

DIRECTOR - MATERIALS MANAGEMENT - C. DuFresne

This position is accountable for managing the procurement of all the material needs of JCP&L through planning, developing, coordinating, and monitoring the materials management function.

This position is accountable for the following end results:

1. CONTRIBUTION TO EFFECTIVE OPERATION OF THE COMPANY by meeting the material needs of all functions.

2. CONTRIBUTION TO PROFITABLE OPERATION OF THE COMPANY through maintenance of minimum desirable inventory levels of fuels, line, and other necessary items while meeting the needs of the company.

3. ECONOMIC AND TIMELY PROCUREMENT OF MATERIAL NEEDS OF THE COMPANY through purchasing/contracting and by developing policies and procedures for purchasing/contracting.

4. COMPETENT AND MOTIVATED STAFF by directing its selection and development to meet current and ongoing commitments.

5. AN INFORMED TOP MANAGEMENT through timely and effective communication.

Educational Background:

High School Graduate
Graduate of Technical School of Electronics
Various Technical Courses and Military Training Courses Completed

Experience:

3 1/2 Years total utility experience
A total of 10 years in Materials Management
13 Years as an engineer for Martin Marietta - Aerospace
3 Years as Superintendent of Range Operations for Cape Canaveral, Florida

VICE PRESIDENT PERSONNEL & SERVICES - J. McGalliard

This position is accountable for: hiring and promoting top quality personnel within the legal setting; administering wage and salary programs; managing the labor relations process; training employees; maintaining buildings; handling insurance claims; managing safety and security programs; managing the transportation system.

This position is accountable for the following end results:

1. TOP QUALITY PERSONNEL ARE HIRED AND PROMOTED THROUGHOUT THE COMPANY by managing the personnel function within the legal framework.

2. EFFECTIVE WAGE AND SALARY ADMINISTRATION by ensuring internal equity and external competitiveness in the pay structure.

3. EFFECTIVE LABOR RELATIONS PROCESS by managing both collective bargaining and the grievance procedure.

4. WELL-TRAINED EMPLOYEES THROUGHOUT THE CORPORATION by developing policies and procedures.

5. AN EFFECTIVE TRANSPORATION SYSTEM FOR EMPLOYEES by managing this function.

6. WELL MAINTAINED BUILDINGS AND FACILITIES by managing this function.

7. A SAFE WORKING ENVIRONMENT by developing and enforcing safety procedures.

8. THE PROPERTY OF THE COMPANY IS SECURED FROM TRESPASSING by developing and enforcing security procedures.

9. A COMPETENT AND MOTIVATED SERVICES STAFF by selecting, directing and developing its personnel.

10. AN INFORMED TOP MANAGEMENT through effective and timely communication.

Educational Background:

High School Graduate
1 Year at Monmouth College

Experience:

32 years in transmission and distribution

GPU SERVICE CORPORATION

MANAGEMENT RESOURCES

GPU SERVICE CORPORATION
ORGANIZATION

BOARD OF DIRECTORS
Chairman & Chief Executive Officer
W. G. KUHNS

401 - Executive

President & Chief Operating Officer
E. M. BRICKAMP

402 - Operating

Executive Vice President
V. E. GONDOS, JR.

403 - Financial

Accounting
(1) E. J. HOLCOMBE - V.P. & Comptr.

101 - General
102 - Constr. Accng.
103 - Depreciation
104 - Taxes
107 - General Accounting
108 - Budgets

Treasury
J. G. GRAHAM - V.P. & Treas.

901 - General
902 - Payroll
903 - Financial Planning
904 - Pensions
905 - Forecasting

[redacted]

Information Services
D. J. EAGLE - Mgr.

50A - I.S. General
50C - Data Center Operations
50D - Technical Services
50Z - Data Base Admin.
50G - Education/Standards
50H - Eng. App. Develop.
50I - Gen./T&D App. Develop.
50J - Consumer Affairs App. Dev.
50K - Fin./Forecasting App. Dev.
50L - Business App. Develop.

Internal Auditing
J. F. FARRELL - Mgr.

461 - General
462 - Computer Auditing
463 - GPUSC Auditing
464 - JCP&L Auditing
465 - Met-Ed Auditing
466 - Pension Auditing
467 - Auditing Coordination and Control

Administration
F. J. SMITH - V. P.

20A - Org. Plan. & Gen'l.
20E - Personnel & EEO
20F - Wage & Salary
20G - Safety
20H - Security
20I - Insurance
20K - Labor Relations
20L - Corp. Services
20M - Training
Bldg. Mgmt. & Services
221-226 - New Jersey
231-236 - Reading

Communications
W. B. MURRAY - V. P.

801 - General
802 - Consumer Services Customer Relations
Investor Relations
Public Relations
Gov't. Relations
Special Projects

Corporate Planning
E. H. CHERRY - V. P.

70A - General
70B - Fuels Planning
70C - Fuels - Nuclear
70D - Fuels - Uranium Res.
70E - Fuels - Fossil Res.
70F - Fuels - Coal Resources
70H - Sys. Planning Gen.
70J - Forecasting
70K - Supply Planning
70M - Load Resource
70N - Load Management
70Q - Tech. Assess. Devel.
70R - Strategic Planning

Generation
E. C. ARNOLD - V. P.

301 - Administration
311 - Gen. Projects-Nuclear
312 - Gen. Projects-Fossil
313 - Gen. Projects-Adm.
321 - Engineering
322 - Design
323 - Engineering Management
324 - Quality Assurance
331 - Opr. Support-Startup, Test, Training
332 - Opr. Support-System Lab.
333 - Productivity
334 - Maintenance
341 - Environmental Affairs
342 - Safety & Licensing
343 - Water Resources
344 - Constr. & Maint. Services
345 - Generation Div. Support

Power Supply
E. E. SIMS - V. P.

651 - General
652 - Gov't. Energy Policy
653 - Transportation
654 - Telecommunications
655 - Power - Contracts

Rate Case Management
F. D. HAFER - V. P.

951 - General
952 - Rates

System Operations
E. NEWTON, JR. - V. P.

60A - General
60C - Dispatching
60I - T&D Engineering
60J - T&D Oper.
60Z - T&D Planning

Corporate Secretary
E. N. GRAYDON

151 - General
152 - Corp. Records
153 - Word Processing
154 - Graphics
155 - Information Management

NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

FREDERICK GLICKMAN - Vice President - Materials Management

This position contributes to the profitability of the corporation by ensuring that procurement, distribution, and warehousing costs are reduced as low as possible while maintaining sufficient supplies of material to operate the company.

This position is accountable for the following end results:

1. Increased profitability of the Corporation by obtaining the maximum total value for the funds committed for purchases and leasing disbursements by Materials Management.

2. Minimum investment in materials while meeting material needs of users.

3. Reflection of company plans in contracts and that performance by suppliers is in accordance with facilities availability requirements and cash flow objectives of the Company.

4. Increased efficiency in the operation of power plants through purchase and control of all nuclear fuel and long-term fossil fuel supply for the System.

5. Contributes to effective rate case management by ensuring that procurement procedures are defensible to outside parties.

6. A full competent and motivated staff through effective selection, direction, and development of personnel.

7. Effective management of the Materials Management Divisions/ by developing system-wide policies and procedures for purchasing, contract administration and inventory control.

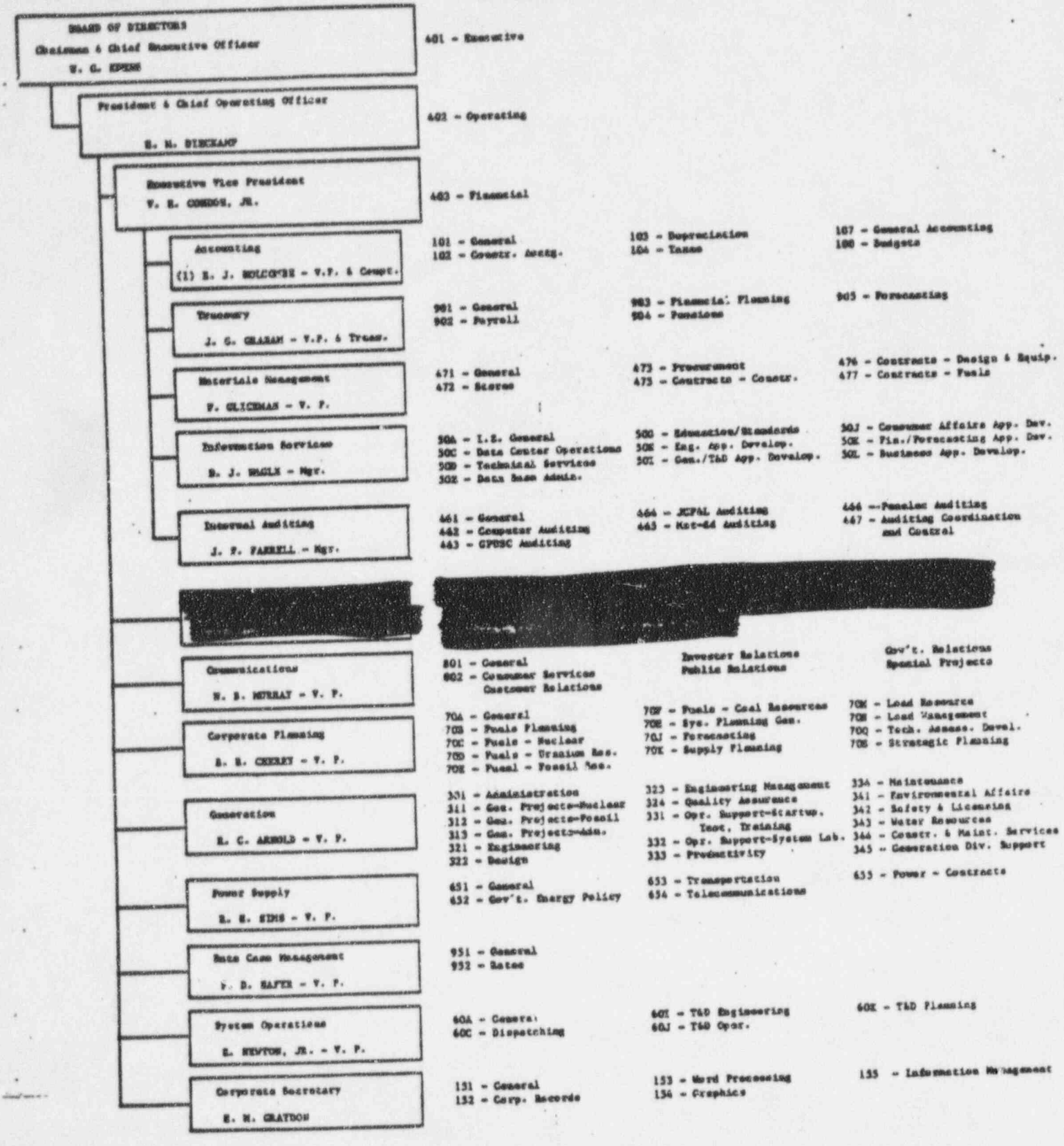
EDUCATIONAL BACKGROUND

A. B. Economics from Brooklyn College - 1949
M. S. Business Administration from Columbia University - 1950

EXPERIENCE

GPUSC - Vice President-Materials Management	8-1-77 - Present
" - Director - Materials Management	1-1-76 - 7-31-77
" - Manager - Contracts	2-5-74 - 12-31-75
G E - Manager-Marketing & Contracts	1966 - 1974
G E - Manager-Contracts	11-53 - 2-66
US Navy Procurement Specialist/Contract Negotiator	1951 - 1953
Majestics Factors Corp - Ass't Credit Manager/ Accountant Auditor	1950 - 1951

GPU SERVICE CORPORATION
ORGANIZATION



NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

Floyd J. Smith - Vice President - Administration

This position is accountable for monitoring and administering the following activities: organizational planning, labor relations; human resource management and development; safety; security; insurance; office-building contruction, operation, maintenance; and administrative services.

This position is accountable for the following end results:

1. Effective and orderly management succession through development and implementation of a documented organizational plan for hiring and development of all GPU personnel in the future.

2. Motivated and satisfied corporate personnel through development, monitoring and implementation of a Compensation & Benefit administration program which is internally equitable and externally competitive.

3. Increased effectiveness of utilization of all human resources through development and implementation of equal employment opportunity programs.

4. Effective personnel administrative policies and procedures and coordination of all personnal activities in the GPU System.

5. Equitable and economic labor contracts through development, monitoring and implementation of policies and procedures for labor relations.

6. Maximum productivity of corporate personnel through development and implementation of effective training programs.

7. An informed top management through effective and timely communication.

8. Effective insurance coverage for GPU System Companies at lowest cost through purchase and monitoring of the insurance program.

9. A cost-effective buildings management staff to provide appropriate facilities for the efficient conduct of business.

10. A motivated and competent administrative services group to provide all such services not specifically assigned to other functional groups.

EDUCATIONAL BACKGROUND

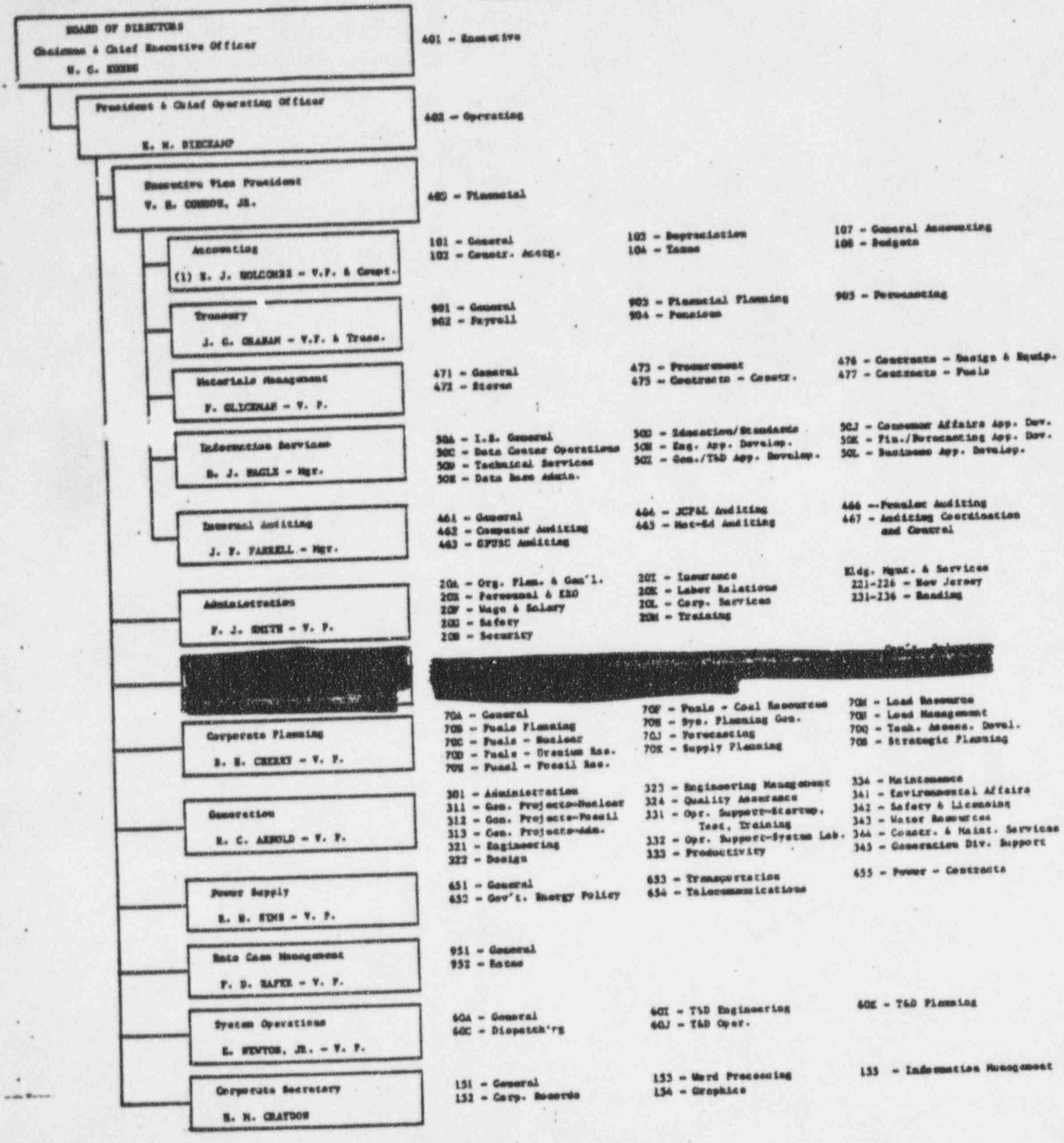
B. S. Electrical from U. S. Naval Academy - 1946

FLOYD J. SMITH - Continued

EXPERIENCE

GPUSC - Vice President Administration	5-1-73 - Present
MetEd - Vice President - System Operations	4-1-67 - 4-30-73
" - Manager - System Operations	4-1-65 - 3-31-67
" - System Personnel Manager	8-1-62 - 3-31-65
" - Division Operating Superintendent	10-1-59 - 7-31-62
" - Supt. Electrical Constr. & Maint.	9-1-56 - 9-30-59
" - Supv. Electrical Constr. & Maint.	9-1-50 - 8-31-56
Furloughed for Active Duty from 1-15-52 to 6-15-53	
MetEd - Foreman	8-22-49 - 8-31-50
" - Electrical Engineer Jr.	1-1-59 - 8-21-49
" - Electrical Engineer Cadet	11-22-48 - 12-31-48

GPU SERVICE CORPORATION
ORGANIZATION



NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

WILLIAM B. MURRAY - Vice President - Communications

This position is responsible for coordinating GPU-wide communications with its customers, employees, shareholders, the financial community, regulatory agencies, appropriate State and Federal legislators, the media and the general public-at-large.

These responsibilities relate to three organizational elements of the GPU System as follows:

(1) Direct and sole communication responsibility for the GPU Corporation

(2) Direct and sole communication responsibility for the GPU Service Corporation

(3) Guidance, Review and Coordination of these communication functions in the GPU operating companies.

This position is accountable for the following end results:

(1) Effective customer service and business office operations throughout the Corporation with consequent favorable consumer relations through the internal monitoring and coordination of these functions in the 3 operating companies.

(2) High employee morale throughout the Corporation through accurate and timely dissemination of information on corporate policy, personnel issues, and company operations.

(3) Favorable relations with the shareholders and the financial community through the dissemination of accurate and effective information about the company's financial status, security offerings, current and future operations and planning.

(4) The passage of legislation and rulings creating a favorable environment in which GPU can operate through monitoring and developing effective relations with state governments, the Federal government, and regulatory bodies.

(5) Effective communications and relations with the local and national media so as to obtain open, objective and fair treatment of the company's operations, policies and plans.

(6) An informed top management through effective and timely reporting on communication issues.

(7) A competent and motivated communications staff through effective direction, selection, and development of personnel.

WILLIAM B. MURRAY

EDUCATIONAL BACKGROUND

B. S. Engineering from the U. S. Military Academy - 1944

M. S. Nuclear Science from Princeton University - 1948

EXPERIENCE

GPUSC - Vice President-Communications 1-1-75 - Present

Atomics International, Rockwell Corp. 11-55 - 12-74
- Vice President

Responsible for: Advanced Programs; Marketing; Business Development; Public Relations

U. S. Army - Artillery & Ordinance Officer 6-44 - 8-55
(Nuclear Technology)

GPU SERVICE CORPORATION
ORGANIZATION

BOARD OF DIRECTORS
Chairman & Chief Executive Officer
W. G. KERR

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R. H. DIECKAMP

402 - Operating

Executive Vice President
V. E. CONDON, JR.

403 - Financial

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(1) E. J. HOLCOMBE - V.P. & Comptr.

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Treasury
J. G. GRAHAM - V.P. & Treas.

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905 - Forecasting

Materials Management
F. GLICKMAN - V. P.

471 - General
472 - Stores
473 - Procurement
475 - Contracts - Const.
476 - Contracts - Design & Engrg.
477 - Contracts - Fu.

Information Services
B. J. EAGLE - Mgr.

50A - I.S. General
50C - Data Center Operations
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50L - Business App. D.

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466 - Penelec Auditing
467 - Auditing Coordination and Control

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70S - Strategic Planning

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Corporate Secretary
E. M. CRATDON

131 - General
132 - Corp. Records
133 - Word Processing
134 - Graphics
135 - Information Mgmt.

NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

ROBERT C. ARNOLD - Vice President - Generation

This position is accountable for design, construction, and start up of new generating facilities for all the operating companies and supports them in the operation of the existing power plants.

This position is accountable for the following end results:

1. Meeting the current and future power needs of GPU's customers through design, construction and start-up of new power plant facilities.

2. Contributes to efficient and continuous operation of the System's Power Plants by supporting the operating companies in efforts to increase the productivity of existing plant facilities through improved operating and maintenance practices and plant modifications.

3. Economic and efficient management of generation facility additions and operation of existing stations through monitoring and review of budgets and resources commitments.

4. A motivated and competent staff by directing its selection and development to meet current and ongoing commitments.

5. An informed top management through timely and effective communications.

EDUCATIONAL BACKGROUND

B. S. Engineering from University of Michigan - 1959

U. S. Navy Nuclear Power Training 10-63 - 9-64

EXPERIENCE

GPUSC	-	Vice President - Generation	6-1-77 - Present
MetEd	-	Vice President - Generation	1-1-74 - 5-31-77
"	-	Manager - Generation	1-1-73 - 12-31-73
"	-	Manager - Production	1-1-72 - 12-31-72
"	-	Supervisor - Production	7-1-71 - 12-31-71
"	-	Engineer Senior	9-2-69 - 6-30-71
USNavy	-	Lieutenant Commander	9-59 - 8-69
		USS Willis A. Lee-Electrical Officer	9-69 - 3-61
		USS Kepler - Operations Officer	12-62 - 9-63
		US Naval Nuclear Power Training Unit	10-64 - 11-66
		USS Long Beach - Main Propulsion Ass't.	11-66 - 8-69

GPU SERVICE CORPORATION ORGANIZATION

Organization	Codes		
BOARD OF DIRECTORS Chairman & Chief Executive Officer W. G. KUHNS	401 - Executive		
President & Chief Operating Officer H. M. DIECKAMP	402 - Operating		
Executive Vice President V. B. CONDON, JR.	403 - Financial		
Accounting (1) E. J. HOLCOMBE - V.P. & Compt.	101 - General 102 - Constr. Acctg.	103 - Depreciation 104 - Taxes	107 - General Accounting 108 - Budgets
Treasury J. G. GRAHAM - V.P. & Treas.	901 - General 902 - Payroll	903 - Financial Planning 904 - Pensions	905 - Forecasting
Materials Management F. GLICKMAN - V. P.	471 - General 472 - Stores	473 - Procurement 475 - Contracts - Constr.	476 - Contracts - Design & Equip. 477 - Contracts - Fuels
Information Services D. J. EAGLE - Mgr.	30A - I.S. General 30C - Data Center Operations 30D - Technical Services 30E - Data Base Admin.	30G - Education/Standards 30H - Eng. App. Develop. 30I - Gen./T&D App. Develop.	30J - Consumer Affairs App. Dev. 30K - Fin./Forecasting App. Dev. 30L - Business App. Develop.
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Administration F. J. SMITH - V. P.	20A - Org. Plan. & Gen'l. 20E - Personnel & EEO 20F - Wage & Salary 20G - Safety 20H - Security	20I - Insurance 20K - Labor Relations 20L - Corp. Services 20M - Training	Bldg. Mgmt. & Services 221-226 - New Jersey 231-236 - Reading
Communications W. R. MURRAY - V. P.	801 - General 802 - Consumer Services Customer Relations	Investor Relations Public Relations	Gov't. Relations Special Projects
Corporate Planning B. H. CHERRY - V. P.	70A - General 70B - Fuels Planning 70C - Fuels - Nuclear 70D - Fuels - Uranium Res. 70E - Fuel - Fossil Res.	70F - Fuels - Coal Resources 70H - Sys. Planning Gen. 70J - Forecasting 70K - Supply Planning	70M - Load Research 70N - Load Management 70Q - Tech. Assess. Devel. 70S - Strategic Planning
Generation R. C. ARNOLD - V. P.	301 - Administration 311 - Gen. Projects-Nuclear 312 - Gen. Projects-Fossil 313 - Gen. Projects-Adm. 321 - Engineering 322 - Design	323 - Engineering Management 324 - Quality Assurance 331 - Opr. Support-Startup, Test, Training 332 - Opr. Support-System Lab. 333 - Productivity	334 - Maintenance 341 - Environmental Affairs 342 - Safety & Licensing 343 - Water Resources 344 - Constr. & Maint. Services 345 - Generation Div. Support
[redacted]	[redacted]		
Rate Case Management F. D. HAFER - V. P.	951 - General 952 - Rates		
System Operations E. NEWTON, JR. - V. P.	60A - General 60C - Dispatching	60I - T&D Engineering 60J - T&D Oper.	60K - T&D Planning
Corporate Secretary B. M. GRAYDON	131 - General 132 - Corp. Records	133 - Word Processing 134 - Graphics	135 - Information Management

NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

Robert H. Sims - Vice President - Power Supply

This position is accountable for power pooling agreements which contribute to meeting the power demands of GPU's customers reliably, adequately, and economically, in a timely manner through Power Pooling Agreements and the operations of inter-company and intra-company transfers, construction feasibility and coordinating studies, and negotiations over transmission systems and utilization. Serves as GPU member of the Management Committee of PJM, Executive Board of MAAC, Administrative Committees under various Transmission Agreements. Also serves as Chairman of the GPU Operating Committee which administers GPU Power Pooling Agreements.

This position is accountable for the following end results:

1. Power demands of GPU's customers are met in an economic and timely manner through the negotiation and operation of PJM Power Pooling Agreements and inter-company/intra-company transfers of electricity.

2. Contributes to the reliable coordination of construction of generating and transmission facilities of Mid-Atlantic utilities through analysis of data and reliability criteria.

3. Sufficient construction of transmission systems to meet the needs of the customers in an economic manner.

4. Adequate telecommunications and transportation systems at the lowest cost.

5. An informed top management through effective and timely communication.

6. Motivated and competent staff through selection, direction and development of personnel.

EDUCATIONAL BACKGROUND

B.I.E. - Ohio State University - 1942
Public Utility Executive Program - University of Michigan - 1956
Utility Managers Program - Livingston Institute, Columbia University - 1959

EXPERIENCE

GPUSC -	Vice President - Power Supply	1/1/75 - Present
-	Vice President - Operations	4/30/71 - 12/31/74
NJP&L)-	Vice President	5/1/65 - 11/30/74
&)-	Superintendent of Operations	1/1/60 - 4/30/65
JCP&L)-	Superintendent-Transmission & Meters	5/1/59 - 12/31/59
)-	Ass't Superintendent-Transmission & Meters	6/1/58 - 4/30/59
JCP&L -	Division Manager	1/1/57 - 5/31/58
-	Division Superintendent	10/16/54 - 12/31/56
-	Ass't General Supt. Trans. & Distr.	11/1/51 - 10/15/54
-	Technical Assistant to Vice President	9/1/50 - 10/31/51
-	Assistant Engineer	3/1/48 - 8/31/50
AT&T -	Induction Coordinator Engineer	7/46 - 2/48
US Army -	Capt. Signal Corp.	11/42 - 5/46
AT&T -	Student Engineer	7/42 - 11/42

GPU SERVICE CORPORATION
ORGANIZATION

BOARD OF DIRECTORS
Chairman & Chief Executive Officer
W. C. KUHNS

401 - Executive

President & Chief Operating Officer
H. M. DIECKAMP

402 - Operating

Executive Vice President
V. E. CONROW, JR.

403 - Financial

Accounting
(1) E. J. HOLCOMBE - V.P. & Comptr.

101 - General
102 - Constr. Acctg.
103 - Depreciation
104 - Taxes
107 - General Accounting
108 - Budgets

Treasury
J. C. GRAHAM - V.P. & Treas.

901 - General
902 - Payroll
903 - Financial Planning
904 - Pensions
905 - Forecasting

Materials Management
F. GLICKMAN - V. P.

471 - General
472 - Stores
473 - Procurement
475 - Contracts - Constr.
476 - Contracts - Design & Equip.
477 - Contracts - Fuels

Information Services
B. J. HAGLE - Mgr.

30A - I.S. General
30C - Data Center Operations
30D - Technical Services
30E - Data Base Admin.
30G - Education/Standards
30H - Eng. App. Develop.
30I - Gen./T&D App. Develop.
30J - Consumer Affairs App. Dev.
30K - Fin./Forecasting App. Dev.
30L - Business App. Develop.

Internal Auditing
J. F. FARRELL - Mgr.

441 - General
442 - Computer Auditing
443 - GPUSC Auditing
444 - JCP&L Auditing
445 - Met-Ed Auditing
446 - Penelec Auditing
447 - Auditing Coordination and Control

Administrative
F. J. SMITH - V. P.

20A - Org. Plan. & Gen'l.
20E - Personnel & EEO
20F - Wage & Salary
20G - Safety
20H - Security
20I - Insurance
20K - Labor Relations
20L - Corp. Services
20M - Training
Bldg. Mgmt. & Services
221-226 - New Jersey
231-236 - Reading

Communications
W. B. MURRAY - V. P.

801 - General
802 - Consumer Services
Customer Relations
Investor Relations
Public Relations
Gov't. Relations
Special Projects

Corporate Planning
R. H. CRERIE - V. P.

70A - General
70B - Fuels Planning
70C - Fuels - Nuclear
70D - Fuels - Uranium Res.
70E - Fuels - Fossil Res.
70F - Fuels - Coal Resources
70G - Sys. Planning Gen.
70J - Forecasting
70K - Supply Planning
70N - Load Resource
70O - Load Management
70Q - Tech. Assess. Devel.
70S - Strategic Planning

Generation
R. C. ARNOLD - V. P.

301 - Administration
311 - Gen. Projects-Nuclear
312 - Gen. Projects-Fossil
313 - Gen. Projects-Adm.
321 - Engineering
322 - Design
323 - Engineering Management
324 - Quality Assurance
331 - Opr. Support-Startup. Test, Training
332 - Opr. Support-System Lab.
333 - Productivity
334 - Maintenance
341 - Environmental Affairs
342 - Safety & Licensing
343 - Water Resources
344 - Constr. & Maint. Services
345 - Generation Div. Support

Power Supply
R. H. SIMS - V. P.

451 - General
452 - Gov't. Energy Policy
453 - Transportation
454 - Telecommunications
455 - Power - Contracts

Rate Case Management
F. D. HAFER - V. P.

951 - General
952 - Rates

[redacted]

Corporate Secretary
R. H. CRAFTON

151 - General
152 - Corp. Records
153 - Word Processing
154 - Graphics
155 - Information Management

NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

EDMUND NEWTON JR. - Vice President - System Operations

This position is accountable for insuring delivery of power to the System customers in a continuous, economic and efficient manner through effective operation of the bulk power supply facilities of the System. A part of this accountability is to coordinate the maintenance of the generation and transmission equipment to insure the availability of adequate equipment at all times; it is further accountable for the economic dispatch of the available equipment and the management and monitoring of the transmission and distribution facilities for the entire system in order to achieve that end.

This position is accountable for the following end results:

1. Meeting the power needs of GPU's customers efficiently and at lowest cost through load dispatch and interchange transfers.

2. Effective and efficient operation of the transmission and distribution systems of the operating companies through planning, monitoring, and coordination.

3. Ensure that sufficient generating capacity is available at all times while maintenance is performed through effective scheduling of maintenance of major power supply equipment.

4. A motivated and competent staff through selecting, directing, and developing personnel.

5. An informed top management through effective and timely communication.

EDUCATIONAL BACKGROUND

B Electrical Engineering - Clemson University - 1952

ScM - MIT - 1954

EXPERIENCE

GPUSC	- Vice President - System Operations	8-1-77 - Present
"	- Vice President - Planning & Economics	4-1-73 - 7-31-77
"	- Manager - Contracts & Rates	5-1-71 - 3-31-73
MetEd	- Manager - GPU Contracts & Rates	1-19-71- 4-30-71
"	- Manager - Contracts & Rates	6-1-68 - 1-18-71
"	- Staff Engineer	5-1-62 - 5-31-68
"	- Project Engineer	6-1-55 - 4-30-62
"	- Electrical Engineer Cadet	8-2-54 - 5-31-55
MIT	- Teaching Assistant	9-15-52-6-15-54

POSITION DESCRIPTIONS AND PERSONNEL BACKGROUNDS OF THE PRESIDENT AND VICE-PRESIDENT-GENERATION OF METROPOLITAN EDISON COMPANY AND PENNSYLVANIA ELECTRIC COMPANY

PRESIDENT (PENELEC)

William A. Verrochi

This position manages all operational aspects of Penelec by directing and coordinating engineering, generating, and operating functions, as well as determining overall policies for personnel, industrial relations, and purchasing.

This position is accountable for the following end results:

1. Contribute to the profitability of Penelec through the effective management of engineering, operations and generating functions.

2. Ensure effective and timely delivery of service to Penelec's customers by monitoring group performance and guiding the development and implementation of new and improved systems.

3. Develop and maintain an effective organizational structure which deploys managerial, professional and other personnel effectively to meet the Company's needs.

4. Provide competent and motivated staff by directing its selection and development to meet current and ongoing commitments, and by ensuring the orderly development of management succession.

5. Develop effective management reporting systems to provide accurate and timely information for critical decisions and to measure progress and results.

6. Ensure effective personnel and industrial relations policies by directing and coordinating that function.

7. Provide effective purchasing and general services by capable management of the staff.

8. Contribute to corporate policy and strategy by counseling with top company executives concerning external and internal influences and overall capabilities of GPU.

Educational Background

Massachusetts Institute of Technology, B.S. ME, 1947
Licensed Professional Engineer in Massachusetts, New Jersey and Pennsylvania

Experience

6/77 to Present	- President (Penelec)
12/74 to 6/77	- Vice President Generation (GPUSC)
5/71 to 12/74	- Vice President, Design & Construction (GPUSC)
10/69 to 5/71	- Special assignment from Penelec assuming responsibilities during the organization of GPUSC.

VICE PRESIDENT (PENELEC) Ralph W. Conrad

This position directs the engineering, operation and maintenance of Penelec's nuclear and fossil fuel power plants.

This position is accountable for the following end results:

1. Safe, efficient and timely power generation through the effective management of generating plant operations.

2. Efficient and continuous operation of the company's power plants through the economical and timely maintenance of equipment and facilities.

3. Timely and economical design and construction of additions to existing generating facilities through effective planning, scheduling, and mangement of personnel and resources.

4. Compliance with federal and state regulatory requirements and minimized detrimental effects on the environment through effective management of quality assurance and licensing efforts.

5. Competent and motivated staff by directing its selection and development to meet current and ongoing commitments.

6. An informed top management through timely and effective communication.

Educational Background

B.S. ME
PE License

WALTER M. CREITZ - PRESIDENT

This position manages all operational aspects of Metropolitan Edison by directing and coordinating engineering, generating, and operating functions, as well as determining overall policies for personnel, industrial relations, and purchasing.

This position is accountable for the following end results:

1. Contribute to the PROFITABILITY OF MET-ED through the effective management of engineering, operations and generating functions.

2. Ensure EFFECTIVE AND TIMELY DELIVERY OF SERVICE TO MET-ED's CUSTOMERS by monitoring group performance and guiding the development and implementation of new and improved systems.

3. Develop and maintain an EFFECTIVE ORGANIZATIONAL STRUCTURE which deploys managerial, professional and other personnel effectively to meet the Company's needs.

4. Provide COMPETENT AND MOTIVATED STAFF by directing its selection and development to meet current and ongoing commitments, and by ensuring the orderly development of management succession.

5. Develop EFFECTIVE MANAGEMENT REPORTING SYSTEMS to provide accurate and timely information for critical decisions and to measure progress and results.

6. Ensure EFFECTIVE PERSONNEL AND INDUSTRIAL RELATIONS POLICIES by directing and coordinating that function.

7. Provide EFFECTIVE PURCHASING AND GENERAL SERVICES by capable management of the Staff.

8. Contribute to corporate policy and strategy by counseling with top company executives concerning external and internal influences and overall capabilities of GPU.

Educational Background

Lehigh University, B.S. EE, 1948
University of Michigan - Public Utility Executive Program - 1960
Licensed Professional Engineer - PA - 1952

Experience

1/72 to Present - President
7/71 to 1/72 - Vice President and Chief Engineer
3/69 to 7/71 - Vice President and Manager Western Division
2/68 to 3/69 - Manager Western Division
8/62 to 2/68 - Operating Superintendent, Western Division
2/56 to 8/62 - System Distribution Engineer, Corporate
8/48 to 2/56 - Electrical Engineer, Central and Corporate

JOHN G. HERBEIN - VICE PRESIDENT - GENERATION

This position directs the engineering, operation and maintenance of Metropolitan Edison Company's nuclear and fossil fuel power plants.

This position is accountable for the following end results:

1. Safe, efficient and timely power generation through the effective management of generating plant operations.

2. Efficient and continuous operation of the company's power plants through the economical and timely maintenance of equipment and facilities.

3. Timely and economical design and construction of additions to existing generating facilities through effective planning, scheduling, and management of personnel and resources.

4. Compliance with federal and state regulatory requirements and minimized detrimental effects on the environment through effective management of quality assurance and licensing efforts.

5. Competent and motivated staff by directing its selection and development to meet current and on-going commitments.

6. An informed top management through timely and effective communication.

Educational Background

U. S. Naval Academy, B.S. Marine Engineering - 1960
U. S. Navy Anti-Submarine Warfare School - 1961
U. S. Naval Destroyer School - 1962
U. S. Navy Nuclear Power School, KAPL - 1965, Qualified D1G Prototype as Engineer Officer of the Watch
NUS Core Physics - 1969
G. E. and B & W Technical Schools while at TMI 1970 - 1975
Senior Reactor Operator License - Saxton Power Reactor 6/17/68, renewed 1970
Senior Reactor Operator License - TMI Unit No. 1 2/23/74

Experience

5/77 to present	- Vice President - Generation
9/76 to 5/77	- Manager - Generation Operations
6/75 to 9/76	- Manager - Generation Operations Nuclear - Responsible to V.P. Generation for day-to-day direction and supervision of TMI operatic
1/74 to 6/75	- Superintendent - Nuclear Generating Station (Construction project to operating plant)
1/73 to 1/74	- Assistent Superintendent TMI
8/70 to 12/72	- Station Engineer at TMI - Responsible for instrument, electrical, mechanical, nuclear, health physics & chemistry, site engineering and technical supervision.

JOHN G. HERBEIN - VICE PRESIDENT - GENERATION

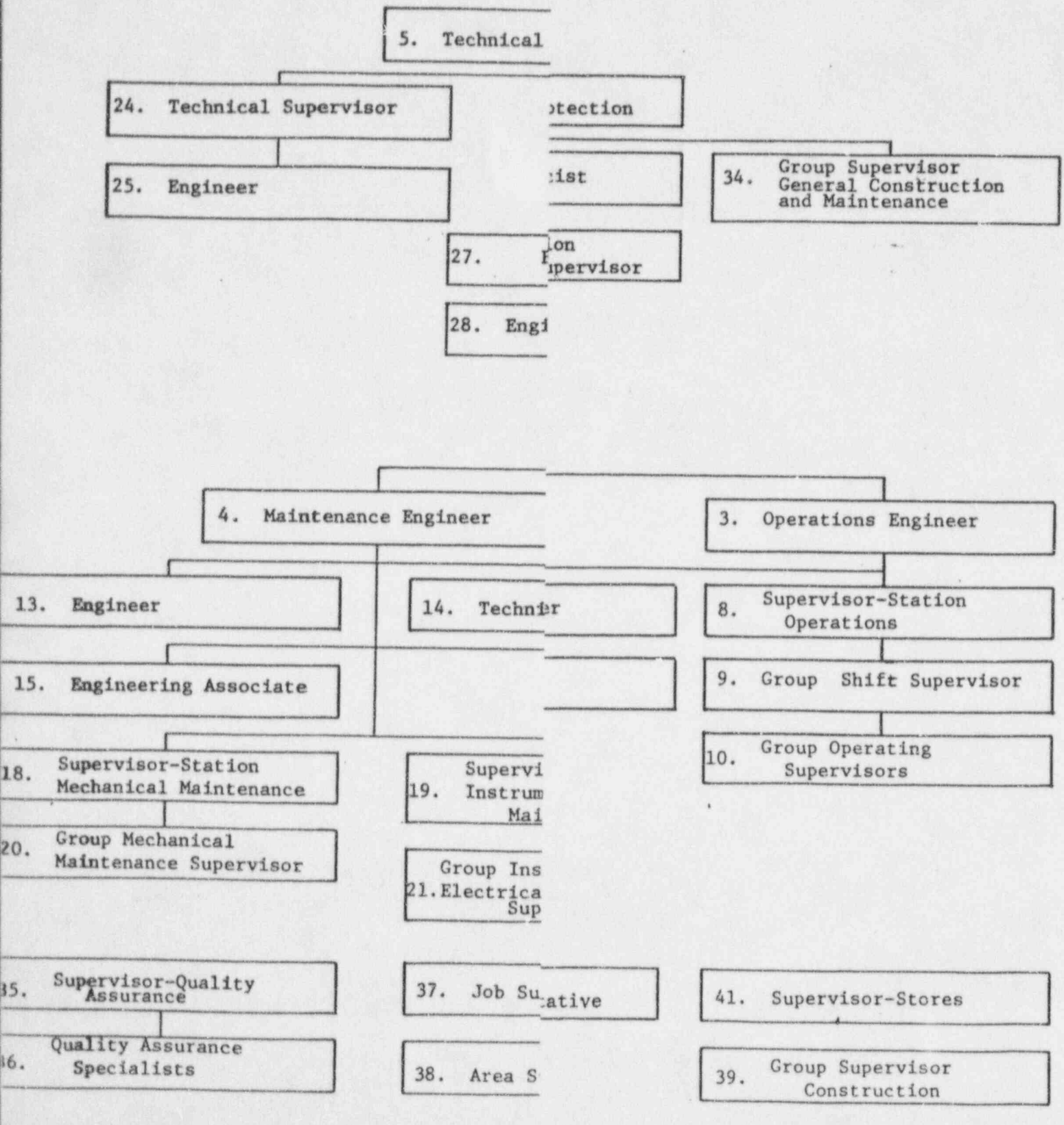
Experience (Continued)

5/70 to 8/70	- Supervisor of reactor plant services at Saxton Nuclear Experimental Corporation
8/68 to 5/70	- Supervisor Operations and test at Saxton
9/67 to 8/68	- Staff Engineer at Saxton
5/67 to 9/67	- Yankee Atomic as Assistant to Operations Supervisor
1960 to 5/67	- Served 6 years on conventional destroyers in various capacities including Chief Engineer. (One year at KAPL.)

OYSTER CREEK PLANT STAFF

OYSTER CREEK NUCLEAR GENERATI

ORGANIZATIONAL CHART



PLANT STAFF POSITIONS

1. Superintendent - J. T. Carroll, Jr.

The Station Superintendent is responsible for the safe, reliable and efficient operation of the Oyster Creek Nuclear Generating Station. He is responsible for managing station operations in a manner that will not endanger the health and safety of the public.

2. Chief Engineer - J. L. Sullivan

This position is accountable for the administration of the Operation, 'aintenance and Training Departments and effective coordination of related work efforts to ensure that all activities are conducted in a safe and efficient manner in order that maximum station capaability, consistent with license requirements, may be attained.

3. Operations Engineer - E. J. Growney

This position is accountable for the administration and proper functioning of the Operations Department, directing the activities of the operations Supervisor and the Operations Department Engineering Group and for ensuring that all plant operations are conducted in a safe and efficient manner.

4. Maintenance Engineer - J. R. Molnar

This position is accuntable for the administration and proper functioning of the Maintenance Department, directing the activities of subordinates and for ensuring that all maintenance activities are conducted in a safe and efficient manner to promote maximum station availability.

5. Technical Engineer - K. O. E. Fickeissen

This position is accountable for supervising station technical personnel involved in fuel management, radiological health and safety, chemistry and the engineering of plant modifications, changes and special test procedures. He has frequent contacts with consultants, State of New Jersey, and Federal Agencies regarding site environmental matters.

OPERATIONS

6. Staff Engineer - T. E. Quintenz

This position is accountable for assisting the Operations Engineer in administering the policies of the operations department and for coordinating the activities of the department's engineering personnel.

7. Engineer - J. E. Edelhauser
C. Lefler
R. McNair
P. Cervanka

This position is accountable for assisting the Operations Engineer in administering the policies of the Operations Department and the planning, coordination, and completion of projects associated with Nuclear Power Plant Operations as designated by the Operations Engineer.

8. Supervisor - Stations Operations - J. R. Maloney

This position is accountable for supervising the operation, coordinating all functions that affect plant operations and training of all operating personnel to insure the efficient operations of the nuclear generating station within the scope of the plant license.

9. Group Shift Supervisor - R. McKeon
B. J. Cooper
R. Van Brakle
J. R. Young
H. Callahan
G. Hicks

This position is accountable for controlling the nuclear plant operations during assigned shifts by directing the work of others in operating the plant safely and economically.

10. Group Operating Supervisor - D. VanBlarcom
C. Silvers
R. Wenz
N. Howey
N. Boulware

This position is accountable for assisting the Group Shift Supervisor in controlling the nuclear plant operations during assigned shifts by directing the work of others in operating the plant safely and economically.

11. Senior Administrator - Generation Technical Training - W. Stewart

This position is accountable for administering, planning, organizing, coordinating, initiating, conducting and documenting various technical training programs at Oyster Creek as well as purchasing hardware, software and consumables required for the conduct of these training programs. The position is also accountable for administering the Station Document Control Center.

12. Administrator - Generation Technical Training - R. Barrett
D. Fawcett

This position is accountable for assisting in the administering, planning, organizing, coordinating, initiating, conducting and documenting of various technical training programs at Oyster Creek, to include the purchasing and maintenance of hardware, software and consumables required for the conduct of these training programs.

13. Engineer - D. Jones
M. Budaj
G. Hinrich
R. Lang
R. Smith

This position is accountable for assisting the Maintenance Engineer in administering the policies of the maintenance department and the planning, coordination, and completion of projects associated with nuclear power plant maintenance as designated by the Maintenance Engineer.

14 Technical Analyst - E. Roessler

This position is accountable for assisting the Station Instrument and Electrical Maintenance Supervisor in the performance of his duties. This position is also accountable for reviewing trends and maintenance histories of various electrical and instrument components.

15. Engineering Associate - K. Eichenlaub

This position is accountable for the coordination, planning and completion of projects associated with nuclear power plant maintenance as designated by the Maintenance Engineer-Nuclear.

16. Supervisor - Station Computer Programs - W. Pelenski

This position is accountable for the coordination, planning, and completion of projects associated with plant computer requirements.

17. Analyst Process Control - E. I. Riggle

This position is accountable for analysing and interfacing the computer uses with plant functions. This position also assists in analyzing the present instrumentation and control systems for improvement and reliability.

18. Supervisor - Station Mechanical Maintenance - F. H. Kossatz

This position is accountable for supervising the mechanical maintenance and repair of all stations equipment, buildings and grounds as well as implementing applicable portions of the Jersey Central Power & Light Company Operational Quality Assurance Plan.

19. Supervisor - Station Inst. and Electrical Maintenance - T. Johnson

This position is accountable for supervising the instrument and electrical maintenance and repair of all station equipment, buildings and grounds; for supervising calibration facility operations; for ensuring the related maintenance and inspection records are prepared, reviewed and updated; and for implemenging applicable portions of the JCP&L Operational Quality Assurance Plan.

20. Group Supervisor - Mechanical Maintenance - D. Jenkinson
F. Anderson
K. Bellscheidt

This position is accountable for directing a maintenance crew in repairing, replacing and maintaining equipment - nuclear, grounds and building in good physical condition to assure continual, efficient and economical nuclear plant operation.

21. Group Supervisor - Instrument & Electrical Maintenance - T. Gaffney
D. LeRoy

This position is accountable for the maintenance of all electrical equipment, reactor protection equipment and the substation equipment at Oyster Creek Nuclear Generating Station.

22. Engineering Assistant - R. A. Parshall

This position is accountable for the coordination, surveillance and completion of administrative projects associated with the nuclear power plant as designated by the Station Superintendent.

23. Engineering Associate - R. Baran

This position is accountable for the coordination and surveillance of PORC activities and acts as an assitant to the Chief Engineer.

24. Technical Supervisor - A. H. Rone

This position is accountable for the proper implementation of fuel management principles to assure safe and efficient operation and maintenance of the nuclear fuel within the limits of the plant license and fuel manufacturer's warranty. This position is also responsible for preparing reports and performing various tests as required by the Technical Specifications.

25. Engineer - R. Shaw
M. Atkins
F. Saksa
J. Spadaro
R. Thompson

This position provides technical expertise in the areas of core nucleonics, chemistry control, radiological engineering, environmental monitoring, etc. Engineers in this group provide and interface between generation engineering and plant operations so that modifications, changes and tests are performed in an efficient manner accounting for both engineering as well as operational concerns.

26. Chemical Supervisor - J. R. Pelrine

This position is accountable for supervising the Oyster Creek plant chemistry and environmental monitoring programs.

27. Engineer - R. B. Somers
R. Stoudnour

This position is accountable for the planning, coordination and completion of projects associated with nuclear power plant chemistry and environmental monitoring programs as designated by the Chemical Supervisor.

28. Engineering Associate - D. R. Weigle

This position is accountable for the coordination, planning and completion of projects associated with nuclear power plant chemistry and environmental monitoring programs as designated by the Chemical Supervisor.

29. Group Supervisor - Chemical - C. B. Konta

This position is accountable for supervising the activities involved in sampling, analyzing and providing water treatment of the reactor and auxiliary systems to insure operations within prescribed limits.

30. Supervisor - Radiation Protection - _____

This position is accountable for administering and maintaining a Health Physics Program to ensure implementation and observance of radiological control procedures for personnel radiation safety, for compliance with state and federal regulatory agencies, and for assurance of the required personnel responses to emergency situations.

31. Health Physicist - L. Smialek

This position is accountable for supervising the Group Radiation Protection Supervisors to ensure implementation of radiological procedures and compliance with state and federal regulatory agencies.

32. Group Supervisor - Radiation Protection - D. Kaulback
D. Arbach
J. Cook
M. Oberstaedt

This program is accountable for supervising the activities involved in ensuring proper radiological control for personnel safety and coordinating compliance with the applicable federal and state regulations concerning radiological control and reporting requirements.

33. Engineering Associate - R. A. Heffner

This position is accountable for assisting in the planning, administration, coordination and personnel training as well as for the improvement of the Oyster Creek Health Physics Program.

34. Group Supervisor - General Construction & Mtce. - W. J. Spoulos

This position is accountable for supervising the activities involved in maintaining the plant clean and orderly, preparation, packing, and shipping of all radioactive waste from the station and for training of personnel in the use of and the operation of equipment such as conveyors, hoists, cranes, fork lifts, etc.

35. Supervisor - Quality Assurance - R. Dube

This position is accountable for establishing and maintaining an effective and efficient Quality Assurance Inspection and Examination Program at Nuclear Generating Stations as well as assisting in the development, establishment and maintenance of an effective and efficient total Quality Assurance Program for the Jersey Central Power & Light Company. This position reports to the Manager of Quality Assurance who is located offsite.

36. Quality Assurance Specialist - L. Drummond
W. Deck
S. Fuller
R. Tilton
M. Goldie
T. Dunn
D. Robillard

This position is accountable for evaluating the adequacy of specific programs used to train and test inspection, examination and test personnel as well as reviewing and approving inspection, examination and testing procedures and evaluating the activities to accomplish the inspection, examination and test objectives.

37. Job Supervisor - S. Przyblski
T. Spence

This position is accountable for supervising crews performing specific outage related jobs or modifications. This position reports to the Superintendent of project services who is located offsite.

38. Outage Area Supervisor - D. Holland

This position is accountable for the planning, scheduling, and coordination of outage activities. This position reports to the Superintendent of project services who is located offsite.

39. Group Supervisor Construction - R. Keating

This position is accountable for supervising the maintenance crew concerning plant improvements and modifications undertaken at the station. This position reports to the Supervisor Construction Craft who is located offsite.

40. Fire Protection Specialist - R. Durina

This position is responsible for the administration of the fire protection program which includes periodic inspections to assure the availability and acceptability of fire protection systems and equipment, assisting in the training of the fire brigade and other personnel, and assuring that the objectives of the fire protection program are achieved.

41. Supervisor - Generation Stores - Nuclear - D. Keith

This position is accountable for the efficient planning, organizing, and administering of a storeroom in a nuclear generating station. This position reports to the Supervisor of Area Stores who is located offsite.

42. Safety Representative - A. Jackson

This position is accountable for the OSHA related safe working conditions and safe working practices at the Oyster Creek site. This position reports to the Safety Director of Generation who is located off-site.

J. T. CARROLL, JR.

A. EDUCATIONAL BACKGROUND

Ocean County College - 1970-1971
ICS Course, Power Plant Engineering 1960-1962
Saxton Training Program - 10 MOnths
G. E. San Jose Training and Humbolt Bay Training - 6 Weeks
Oyster Creek Pre Operational Site Training - 135 Hrs.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

13 Years Nuclear Power Plant Operations

B. Westinghouse - PWR

1 Year Nuclear Power Plant Operations

2. OTHER

A. 17 Years - Fossil Power Plant Operations

B. NRC Senior Reactor Operator License - OC

J.L. SULLIVAN, JR.

A. EDUCATIONAL BACKGROUND

B.S.M.E. - Newark College of Engineering-1965
ASME Course - Nuclear Engineering
General Electric Course - Station Nuclear Engineering-1970-10 weeks

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R.

6 years power plant operations
1 year plant chemistry & radiochemistry
1 year health physics
2 years nuclear fuels-core management
.5 year maintenance engineering

2. OTHER

A. .5 year maintenance engineering-fossil power plant
3 years operations-fossil power plant

B. NRC Senior Reactor Operator License- OC-(1975-Present)

E. GROWNEY

A. EDUCATIONAL BACKGROUND

B.S.M.E. - Stevens Institute of Technology - 1966
Introduction to Nuclear Engineering - 1969 - University of Michigan - 1 month
G. E. Nuclear Engineering Training- 1970 - 10 weeks
25 credits toward M.S.M.E. at Stevens Institute of Technology

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR
3.8 years Nuclear Power Plant Operations
2 years Nuclear Engineering
2 Years Thermal-Hydraulic Engineering
1 year Plant Chemistry & Radiochemistry
1 year Nuclear Fuels

2. OTHER

A. 3.2 Years Fossil Plant Operations

B. NRC Senior Reactor Operator License - O.C. - (1977-Present)

J. MOLNAR

A. EDUCATIONAL BACKGROUND

BA - Mathematics Rutgers University
MS - Mathematics (20 credits toward) Stevens Institute of Technology
Operator Training Program Saxton Nuclear Experimental Corp.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R

6 years Power Plant Operations
4 years Maintenance Engineering
3 years Training (Operator Licensing & Requalification)

B. Westinghouse - P.W.R.

1 year Power Plant Operations

2. OTHER

A. 7 years Power Plant Operation - Fossil Power Plant
B. NRC Reactor Operators License - O.C.
NRC Senior Reactor Operators License-O.C.- (1973-Present)

K. FICKEISSEN

A. EDUCATIONAL BACKGROUND

B.S.M.E. Drexel University
U.S. Navy - Electronics Technician School
U.S. Navy - Nuclear Power School Training

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R

4.5 years Power Plant Operations
1 year Nuclear Engineering
1 year Plant Chemistry & Radiochemistry
2 years Nuclear Fuel Management
.5 year Maintenance Engineering

B. General Electric - S3G

.5 years Power Plant Operations

C. Westinghouse S5W

3.75 Power Plant Operations

2. OTHER

A. NRC Senior Reactor Operator License - O.C. - (April 1978 - Present)

J. EDELHAUSER

A. EDUCATIONAL BACKGROUND

B.S.E.E. Northeastern University
M.S.E.E. Northeastern University

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R.

6 years Power Plant Operations
1 year Electrical Engineering

2. OTHER

A. NRC Reactor Operator License - OC - (1978-Present)

C. LEFLER

A. EDUCATIONAL BACKGROUND

B.S.M.E. - University of Rhode Island - 1973
12 Credits Toward M.S.M.E.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

3 Years As Startup and Test Engineer for Offgas Building and new Radwaste

B. Newport News Shipbuilding

3 1/2 Years as Materials Engineer in Atomic Power Division

B. McNAIR

A. EDUCATIONAL BACKGROUND

B.S. Nuclear Science & Engineering - SUNY Maritime College
M.B.A. Monmouth College (12/79)

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R

3 years Power Plant Operations

2. OTHER

A. 1 year Power Plant Operations - Fossil Power Plant

P. CERVENKA

A. EDUCATIONAL BACKGROUND

B. S. Nuclear Science-State University of New York Maritime College

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R.

1 year Power Plant Operations
.5 year Equipment and Component Inspection

2. OTHER

A. 1.5 years Equipment and Component Inspection - Fossil Power Plant

J. MALONEY

A. EDUCATIONAL BACKGROUND

2.5 years college - Electrical Engineering
Westinghouse PWR Training - Waltz Mills, PA.
G.E. BWR Training - San Jose, Calif.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R.

13 years Power Plant Operations

B. Westinghouse - P.W.R

6 years Power Plant Operations

2. OTHER

A. AEC Reactor Operator License - Saxton Reactor
NRC Senior Reactor Operator License - O.C. - (1969-Present)

R. McKEON

A. EDUCATIONAL BACKGROUND

B. S. in Applied Physics - Stockton State College
Fundamentals of Nuclear Technology - 8 Weeks
Physics for Reactor Operator Training - 1 Month
O.C. Onsite Systems Course - 1 Month
Supervisory Course - Rutgers - 1 Week

B. WORK EXPERIENCE

1. NUCLEAR

General Electric - BWR

12 Years Nuclear Power Plant Operations
2 Years as Startup and Test Supervisor for Offgas Building and New Radwaste

2. OTHER

A. 7 Years Power Plant Operations - Fossil

B. NRC Senior Reactor Operator License - O.C. - (1970-Present)

B. COOPER

A. EDUCATIONAL BACKGROUND

High School Diploma
Technical Courses (Nuclear & electronics)
Management Courses

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R.

13 years Power Plant Operations

B. Westinghouse - P.W.R.

1 year Power Plant Operations

2. OTHER

A. 11 Years Power Plant Operations - Fossil Power Plant
B. Certified on Saxton Reactor
NRC Senior Reactor Operator License - O.C. (1970-Present)
NRC Reactor Operator License-O.C. (1969-1970)

R. VAN BRAKLE

A. EDUCATIONAL BACKGROUND

High School Graduate 1955
Fundamentals of Nuclear Tech. - 1965 - Saxton
Theory Course for Reactor Operators - Saxton
Physics Course for Reactor Operators - 1966-OC
Systems Course - 1967-OC

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

13 Years Nuclear Power Plant Operations

B. Westinghouse - PWR - Saxton

1 Year Nuclear Power Plant Operations

2. OTHER

A. 5 Years Fossil Power Plant Operations

B. NRC Reactor Operator License (1969-1977)
NRC Senior Reactor Operator License (1977-Present)

J. YOUNG

A. EDUCATIONAL BACKGROUND

High School Graduate 1954
Fundamentals of Nuclear Technology - 1965-Saxton
Theory Course for Reactor Operators - Saxton
Physics Course for Reactor Operators - 1966-OC
Systems Course - 1967-OC

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

13 Years Nuclear Power Plant Operations

B. Westinghouse - PWR

1 Year Nuclear Power Plant Operations

2. OTHER

A. NRC Reactor Operator License (1969-1974)
NRC Senior Reactor Operator License (1974-Present)

H. CALLAHAN

A. EDUCATIONAL BACKGROUND

3.5 years college - Physics
U. S. Navy - Nuclear Power School

B. WCRK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R

9.5 years Power Plant Operations

B. Westinghouse - P.W.R.

5 years Power Plant Operations

2. OTHER

A. NRC Senior Reactor Operator License - O.C. - (1977-Present)
NRC Reactor Operator License - O.C. - (1970-1977)

G. HICKS

A. EDUCATIONAL BACKGROUND

High School Diploma
Various Technical & Management Courses

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R

11 years Power Plant Operations

B. Westinghouse - P.W.R

1 year Power Plant Operations

2. OTHER

A. 9 years Power Plant Operations - Fossil Power Plant
B. NRC Senior Reactor Operator License - O.C. - (1974-Present)

D. VAN BLARCOM

A. EDUCATIONAL BACKGROUND

High School Graduate
Completed B.W.R Simulator Training Course

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

12 years Nuclear Power Plant Operations
2 Years Instrumentation & Controls Engineering

2. OTHER

A. NRC Senior Reactor Operator License - O.C. - (1978-Present)

NRC Reactor Operator License - O.C. - (1973-1978)

C. SILVERS

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear School
Supervisory Course - Rutgers - 1 Week
Ocean County College - 1 Year - Mathematics

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

8 Years Nuclear Power Plant Operations

B. Westinghouse - PWR - Navy

6 Years Power Plant Operations -

2. OTHER

A. NRC Reactor Operator License - O.C. - (1973-1978)

NRC Senior Reactor Operator License - O.C. - (1978-Present)

R. WENZ

A. EDUCATIONAL BACKGROUND

High School Graduate

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR
12 Years Nuclear Power Plant Operations

2. OTHER

A. 9 Years Fossil Power Plant Operations

B. NRC Senior Reactor Operators License - O.C. -(1977-Present)

NRC Reactor Operator License - OC (1971-1977)

N. HOWEY

A. EDUCATIONAL BACKGROUND

High School Graduate
Presently Enrolled at Stockton State College - 3 years
Completed
U. S. Nuclear Navy Power School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

8 Years Nuclear Power Plant Operations

B. Westinghouse - PWR - Nuclear Navy

2 Years Nuclear Power Plant Operations
2 Years Plant Chemistry & Radiochemistry
2 Years Health Physics

2. OTHER

A. NRC Senior Reactor Operator License - O.C. - (1977-Present)
NRC Reactor Operator License - OC - (1973-1977)

N. BOULWARE

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Nuclear Navy Power School
1 Year College

B. WORK EXPERIENCE

1. NUCLEAR

A. Westinghouse - P.W.R. - Nuclear Navy
3.5 Years Nuclear Power Plant Operations
3.5 Years Instrumentation and Controls Engineering

B. General Electric - B.W.R

7 Years Nuclear Power Plant Operations

2. OTHER

A. NRC Senior Reactor Operator License - O.C. - (1978-Present)

NRC Reactor Operator License - OC - (1973-1978)

B. STEWART

A. EDUCATIONAL BACKGROUND

B. S. Civil Engineering - University of Kentucky - 1968
U. S. Nuclear Navy Power School - 1970

B. WORK EXPERIENCE

1. NUCLEAR

A. Westinghouse - P.W.R. - Nuclear Navy
6 Years Power Plant Operations

B. General Electric - B.W.R
3 Years - Training (Operator Licensing, and Requalification)

2. OTHER

A. NRC Senior Reactor Operator License - O.C. (1978-Present)

R. BARRETT

A. EDUCATIONAL BACKGROUND

B. A. - Stockton State College - 1975
M.B.A. Candidate - Fairleigh Dickenson University
U.S. Nuclear Navy Power School
Electronics Technician School - U.S. Navy

B. WORK EXPERIENCE

1. NUCLEAR

A. Westinghouse - P.W.R - Nuclear Navy
3 1/2 Years Power Plant Operations
2 1/2 Years Instrumentation and Control Engineering

B. General Electric - B.W.R.
6 Years Instrumentation and Control Engineering
3 1/2 Years Training (Operator Licensing and Requalification)

C. General Atomic - Triga Mark F (Research)
2 1/2 Years Operations
1 Year Instrumentation and Control Engineering

2. OTHER

A. NRC Senior Reactor Operator License - O.C. -(1978 - Present)
NRC Senior Reactor Operator License - ARIGA

D. FAWCETT

A. EDUCATIONAL BACKGROUND

B. S. in Applied Physics - Stockton State College - 1976
U. S. Navy - Nuclear Power School
Electronics Technician - A School - Navy

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Power Plant Operations
.5 Year Training (Operator Licensing and Requalification)

B. Westinghouse - PWR - Navy

2 Years Power Plant Operations
2 Years Instrumentation and Control Engineering

2. OTHER

A. NRC Reactor Operator License - OC - (1973-Present)

D. JONES

A. EDUCATIONAL BACKGROUND

B.S.E.E. - Electrical and Electronic - Fairleigh Dickenson - 1971
12 Credits Toward M.S.E.E.
G.E. Power Systems Coordination Course (Relays) - 1 Week
I.R.D. Mechanalysis (Advanced) - 1 Week
Biddle Test School for Hypoting - 1 Week
Westinghouse Computer School - 9 Weeks

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1/2 year Mechanical Engineering
1/2 Year Maintenance Engineering
2 Years Electrical Engineering

2. OTHER

A. 1/2 Year Mechanical Engineering - Fossil Plant
1/2 Year Instrumentation and Control Engineering
Fossil Plant
1/2 Year Maintenance Engineering - Fossil Plant
1 1/2 Years Electrical Engineering - Fossil

M. BUDAJ

A. EDUCATIONAL BACKGROUND

B.S.E.E. - Rutgers University - 1974
Seminar - "Nuclear Fuel Management" - M.I.T. - 1976

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR
4 Years Nuclear Fuels

B. Westinghouse - PWR
1 Year Electrical Engineering

G. HINRICH

A. EDUCATIONAL BACKGROUND

B. S. in Nuclear Engineering - S.U.N.Y. Maritime College - 1975

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR
2 Years Nuclear Power Plant Operations
1 Year Mechanical Engineering
1/2 Year Maintenance Engineering
1/2 Year Quality Assurance

R. LANG

A. EDUCATIONAL BACKGROUND

B.S.E.E. - Newark College of Engineering

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Nuclear Power Plant Operations
4 Years Maintenance Engineering

2. OTHER

A. 1 Year Systems Engineering
1 Year Electrical Engineering
1 Year Cost Engineering

R. SMITH

A. EDUCATIONAL BACKGROUND

Bachelor of Engineering - N. Y. Maritime College

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - B.W.R
1 1/2 years Maintenance Engineering

2. OTHER

2 1/2 years Mechnical Engineering

E. ROESSLER

A. EDUCATIONAL BACKGROUND

B. A. in Business
U. S. Nuclear Navy Power School
U. S. Navy Transistor School
U. S. Navy Electronic School
Westinghouse Reactor Systems Design School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR
12 Years Instrumentation and Control Engineering

B. Westinghouse - PWR

3 1/2 Years Power Plant Operations
3 1/2 Years Instrumentation & Control Engineering

K. EICHENLAUB

A. EDUCATIONAL BACKGROUND

Associate in Nuclear Engineering - 1975 - Penn State
Oyster Creek ITC Instrumentation Course

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

2 Years Nuclear Power Plant Operations
2 Years Maintenance Engineering

W. PELENSKI

A. EDUCATIONAL BACKGROUND

B.S.E.E. - Rutgers University - 1969
G.E. - I.T.T. - Microwave Training - 4 Weeks
Xerox - Sigma V Computer Training - 4 Weeks for Software, 15 weeks for Hardware
Modcomp IV - Software Training - 4 weeks
Prime 400 - Software Training - 2 Weeks

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Instrumentation and Control Engineering
1 Year Systems Engineering

2. OTHER

A. 8 Years Computer Systems Operations

E. RIGGLE

A. EDUCATIONAL BACKGROUND

High School Graduate
Electrical Engineering - 2 Years at Penn State University
Nuclear Orientation - Saxton - Provided by Westinghouse
Nuclear Instrumentation - Saxton- Provided by Westinghouse
Radiation Monitoring and Shielding Design Course - Penn State University
Design Technology and Nuclear Instrumentation for BWR's - General Electric
Computer Science Course - Ocean County College
Management Training Course - Rutgers University

B. WORK EXPERIENCE

1. NUCLEAR

1. General Electric - BWR

3 Years Mechanical Engineering
3 Years Instrumentation and Controls Engineering
1 1/2 Years Systems Engineering
3 Years Maintenance Engineering
3 Years Nuclear Power Plant Operations

2. Westinghouse - PWR - Saxton

3 Years Instrumentation and Control Engineering
3 Years Maintenance Engineering

2. OTHER

A. 7 Years Maintenance Engineering
3 Years Electrical Engineering
6 Years Power Plant Operations - Fossil

F. KOSSATZ

A. EDUCATIONAL BACKGROUND

High School Graduate
Nuclear Power Training Course - Saxton - 1 Week
Maintenance Training Course - Dresden Nuclear Power Plant - 2 Weeks
Various AWS Sponsored Courses in Welding, Mettalurgy, and Materials

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Mechanical Engineering
7 1/2 Years Maintenance Engineering

2. OTHER

A. 19 Years Maintenance Engineering - Fossil Plant
1 Year Operations - Fossil Plant

T. JOHNSON

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Air Force Radar School
Westinghouse Protective Relay School
General Electric Instrument & Control Training (Pre-Startup)
General Electric Switchgear Training School
General Physics Instrument & Control School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Electrical Engineering
4 Years Instrumentation & Control Engineering
1 Year Maintenance Engineering

2. OTHER

A. 3 Years Electrical Engineering
5 Years Instrumentation & Controls Engineering

D. JENKINSON

A. EDUCATIONAL BACKGROUND

High School Graduate

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

3 Years Maintenance Engineering

2. OTHER

28 Year Fossil Plant Maintenance Engineering

K. BELLSCHEIDT

A. EDUCATIONAL BACKGROUND

High School Graduate
3 Years of Non Credit Technical Courses

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric BWR

6 Years Maintenance Engineering

2. OTHER

A. 20 Years Mechnical Engineering

T. GAFFNEY

A. EDUCATIONAL BACKGROUND

2 Years Electronic Institute of Eatontown
68 Credits Towards A.A.S. - Electronic Engineering Technology
at Ocean County College - Completion 1979

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

12 Years Instrumentation & Controls Engineering

D. LeROY

A. EDUCATIONAL BACKGROUND

High School Graduate
Solid State Course - G.E. - 1 Week
Motor Maintenance Course - G.E. - 1 Week
2 Years at Toms River Vocational School - Electronics

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

10 Years Electrical Maintenance Engineering

2. OTHER

A. 15 Years as Instrument Test and Repair Technician

R.A. PARSHALL

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear Power School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

2 Years Maintenance Engineering
3 1/2 Years Station Administration Functions

B. Westinghouse - PWR - Navy

5 Years Power Plant Operations
3 Years Instrumentation and Controls Engineering

C. Westinghouse - PWR - Saxton

2 1/2 Years Instrumentation and Controls Engineering

R. BARAN

A. EDUCATIONAL BACKGROUND

Associate Degree - Nuclear Engineering - Penn State
Associate Degree - Electrical Engineering - Penn State
U. S. Navy Nuclear Power School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

4 Years Nuclear Power Plant Operations
2 Years Nuclear Engineering

B. Westinghouse - PWR

3 Years Nuclear Power Plant Operations
2 Years Nuclear Engineering

2. OTHER

A. Reactor Operator License - O. C. -(1978 - Present)

A. RONE

A. EDUCATIONAL BACKGROUND

B. S. Electrical Engineering

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

3 Years Nuclear Power Plant Operations
3 Years Nuclear Engineering
2 Years Systems Engineering
1 Year Maintenance Engineering

2. OTHER

A. NRC Sneior Reactor Operator License

R. SHAW

A. EDUCATIONAL BACKGROUND

B.S. Nuclear Engineering - Rensselaer Inst.
M.S. Nuclear Engineering - Rensselaer Inst.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

.5 Year Nuclear Engineering

B. Pool Type - Research Reactor

2.5 Years Health Physics

M. ATKINS

A. EDUCATIONAL BACKGROUND

B. S. in Nuclear Engineering - Penn State
Chemistry Credits at Shippenburg State College

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

.75 Year Nuclear Engineering
1.25 Year Plant Chemistry & Radiochemistry

F. SAKSA

A. EDUCATIONAL BACKGROUND

B. S. Nuclear Engineering - Rensselaer Inst.
Exxon Training Session on BWR Loading Pattern
NSC Training on Fuel Reliability Module

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

2.75 Years Nuclear Engineering

J. SPADARO

A. EDUCATIONAL BACKGROUND

B. S. in Nuclear Engineering - Penn State

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

.375 Year Nuclear Engineering
.375 Year Nuclear Fuels

R. THOMPSON

A. EDUCATIONAL BACKGROUND

B. S. in Nuclear Engineering - Penn State = 1977

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Nuclear Engineering
1 Year Nuclear Fuels

B. Westinghouse - PWR

.5 Year Nuclear Engineering

J. PELRINE

A. EDUCATIONAL BACKGROUND

High School Graduate
Chemistry Major at Union College
Nuclear Reactor Technology Course Provided by G.E.
Various Courses at Rutgers University in Instrumental Analysis and Computer Programming

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - PWR

7 1/2 years Plant Chemistry and Radiochemistry

B. General Electric - BWR

7 1/2 Years Plant Chemistry and Radiochemistry
2 Years Power Plant Operations

C. AMF Research Reactor

5 Years Healthy Physics
6 Years Plant Chemistry and Radiochemistry

R. SOMERS

A. EDUCATIONAL BACKGROUND

B.S. in Chemistry/Natural Science - High Point College
M.S. in Environmental Science - Rutgers - With Major Area of Study in Radiological Physics

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Plant Chemistry & Radiochemistry
1 Year Maintenance Engineering
1 1/2 year Environmental Monitoring

R. STOUDNOUR

A. EDUCATIONAL BACKGROUND

B.S. in Chemistry - Penn State - 1964
G. E. Training for BWR's - 2 Weeks
Environmental Seminar - Georgia Tech - 1 Week

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Chemistry and Radiochemistry
3 Years as Startup Engineer for Offgas Building and new Radwaste Building

2. OTHER

A. 3 1/2 Years at GPU Central Lab in Chemistry
2 1/2 Years in Operations at Fossil Generating Station

D. WEIGLE

A. EDUCATIONAL BACKGROUND

Associate Degree in Electrical Engineering - Penn State
Associate Degree in Nuclear Engineering - Penn State

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Plant Chemistry and Radiochemistry

C. KONTA

A. EDUCATIONAL BACKGROUND

High School Graduate
2 Years College Completed in Chemistry

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

9 Years Plant Chemistry and Radiochemistry
2 Years Health Physics

L. SMIALEK

A. EDUCATIONAL BACKGROUND

B. A. in Bio-Premed - Merrimack College - 1965
M.S. in Radiological Health Physics - Rutgers - 1969
(Needs Defense of Thesis for Ph.D from Rutgers)
Health Physics Traineeship - Brookhaven, N.L. - 1968
Reacts Program - Oak Ridge N.L. - 1976

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Health Physics

2. OTHER

A. 3 Years Health Physics
5 Years Health Physics Teaching at M.S. Level.

D. KAULBACK

A. EDUCATIONAL BACKGROUND

Associate in Engineering from Wyomissing Polytechnic
General Electric Training for Oyster Creek
Startup - 4 months at San Jose California

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

13 Years Health Physics

B. Westinghouse - PWR

5.5 Years Health Physics
.5 Year Nuclear Engineering

2. OTHER

A. 7 Years Electrical Engineering

B. NRC Reactor Operators License at Saxton Nuclear Experimental Corp.

D. ARBACH

A. EDUCATIONAL BACKGROUND

Rutgers University 1952-1954, 1956
R. A. Taft Engineering Center - "Occupational Radiation Protection" - 1964
Rutgers University "Radiological Monitoring"- 1966

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

5.5 Years Health Physics

B. SMW Research Reactor - AMF

3 Years Plant Chemistry and Radiochemistry
11.5 years Health Physics

J. COOK

A. EDUCATIONAL BACKGROUND

High School Graduate
3.5 Years College Completed - Presently Attending NUS Advanced Technicians Training Course

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

13.5 Years Health Physics
2 Years Plant Chemistry and Radiochemistry

B. Westinghouse - PWR

2 Years Plant Chemistry and Radiochemistry

2. OTHER

A. 3 Years Civil Engineering - Non-Nuclear
1 Year Structural Engineering - Non-Nuclear
1 Year Electrical Engineering - Non-Nuclear

M. OBERSTARDT

A. EDUCATIONAL BACKGROUND

High School Graduate
Presently attending Brookdale Community College
N.U.S. Advanced Technician Training Course

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

8.5 Years Health Physics
.5 Years Plant Chemistry & Radiochemistry

W. SPOULOS

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear Power School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

10 Years Nuclear Power Plant Operations

B. Westinghouse - PWR - Navy

8 Years Nuclear Power Plant Operations

C. Westinghouse - PWR - Saxton

4 Years Nuclear Power Plant Operations

2. OTHER

A. NRC Operators License - Saxton Test Reactor

R. DUBE

A. EDUCATIONAL BACKGROUND

High School Graduate
Technical School Graduate
College Credits in Management Courses and Business Administration

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years in Quality Assurance

B. 6 Years as Civilian in Nuclear Navy Program in Quality Assurance

2. OTHER

5 Years in Quality Assurance for U. S. Navy - Non-Nuclear

L. DRUMMOND

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear Power Program
Operational Q.A. Seminar - "Stat-A-Matrix"

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

6 Years Quality Assurance

B. Westinghouse - PWR - Navy

1 year Systems Engineering
3 Years Nuclear Power Plant Operations

A. RONE

A. EDUCATIONAL BACKGROUND

B. S. Electrical Engineering

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

3 Years Nuclear Power Plant Operations
3 Years Nuclear Engineering
2 Years Systems Engineering
1 Year Maintenance Engineering

2. OTHER

A. NRC Senior Reactor Operator License

W. DECK

A. EDUCATIONAL BACKGROUND

High School Graduate

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Quality Assurance

B. Westinghouse - PWR

3 Years Quality Assurance

C. Combustion Engineering - PWR

1 Year Quality Assurance

S. FULLER

A. EDUCATIONAL BACKGROUND

2 Years Chemical Engineering at University of Rhode Island
U. S. Navy Nuclear Power Program

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

5 Years Quality Assurance

B. Westinghouse - PWR - Navy

3 Years Maintenance Engineering
1 Year Plant Chemistry & Radiochemistry
2 Years Nuclear Plant Operations

R. TILTON

A. EDUCATIONAL BACKGROUND

High School Graduate
1 Year College - Business Administration

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

2.25 Years Quality Assurance

B. Westinghouse - PWR

1 Year Quality Assurance

M. GOLDIE

A. EDUCATIONAL BACKGROUND

Associate of Science in Mechanical Engineering-1975
Bettis Development Engineering Program - 1974
Mechanical Design Technology Technician Program - 1965

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Quality Assurance
1 Year Mechanical Engineering

B. 2 Years Mechanical Engineering for General Dynamics Electric Boat Division - Nuclear
2 Years in Quality Assurance for United Nuclear Corp.
4 Years in Mechanical Engineering for United Nuclear - Reactor Design

2. OTHER

A. 1 Year Mechanical Engineering

T. DUNN

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear School

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Quality Assurance

B. Westinghouse - PWR - Navy

6 Years Nuclear Power Plant Operations

D. ROBILLARD

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Navy Nuclear Program
Electrical Technology - Morrisville Tech College - 1968-1969
Business Administration - Tompkins - Cortland Community College - 1969

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 year Quality Assurance

B. General Electric - PWR - Navy

6 1/2 Years Nuclear Power Plant Operations

S. PRZYBYLSKI

A. EDUCATIONAL BACKGROUND

High School Graduate
Technical Courses at Ocean County College

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

3 Years Quality Assurance
1 Year Mechnical Engineering
1 Year Maintenance Engineering

2. OTHER

A. 18 Years as Tool Maker & Machinist

T. SPENCE

A. EDUCATIONAL BACKGROUND

B.S. in Civil Engineering
Credits Toward M.B.A

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1 Year Mechanical Engineering

2. OTHER

A. 4 Years Civil Engineering in Construction of Nuclear Power Plants

D. HOLLAND

A. EDUCATIONAL BACKGROUND

B. S. in Nuclear Science - State University New York Maritime College

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

1.5 Year Maintenance Engineering

B. 5.5 Years as Test Engineer for General Dynamics Electric Boat Division

R. KEATING

A. EDUCATIONAL BACKGROUND

High School Graduate
U. S. Air Force Electronics Training - 1260 Hrs.

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

10 Years Maintenance Engineering

R. DURINA

A. EDUCATIONAL BACKGROUND

High School Graduate
Credits in Fire Science Courses
Attended Various Seminars on Fire Protection and Prevention

B. WORK EXPERIENCE

1. 14 Years Drafting Technician - Non Nuclear

D. KEITH

A. EDUCATIONAL BACKGROUND

Associate Degree in Applied Science Mechnical Engineering Technology.
U. S. Navy Nuclear Program

B. WORK EXPERIENCE

1. NUCLEAR

A. General Electric - BWR

2 Years Maintenance Engineering
1 Year Material Management

B. Combustion Engineering - PWR

1 Year Maintenance Engineering

C. Westinghouse - PWR - Navy

3 Years Operations
2 Years Plant Chemistry and Radiochemistry
2 Years Health Physics

A. JACKSON

A. EDUCATIONAL BACKGROUND

High School Graduate

B. WORK EXPERIENCE

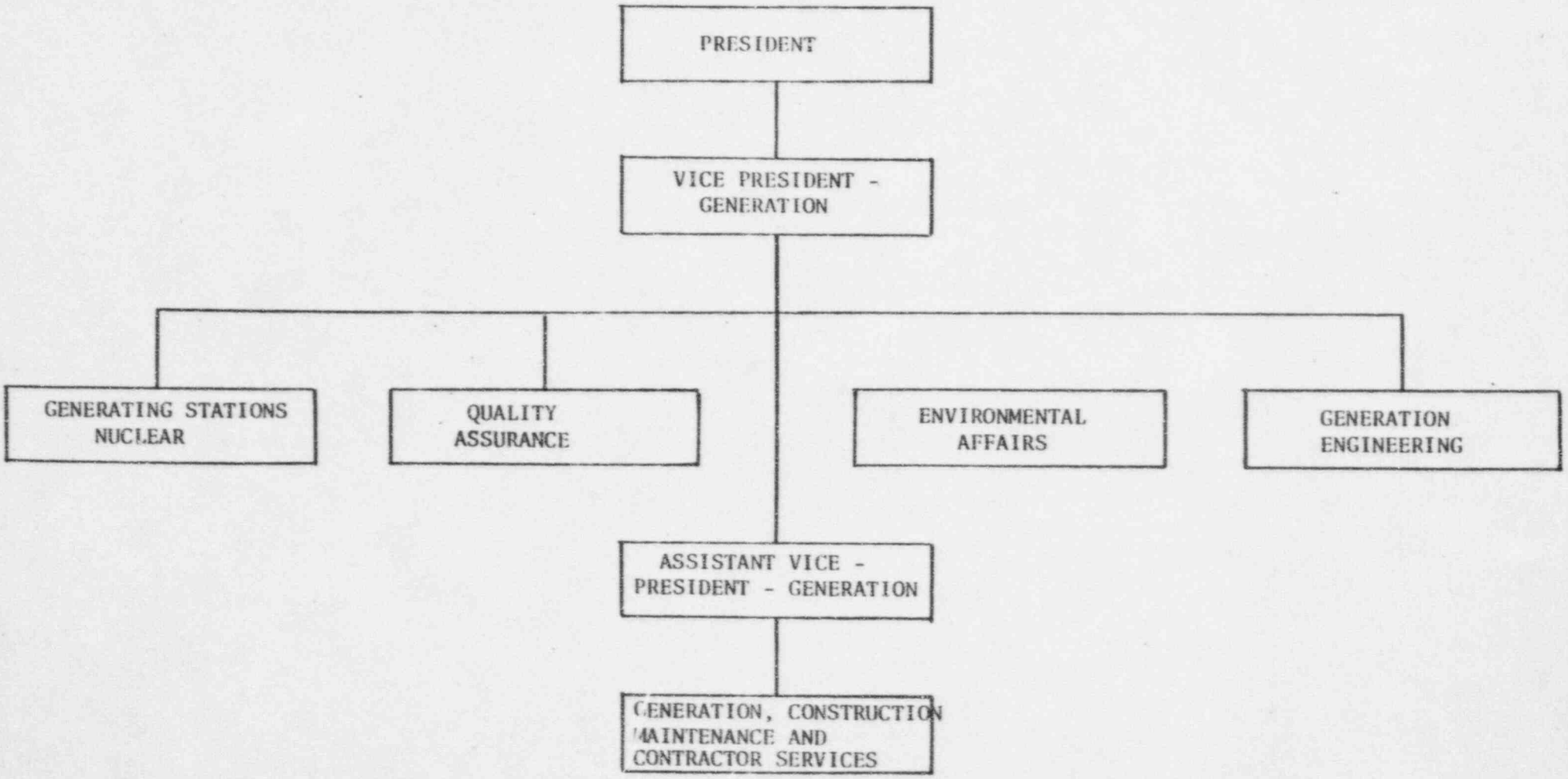
1. NUCLEAR

A. General Electric - BWR

8 Years Maintenance Engineering
2 Years as Safety Representative for Oyster Creek

JERSEY CENTRAL POWER & LIGHT COMPANY
OFF-SITE TECHNICAL SUPPORT

J.C.P.&L. ORGANIZATIONAL CHART
SHOWING SUPPORT FUNCTIONS



GENERATION ENGINEERING

Generation Engineering is accountable for the development, direction; and coordination of engineering activities for the generating stations. This group establishes mechanical, electrical, and structural engineering standards for modifications, additions, and non-routine maintenance activities at all generating facilities.

1. Total Number of Professionals — 24

2. By Educational Background:

B.S. Military Science	1
B.S. Engineering	2
B.S. Electrical Engineering	6
B.S. Mechanical Engineering	8
B.S. Aerospace Engineering	1
B.S. Physics	1
B.S. Mathematics	1
B.S. Commercial Industries	1
M.S. Engineering Management	2
M.S. Mechanical Engineering	2
M.S. Electrical Engineering	2
M.B.A. (Production Management)	1

3. Technical Experience in Years

	F	N
A. Nuclear Power Plant Operations	20	-
B. Nuclear Engineering	5	-
C. Mechanical Engineering	33	15.5
D. Electrical Engineering	23.5	31
E. Thermal Hydraulic Engineering	1	-
F. Metalurgical Materials Engineering	1	7
G. Instrumentation and Controls Engineering	1	5
H. Systems Engineering	16	.5
I. Plant Chemistry & Radiochemistry	5	-
J. Health Physics	5	-
K. Maintenance Engineering	20	7
L. Project Engineering, Cost Engineering	3.5	21
M. Nuclear Safety & Licensing	6.5	-
N. Power Plant Operations - Fossil	-	8.5
TOTAL	140.5	95.5

4. Other

A. Five persons who attended U. S. Navy Nuclear Power School.

ENVIRONMENTAL AFFAIRS

Environmental Affairs is composed of three separate groups; Environmental Licensing, Environmental Science and Monitoring, and Nuclear Safety and Licensing.

Environmental Licensing is accountable for organizing, engineering, and appraising all environmentally oriented projects. This includes environmental evaluations and impact statements for company directed projects during planning and construction; environmental investigations, evaluations, monitoring programs, and studies related to environmental problem areas of operating installations on a company wide basis.

Environmental Science and monitoring is accountable for directing all activities necessary for the design, organization, implementation; and administration of biological and scientific studies and monitoring programs at the generating sites and other company facilities that are required to respond to aqueous discharge permits, facility operating licenses, or Environmental Impact Statements.

Nuclear Safety and Licensing is accountable for directing the technical and administrative activities necessary to respond to the requirements of the Nuclear Regulatory Commission (NRC), to articulate Company positions to the NRC, to evaluate applicable federal regulations on nuclear energy and to prepare changes to the Operating License and Safety Analysis Report for the Company's nuclear facilities.

1. Total Number of Professionals 22

2. By Educational Background

B. S. Engineering	2
B. S. Mechanical Engineering	3
B. S. Nuclear Engineering	1
B. S. Electrical Engineering	3
B. S. Physics	1
B. S. Environmental Resource Management	2
B. S. Environmental Engineering Technology	1
B. S. Chemical Engineering	1
B. S. Environmental Science	1
B. S. Marine Biology	1
B. S. Boilogy/Earth Science	1
B. S. Biology	1
B. S. Biological Sciences	1
B. S. Geology	1
M. S. Nuclear Engineering	3
M. S. Radiological Health Physics	1
M. S. Ecology	1
M. S. Geology	1
Ph.D. Geology	1
Associate Degree Nuclear Engineering	1
Associate Degree Electrical Technology	1

ENVIRONMENTAL AFFAIRS (con't)

3. Technical Experience in Years:

		F	N
A.	Nuclear Power Plant Operations	2.55	-
B.	Nulcear Engineering	1	-
C.	Mechanical Engineering	3.5	6.25
D.	Structural Engineering	-	2
E.	Electrical Engineering	-	31
F.	Thermal Hydraulic Engineering	7.5	.5
G.	Metallurgical Engineering	-	-
H.	Instrumentation & Controls Engineering	-	4.5
I.	Systems Engineering	1	6.75
J.	Plant Chemistry and Radiochemistry	4	1.5
K.	Health Physics	5.5	
L.	Nuclear Fuels	.2	
M.	Maintenance Engineering	4.5	4.75
N.	Nuclear Safety & Licensing	28.95	-
O.	Environmental Science	5	7
P.	Environmental Monitoring		8
	TOTAL	73.7	72.25

4. Other

A. 3 Persons who have attended U. S. Navy Nuclear Power School

B. 1 Person who held an N.R.C. Senior Reactor Operator License at Oyster Creek (4/75-4/79)

GENERATION CONSTRUCTION, MAINTENANCE, AND CONTRACTOR SERVICES

Generation Construction, Maintenance and Contractor Services is composed of two groups; Generation-Construction Maintenance and Generation-Maintenance Services.

Generation Construction Maintenance is accountable for providing project/outage management and supervision, planning and scheduling, and in house construction/renovation labor. This section also handles contractor services which may be required.

Generation Maintenance services is accountable for maintenance services in the areas of gas turbines, welding, maintenance programs, and mobile maintenance administration.

1. Total Number of Professional Personnel: 11

2. By Educational Background:

B. S. Mathematical Engineering	1
B. S. Chemical Engineering	1
B. S. Electrical Engineering	1
B. S. Mechanical - Aeronautical Engineering	1
B. S. Mechanical Engineering	1

3. Technical Experience in Years

	F	N
A. Nuclear Power Plant Operations	3	-
B. Mechanical Engineering	4	
C. Maintenance Engineering	26	104
D. Marine Power Engineering		4
E. Fossil Power Plant Operations		22
F. Plant Startup and Test Engineer	1	4.5
TOTAL	34	134.5

GENERATING STATIONS - NUCLEAR

This group is responsible for administering the nuclear generating program of the company within the framework ofthe GPU System requirements and in accordance with the provisions and limitations set forth in the licenses and permits of the jurisdictional agencies of Federal, State, and Local governments.

1. Total Number of Professionals — 4

2. By Educational Background

B. S. Mechanical Engineering	1
B. S. Electrical Engineering	1
B. S. Engineering	1
Associate Degree in Nuclear Engineering	1
M.S. Nuclear Engineering	1

3. Technical Experience in Years

	F	N
A. Nuclear Power Plant Operations	24	
B. Nuclear Engineering	12	
C. Mechanical Engineering	1	
D. Structural Engineering		
E. Electrical Engineering	7	12
F. Thermal-Hydraulic Engineering	2	
G. Metallurgical Materials Engineering	2	
H. Instrumentation and Controls Engineering	12	
I. Nuclear Fuels	2	
J. Maintenance Engineering	5	
Total	67	12

4. Other

A. One person who held an S.R.O. from Penn State University - Reactor Research.

B. One Person who has attended U. S. Navy Nuclear Power School.

QUALITY ASSURANCE

Quality Assurance is accountable for ensuring the development, direction, coordination, and auditing of the Operational Quality Assurance Program. This program covers activities affecting quality including: operations, maintenance, repair, replacement, additions, modifications, refueling, engineering support, and procurement for nuclear generating stations; radioactive material packagings per 10 CFR 71; nuclear fire protection; and "R" stamp work at all stations.

1. Total Number of Professionals — 4

2. By Educational Background

B. S. Nuclear Engineering	1
B. S. Mechanical Engineering	2
B. S. Aeronautical Engineering	1

3. Technical Experience in Years

	F	N
A. Nuclear Power Plant Operations	4	-
B. Mechanical Engineering		17
C. Maintenance Engineering	2	2
D. Quality Assurance	30.5	
TOTAL	36.5	19

4. Other

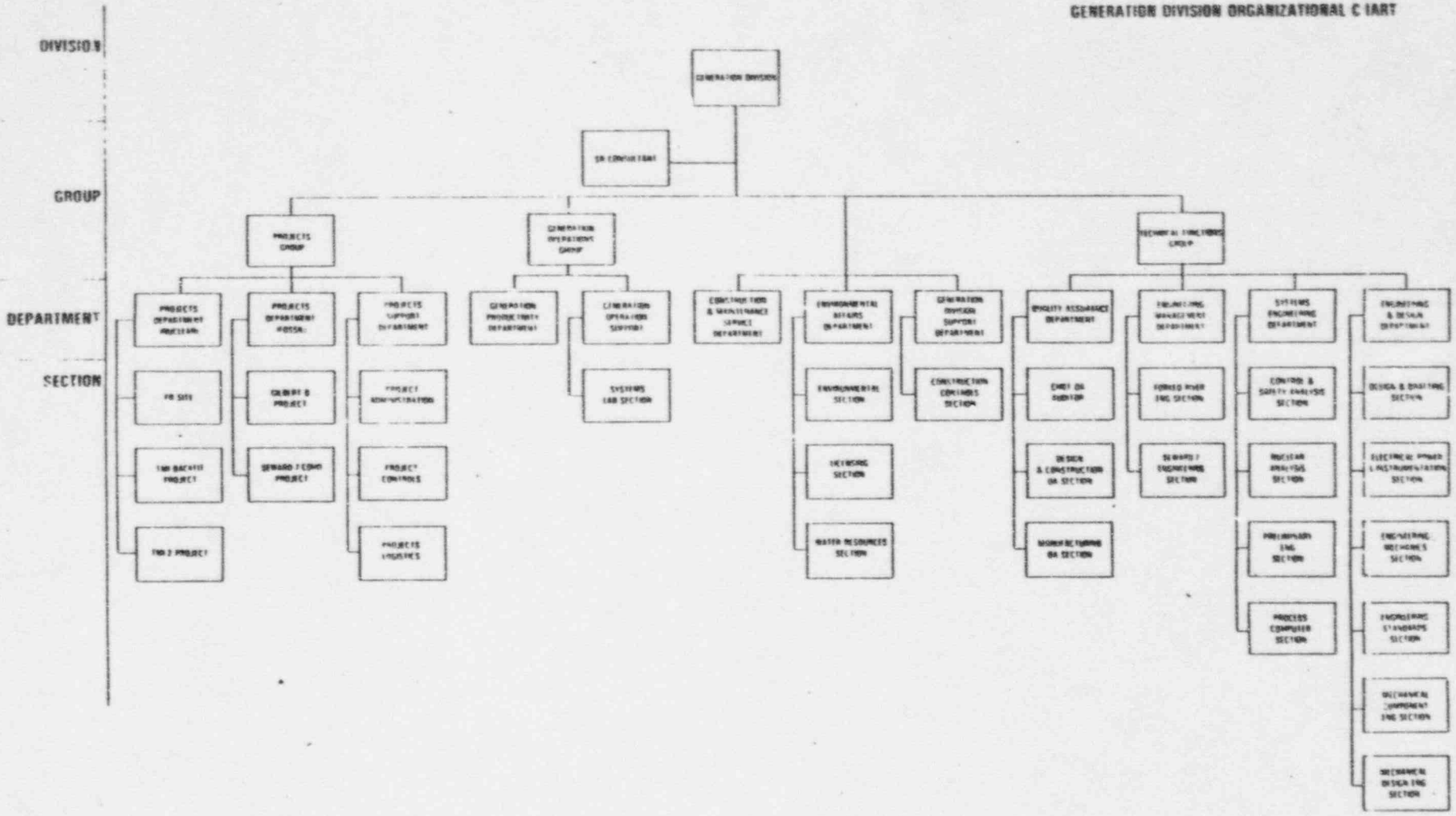
A. One person who attended U. S. Navy Nuclear Power School

GPU SERVICE CORPORATION

CORPORATE TECHNICAL SUPPORT STAFF

GPU Service

GENERATION DIVISION ORGANIZATIONAL CHART



CORPORATE PLANNING DIVISION

CORPORATE PLANNING DIVISION

FUELS

TITLE OF SUBUNIT - Corporate Planning Division

1. Total No. (Managers, Engineers and Professional Personnel) - 5

2. EDUCATION BACKGROUND

BS Nuc. Eng.	2
BS Civil Eng.	1
BS Mech. Eng.	2
MS Nuc. Eng.	2
M. Bus. Madmin.	1
MSME	2

LICENSES

E.I.T.	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1) Nuclear Power Field	35
(2) Engineering Mgmt.	7
(3) Total Utility Experience	22

(b.) Field

	F	N
(1) Reactor Physics		
(2) Electrical Engineering		
(3) Health Physics		
(4) Mechanical Engineering	8	
(5) Metallurgical and Materials		
(6) Instrumentation and Controls		
(7) Systems Engineering	10	
(8) Thermal-Hydraulic		
(9) Radiochemistry		
(10) Structural Engineering		
(11) Nuclear Fuels	14	3
(12) Maintenance Engineering		

(c.) Military Nuclear Experience

6

(d.) Other

7

GENERATION DIVISION

TITLE OF SUBUNIT - Gen. Sr. Consultant

1. Total No. (Managers, Engineers and Professional Personnel) - 1

2. EDUCATION BACKGROUND

BSME
MSME

LICENSES

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	27
(2)	Engineering Mgmt.	18
(3)	Total Utility Experience	11

(b.) Field

		F	N
(1)	Reactor Physics		
(2)	Electrical Engineering		
(3)	Health Physics		
(4)	Mechanical Engineering	27	
(5)	Metallurgical and Materials		
(6)	Instrumentation and Controls		
(7)	Systems Engineering		
(8)	Thermal-Hydraulic		
(9)	Radiochemistry		
(10)	Structural Engineering		
(11)	Nuclear Fuels		
(12)	Maintenance Engineering		

(c.) Military Nuclear Experience

(d.) Other

GENERATION DIVISION

PROJECTS

GPU SERVICE CORPORATION

PROJECTS GROUP

ACTIVITY DESCRIPTION

The Projects Department is a highly technical and management oriented department which acts for the Owner Operating Companies in all matters relating to the design and construction of new generating stations and assigned major plant modifications.

The Project Department directs project construction activities through the Project staff. The GPUSC project staff consists of a home office and a site organization to manage project control, logistic support, construction site management, environmental affairs and Operating Company liaison functions.

The home office organization provides the overall direction, coordination and control of project work, while the site organization provides the direction, coordination and control of the construction effort at the site. It is in this environment that the Project Department functions.

TITLE OF SUBUNIT - Generation Projects

1. Total No. (Managers, Engineers and Professional Personnel) - 15

2. EDUCATION BACKGROUND

BSME	6
BSCIV	2
BS Marine Eng.	2
BSBA	2
BSEE	2
BA Phys.	1
MSCIV	1
MSME	2
MSNE	1
MSMBA	1

LICENSES

PE	3
SRO (PWR)	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	168¼
(2)	Engineering Mgmt.	127½
(3)	Total Utility Experience	181½

(b.) Field		F	N
(1)	Reactor Physics	11	
(2)	Electrical Engineering		9
(3)	Health Physics		
(4)	Mechanical Engineering	67½	63
(5)	Metallurgical and Materials		
(6)	Instrumentation and Controls	21	4
(7)	Systems Engineering	1	2
(8)	Thermal-Hydraulic		
(9)	Radiochemistry		
(10)	Structural Engineering	11	8
(11)	Nuclear Fuels		
(12)	Maintenance Engineering	3	12

(c.) Military Nuclear Experience

50

(d.) Other

Construction	62	13

GENERATION DIVISION

GENERATION OPERATIONS

GPU SERVICE CORPORATION

GENERATION OPERATIONS GROUP

ACTIVITY DESCRIPTION

The primary function of the Generation Operations Group is to identify ways of improvement in operating reliability and productivity. This group also provides laboratory services to the Operating Companies as well as the Technical Functions and Projects Groups within the Service Corporation on a variety of chemical, chemical engineering, and metallurgical areas.

TITLE OF SUBUNIT - Generation Operations

1. Total No. (Managers, Engineers and Professional Personnel) - 16

2. EDUCATION BACKGROUND

BS - Met. Eng.	2	PHDNE	1
BS - Bio	1		
BSME	4		
BSEE	1		
BS - Chem.	5		
BA - Math	1		
MS - Material Sic.	2		
MSNE	1		
MS - Chem	2		
MBA	1		

LICENSES

SRO (Training Reactor)

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	96
(2)	Engineering Mgmt.	56
(3)	Total Utility Experience	143

(b.) Field

		F	N
(1)	Reactor Physics	10	
(2)	Electrical Engineering		
(3)	Health Physics	2	
(4)	Mechanical Engineering	8	
(5)	Metallurgical and Materials	51	10
(6)	Instrumentation and Controls	27	3
(7)	Systems Engineering	41	3
(8)	Thermal-Hydraulic	4	
(9)	Radiochemistry	32	
(10)	Structural Engineering		
(11)	Nuclear Fuels	4	
(12)	Maintenance Engineering	31	5

(c.) Military Nuclear Experience

7

(d.) Other

GENERATION DIVISION

GENERATION OPERATION SUPPORT

TITLE OF SUBUNIT - Generation Operations Support

1. Total No. (Managers, Engineers and Professional Personnel) - 13

2. EDUCATION BACKGROUND

BSEE	1	MS Material Eng.	1
BS Chem.	7		
BS Biology	1		
BS Metallurgical Eng.	2		
BS Mech. Eng.	1		
BS Math/Cen. Eng.	1		
MS Nuc. Eng.	1		
MSEE	1		
MS Chem	2		
MS Material Science	1		

LICENSES

PE	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	54
(2)	Engineering Mgmt.	10
(3)	Total Utility Experience	102

(b.) Field

		F	N
(1)	Reactor Physics	2	
(2)	Electrical Engineering		3
(3)	Health Physics	1	
(4)	Mechanical Engineering	2	
(5)	Metallurgical and Materials	17	14
(6)	Instrumentation and Controls	3	
(7)	Systems Engineering	2	2
(8)	Thermal-Hydraulic	3	
(9)	Radiochemistry	19	2
(10)	Structural Engineering	10	
(11)	Nuclear Fuels		
(12)	Maintenance Engineering		

(c.) Military Nuclear Experience

(d.) Other

20

GENERATION DIVISION

CONSTRUCTION AND MAINTENANCE SERVICE

GPU SERVICE CORPORATION

CONSTRUCTION AND MAINTENANCE SERVICE DEPARTMENT

ACTIVITY DESCRIPTION

The responsibility of this department is for craft labor relations and coordination within the Generation functions for programs and efforts to measure, monitor, and improve labor productivity. This department interfaces with the Projects Group on current and projected power plant construction efforts.

TITLE OF SUBUNIT - Construction & Maintenance Service Department

1. Total No. (Managers, Engineers and Professional Personnel) - 4

2. EDUCATION BACKGROUND

BSME	3
BS Industrial Relations	1
MBA Mgmt.	1
MSME	1

LICENSES

Prof. Eng.	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	15
(2)	Engineering Mgmt.	17
(3)	Total Utility Experience	33½

(b.) Field	F	N
(1) Reactor Physics		
(2) Electrical Engineering		
(3) Health Physics		
(4) Mechanical Engineering	38	4
(5) Metallurgical and Materials		
(6) Instrumentation and Controls		
(7) Systems Engineering		
(8) Thermal-Hydraulic		
(9) Radiochemistry		
(10) Structural Engineering		
(11) Nuclear Fuels		
(12) Maintenance Engineering	2	2

(c.) Military Nuclear Experience

Newport News Atomic Pwr.	8½

(d.) Other

13	3½

GENERATION DIVISION

ENVIRONMENTAL AFFAIRS

GPU SERVICE CORPORATION

ENVIRONMENTAL AFFAIRS DEPARTMENT

ACTIVITY DESCRIPTION

The Evironmental Affairs Department is responsible for the coordination from within the GPU System to ensure compliance for licenses, permits, and other regulations that are necessary for the continued expansion of generating plants throughout the System. This department is also responsible for the interpretation and implementation of regulatory requirements as they apply throughout the GPU System. This department consists of environmental, licensing, and water resources sections.

TITLE OF SUBUNIT - Environmental Affairs

1. Total No. (Managers, Engineers and Professional Personnel) - 10

2. EDUCATION BACKGROUND

AS Elect. Tech.	1	MS Chem. Engr.	1
AB - Hst/Chem	1	MS Enviro. Science	1
BS Chem Engr.	1	MS Health Physics	1
BS Mar. Eng.	1		
BS Ceramic Eng.	1		
BSEE	1		
BS Biochemistry	2		
BS Geology/Biology	1		
BS Bus. Admin.	1		
MA Air Pollution Cont.	1		

LICENSES

US Navy RO	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1) Nuclear Power Field	60
(2) Engineering Mgmt.	26
(3) Total Utility Experience	47

(b.) Field

	F	M
(1) Reactor Physics		
(2) Electrical Engineering		3
(3) Health Physics	23	2
(4) Mechanical Engineering		
(5) Metallurgical and Materials		
(6) Instrumentation and Controls	5	
(7) Systems Engineering	8	
(8) Thermal-Hydraulic		
(9) Radiochemistry		
(10) Structural Engineering		
(11) Nuclear Fuels		
(12) Maintenance Engineering		

(c.) Military Nuclear Experience

8½

(d.) Other

36	18

GENERATION DIVISION

GENERATION DIVISION SUPPORT

GPU SERVICE CORPORATION

GENERATION DIVISION SUPPORT DEPARTMENT

ACTIVITY DESCRIPTION

The major function of this department is to centralize control and administrative functions within the Generation Division. Part of this department is the Construction Controls Section which is responsible for the forecasting of Generation project schedules and costs. Additional responsibilities of this department include budgets and long-range division planning.

TITLE OF SUBUNIT - Generation Division Support

1. Total No. (Managers, Engineers and Professional Personnel) - 5

2. EDUCATION BACKGROUND

BA Economics	1
BS Indust'l Eng.	1
BS Civil Eng.	1
BS Indust. Mgmt.	1
MS Indust'l Eng.	1

LICENSES

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	18
(2)	Engineering Mgmt.	20
(3)	Total Utility Experience	26

(b.) Field

		F	N
(1)	Reactor Physics		
(2)	Electrical Engineering		
(3)	Health Physics		
(4)	Mechanical Engineering		
(5)	Metallurgical and Materials		
(6)	Instrumentation and Controls		
(7)	Systems Engineering		
(8)	Thermal-Hydraulic		
(9)	Radiochemistry		
(10)	Structural Engineering		
(11)	Nuclear Fuels		
(12)	Maintenance Engineering		

(c.) Military Nuclear Experience

(d.) Other

	13	15

GENERATION DIVISION

TECHNICAL FUNCTIONS

GPU SERVICE CORPORATION

TECHNICAL FUNCTIONS GROUP

ACTIVITY DESCRIPTION

The Technical Functions Group is an in-house organization that is responsible for engineering and design, engineering management, systems engineering, and quality assurance. This group is responsible for the technical adequacy of engineering and support of specific projects. Other areas would include the development of engineering standards as well as directing, monitoring, and reviewing work by A/E's on GPU power plant projects.

TITLE OF SUBUNIT - Technical Functions

1. Total No. (Managers, Engineers and Professional Personnel) - 1

2. EDUCATION BACKGROUND

BS Mech. Eng.	1
MS Mech. Eng.	1

LICENSES

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	20
(2)	Engineering Mgmt.	20
(3)	Total Utility Experience	4

(b.) Field

		F	N
(1)	Reactor Physics	8	
(2)	Electrical Engineering		
(3)	Health Physics		
(4)	Mechanical Engineering	15	
(5)	Metallurgical and Materials	5	
(6)	Instrumentation and Controls		
(7)	Systems Engineering	15	
(8)	Thermal-Hydraulic	10	
(9)	Radiochemistry		
(10)	Structural Engineering		
(11)	Nuclear Fuels	10	
(12)	Maintenance Engineering	1	

(c.) Military Nuclear Experience

(d.) Other

GENERATION DIVISION

QUALITY ASSURANCE

TITLE OF SUBUNIT - Quality Assurance

1. Total No. (Managers, Engineers and Professional Personnel) - 15

2. EDUCATION BACKGROUND

BS Metallurgical Eng.	2
BS Elect. Eng.	2
BS Civil Eng.	1
BS Mech. Eng.	2
MBA - Business	1
MBA - Statistics	1
MS - Civil/Structural	1

LICENSES

PE	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	112½
(2)	Engineering Mgmt.	42
(3)	Total Utility Experience	47 3/4

(b.) Field		F	N
(1)	Reactor Physics		
(2)	Electrical Engineering		19
(3)	Health Physics		
(4)	Mechanical Engineering	6½	
(5)	Metallurgical and Materials	18	5
(6)	Instrumentation and Controls		2
(7)	Systems Engineering		
(8)	Thermal-Hydraulic		
(9)	Radiochemistry		
(10)	Structural Engineering	8	7
(11)	Nuclear Fuels	15	
(12)	Maintenance Engineering		
(13)	Quality Assurance	20	12

(c.) Military Nuclear Experience

27	7

(d.) Other

38½	29½

GENERATION DIVISION

ENGINEERING MANAGEMENT

TITLE OF SUBUNIT - Engineering Management

1. Total No. (Managers, Engineers and Professional Personnel) - 5

2. EDUCATION BACKGROUND

BS Math	1
BS Mech. Eng.	2
BSEE	1
BS Civil Eng.	1
MBA Bus. Admin.	1
MS Mech. Eng.	1
MS Management	1
MS SM	1

LICENSES

PE	2

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1) Nuclear Power Field	37½
(2) Engineering Mgmt.	38½
(3) Total Utility Experience	23

(b.) Field

	F	N
(1) Reactor Physics	5	
(2) Electrical Engineering	4	
(3) Health Physics	5	
(4) Mechanical Engineering	13½	22
(5) Metallurgical and Materials		
(6) Instrumentation and Controls	9	
(7) Systems Engineering	13½	22
(8) Thermal-Hydraulic	11½	22
(9) Radiochemistry	5	
(10) Structural Engineering		5
(11) Nuclear Fuels	5	
(12) Maintenance Engineering	6	

(c.) Military Nuclear Experience

10

(d.) Other

21

GENERATION DIVISION

SYSTEM ENGINEERING

TITLE OF SUBUNIT - System Engineering

1. Total No. (Managers, Engineers and Professional Personnel) - 21

2. EDUCATION BACKGROUND

BA Bus. Admin.	1	MS Nuc. Eng.	2
BS Eng. Science	1	MS Chem.	1
BS Physics	2	MS Mech. Eng.	2
BS Nuc. Eng.	2	PHD Nuc. Eng.	2
BS Ceramic Eng.	1		
BS Chem. Eng.	4		
BS Metallurgical Eng.	1		
BS Mech. Eng.	4		
BS Elect. Eng.	3		
MS Elect. Eng.	1		

LICENSES

PE	3
Navy RO	1

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	159
(2)	Engineering Mgmt.	40
(3)	Total Utility Experience	96

(b.) Field

		F	N
(1)	Reactor Physics	33	
(2)	Electrical Engineering	3	14
(3)	Health Physics	3	
(4)	Mechanical Engineering	5	6
(5)	Metallurgical and Materials	1	
(6)	Instrumentation and Controls	16½	32
(7)	Systems Engineering	21½	12
(8)	Thermal-Hydraulic	6½	
(9)	Radiochemistry	3	
(10)	Structural Engineering	1	1
(11)	Nuclear Fuels	65	
(12)	Maintenance Engineering	2	

(c.) Military Nuclear Experience

23½

(d.) Other

42

GENERATION DIVISION

ENGINEERING AND DESIGN

TITLE OF SUBUNIT - Engineering and Design

1. Total No. (Managers, Engineers and Professional Personnel) - 42

2. EDUCATION BACKGROUND

BS Metallurgical Sci.	1	MBA Management	4
BS Elect. Eng.	8	MS Bio Physics	1
BS Physics	1	MS Nuc. Eng.	1
BS Marine Eng.	1	MS Ind. Mgmt.	1
BS Nuc. Eng.	1	MS Metallurgy	2
BS Civil Eng.	3	MS Mech. Eng.	5
BS Aero. Eng.	1	MS Structural Eng.	1
BS Mech. Eng.	17	MS Systems Mgmt.	1
BS Chem. Eng.	3	MSIE	1
BS Engrg.	1	MSEE	2
LICENSES		PHD Fluid Dynamics	1
PE	16		
EIT	2		

3. TECHNICAL EXPERIENCE

(a.) Engineering

(1)	Nuclear Power Field	313
(2)	Engineering Mgmt.	151
(3)	Total Utility Experience	335

(b.) Field		F	N
(1)	Reactor Physics	16	
(2)	Electrical Engineering	27	63
(3)	Health Physics	17	10
(4)	Mechanical Engineering	82	213
(5)	Metallurgical and Materials	7	29
(6)	Instrumentation and Controls	67	70
(7)	Systems Engineering	80	65
(8)	Thermal-Hydraulic	12	34
(9)	Radiochemistry		
(10)	Structural Engineering	42	39
(11)	Nuclear Fuels	5	
(12)	Maintenance Engineering		22

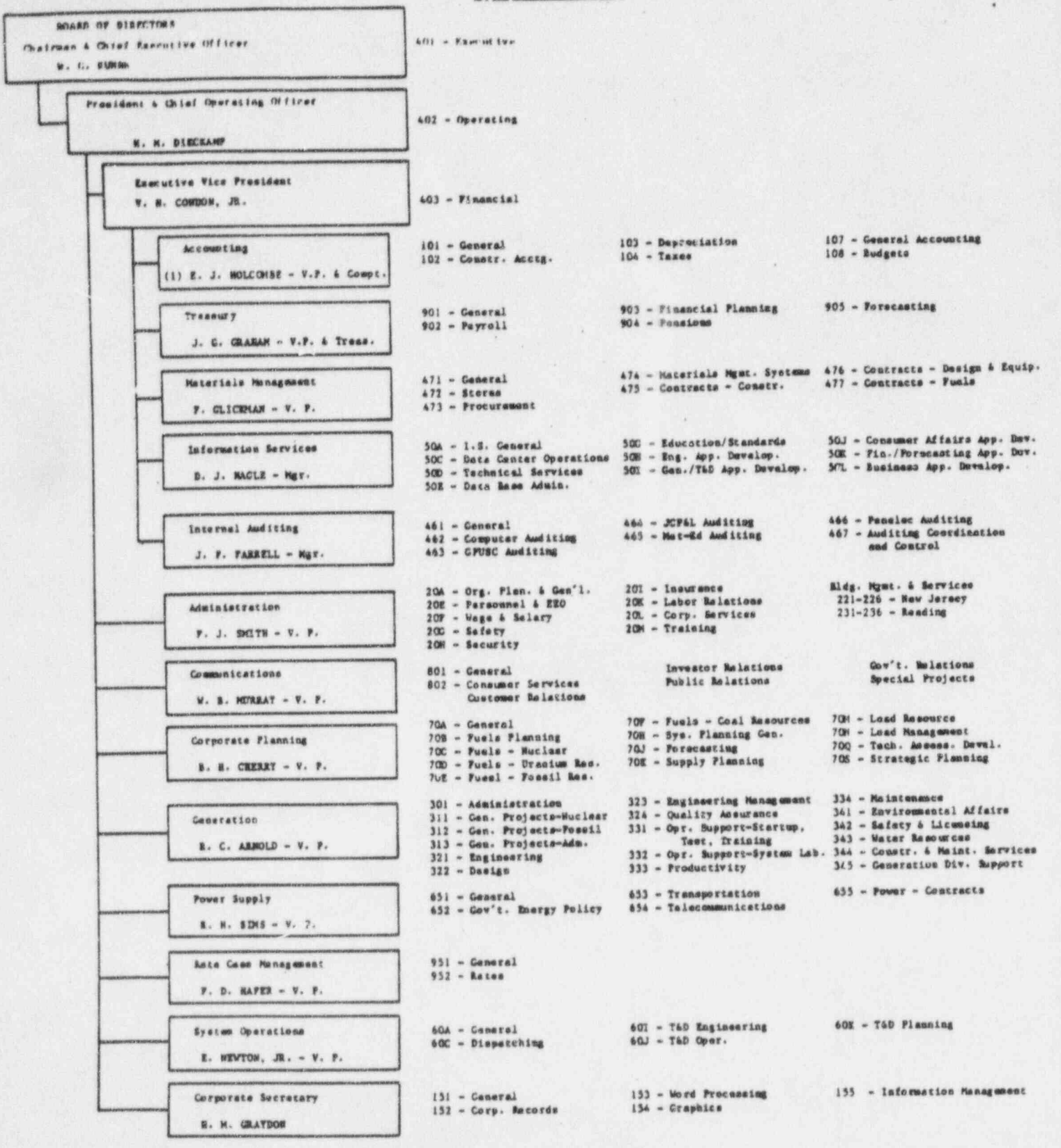
(c.) Military Nuclear Experience

	66	2

(d.) Other

	51	110

GPU SERVICE CORPORATION
ORGANIZATION



NOTE: (1) V.P. and Comptroller also reports directly to Board of Directors.

7/1/79

GPU SERVICE CORPORATION

	Div.	Page		No. Emp.
Board of Directors				
Chairman & Chief Executive Officer	40	3	W. G. Kuhns	2
President & Chief Operating Officer	40	3	H. M. Dieckamp	2
Executive Vice President	40	3	V. H. Condon, Jr.	2
* Comptroller - Accounting	10	4	E. J. Holcombe	53
Treasurer - Treasury	90	5	J. G. Graham	21
Vice President - Materials Management	47	6	F. Glickman	24
Director - Information Services	50	7	D. J. Nagle	158
Director - Internal Auditing	46	8	J. F. Farrell	35
Vice President - Administration	20	9	F. J. Smith	69
Vice President - Communications	80	10	W. B. Murray	14
Vice President - Corporate Planning	70	11	B. H. Cherry	48
Vice President - Generation	30	12	R. C. Arnold	242
Vice President - Power Supply	65	13	R. H. Sims	20
Vice President - Rate Case Management	95	14	F. D. Hafer	16
Vice President - System Operations	60	15	E. Newton, Jr.	76
Corporate Secretary	15	16	H. M. Graydon	29
			Total	811

* Comptroller also reports directly to Board of Directors.

Includes: 3 Part-Time (PT)
1 Temporary (T)

Code	Location		No. Emp.
1	New York		425
2	Parsippany		
	Interpace (I)	112	
	Mt. Lakes (ML)	204	
	Hartz (H)	100	
	JCP&L (JC)	8	
	Albuquerque (A/NM)	1	
3	Reading		345
	GPUSC (R)	337	
	Met-Ed (ME)	8	
4	Johnstown		14
	Penelec (PE)	9	
	Conemaugh (C)	1	
	Homer City (HC)	4	
5	TMI		5
6	Forked River (F/R)		22
	Total		811

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GPU SERVICE CORPORATION
EXECUTIVE DIVISION
Div. 40

	Div/ Func	Loc	Bldg.		No. Emp.
Chairman & Chief Executive Officer	401	2	I	W. G. Kuhns	2
Secretary to Chairman	401	2	I	M. A. Nalewako	
President & Chief Operating Officer	402	2	I	H. M. Dieckamp	2
Secretary to President	402	2	I	L. C. D'Angelo	
Executive Vice President	403	2	I	V. H. Condon, Jr.	2
Executive Secretary	403	2	I	M. E. Arlet	
				Total	6

Code	Location	No. Emp.
1	New York	
2	Parsippany	6
	Interpace (I) 6	
	Mt. Lakes (ML)	
	Hartz (H)	
	JCP&L (JC)	
	Albuquerque (A/NM)	
3	Reading	
	GPUSC (R)	
	Met-Ed (ME)	
4	Johnstown	
	Penelec (PE)	
	Conemaugh (C)	
	Homer City (HC)	
5	TMI	
6	Forked River (F/R)	
	Total	6

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GPU SERVICE CORPORATION
ACCOUNTING DIVISION
Div. 10

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President & Comptroller	101	2	I	E. J. Holcombe	6
Executive Secretary	101	2	I	M. C. Baker	
Secretary	101	2	I	S. P. Philips	
Staff Assistant - Finance	101	2	I	P. B. Coughlan	
Accountant Sr. - Staff	101	2	I	T. J. Huber	
Accountant II - Financial	101	2	I	J. F. Muller	
Assistant Comptroller	101	2	I	P. F. Daley	15
Manager - Taxes	104	2	I	J. R. Thren	
Secretary	104	2	I	E. M. Marrese	
Accountant Staff - Taxes	104	2	I	R. H. Schein	
Accountant II - Taxes	104	2	I	T. F. McGrath	
Accountant I - Taxes	104	2	I	S. J. Chewcaskie	
	104	2	I	M. E. Karkos	
Manager - Construction Acct.	102	2	ML	T. C. Ross	
Secretary	102	2	ML	H. Strand	
Asst. to Manager - Construction Acct.	102	2	ML	D. J. Walsh	
Accountant III - Construction	102	2	ML	A. P. Maybo	
Accountant Sr. - Construction	102	5	TMI	B. Hammershock	
Accountant III - Construction	102	5	TMI	J. S. Denshuick	
Accountant Sr. - Construction	102	6	FR	A. S. Tiger	
Accountant II - CPR	102	6	FR	R. A. Straub	
Manager - Specal Projects	101	2	I	D. H. Woronecki	3
Accountant Sr. - Financial	101	2	I	C. J. Halberstam	
Analyst Sr. - Financial Analysis	101	2	I	J. A. Sturm	
Manager - Accounting	107	2	I	V. J. Cooke	17
Secretary Sr.	107	2	I	N. A. Brennan	
Supervisor - Financial Staff	107	2	I	E. E. Hracho	
Accounting Group					
Accountant II - General Accounting	107	2	I	D. M. Appel	
Accountant II - General Accounting	107	2	I	E. R. Thompson	
Accountant I - General Accounting	107	2	I	D. M. Szmankiewicz	
Financial Reports Group					
Accountant II - Financial	107				
Accountant I - General Accounting	107	2	I	L. Ziezel	
Accounting II					
Billing Group					
Accountant II - General Accounting	107	2	I	P. E. Lupfer	
Accountant III - General Acct.	107	2	I	G. J. Krozser	
Adm. Clerk - Intermediate	107	2	I	M. L. Poda	
Supervisor - Accounts Payable	107	2	I	A. R. Cooke	
Controls Group					
Accountant II - General Accounting	107	2	I	R. C. Erk	
Administrative Clerk - Int.	107	2	I	J. Ingato	
Administrative Clerk	107	2	I	R. E. Thomas	
Disbursements Group					
Accountant III - General Accounting	107	2	I	R. B. Mullick	
Accountant I - General Accounting	107	2	I	V. B. Layugan	
Administrative Clerk - Int.	107	2	I	J. M. Grishuck	

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GPU SERVICE CORPORATION
ACCOUNTING DIVISION
Div. 10

	Div/ Func	Loc	Bldg.		No. Emp.
Budgets & Cost Analysis					2
Director - Budgets & Cost Analysis	108	2	I	J. E. Gutzweiler, Jr.	
Administrative Clerk - Int.	108	2	I	R. Cabrera	
COMEC					4
Information Systems Planning Mgr.	108	2	I	E. Dussinger	
Executive Secretary	108	2	I	L. C. McKenna	
Consultant - Information Systems	108	2	I	C. D. Betz	
System Coordinator - COMEC	108	2	I	D. A. Maldet	
Operations Analysis					1
Director - Operations Analysis	108	2	I	J. A. Kelley	
Depreciation Manager	103	2	I	W. D. Garland	5
Secretary	103	2	I	G. G. Boylan	
Accountant Sr. - Staff	103	2	I	G. A. Blair	
Accountant - Staff	103	2	I	S. H. Chung	
	103	2	I	V. S. Sanders	
				Total	53

Code	Location		No. Emp.
1	New York		
2	Parsippany		49
	Interpace (I)	45	
	Mt. Lakes (ML)	4	
	Hartz (H)		
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		
	GPUSC (R)		
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		2
6	Forked River (F/R)		2
		Total	53

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GPU SERVICE CORPORATION
TREASURY DIVISION
Div. 90

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President & Treasurer	901	2	I	J. G. Graham	21
Executive Secretary	901	2	I	L. Y. Casale	
Assistant Treasurer	901	2	I	M. Miura	
Payroll and Cash Management					
Supervisor - Payroll/One	902	3	R	T. W. Norman	
Administrator - Payroll	902	3	R	A. M. Cavallucci	
Administrative Clerk	902	3	R	M. L. Koslowski	
	902	3	R	D. L. Knapp	
Assistant Treasurer	903	2	I	D. P. Baldassari	
Secretary	903				
Financings & Regulatory Filings					
Financings					
Staff Assistant Sr. II - Treasury	903	2	I	S. H. Somich	
Regulatory Filings					
Staff Assistant Sr. II	903	2	I	D. Rope	
Investor Relations - Banks & Rating Agencies					
Manager - Pensions	904	3	R	M. L. Wixon	
Supervisor - Pensions	904	3	R	W. E. Branch	
Administrative Clerk Int.	904	3	R	M. E. Breidegam	
Staff Assistant II - Treasury	904	3	R	G. B. Kubovick	
Administrator - TRAESOP	904	3	R	C. S. Webb	
Staff Assistant II - Treasury	904	3	R	A. M. Brubaker	
Manager - Financial Planning & Analysis	905	2	I	T. Howson	
Secretary	905	2	I	D. L. McDougle	
Financial Planning & Analysis					
Accountant - Staff	905	2	I	J. M. Gorczyca	
Staff Analyst - Financial Analysis	905	2	I	W. Y. Chin	
Staff Member Sr. - Information Systems	905	3	R	F. T. Luizer	
				Total	21

Code	Location		No. Emp.
1	New York		
2	Parsippany		10
	Interpace (I)	10	
	Mt. Lakes (ML)		
	Hartz (H)		
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		11
	GPUSC (R)	11	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		21

GPU SERVICE CORPORATION
MATERIALS MANAGEMENT
Div. 47

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President - Materials Management	471	2	ML	F. Glickman	24
Executive Secretary	471	2	ML	A. J. Rhattigan	
Manager - Contracts, Construction	475	2	ML	M. Haimowitz	
Secretary	475	2	ML	G. M. Somma	
Purchasing Manager	475	2	ML	C. T. Schrock	
Field Contracts Administrator	475	5	TMI	T. S. J. Uilkema	
Manager - Contracts, Design & Equipment	476	2	ML	L. A. Russo	
Secretary	476	2	ML	M. A. Ballentine	
Fields Contract Administrator	476	2	ML	C. C. Gemian	
	476	2	ML	G. E. Buchan	
Manager - Contracts, Fuels	477	2	ML	J. H. Rickson, Sr.	
Secretary	477	2	ML	K. K. Palffy	
Manager - Procurement	473	2	ML	E. J. Murtagh	
Administrative Clerk Sr.	473	2	ML	D. M. Galiger	
	473	2	ML	L. E. Castoro	
Buyer - Sr.	473	2	ML	L. L. Padalino	
Buyer	473	2	ML	T. T. Reilly	
Administrative Clerk	473	2	ML	P. A. Paulson	
Manager - Materials Management Systems	474	2	ML	G. F. Dwyer	
Manager - Stores	472	3	R	M. M. Seaman	
Project Manager - Stores	472	3	R	J. H. Englert	
	472	3	R	G. P. Naus	
	472	3	R	G. R. Rowe	
Administrator - Stores	472	3	R	K. R. Mishler	
				Total	24

Code	Location		No. Emp.
1	New York		
2	Parsippany		18
	Interpace (I)		
	Mt. Lakes (ML)	18	
	Hartz (H)		
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		5
	GPUSC (R)	5	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		1
6	Forked River (F/R)		
		Total	24

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GPU SERVICE CORPORATION
INFORMATION SERVICES DIVISION
Div. 50

	Div/ Func	Loc	Bldg.		No. Emp.
Director - Information Services	50A	3	R	D. J. Nagle	3
Secretary Sr.	50A	3	R	C. E. Beierschmitt	
Consultant	50A	3	R	G. A. Bricker	
Supervisor - Staff Services	50A	3	R	J. H. Roberts	3
Administrator - Information Services	50A	3	R	F. L. Filbert	
Administrative Clerk - Intermediate	50A	3	R	D. L. Graeff	
Asst. Mgr. - Applications Dev.	50A	3	R	E. F. Muchoney	3
Secretary Sr.	50A	3	R	D. A. Keener	
Staff Member Sr. - Information Services	50A	3	R	R. F. McLaren	
Supervisor - Business Applications	50L	3	R	R. L. Cowley	25
Stenographer	50L	3	R	F. R. Kopala	
Staff Member Sr. - Information Services	50L	3	R	D. C. Ludwig	
Analyst Sr. - Information Services	50L	3	R	A. E. Sanchez	
Staff Member - Information Services	50L	3	R	D. P. Lubas	
	50L	3	R	R. G. Jamieson	
	50L	3	R	S. O. Myskowski	
	50L	3	R	G. A. Speicher	
Analyst Sr. - Information Services	50L	3	R	A. Najarian	
	50L	3	R	R. E. Spotts	
	50L	3	R	J. A. Krick	
	50L	3	R	J. H. Hanson	
Associate - Information Services	50L	3	R	M. A. Riesell	
Staff Member Sr. - Information Services	50L	3	R	W. H. McKay	
Staff Member Sr. - Information Services	50L	3	R	W. E. Hayes	
Staff Member - Information Services	50L	3	R	L. C. Biehl	
	50L	3	R	T. H. Hunkele	
	50L	3	R	M. T. Keener	
Analyst Sr. - Information Services	50L	3	R	S. G. Henry	
	50L	3	R	M. G. Gruss	
	50L	3	R	D. L. Moyer	
	50L	3	R	J. M. Matuszak	
Associate - Information Services	50L	3	R	K. M. O'Rourke	
	50L	3	R	J. L. Torbert	
Analyst - Information Services	50L	3	R	D. M. Coffin	
Supervisor-Consumer Affrs. App. Devlpt.	50J	3	R	K. W. Snyder, Jr.	19
Stenographer	50J	3	R	S. R. Nagle	
Staff Member Sr. - Information Services	50J	3	R	L. W. Shaffer	
Staff Member - Information Services	50J	3	R	S. J. Talarico	
Analyst Sr. - Information Services	50J	3	R	L. J. Brightbill	
	50J	3	R	J. M. Manderewicz	
	50J	3	R	R. L. Schrack	
Staff Member - Information Services	50J	3	R	I. G. Rollman	
Analyst Sr. - Information Services	50J	3	R	R. P. Homan	
Staff Member - Information Services	50J	3	R	R. F. Whitford	
	50J	3	R	W. Kohler, Jr.	
	50J	3	R	R. I. Mock	
Associate - Information Services	50J	3	R	J. R. Hoffman	
Analyst - Information Services	50J	3	R	N. S. Moeller, Jr.	
	50J	3	R	D. J. Belsky	
Staff Member Sr. - Information Services	50J	3	R	R. L. Cable	
Analyst Sr. - Information Serv.	50J	3	R	D. D. Firestine	
Associate - Information Services	50J	3	R	J. F. Fritz III	
	50J	3	R	K. M. Gushue	

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GPU SERVICE CORPORATION
INFORMATION SERVICES DIVISION
Div. 50

	Div/ Func	Loc	Bldg.		No. Emp.
Supervisor-Fin.& Forecasting App. Dev.	50K	3	R	J. H. Ireland	9
Staff Member - Information Services	50K	3	R	G. D. Gedzouris	
Coordinator - I/S Application Control	50K	3	R	E. R. Hilbert	
Analyst Sr. - Information Services	50K	3	R	R. E. Shannon	
	50K	3	R	W. L. Keiper	
Analyst - Information Services	50K	3	R	R. S. Wagner	
Staff Member - Information Services	50K	3	R	D. L. Auman	
Staff Member - Information Services	50K	3	R	G. J. Patel	
Analyst - Information Services	50K	3	R	B. N. Gehman	
Supervisor - Generation and T&D App.	50I	3	R	J. F. Long	21
Administrative Clerk - Int.	50I	3	R	K. S. Sterner	
Staff Member Sr. - Information Services	50I	3	R	R. L. Becker	
Analyst - Information Services	50I	3	R	S. D. Small	
Staff Member - Information Services	50I	3	R	J. E. Washington	
Staff Member - Information Services	50I	3	R	J. W. Zitrick, Jr.	
Staff Member - Information Services	50I	3	R	P. D. Culshaw	
Analyst - Information Services	50I	3	R	W. D. Phillips	
	50I	3	R	M. T. Shestok	
	50I	3	R	A. H. Stalnecker, Jr.	
Staff Member Sr. - Information Services	50I	3	R	B. L. Jones	
Staff Member - Information Services	50I	3	R	J. F. Samay	
Staff Member - Information Services	50I	3	R	D. W. Lessig	
Analyst Sr. - Information Services	50I	3	R	W. F. Lundgren	
Staff Member - Information Services	50I	3	R	S. R. Rathman	
Analyst Sr. - Information Services	50I	3	R	A. F. Joy	
Analyst - Information Services	50I	3	R	T. P. Keltz	
	50I	3	R	J. E. Oberly	
Staff Member - Information Services	50I	3	R	R. H. Warmkessel	
Analyst Sr.- Information Services	50I	3	R	J. R. Bucher	
Associate - Information Services	50I	3	R	V. P. Rhoads	

GPU SERVICE CORPORATION
INFORMATION SERVICES DIVISION
Div. 50

	Div/ Func	Loc	Bldg.		No. Emp.
Supervisor - Technical Services	50D	3	R	J. D. Mabry	29
Supervisor - Engineering Application Develop.	50H	3	R	S. M. Bauer	
Administrative Clerk	50K	3	R	E. E. Strunk	
Analyst Sr.	50H				
Staff Member Sr. - Information Services	50H	3	R	A. C. Lilly	
Analyst Sr. - Information Services	50H	3	R	B. J. Foster	
	50H	3	R	J. B. Miller	
	50H	3	R	E. Teasdale	
Staff Member - Information Services	50H	3	R	T. F. Vernetti	
Associate - Information Services	50H	3	R	R. J. Stowell	
Staff Member - Information Services	50H	3	R	T. P. Grady	
Staff Member - Information Services	50H	3	R	R. G. Levesque	
Analyst Sr. - Information Services	50H	3	R	C. H. Heiser	
	50H	3	R	M. Timtishin	
Staff Member - Information Services	50H	3	R	J. C. Wagner	
Associate - Information Services	50H	3	R	T. Grater	
	50H	3	R	D. M. Green	
Consultant - Information Services	50D	3	R	J. A. Yoder	
Analyst Sr. - Information Services	50D	3	R	B. A. Ruffner	
Staff Member Sr. - Information Services	50D	3	R	W. J. McCarthy	
Consultant - Information Services	50D	3	R	G. I. Moll	
Coordinator - Word Processing	50G	3	R	S. A. Leffler	
Staff Member Sr. - Information Services	50D	3	R	R. A. Machusick	
	50D	3	R	R. B. Fischer	
Analyst Sr. - Information Services	50D	3	R	D. R. Ehrig	
	50D	3	R	G. F. Weida	
	50D	3	R	R. D. Muir III	
Information Services Assistant	50D	3	R	M. E. Book	
Analyst - Information Services	50D	3	R	T. J. Stallman	
Staff Member Sr. - Information Services	50D	3	R	R. A. Seitz	
Supv. - Education & Standards	50G	3	R	L. B. Shattuck, Jr.	2
Staff Member - Information Services	50G	3	R	J. A. Wildey	
Supervisor-Data Base Adm.	50E	3	R	C. Mignon	8
Staff Member Sr. - Information Services	50E	3	R	K. L. Fisher	
Staff Member - Information Services	50E	3	R	W. E. Schmidt, Jr.	
Associate - Information Services	50E	3	R	J. A. Steinbiser	
Staff Member Sr. - Information Services	50E	3	R	R. G. Fidler	
Information Services Assistant	50H	3	R	M. K. Bickel	
Analyst Sr. - Information Services	50E	3	R	K. J. Miller	
Staff Member Sr. - Information Services	50E	3	R	L. W. Anderson	

GPU SERVICE CORPORATION
INFORMATION SERVICES DIVISION
Div. 50

	Div/ Func	Loc	Bldg.		No. Emp.
Assistant Mgr. - Computer Operations & Tech. Dev.					
Supervisor - Computer Operations	50C	3	R	E. S. Degler	36
Staff Member Sr. - Information Services	50C	3	R	D. M. Herbein	
	50C	3	R	W. H. Maurer	
Staff Member - Information Services	50C	3	R	D. W. Henry	
	50C	3	R	J. P. Ross	
Shift Supervisor - Information Services	50C	3	R	L. M. Schlegel	
	50C	3	R	R. D. Wentzel	
	50C	3	R	J. L. Zeiber	
	50C	3	R	R. G. Fair	
	50C	3	R	D. R. Flowers	
Computer Network Analyst	50C	3	R	T. A. Fegley	
	50C	3	R	A. J. Kolenick, Jr.	
	50C	3	R	J. F. Laudeman	
	50C	3	R	G. R. Ludwig	
Computer Network Associate	50C	3	R	T. A. Brown	
	50C	3	R	K. R. Fillioe	
	50C	3	R	P. S. Steffy	
	50C	3	R	K. A. Kramer	
	50C	3	R	T. S. Furry	
Data Center Operator	50C	3	R	G. L. Garber	
	50C	3	R	M. C. Gipprich	
	50C	3	R	W. R. Lesher	
	50C	3	R	R. L. Ulrich	
	50C	3	R	W. A. Heist	
	50C	3	R	R. G. Holland, Jr.	
	50C	3	R	L. J. Oberholtzer	
Data Center Trainee	50C	3	R	B. I. Noll	
	50C	3	R	A. F. Stricek	
	50C	3	R	M. P. Moll	
Analyst Sr. - Information Services	50C	3	R	E. H. Elbert	
Keypunch Operator Sr.	50C	3	R	A. M. Christ	
Keypunch Operator	50C	3	R	S. A. Fillioe	
	50C	3	R	P. A. Reifsnyder	
Supervisor-Remote Terminal	50C	2	I	G. W. Fair	
Keypunch Operator Sr.	50C	2	I	D. R. Kwiatek	
Keypunch Operator	50C	2	I	N. L. Gowans	
				Total	158

Code	Location		No. Emp.
1	New York		
2	Parsippany		3
	Interpace (I)	3	
	Mt. Lakes (ML)		
	Hartz (H)		
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		155
	GPUSC (R)	155	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		158

GPU SERVICE CORPORATION
INTERNAL AUDITING DIVISION
Div. 46

	Div/ Func	Loc	Bldg.		No. Emp.
Director - Internal Auditing	461	2	H	J. F. Farrell	35
Secretary Sr.	461	2	H	I. M. Jaggers	
Coordinator - Computer Auditing	462	3	R	G. L. Hafer	
Auditor Sr. II	462	3	R	S. L. Fakete	
Constr. & Corp. Auditing Manager	463	2	H	M. F. Delicce	
Auditor Sr. II	463	2	H	R. J. Melowic	
Auditor Sr. I	463	2	H	L. E. Grill	
Auditor III	463	2	H	R. W. Hodges	
Auditor I	463	2	H	J. J. Alexander	
	463	2	H	S. D. Scharkse	
Auditor Sr. I	467	2	H	J. R. Cassidy	
Auditing Manager (JCP&L)	464	2	JC	K. J. Fix	
Auditor Sr. I	464	2	JC	C. A. DePree	
Auditor Sr. III	464	2	JC	C. A. Heimberg	
Auditor II	464	2	JC	G. Barkley	
	464	2	JC	W. R. Hunsicker, III	
Auditor I	464	2	JC	P. C. Cannizzo	
	464	2	JC	R. P. Cariello	
	464	2	JC	G. M. Szymialowicz	
Auditing Manager (Met-Ed)	465	3	ME	D. L. O'Brien	
Auditor Sr. I	465	3	ME	B. J. Gorski	
	465	3	ME	H. D. Hollenbacher	
Auditor II	465	3	ME	L. J. Mangle	
	465	3	ME	C. D. Peterson	
	465	3	ME	J. E. Hess	
	465	3	ME	E. W. Noll III	
Auditor I	465	3	ME	S. J. Toczek	
Auditing Manager (Penelec)	466	4	PE	S. J. Stock	
Auditor Sr. I	466	4	PE	T. J. Ott	
	466	4	PE	A. L. Smith, Jr.	
Auditor II	466	4	PE	R. H. Depp, Jr.	
	466	4	PE	W. A. Shriver	
	466	4	PE	J. P. Spicher	
	466	4	PE	E. J. Waters	
Auditor I	466	4	PE	E. C Pitchford	
				Total	35

Code	Location		No. Emp.
1	New York		
2	Parsippany		17
	Interpace (I)		
	Mt. Lakes (ML)		
	Hartz (H)	9	
	JCP&L (JC)	8	
	Albuquerque (A/NM)		
3	Reading		10
	GPUSC (R)	2	
	Met-Ed (ME)	8	
4	Johnstown		8
	Penelec (PE)	8	
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		35

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GPU SERVICE CORPORATION
ADMINISTRATION DIVISION
Div. 20

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President	20A	2	I	F. J. Smith	2
Executive Secretary	20A	2	I	V. A. Gearhart	
Manager Corporate Services	20L	2	H	R. Russo	46
Adm. Assistant - General Office	221	2	H	R. W. Hasse	
System Librarian	225	2	ML	W. F. Sayers	
Librarian	225	2	ML	J. A. Temple	
Administrative Clerk - Int.	225	2	ML	D. L. Barr	
Secretary	221	2	H	M. I. Walther	
Receptionist	221	2	I	F. H. Chimko	
	221	2	ML	V. E. Lowery	
Switchboard Operator	224	2	I	L. B. Almgren	
Receptionist/Switchboard Operator	224	2	H	E. C. H. Smith	
Supervisor-Mail Services	223	2	H	V. A. Belluscio, Jr.	
Administrative Clerk Sr.	223	2	H	G. A. McCleave	
Clerk - Mail	223	2	H	A. L. Mendicino	
	223	2	ML	D. M. Foley	
	223	2	H	D. W. Jones	
	223	2	I	L. M. Williams	
Coordinator-Mail Services	223	2	H	G. J. Tyree	
Administrator-General Office	221	2	I	B. D. Mullick	
Building Control Monitor Chief	226	2	H	C. H. White	
Building Control Monitor (B)	226	2	H	D. A. Welsch	
	226	2	H	K. C. Hintz	
	226	2	ML	R. J. Thomas	
Supt.-Building Services-Parsippany	221	2	H	J. G. Keegan	
Supt. - Building Services - Reading	231	3	R	F. F. Wylezik, Jr.	
Administrator - Building Services	231	3	R	R. C. Bell	
Administrative Clerk	231	3	R	B. M. Golden	
Xerographic Operator	231	3	R	B. E. Portner	
General Maintenance Man	232	3	R	T. F. Schmidt	
General Repair	232	3	R	H. P. Jockel	
Janitor	232	3	R	C. F. Gambler, Jr.	(PT)
Clerk-Mail	233	3	R	F. J. Torok	
	233	3	R	G. S. Dennis	
Mail Courier	233	3	R	G. E. Dunkelberger	
Receptionist/Switchboard Operator	234	3	R	S. F. Grove	
	234	3	R	M. A. Stoltzfus	(PT)
	234	3	R	J. L. Rocktashel	(PT)
Building Control Monitor Chief	236	3	R	E. S. Graczyk	
Building Control Monitor	236	3	R	J. E. Bingaman	
	236	3	R	J. M. Andrews	
	236	3	R	G. L. Grove	
	236	3	R	W. E. Kenney	
Safety & Health Manager	20G	3	R	R. G. Ritthamel	
Administrative Clerk	20G	3	R	V. T. Ruzowicz	
Industrial Hygienist	20G	3	R	R. L. Witzke	
Security Manager	20H	3	R	R. A. Rice	
Analyst - Security	20H	3	R	R. G. Kawood	

GPU SERVICE CORPORATION
ADMINISTRATION DIVISION
Div. 20

	Div/ Func	Loc	Bldg.		No. Emp.
Director - Human Resources	20A	2	H	R. U. Hayes	18
Secretary Sr.	20A	2	H	G. B. Fletcher	
Manager - Compensation & Benefits	20F	2	H	W. M. Pammer	
Administrator - Wage & Salary	20F	2	H	D. W. Hollenbach	
Analyst III - Compensation & Benefits	20F	2	H	V. Morgan	
Analyst II - Compensation & Benefits	20F	2	H	D. J. Fick	
Administrative Clerk Sr.	20F	2	H	D. M. Parsons	
Administrative Clerk Int.	20F	2	H	B. R. Wolf	
Administrative Clerk	20F	2	H	P. A. Lancaster	
Manager - Personnel	20E	2	H	P. Gomez	
Secretary	20E	2	H	D. D. Dern	
Administrator - Employee Benefits	20E	2	H	J. R. Greene	
Area Personnel Manager	20E	2	H	J. Troebliger	
Administrator - Personnel Selection	20E	2	ML	B. Gunderson	
Area Personnel Manager	20E	3	R	R. R. Burns	
Stenographer	20E	3	R	F. M. Merkel	
Labor Relations Analyst	20K				
Manager - Training & Development	20M	3	R	L. T. Renner	
Secretary	20M	3	R	R. E. Yanicheck	
Manager - Insurance and Claims	20I	2	H	H. F. Gerety	3
Administrative Clerk Sr.	20I	2	H	N. L. Geyer	
Administrator - Insurance & Claims	20I	2	H	W. N. Moreau	
				Total	69

Includes: 3 Part-Time (PT)

Code	Location		No. Emp.
1	New York		
2	Parsippany		42
	Interpace (I)	6	
	Mt. Lakes (ML)	7	
	Hartz (H)	29	
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		27
	GPUSC (R)	27	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		69

GPU SERVICE CORPORATION
COMMUNICATIONS DIVISION
Div. 80

		Div/ Func	Loc	Bldg.		No. Emp.
Vice President		801	2	I	W. B. Murray	14
Executive Secretary	(1)	801	2	I	J. M. Petty	
Manager - Communications		801	2	I	R. M. Esteves	
Secretary		801				
Investor Publications Manager		801	2	I	J. A. Dunn	
Representative - Internal Communications		801	2	I	A. E. Arnold	
Administrative Clerk Int.		801	2	I	J. R. Paquette	
Manager - Public Affairs		801	2	I	K. C. McKee	
Manager - Government Affairs		801	4	PE	J. E. Bearer	
Manager - Consumer Affairs		802	2	H	R. W. Smith	
Secretary Sr.		802	2	H	C. H. Reppert	
Director - Consumer Services		802	2	H	N. A. Hagstrom	
Director - Tech. Serv. Load Mgmt.		802	2	H	G. A. Reeves	
Director - Consumer Services Training		802	2	H	J. P. Parker	
Analyst II - Economics		802	2	H	D. M. Komar	
					Total	14

(1) Also Secretary For Manager - Public Affairs

Code	Location		No. Emp.
1	New York		
2	Parsippany		13
	Interpace (I)	7	
	Mt. Lakes (ML)		
	Hartz (H)	6	
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		
	GPUSC (R)		
	Met-Ed (ME)		
4	Johnstown		1
	Penelec (PE)	1	
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		14

GPU SERVICE CORPORATION
CORPORATE PLANNING
Div. 70

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President - Corporate Planning	70A	2	I	B. H. Cherry	4
Executive Secretary	70A	2	I	S. G. O'Brien	
Senior Consultant	70A	2	I	A. J. Mayer	
Strategic Planning Manager	70B				
Engineer III - Research & Development	70A	2	I	D. F. Russell	
Manager - Fuels	70B	2	I	V. P. Zodiaco	20
Secretary Sr.	70B	2	I	P. A. Newkirk	
Fuel Resources Planning Manager	70B	2	I	W. T. Hood	
Administrative Clerk - Int.	70B	2	I	R. D. Singleton	
Analyst III - Fuels	70B	2	I	R. P. Petrone	
Fuel Analyst Sr. I	70B	2	I	P. J. Sipling	
	70B	2	I	T. Driscoll	
Administrative Assistant - Fuels	70B	2	I	M. E. Gannon	
Nuclear Fuel Resources Manager	70C	2	I	W. G. Runte, Jr.	
Secretary	70C	2	I	P. K. Daniel	
Analyst Sr. I - Fuels	70C	2	I	J. A. Vincent	
Engineer Sr. I - Uranium Specialist	70C	2	I	R. H. Young	
Uranium Resources					
Supervisor - Field Office	70D	2	A/NM	B. Rubin	
Fossil Fuel Resources Manager	70F	2	I	H. L. Goldstein	
Analyst III - Fuel Cost	70F	2	I	R. L. Buchholz	
Coal Resources Manager	70F	3	R	W. J. Kmetz	
Secretary	70F	3	R	B. A. Schower	
Engineer II - Coal Resources	70F	3	R	C. K. Blankenship	
Engineer I - Coal Resources	70F	3	R	M. R. Harvey	
Analyst III - Fossil Fuel Resources	70F	3	R	D. C. McIntire	
Director - System Planning	70H	2	I	T. A. Ferrar	24
Secretary Sr.	70H	2	I	L. M. Orwig	
Manager-Forecasting & Supply Planning	70K	2	I	M. Raber	
Secretary Sr.	70K	2	I	M. J. Sublette	
Generation Planning Manager	70K	2	I	E. F. Hunt, Jr.	
Engineer II - Planning	70K	2	I	R. G. McMillian	
Engineer III - Planning	70K	2	I	P. Yatcko	
Engineering Assoc. Sr. I - Planning	70K	2	I	R. W. Hasell	
Engineer Sr. II - Planning	70K	2	I	R. G. Hyland	
Forecasting Manager	70J	2	H	T. W. Jacob	
Secretary	70J	2	H	M. J. Daley	
Analyst Sr. II - Planning	70J	2	H	A. Costa	
Analyst I - Planning	70J	2	H	B. K. Becker	

GPU SERVICE CORPORATION
CORPORATE PLANNING
Div. 70

	Div/ Func	Loc	Bldg.		No. Emp.
Manager - Demand Planning (1)	70Q			J. F. McConnell, Jr.	
Load Management Manager					
Load Research & Analysis Manager	70M	2	I	J. M. Adams	
Analyst Sr. - Economics	70M	2	I	R. Wisnewski	
Supervisor - Load Research	70M	3	R	D. G. Steck	
Analyst III - Load Research	70M	3	R	P. L. Hay	
Administrator - Load Research	70M	3	R	C. R. Martin	
Administrative Clerk	70M	3	R	B. J. Zieber	
Analyst I - Load Research	70M	3	R	D. R. Hartung	
Manager - Technology Assessment & Development	70Q	2	H	J. F. McConnell, Jr.	
Secretary	70Q				
Technology Assessment Manager	70Q	2	H	D. J. Roberts	
Analyst III - Planning	70Q	2	H	A. B. Brownstein	
R&D Project Manager					
Engineer II - Research & Development	70Q	2	H	S. P. Kraft	
				Total	48

(1) J. F. McConnell, Jr., Manager-Technology Assessment & Development, is also Acting Manager-Demand Planning.

Code	Location		No. Emp.
1	New York		
2	Parsippany		38
	Interpace (I)	29	
	Mt. Lakes (ML)		
	Hartz (H)	8	
	JCP&L (JC)		
	Albuquerque (A/NM)	1	
3	Reading		10
	GPUSC (R)	10	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		48

GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President	301	2	ML	R. C. Arnold	3
Executive Secretary	301	2	ML	A. J. House	
Senior Consultant	301	2	ML	R. L. Williams	
Director - Generation Operations	301	2	ML	J.L.C. Bachofer, Jr.	3
Confidential Secretary	301	2	ML	K. E. Gaul	
Engineer Sr. I - Generation	334	2	ML	D. V. Dyckman	
Manager-Generation Operations Support	331	3	R	D. E. Hetrick	30
Secretary Sr.	331	3	R	L. B. Quint	
System Laboratory Manager	332	3	R	R. D. Hopkins	
Supervisor-Environ. & Op. Chem. Sect.	332	3	R	R. E. Allen	
Chemist III	332	3	R	R. W. Ebert	
Lab Technician Sr.	332	3	R	C. E. Faust	
	332	3	R	R. L. Bickta	
Lab Technician	332	3	R	A. Marulla	
Lab Assistant Sr.	332	3	R	C. L. Stewart	
Chemist Sr. I	332	3	R	A. N. Hewing	
Supervisor - Chemical Section	332	3	R	P. S. Stoner	
Chemist III	332	3	R	R. M. Glass	
Chemist Sr. I	332	3	R	D. M. Bulgarelli	
Chemist II	332				
Lab Technician Sr.	332	3	R	W. C. Buchta	
	332	3	R	S. A. Babczak	
	332	3	R	R. F. Pettit, Jr.	
Lab Technician	332	3	R	S. T. Boyer	
	332	3	R	E. N. Eidam	
	332	3	R	D. A. Faust	
Lab Assistant Sr.	332	3	R	R. E. Bentz	
	332	3	R	R. L. Spradley	
Student Trainee - System Lab	332				
Supervisor - Materials Section	332	3	R	F. S. Giacobbe	
Engineer Sr. I - Metallurgy	332	3	R	R. L. Miller	
Engineer II - Metallurgy	332	3	R	J. W. Wood, Jr.	
Student Trainee - System Lab	332				
Lab Technician Sr.	332	3	R	D. A. Boarder	
Lab Assistant Sr.	332	3	R	E. I. Boarder	
Administrative Clerk Sr.	332	3	R	B. R. Kutz	
Clerk Typist	332				
Laboratory Specialist	332	3	R	W. C. Smith	
Clerk-Laboratory	332				
Engineer Sr. I - Start-up and Test	331	3	R	C. P. Deltete	
Chemist Sr. I	331	3	R	K. H. Frederick	
Manager - Generation Productivity	333	2	H	R. L. Long	6
Secretary Sr.	333	2	H	M. R. Gerstenmier	
Principal Engineer-Performance Analysis					
Engineer Sr. I - Mech. Engineering	333	2	H	O. Billingsley	
Engineer III - Generation	333	2	H	R. K. Locke	
Statistician - Outage Records					
Engineer Sr. II - Maintenance Planning					
Engineer Sr. I					
Engineer III					
Technical Analyst Sr. I - Generation	333	2	H	J. L. Weiser	
Technical Analyst II - Generation	333	2	H	C. M. Niebo	

GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President					
Manager - Construction & Maintenance Service	344	2	ML	S. B. Palmeter	4
Secretary Sr.	344	2	ML	V. E. Sonnenberg	
Construction Services					
Engineer Sr. I - Construction (Hdq. Bldg.)	344	2	ML	S. Horner	
Administrator-Constr/Labor Relations	344	2	ML	T. G. Helfrich	
Manager of Generation Division Support	345	2	ML	J. G. Hover	14
Secretary	345	2	ML	J. L. Brunn	
Construction Controls Manager	345	2	ML	E. J. Miller	
Secretary	345	2	ML	M. R. Scher	
Engineer Sr. I - Project Control	345	2	ML	G. N. Chainani	
Construction Project Staffs					
Supervisor Project Control	345				
Project Control Engr. Sr. I (FR)	345				
Engineer III - Schedule & Cost (FR)	345				
Engineer II - Schedule & Cost (FR)	345	6	FR	R. E. Herrmann	
Engineer II - Project Control	345	2	ML	P. R. Omaggio	
Budget/Finance/Special Projects					
Technical Analyst III - Construction	345	2	ML	C. J. Kalina	
Administrative Clerk - Sr.	345	2	ML	C. E. Welch	
Supervisor - Construction Controls	345	2	ML	G. E. Myers	
Supervisor - Project Control	345	3	R	R. J. Williams	
Technical Analyst II - Project Control	345	2	ML	J. M. Patterson	
Engineer I - Project Control	345	2	ML	M. Fedish, Jr.	
Engineer II - Schedule & Costs	345	2	ML	J. T. Wu	
Supervisor - Office Management					
Supervisor - Division Planning					
Manager - Environmental Affairs	341	2	ML	J. R. Thorpe	19
Secretary Sr.	341	2	ML	A. S. Bell	
Environmental Manager	341	2	ML	T. R. Sosey	
Engineer III - Environmental	341	2	ML	D. M. O'Regan	
Engineer II - Environmental	341	2	ML	M. E. Browne	
	341	2	ML	D. Callahan	
	341	2	ML	J. R. King	
Licensing Manager	342	2	ML	E. G. Wallace	
Engineer III - Safety & Licensing	342	2	ML	P. S. Feldman	
	342	2	ML	W. E. Riethle III	
	342	2	ML	C. W. Smyth	
Engineering Assoc. Sr. II - S & L	342	2	ML	D. H. Jeppert	
Engineer I - Safety & Licensing	342	2	ML	R. M. Milford III	
Analyst II - Licensing	342	2	ML	S. L. Guibord	
Administrative Asst. I - Licensing	342	2	ML	L. G. Smith	
Water Resources Manager	343	3	R	R. C. Richert	
Secretary Sr.	343	3	R	B. E. Caples	
Engineer Sr. I - Water Resources	343	3	R	R. I. Lachman	
	343	3	R	J. C. Phillips	

GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President					
Director - Projects	301	2	ML	W. H. Hirst	40
Secretary Sr.	301	2	ML	M. A. Poulter	
Manager - Projects	311	2	ML	R. W. Heward, Jr.	
Secretary Sr.	311	2	ML	E. R. Holden	
Project Site Manager (FR)	311	6	FR	J. J. Barton	
Project Site Administrator	311	6	FR	G. I. Porr	
Engineer Sr. I - Mech. Eng. (TMI 2)	311	2	ML	R. C. Cutler	
Project Construction Mgr.	311	4	HC	W. T. Gunn	
Engineer II - Generation (TMI 2)	311	5	TMI	L. M. Zubey	
Tech. Analyst Sr. II (FR)	311	6	FR	J. A. Barrett	
Supervisor - Site Logistics (FR)	311	6	FR	C. J. Ferrell	
Project Construction Manager (FR)	311	6	FR	J. W. Griest	
Engineer Sr. I - Construction (FR)	311	6	FR	R. E. Hettler	
	311	6	FR	J. P. Kindzierski	
Engineer Sr. II - Generation (FR)	311	6	FR	T. E. Hreczuch	
Supervisor - Site Engineering (FR)	311	6	FR	S. Levin	
Supervisor - Site Operations	311	6	FR	J. A. Renshaw	
Project Manager - Generation (TMI)	311	2	ML	C. R. Montgomery	
Manager - Projects	312	2	ML	J. W. Henry	
Secretary Sr.	312	2	ML	K. M. Graham	
Project Manager-Generation (Seward 7/COHO)	312	2	ML	D. R. Rees	
Engineer Sr.II - Construction	312	4	HC	W. K. Aydelotte	
Project Const. Supv. - Fossil	312	4	HC	N. T. Esposito	
Engineering Asst. Sr. III - Constr.	312	4	HC	H. H. Hillard	
Logistics Support Manager	312	2	ML	J. E. McDonald	
Project Manager - Generation (Gilbert)	312	2	ML	R. J. Swed	
Project Support Manager	313	2	ML	M. K. Pastor	
Secretary	313	2	ML	J. L. Smith	
Logistics Support Manager	313	2	ML	J. E. Kunkel	
Engineer Sr. I, Generation	313	2	ML	A. J. Tervo	
Engineer III - Generation	313	2	ML	R. G. Kazebee	
Engineering Asst. II - Generation	313	2	ML	G. M. Chukala	
Tech. Analyst Sr. II Proj. Ctrl.	313	2	ML	H. C. Eisnaugle	
Administrative Clerk - Int.	313	2	ML	J. C. Heydt	
Supervisor - Generation Adm.	313	2	ML	A. Brown	
Administrator - Nuclear Gen.	313	2	ML	E. A. Albert	
Administrative Clerk Sr.	313	2	ML	J. E. Drescher	
	313	2	ML	E. C. Gately	
Clerk File	313	2	ML	L. B. McCartney	
Administrator - Projects-Generation	313	2	ML	F. L. Doswell	

GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President					
Director - Technical Functions	301	2	ML	R. F. Wilson	2
Secretary Sr.	301	2	ML	G. Perez	
Manager - Systems Engineering	321	2	ML	R. W. Keaten	27
Secretary Sr.	321	2	ML	C. J. Schinski	
Nuclear Fuels Manager	321	2	ML	G. R. Bond	
Secretary (1)	321	2	ML	J. L. McLeod	
Engineer Sr. I - Nuclear	321	2	ML	M. Zukor	
Engineer III - Nuclear	321	2	ML	R. V. Furia	
	321	2	ML	J. D. McCarthy	
Engineer Sr. II - Nuclear	321	2	ML	J. D. Lucmo	
Engineer II Nuclear	321	2	ML	E. W. Barr	
	321	2	ML	R. B. Lee	
	321	2	ML	J. A. Easly	
Engineer Sr. I - Nuclear	321	2	ML	R. W. Pensak	
	321	2	ML	P. S. Walsh	
Plant Process Control Manager	321	2	ML	W. P. Hamilton	
Engineer III - Plant Process Control	321	4	C	F. D. Piazza	
Engineer Sr. I - Electrical Engineering	321	2	ML	L. Goldstein	
Engineer Sr. I - Plant Process Control	321	2	ML	E. A. Washick	
Engineer I - Plant Process Control	321	2	ML	D. DeMaio	
Control & Safety Analysis Manager	321	2	ML	T. G. Broughton	
Eng III - Safety & Licensing	321	2	ML	L. C. Lanese	
Eng. Sr. I - Generation	321	2	ML	R. R. Lentz	
	321	2	ML	E. J. Schuler	
Eng. Sr. I - Safety Analysis	321	2	ML	N. G. Trikouros	
Preliminary Eng. Manager	321	2	ML	D. Slear	
Engineer Sr. I - Generation	321	2	ML	D. M. Smith	
	321	2	ML	W. M. Bogert, Jr.	
Engineer Sr. II - Mechanical Engineer	321	2	ML	S. D. Swetz	
Engineering Manager - (FR)	323	2	ML	J. C. Devine	10
Secretary	323	2	ML	A. M. Longo	
Engineering Assoc. Sr. I. QA	323	2	ML	D. Barcus	
Engineer III - Generation	323	2	ML	T. A. Fischer III	
	323	2	ML	B. M. McCutcheon	
	323	2	ML	G. M. Staudt	
Engineer Sr. II - Generation	323	2	ML	T.C.J. Golian	
Engineer Sr. I - Generation	323	2	ML	I. Feinberg	
	323	2	ML	J. W. Langenbach	
	323	2	ML	C. A. Mascari	
Engineering Manager - (Seward 7)	323	2	ML	B. D. Elam, Jr.	4
Secretary	323	2	ML	M. R. Hornick	
Engineer Sr. I - Civil	323	2	ML	J. Flynn	
Engineer III - Generation	323	2	ML	D. A. Cowdrick	

(1) Also Secretary for Plant Process Control

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GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
Vice President					
Director - Technical Functions (Cont'd)					
Manager - Engineering & Design	322	2	ML	D. K. Croneberger	56
Secretary Sr.	322	2	ML	E. J. Meyer	
Engineer Sr. I.-Mech. Eng.	322	2	ML	L. Garibian	
Engineering Mechanics Manager	322	2	ML	A. P. Rochino	
Engineer III - Generation	322	2	ML	S. D. Leshnoff	
	322	2	ML	B. F. Bensinger	
	322	2	ML	A. Makitka, Jr.	
Engineer Sr. I - Generation	322	2	ML	K. M. Jasani	
	322	2	ML	W. Y. Wang	
Engineer II - Generation	322	2	ML	J. R. Volence	
Engineering Standards Manager	322	2	ML	J. A. Daniel	
Secretary Sr.	322	2	ML	R. A. Gower	
Engineer III - Standards	322	2	ML	P. E. Boucher	
Mechanical Design Manager	322	2	ML	G. R. Capodanno	
Secretary	322	2	ML	C. A. Ramirez	
Engineer II - Mech. Eng.	322	2	ML	J. D. Abramovici	
Consulting Eng.- Generation	322	2	ML	W. A. Crandall	
Engineer III - Mech. Engineering	322	2	ML	T. M. Dempsey	
Engineer Sr. II - Mech. Engineering	322	2	ML	M. Ross	
Engineer Sr. I - Mech. Engineering	322	2	ML	A. V. Sorokach	
	322	2	ML	H. H. Shah	
	322	2	ML	R. J. McGony	
	322	2	ML	M. Morrell	
Engineer Sr. I - Generation	322	2	ML	G. L. Lehmann	
Engineer III - Mech. Engineering	322	2	ML	T. Lu	
Mechanical Components Engineering Manager	322	2	ML	J. P. Moore	
Secretary	322	2	ML	S. L. Picconi	
Engineer III - Mech. Engrng.	322	2	ML	J. J. Correa	
Engineer Sr. I-Mech. Engrng.	322	2	ML	W. F. Itschner	
Consulting Engineer - Gen.	322	2	ML	M. H. Kostrey	
Engr. Sr. I - Mech. Engrng.	322	2	ML	C. K. Lee	
	322	2	ML	F. G. Maus	
	322	2	ML	G. A. Revasz	
Eng. Sr. I - Mech. Engrng.	322	2	ML	R. Spragg	
	322	2	ML	H. M. Tundel	
	322	2	ML	P. A. Zanis	
Engineer Sr. I - Generation	322	2	ML	A. P. Sumallo	
Eng. Coor. - Flue Gas Desulfurization	322	5	TMI	C. D. Good	
Electrical Pwr. & Instrum. Manager	322	2	ML	W. P. Schmauss	
Secretary	322	2	ML	E. E. Kopido	
Engineer Sr. I - Elect. Engineering	322	2	ML	G. R. Braulke	
Engineer Sr. II - Elect. Engineering	322	2	ML	R. J. Chisholm	
Engineer III - Controls	322	2	ML	S. R. Deshmukh	
Engineer Sr. II - Elect. Engineering	322	2	ML	J. J. Gulati	
	322	2	ML	J. A. Torcivia	
Engineer Sr. I - Elect. Engineering	322	2	ML	G. T. Steuerwald, Jr.	
	322	2	ML	A. L. VanRiper III	
	322	2	ML	T. C. Menzel	
Engineer III - Electrical	322	2	ML	B. Gan	
Design & Drafting Manager	322	2	ML	E. C. Donovan	
Drafting Designer Sr.	322	2	ML	E. Sartan	
	322	2	ML	I. Kefer	
	322	2	ML	D. J. Valleau	
Drafting Designer III	322	2	ML	L. R. Hillman	
	322	2	ML	M. A. Libano	
Drafting Designer I	322	2	ML	K. D. Itschner	

GPU SERVICE CORPORATION
GENERATION DIVISION
Div. 30

	Div/ Func	Loc	Bldg.		No. Emp.
ce President					
Director - Technical Functions (Cont'd)					
Manager - Quality Assurance	324	2	ML	N. C. Kazanas	24
Secretary Sr.	324	2	ML	K. I. Shepherd	
Engineer Sr. II - QA	324	2	ML	M. J. Stromberg	
Engineer Sr. I - QA	324	2	ML	P. B. Magitz	
Engineer III - QA	324	6	FR	T. R. Block	
	324	2	ML	T. E. Manning	
	324	6	FR	R. J. Skibinski	
	324	2	ML	A. F. Parekh	
Sr. Site QA Auditor	324	6	FR	R. F. Petti	
Quality Assurance Manager	324	2	ML	R. L. Wayne	
Secretary	324	2	ML	J. A. Repholz	
Engineer III - QA	324	2	ML	E. W. Allen	
	324	2	ML	M. Gotthard	
	324	2	ML	A. Salcido, Sr.	
Project Site Manager QA (FR)	324	6	FR	J. E. Wright	
Engineer Asst. III QA	324	6	FR	G. L. Derk	
Engineer III - QA	324	6	FR	J. D. Godleski	
	324	6	FR	R. W. Liscom	
	324	6	FR	T. L. Corrie	
Engineer Sr. I - QA	324				
Quality Assurance Manager	324	2	ML	D. G. Barlow	
Engineer II - QA	324	2	ML	J. D. Bensch	
	324	2	ML	M. E. Durbecq	
Engineering Asst. III - QA	324	2	ML	R. J. Guimond	
Engineering Associate Sr. I - QA	324	6	FR	L. E. Lundstrom	
				Total	242

Location		No. Emp.
New York		
Parsippany		180
Interpace (I)		
Mt. Lakes (ML)	174	
Hartz (H)	6	
JCP&L (JC)		
Albuquerque (A/NM)		
Reading		35
GPUSC (R)	35	
Met-Ed (ME)		
Johnstown		5
Penelec (PE)		
Conemaugh (C)	1	
Homer City (HC)	4	
TMI		2
Forked River (F/R)		20
Total		242

GPU SERVICE CORPORATION
SYSTEM OPERATIONS DIVISION
Div. 60

		Div/ Func	Loc	Bldg.		No. Emp.
Vice President - System Operations		60A	3	R	E. Newton, Jr.	3
Executive Secretary	(1)	60A	3	R	R. G. Pizzutelli	
Staff Assistant - Operations		60A	3	R	A. J. Nigrelli	
Assistant Vice President		60A	3	R	R. W. Werts	1
Director - System Operations		60C	3	R	J. D. Gassert	53
Manager - System Operations		60C	3	R	J. R. Norton	
Supervisor - System Operations		60C	3	R	G. F. Arentz	
Group Load Director		60C	3	R	R. M. Fink	
		60C	3	R	R. T. Karbel	
		60C	3	R	G. J. Lavrey	
		60C	3	R	E. R. Niedrowski	
		60C	3	R	E. W. Schappell	
		60C	3	R	W. M. Stokes, Jr.	
Assistant Group Load Director		60C	3	R	N. W. Amole	
		60C	3	R	M. W. Fishburn	
		60C	3	R	T. G. McNamara	
		60C	3	R	W. M. Smith	
		60C	3	R	L. C. Bricker, Jr.	
		60C	3	R	R. L. Schreader	
		60C	3	R	R. P. Strayer	
Group Load Coordinator		60C	3	R	R. S. Drager	
Asst. Group Load Coordinator		60C	3	R	W. E. Surgeoner	
Eng. Assoc. II - Trans. Planning		60K	3	R	J. F. Soltysik, Jr.	
Supervisor-System Operations Support		60C	3	R	J. E. Perez	
Eng. Asso. III - System Oper.		60C	3	R	J. G. Koller	
Manager - System Economy		60C	3	R	R. E. Steger	
Coordinator-Interchange Analysis		60C	3	R	R. I. Stephens	
Interchange Analyst Sr.		60C	3	R	V. A. Coldren	
		60C	3	R	N. C. Master	
		60C	3	R	J. J. Sensenig	
		60C	3	R	R. C. Scrimshaw	
Interchange Analyst		60C	3	R	J. M. Dobiesesky	
		60C	3	R	L. E. Nagle	
		60C	3	R	J. H. Williamson	
		60C	3	R	P. W. Albright	
		60C	3	R	M. E. Guerin	
Tech. Analyst II - System Oper.		60C	3	R	V. K. Hurdle	
Coordinator-Interchange Budgets		60C	3	R	J. P. Sensenig	
Engineering Asst. Sr. I		60I	3	R	C. W. Beard	
Engineer III - Econ.		60C	3	R	R. M. Groff, Jr.	
Engineer III		60K	3	R	R. F. Paparella	
Engineer Associate I - Econ.		60C	3	R	J. S. Iwanowski	
Engineer Associate III		60K	3	R	D. J. Pomian	
Manager-System Control		60C	3	R	L. A. Schmidbauer	
Supervisor-Process Control		60C	3	R	R. R. Manwiller	
Analyst Sr.		60C	3	R	J. E. Lebo	
		60C	3	R	R. W. Stine	
Analyst		60C	3	R	J. B. Nesbitt, Jr.	
		60C	3	R	K. M. Satter	
Supervisor-Comm. & Electronic Maint.		60C	3	R	P. C. Gardner	
Tech. Analyst Sr. I-Div. Elect.		60C	3	R	R. H. Hamilton	
		60C	3	R	D. A. Young	
Tech. Analyst III - Div. Elect.		60C	3	R	J. C. Arentz	
Engineer Sr. II - Elect. Control		60C				
Engineer I - Elect. Control		60C				
Manager-System Control Development		60C	3	R	R. P. Whitesell	
Secretary		60C	3	R	M. E. Lewis	
Engineer III - Elect. Control		60C	3	R	R. W. Bryant	
Administrative Clerk Sr.		60C	3	R	A. E. Gelsinger	

GPU SERVICE CORPORATION
SYSTEM OPERATIONS DIVISION
Div. 60

	Div/ Func	Loc	Bldg.		No. Emp.
Manager - System Planning & Analysis	60K	3	R	S. C. Thomas	11
Secretary	60K	3	R	S. A. Degler	
Supervisor - Transmission Planning	60K	3	R	W. B. Barrick	
Engineer III - Trans. Planning	60K	3	R	M. A. Matijasich	
	60K	3	R	D. D. McKinney	
Engineer II - Trans. Planning	60K	3	R	R. A. Bender	
	60K	3	R	M. A. Nazarek	
Supervisor - Interconnection Planning	60K	3	R	K. T. Wright	
Engineer III - Trans. Planning	60K	3	R	R. G. Britigan	
	60K	3	R	B. J. Hrabak	
Engineer Sr. II - System Analysis	60K	3	R	J. R. Duncan	
Manager - Operations Trans. & Dist.	60J	3	R	R. E. Dudley	2
T & D Const. Maintenance Mgr.	60J	3	R	C. M. Daniels	
Manager - Trans. & Dist. Engineering	60I	3	R	G. H. Huston	6
Secretary Sr.	60I	3	R	J. R. Brudereck	
Manager - Transmission Engineering	60I	3	R	D. E. Massey	
Engineer Sr. II-Transmission Plan.	60I	3	R	P. L. Scarff, Jr.	
Manager - Distribution Engineering	60I	3	R	C. E. Snelson	
Supervisor - Dist. Eng.					
Supervisor - Stds. Eng.	60I	3	R	P. F. Jackson	
				Total	76

(1) Also Secretary for Asst. V.P., R. W. Wertz, and for Consultant, E. S. Loane.

Code	Location	No. Emp.
1	New York	
2	Parsippany	
	Interpace (I)	
	Mt. Lakes (ML)	
	Hartz (H)	
	JCP&L (JC)	
	Albuquerque (A/NM)	
3	Reading	76
	GPUSC (R) 76	
	Met-Ed (ME)	
4	Johnstown	
	Penelec (PE)	
	Conemaugh (C)	
	Homer City (HC)	
5	TMI	
6	Forked River (F/R)	
	Total	76

GPU SERVICE CORPORATION
CORPORATE SECRETARY DIVISION
Div. 15

	Div/ Func	Loc	Bldg.		No. Emp.
Corporate Secretary	151	2	H	H. M. Graydon	23
Assistant Corporate Secretary	151	2	H	G. Wade	
Executive Secretary	151	2	H	K. M. Goldstein	
Administrative Assistant - Corporate Secretary	151	2	H	V. F. Leto	
Administrative Asst. - Stockholder Relations	151	2	H	D. A. Kent	
Secretary Sr.	151	2	H	J. M. Adams	
Manager - Information Mgmt.	155	3	R	R. E. Nevling	
Supervisor - Typist	153	2	H	F. Jones	
Coordinator - Word Processing	153	2	H	F. A. James	
Word Processing Specialist Sr.	153	2	H	C. O'Donnell	
	153	2	1	L. M. Kerrigan	
	153	2	H	S. A. Odom	
	153	2	I	V. A. Mishkin	
	153	2	H	S. C. Schiller	
	153	2	ML	E. M. Smisek	
	153	2	H	E. C. DePaul	
Coordinator - Word Processing	153	3	R	C. L. Kurtz	
Word Processing Specialist Sr.	153	3	R	J. E. Smith	
	153	3	R	M. P. Glazier	(T)
Director - Records	152	2	H	R. E. Claycomb	
Coordinator - Records Management	152	2	H	W. R. Correll, Jr.	
Supervisor - Records	152	2	H	J. J. Aikman	
Clerk - File	152	2	H	J. G. Thomas	
	152	2	H	A. G. Rudnicky	
Staff Asst. II - Corporate Secretary	152	2	H	R. L. Clayton	
Administrative Clerk - Int.	152	2	H	M. A. Delmonte	
Graphic Specialist	154	2	H	J. H. Huston	
Administrative Clerk Sr.	154	2	H	C. A. Palkovic	
	154	2	H	D. R. Long	
				Total	29

Includes: 1 Temporary (T)

Code	Location		No. Emp.
1	New York		
2	Parsippany		25
	Interpace (I)	2	
	Mt. Lakes (ML)	1	
	Hartz (H)	22	
	JCP&L (JC)		
	Albuquerque (A/NM)		
3	Reading		4
	GPUSC (R)	4	
	Met-Ed (ME)		
4	Johnstown		
	Penelec (PE)		
	Conemaugh (C)		
	Homer City (HC)		
5	TMI		
6	Forked River (F/R)		
	Total		29

JCP&L / GPU

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

Augu 1, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region I
United States Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Effluent Release Report No. 78-2, Addendum 1

By letter dated March 1, 1979, we submitted Effluent Release Report No. 78-2 for the Oyster Creek station. It was indicated in this report that Strontium-89 and Strontium-90 release data had not been provided because of delays in the radiochemical analyses of various effluent samples and that this data would be forwarded when all analyses were completed.

Enclosed are two (2) copies of Addendum 1 to Effluent Release Report No. 78-2 which provides the results of the Strontium analyses. The enclosed addendum completes Effluent Release Report No. 78-2 submitted in accordance with Section 6.9.3 of the Oyster Creek Technical Specifications of Provisionsal Operating License DPR-16.

Very truly yours,

Donald A. Ross

Donald A. Ross, Manager
Generating Stations, Nuclear

cc: Director (6 copies)
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555
c/o Distribution Services Branch, DCC, ADM

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SEMI-ANNUAL REPORT NO. 78-2

PROVISIONAL OPERATING LICENSE NO. DPR-16

RADIOACTIVE EFFLUENT RELEASES

JULY 1, 1978 THROUGH DECEMBER 31, 1978

ADDENDUM No. I

This addendum completes Semi-Annual Report 1978-2. Report 1978-2 was submitted incomplete due to delays encountered in the radiochemical analyses of strontium-89 and strontium-90. This addendum provides strontium data as well as processed results such as totals, averages and other reportable parameters.

Gaseous Effluents

During the reporting period, July 1, 1978 through December 31, 1978 a total of 3.46 E 5 curies of fission and activation gases, 3.68 curies of non-particulate halogens with half-lives greater than eight days, 3.68 curies of particulate activity with half lives greater than eight days, and 1.35 E 1 curies of tritium were released. The maximum hourly release rate of gross activity was 6.38 E 4 microcuries per second at approximately 0800 on August 8, 1978.

The airborne releases are summarized in Table II-1A.

Liquid Effluents

A total of 1.58 E 7 liters of water was processed through the radwaste system. Of this, 1.71 E 6 liters containing 1.97 E 1 curies of activity (including tritium) was released to the environment. The maximum concentration of gross radioactivity ($\beta\gamma$) released to the unrestricted area (averaged over the period of release) was 6.33 E-8 microcuries per milliliter on September 18, 1978.

The liquid release data are summarized in Table II-2A.

TABLE II-1A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1978-2
GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	Est. Total Error %
A. Fission & activation gases				
1. Total release	Ci	2.76 E 5	6.96 E 4	3.0 E 1
2. Average release rate for period	µCi/sec	4.24 E 4	3.78 E 4	
3. Percent of Tech Spec limit	%	1.59 E 1	1.52 E 1	
B. Iodines				
1. Total iodine-131	Ci	2.97	7.10 E-1	2.5 E 1
2. Average release rate for period	µCi/sec	3.73 E-1	8.92 E-2	
3. Percent of Tech Spec limit	%	9.33	2.23	
C. Particulates				
1. Particulates with half-lives >8 days	Ci	3.57	1.06 E-1	2.5 E 1
2. Average release rate for period	µCi/sec	4.49 E-1	1.33 E-2	
3. Percent of Tech Spec limit	%	1.12 E 1	3.33 E-1	
4. Gross alpha radioactivity	Ci	5.14 E-5	9.49 E-5	
D. Tritium				
1. Total release	Ci	1.15 E 1	1.99	4.0 E 1
2. Average release rate for period	µCi/sec	1.45	2.50 E-1	

Table II-1C
Effluent and Waste Disposal Semi-Annual Report 1978-2
Gaseous Effluents - Summation of All Releases

Nuclides Released	Unit	Third Quarter	Fourth Quarter		MDL
3. Particulates					
Strontium-89	Ci	7.58 E-1	2.62 E-2		3.31 E-9
Strontium-90	Ci	6.53 E-3	2.92 E-4		2.81 E-10
Cesium-134	Ci	1.00 E-3	1.17 E-4		9.52 E-11
Cesium-137	Ci	9.63 E-3	1.26 E-3		1.23 E-10
Barium-140	Ci	2.73	5.39 E-2		1.43 E-9
Lanthanum-140	Ci	2.28	3.69 E-2		6.21 E-10
Others					
Chromium-51	Ci	2.82 E-3	9.36 E-5		1.35 E-9
Manganese-54	Ci	4.53 E-4	1.46 E-2		1.30 E-10
Cobalt-58	Ci	<MDL	2.30 E-5		4.75 E-11
Iron-59	Ci	<MDL	4.12 E-4		1.96 E-10
Cobalt-60	Ci	1.33 E-5	4.16 E-3		4.09 E-10
Zinc-65	Ci	9.08 E-4	<MDL		1.77 E-9
Zirconium-91	Ci	1.66 E-1	2.52 E-1		1.33 E-9
Zirconium-95	Ci	<MDL	4.30 E-5		1.09 E-10
Niobium-95	Ci	<MDL	3.36 E-4		9.19 E-11
Molybdenum-99	Ci	3.35 E-2	1.02 E-2		3.57 E-10
Technetium-99m	Ci	3.35 E-2	1.02 E-2		3.57 E-10
Ruthenium-103	Ci	<MDL	3.40 E-5		6.78 E-11
Ruthenium-106	Ci	<MDL	8.33 E-4		1.05 E-9
Iodine-131	Ci	4.05 E-2	2.76 E-3		3.93 E-10
Iodine-133	Ci	4.03 E-1	2.79 E-2		3.58 E-10
Iodine-135	Ci	5.48 E-1	5.67 E-2		3.71 E-8
Cerium-141	Ci	1.79 E-3	4.83 E-4		1.29 E-10
Cerium-143	Ci	9.11 E-3	1.01 E-4		3.61 E-10
Cerium-144	Ci	1.45 E-2	2.40 E-4		8.17 E-10
Protactinium-233	Ci	1.39 E-3	4.11 E-4		4.55 E-10
Neptunium-239	Ci	1.03 E-2	3.44 E-3		7.57 E-10
Total for Period	Ci	7.05	5.04 E-1		

TABLE II-2A
EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT 1977
LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

	Unit	Third Quarter	Fourth Quarter	Est. Total Error %
A. Fission and activation products				
1. Total releases (not including tritium, gases, alpha)	Ci	9.62 E-3	8.74 E-2	3.0 E 1
2. Average diluted concentration during period	µCi/ml	8.68 E-11	1.32 E-9	
3. Percent of applicable limit	%	2.04 E-3	5.00 E-3	
B. Tritium				
1. Total release	Ci	1.05	1.85 E 1	3.0 E 1
2. Average diluted concentration during period	µCi/ml	9.47 E-9	2.79 E-7	
3. Percent of applicable limit	%	3.16 E-4	9.31 E-3	
C. Dissolved and entrained gases				
1. Total release	Ci	3.38 E-3	<MDL	3.0 E 1
2. Average diluted concentration during period	µCi/ml	3.05 E-11	-	
3. Percent of applicable limit	%	1.02 E-3	-	
D. Gross alpha radioactivity				
1. Total release	Ci	<MDL	1.08 E-3	3.0 E 1
E. Volume of waste released (prior to dilution)	liters	7.10 E 4	1.64 E 6	1.0 E 1
F. Volume of dilution water used during period	liters	4.17 E 11	2.49 E 11	1.0 E 1

Table II-2B

Effluent and Waste Disposal Report 1978-2

Liquid Effluents

Batch Release

Nuclide	Unit	Third Quarter	Fourth Quarter		MDL
Strontium-89	Ci	4.52 E-4	1.00 E-3		7.04 E-10
Strontium-90	Ci	1.40 E-5	1.31 E-4		6.75 E-11
Iodine-131	Ci	4.90 E-4	<MDL		8.86 E-10
Cesium-134	Ci	<MDL	4.80 E-3		7.16 E-10
Cesium-137	Ci	<MDL	6.92 E-3		6.75 E-10
Chromium-51	Ci	1.14 E-3	<MDL		9.48 E-9
Manganese-54	Ci	5.48 E-4	1.40 E-2		7.34 E-10
Cobalt-58	Ci	<MDL	2.65 E-4		7.39 E-10
Iron-59	Ci	<MDL	8.33 E-4		1.30 E-9
Cobalt-60	Ci	1.41 E-3	4.21 E-2		1.18 E-9
Zinc-65	Ci	2.99 E-4	<MDL		1.44 E-9
Strontium-91	Ci	<MDL	6.68 E-4		2.24 E-9
Molybdenum-99	Ci	2.90 E-4	<MDL		1.77 E-9
Technetium-99m	Ci	2.90 E-4	<MDL		1.77 E-9
Barium-140	Ci	7.81 E-4	1.85 E-4		1.61 E-9
Lanthanum-140	Ci	3.00 E-3	5.01 E-4		8.69 E-10
Cobalt-57	Ci	<MDL	1.20 E-4		6.66 E-10
Zirconium-95	Ci	<MDL	1.34 E-3		1.09 E-9
Niobium-95	Ci	1.70 E-4	2.22 E-3		7.00 E-10
Niobium-95m	Ci	<MDL	1.82 E-4		5.88 E-9
Ruthenium-103	Ci	1.27 E-4	8.01 E-4		6.90 E-10
Antimony-124	Ci	<MDL	3.25 E-4		6.81 E-10
Iodine-133	Ci	2.13 E-4	<MDL		6.79 E-10
Cesium-136	Ci	<MDL	1.38 E-4		7.39 E-10
Cerium-141	Ci	3.91 E-4	6.63 E-3		1.99 E-9
Cerium-143	Ci	<MDL	1.71 E-4		1.42 E-9
Cerium-144	Ci	<MDL	4.10 E-3		4.69 E-9
Total (above)	Ci	9.62 E-3	8.74 E-2		
Xenon-133	Ci	2.88 E-3	<MDL		6.61 E-10
Xenon-135	Ci	5.03 E-4	<MDL		1.19 E-9
Total (above)	Ci	3.38 E-3	<MDL		

JCP&L / GPU

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

July 31, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Item of Information - Containment Spray System and Electrical Distribution

As part of the continuing surveillance and upgrading program at the Oyster Creek Station, two situations have been discovered which required corrective action. The first situation concerns a problem in the automatic actuation of the containment spray system, and the second concerns a switch in the fast start logic of the Emergency Diesel Generators.

While performing diesel generator automatic actuation surveillance testing, it was discovered that automatic containment spray system actuation may not occur should the system be called upon in conjunction with a loss of offsite power. Containment Spray Automatic Actuation requires coincident high drywell pressure and reactor low-low water level signals. Upon receipt of an initiation signal, a time delay relay is energized which starts the containment spray pump in 40+ 6 seconds. In the event of a loss of power on the 4160 volt emergency buses (1C and 1D) the 40+ 6 second time delay would be reinitiated upon restoration of power. Coincident with this start signal another time delay in the failure detection logic of the containment spray system is actuated which will cause a cancellation of the auto start signal ~57 seconds after it is received. The 57 second timer continues to time out after the loss of power since an undervoltage on the emergency bus does not cause a termination of its timing sequence. Therefore the auto start signal may be cancelled prior to the starting of the containment spray pump.

The attached diagram shows the events described above. The first bar on the diagram represents time elapsed from the initiation signal (low-low reactor water level with high drywell pressure). The dotted line on the right represents cancellation of the containment spray auto start signal. As can be seen on the diagram, with no loss of power on the emergency bus (case 1) the containment spray pump starts automatically. However, if there is a loss of power on the emergency bus coincident with a containment spray initiation signal (case 2), the containment spray pump may not start automatically due to the additional time required to restore power on the bus. This situation would apply

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correct this discrepancy.

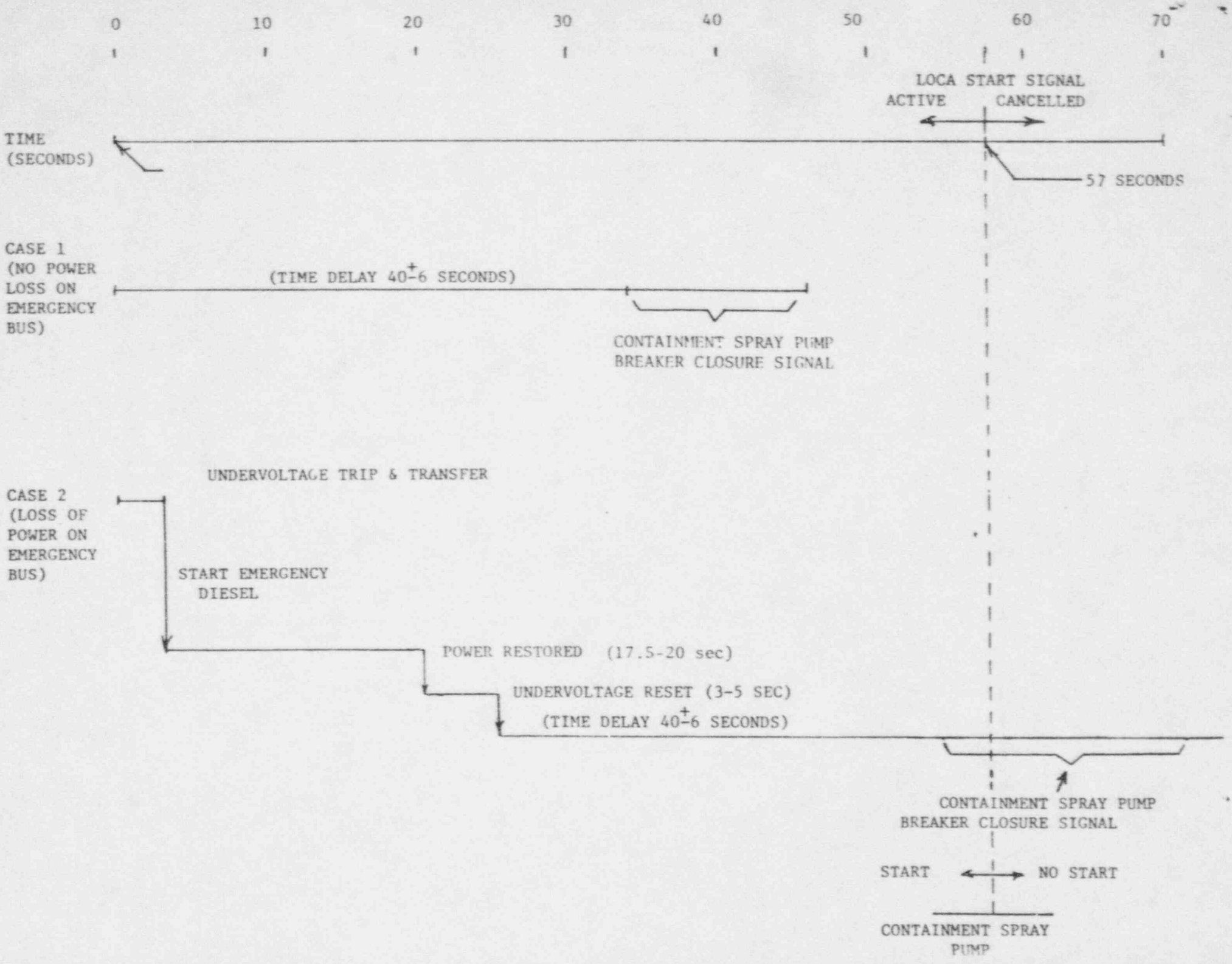
The purpose of the emergency power buses and associated diesel generators is to supply onsite electrical power to emergency equipment in the event of a loss of offsite AC power. There are no automatic functions which result in a closure of the ED breaker and due to the actions described above, a manual closure of the ED breaker is prevented. This assures that the ED breaker will remain in the open position so that onsite AC power from the diesel generators is readily available.

Further documentation concerning the above deficiencies, the PORC discussions, and the modifiation proposals is filed at the Oyster Creek Station should you require additional information.

Very truly yours,

Donald A. Ross

D. A. Ross, Manager
Generating Stations Nuclear


0
10
20
30
40
50
60
70
LOCA START SIGNAL
ACTIVE
CANCELLED
TIME
(SECONDS)
57 SECONDS
CASE 1
(NO POWER
LOSS ON
EMERGENCY
BUS)
(TIME DELAY 40±6 SECONDS)
CONTAINMENT SPRAY PUMP
BREAKER CLOSURE SIGNAL
UNDERVOLTAGE TRIP & TRANSFER
CASE 2
(LOSS OF
POWER ON
EMERGENCY
BUS)
START EMERGENCY
DIESEL
POWER RESTORED (17.5-20 sec)
UNDERVOLTAGE RESET (3-5 SEC)
(TIME DELAY 40±6 SECONDS)
CONTAINMENT SPRAY PUMP
BREAKER CLOSURE SIGNAL
START
NO START
CONTAINMENT SPRAY
PUMP

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUL 24 1979

DOCKET NO. 50-363

APPLICANT: JERSEY CENTRAL POWER AND LIGHT COMPANY

FACILITY: FORKED RIVER NUCLEAR STATION

SUBJECT: MEETING HELD ON JUNE 20, 1979

A meeting with the applicant's representatives was held in Bethesda, Maryland on June 20, 1979. The purpose of the meeting was to discuss the applicant's request for an extension to the Forked River construction permit. The meeting participants are listed in the Enclosure.

The staff presented some of its thoughts concerning not only the construction permit extension but also the potential difficulties in conducting an operating license review in the future considering the rather long elapsed time since issuance of the construction permit.

The construction permit application was filed in 1970 and the construction permit was issued in 1973. Plant construction has proceeded slowly and is now only about 3% complete. However, approximately 350 million dollars has been expended in design and equipment procurement. Assuming construction does not begin again for two or three years, the plant design would be about 15 years old when the NRC begins the operating license review. The design would probably deviate considerably from the then-current Standard Review Plan's acceptance criteria, making the staff's review more difficult and more time-consuming. For example, the ASME Code to which the reactor vessel was purchased was the 1971 edition. The containment vessel was designed in accordance with Section VIII of the ASME code rather than Section III, as would be the case for plants of more recent design. The seismic design criteria are old, but the applicant believes that a re-analysis would show that the plant would meet current criteria.

The NRC environmental review was completed in 1973. Since then, additional generic environmental concerns have arisen that will have to be addressed.

The reasons for needing an extension to the construction permit were, as given in the applicant's August 31, 1978 letter, primarily financial in nature. In order to show good cause for the extension, the factors contributing to the delay should be beyond the applicant's control. As written in the August 31 letter, it is not clear to the staff that the factors cited were indeed beyond the applicant's control. Furthermore, the occurrence of the accident at Three Mile Island Unit 2 has undoubtedly exacerbated the applicant's financial condition, raising questions about the applicant's financial capability to complete the construction of Forked River.

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Mr. Arnold of General Public Utilities, the parent corporation of the applicant, presented a brief chronology of events since the issuance of the construction permit in July 1973. Construction was halted in 1974 due to financial difficulties, and was begun again in 1977. On August 31, 1978 the applicant filed a request to extend the latest date for completion of construction from October 4, 1978 to February 1, 1985. On April 3, 1979, construction was halted in order to conserve funds that might be needed, as a result of the accident at Three Mile Island Unit 2, for other purposes. The substructure is about 60% complete, but construction has not reached above grade level. Most major equipment items are in storage at the site.

The applicant stated that it has upgraded the design as far as practicable to facilitate the process for obtaining an operating license. This included reviews of the Regulatory Guides through Regulatory Guide 1.96, and of the Standard Review Plan. They have kept up-to-date on the operating license review of San Onofre Units 2 and 3, which is similar in design to Forked River, and have updated the Forked River design in some areas.

Mr. Arnold explained that ocean cooling, as an alternative to the cooling tower, is more expensive and is less desirable environmentally. He stated that the State of New Jersey may be willing to grant a variance on the salt deposition limit such that the cooling tower will be acceptable.

According to Mr. Arnold, Jersey Central will be short on its base load capability and on reserves by 1981, and GPU's commitment to the Pennsylvania-New Jersey-Maryland (PJM) pool will also be short. GPU will install gas turbines to try to meet the shortage. Forked River construction will not begin again for at least two years. Jersey Central will probably try to buy participation in other plants to carry them into the 1980's, and may look for participation in the Forked River plant by other utilities.

As a result of the discussions at this meeting, the applicant agreed to send us a letter that (1) states that construction work has been halted, (2) requests that we not take action at this time regarding their August 31, 1978 request for CP extension, and (3) states that they will notify us when a decision has been made to re-start construction work. In addition, they said they will provide detailed information supporting a showing of good cause for construction permit extension and a detailed description of plant design changes intended to meet new safety and environmental standards.

R. A. Benedict

R. A. Benedict
Light Water Reactors Branch No. 2
Division of Project Management

Enclosure:
Attendance List

ccs w/enclosure:
See next page

JUL 24 1979

Mr. Ivan R. Finfrock, Jr.
Vice President
Jersey Central Power and Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

M. Kenneth Pastor, Project Manager
GPU Service Corporation
260 Cherry Hill Road
Parsippany, New Jersey 07054

Mr. E. G. Wallace
Licensing Manager
GPU Service Corporation
260 Cherry Hill Road
Parsippany, New Jersey 07054

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

Joseph W. Ferraro, Jr. Esq.
Deputy Attorney General
State of New Jersey
Department of Law & Public Safety
1100 Raymond Boulevard
Newark, New Jersey 07102

Mr. Keith Onsdorff
Department of the Public Advocate
520 E. State Street
Trenton, New Jersey 08625

ENCLOSURE

JUL 24 1979

ATTENDANCE LIST
FORKED RIVER
MEETING OF JUNE 20, 1979

GENERAL PUBLIC UTILITIES

R. C. Arnold
J. Graham
R. W. Heward
J. R. Thorpe
E. G. Wallace
G. F. Trowbridge (Shaw, Pittman, Potts and Trowbridge)

NRC - STAFF

R. Baer
R. Benedict
J. Cutchin, IV
R. Gilbert
M. Karlowicz
W. Kreger
M. Masnik
J. Petersen
F. Schroeder
D. Vassallo

July 18, 1979

Docket No. 50-219

Jersey Central Power and Light Company
ATTN: Mr. Ivan R. Finfrock, Jr.
Vice President
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Gentlemen:

Since the Three Mile Island incident, the NRC Commissioners, the public and the media have expressed an increased interest in the status of operating nuclear power plants and fuel facilities. This interest has now reached a level where it is desirable to know, on a daily basis, the status of nuclear facilities with an operating license. We request your cooperation in obtaining this information. We plan to contact each operating facility on the dedicated phone during the last half of the 12:00 midnight to 8:00 a.m. shift each day. This call will also be used as the check of the dedicated telephone line. The amount of time required should not exceed one or two minutes for any facility since we will only be asking for the operating status of each plant. If a unit is not fully operational, we would like to have a very brief description of the reason for this. During prolonged outages, we will not make these status calls. Implementation of this program will start Monday, July 23, 1979.

Please notify your responsible plant personnel of this program. If you have any questions please call the Regional Office.

Sincerely,

Boyce H. Grier
Director

cc:
J. T. Carroll, Station Superintendent
A. Z. Roisman, Natural Resources Defense Council

bcc:
IE Mail & Files (For Appropriate Distribution)
Central Files
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
Technical Information Center (TIC)
REG:I Reading Room
State of New Jersey

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RO:ES
Caldson/meo
7/18/79

DHC for BHGrier 7/18

DIRECTOR
BHGrier 7/18

79-116

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 17, 1979

Docket No. 50-219

Mr. I. R. Finfrock, Jr.
Vice President - Generation
Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960

Dear Mr. Finfrock:

SUBJECT: ADDITIONAL INFORMATION REQUIRED FOR NRC STAFF GENERIC REPORT ON BOILING WATER REACTORS

On June 28, 1979 the NRC staff met with representatives from each of the licensees of boiling water reactors (BWRs) as well as the applicants for near-term operating licenses for BWRs. At that meeting we discussed our short-term program for reviewing the implications of the Three Mile Island Unit 2 accident on operating BWRs and near-term Operating License applications for BWRs. At the meeting we discussed our general information needs and noted that our review will concentrate on two basic areas, i.e., systems and analysis. We stated that formal requests for information would be made at a later date.

Enclosure 1 which consists of three attachments contains our request for additional information in the systems area. Enclosure 2 contains our request for additional information in the analysis area. To maintain our schedule we request that you provide clear and complete responses to the enclosed requests by August 17, 1979. If you cannot meet this schedule or if you require any clarification of these matters please contact William F. Kane, (301) 492-7745 immediately.

Sincerely,

Richard A. Silver
for

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:
1. Request for Additional Information (Systems Area)
2. Request for Additional Information (Analysis Area)

cc w/enclosures:
See next page

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I

cc w/enclosures:
G. F. Trowbridge, Esquire
Shaw, Pittman, Potts and Trowbridge
1800 M Street, N. W.
Washington, D. C. 20036

GPU Service Corporation
ATTN: Mr. E. G. Wallace
Licensing Manager
260 Cherry Hill Road
Parsippany, New Jersey 07054

Anthony Z. Roisman
Natural Resources Defense Council
917 15th Street, N. W.
Washington, D. C. 20005

Steven P. Russo, Esquire
248 Washington Street
P. O. Box 1060
Toms River, New Jersey 08753

Joseph W. Ferraro, Jr., Esquire
Deputy Attorney General
State of New Jersey
Department of Law and Public Safety
1100 Raymond Boulevard
Newark, New Jersey 07012

Ocean County Library
Brick Township Branch
401 Chambers Bridge Road
Brick Town, New Jersey 08723

ENCLOSURE 1

REQUESTS FOR ADDITIONAL INFORMATION

BULLETINS & ORDERS SYSTEMS GROUP

Attachment 1

Information on Systems Capable of Providing Post-Accident and Transient Core Cooling

Instructions

Table I is intended to be an all inclusive list of the systems that are capable of providing post-accident and transient core cooling for all types of BWRs. However, if your plant has additional or alternate systems that provide core cooling, that have not been specifically identified, they should be included in your submittal.

Table II contains a list of information that should be provided as applicable, for the systems identified in Table I. The information that only requires a yes/no answer has been identified. As noted on the table some of the information may be provided by utilizing drawings, however, the drawings must be large enough to be clearly legible, the systems and components marked (particularly if plant P&ID drawings are used), and drawing legends provided where needed.

If questions arise pertaining to the interpretation of the type of information requested contact Byron Siegel (301-492-7341) or Wayne Hodges (301-492-7588).

NOTE: We are aware that much of the information we are requesting may have already been submitted on your docket. However, in order to expedite our review, we are requesting that you compile and resubmit the information in this attachment.

Table I

Systems for which information is requested

1. Reactor Core Isolation Cooling System (RCIC)
2. Isolation Condenser
3. High Pressure Core Spray System (HPCS)
4. High Pressure Coolant Injection System (HPCI)
5. Low Pressure Core Spray System (LPCS)
6. Low Pressure Coolant Injection System (LPCI)
7. Automatic Depressurization System (ADS)
8. Safety Relief Valves
9. Residual Heat Removal System (RHR) including Shutdown Cooling, Steam Condensing, Suppression Pool Cooling and Containment Spray Modes
10. Standby Coolant Supply System
11. Reactor Closed Cooling Water System
12. Control Rod Drive System
13. Condensate Storage Tank
14. Main Feedwater System
15. Recirculation Pump/Motor Cooling Systems

Table II

Information on Systems Capable of Providing Post-Accident and Transient Core Cooling

General System Design Information

- Safety Classification & Seismic Category
- Plant Steam By-Pass Capacity
- Potential of Systems & Component Flooding (i.e., injection of water from CST in excess of Technical Specification min.) and Separation of Trains
- Normal Position of Valves, Indication Location Direct or Indirect Indication[1]
- Failed State of Each Valve[1]
- Normal Power Sources for System Operation[1]
- Normal Power Sources for Support System Operation[1], e.g., lube oil, lube oil cooling, ventilation
- Systems and Components Shared Between Units
- Air Sources for Pneumatic Valves, Cycling Capacity & Alternate Sources
- Number of Safety & Relief Valves & Relieving Capacity
- Relief & Safety Valve Setpoints
- System Trips
- Methods of Cooling System Components (i.e., pumps, valves)

System Activation

- Automatic Startup Logic (initiation signals) & Power Source
- Automatic Sequencing Back onto Diesel Following Reset (Yes/No)
- Auto Initiation Overriding Capability
- Auto Initiation Built in Time Delay
- Manual Initiation Capability, Procedure, Time Req'd, Locations, Manpower Req'd
- Potential Commonalities with Control Systems
- System Interlocks & Diversion
- Operator Actions Required for System Operation & Control

Water Sources

- Safety Classification & Seismic Classification
- Primary Water Source, Total & Dedicated Capacity, Time Available
- Secondary and Backup Water Sources, Automatic/Manual, Procedure, Time, Req'd
- Strainers in System and Location

Power Source

- Number of Trains
- Pumps Connected to Diesel Generators
- AC & DC Bus Arrangement for Trains
- Loss of Offsite Power - System Response, Operator Action, Time Req'd
- Loss of On-site AC Power - System Response Operator Action, Time Req'd
- Loss of All AC Power - System Response, Operator Action, Time Req'd

Instrumentation & Control

- Safety Classification & Seismic Category
- Automatic and Manual Control from Control Room (Yes/No)
- Alarms Located in Control Room
- System Indications Located in Control Room (pump, valves, level etc.)
- Remote Control Panels
- Methods of Detecting Leaking Safety/Relief Valves (i.e., leaking bellows, unseated valve)

Testing/Technical Specifications

- Limiting Conditions for Operation
- Frequency of System & Component Tests
- System Testing Lineups[1]
- System Bypass and/or Test Loops[1]
- Method of Verification of Correct Test Lineup and Restoration to Normal Condition

- Allowable System Outage Times
- System & Componentional Testing Following Maintenance
- Components Not Periodically Tested
- Auto Override During Tests
- Other Components or System Affected by Tests

1/ May be provided by a drawing

Attachment 2

Information Needed for Containment Isolation System

I. For each fluid line and fluid instrument lines penetrating the containment, provide a table of design information regarding the containment isolation provisions which include the following information:

a. Containment Penetration number;

b. System name;

c. Fluid contained;

d. Engineered safety feature system (yes or no);

e. Figure showing arrangement of containment isolation barriers;

f. Isolation valve number;

g. Location of valve (inside or outside containment);

h. Valve type and operation;

i. Primary mode of valve actuation;

j. Secondary mode of valve actuation;

k. Normal valve position;

l. Shutdown valve position;

m. Postaccident valve position;

n. Power failure valve position;

o. Containment isolation signals, including parameters sensed and their set point;

p. Valve closure time;

q. Power source;

r. Valve position indication (direct or indirect)

II. Discuss the design requirements for the containment isolation barriers regarding:

a. The extent to which the quality standards and seismic design classification of the containment isolation provisions follow the recommendations of Regulatory Guides 1.26, "Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Water-Containing Components of Nuclear Power Plants," and 1.29, "Seismic Design Classification";

b. Assurance of the operability of valves and valve operators in the containment atmosphere under normal plant operating conditions and postulated accident conditions.

c. Qualification of closed systems inside and outside the containment as isolation barriers;

d. Qualification of a valve as an isolation barrier;

e. Required isolation valve closure times;

f. Mechanical and electrical redundancy to preclude common mode failures;

g. Primary and secondary modes of valve actuation

III. Discuss the provisions for detecting leakage from a remote manually controlled system (such as an engineered safety feature system or essential line) for the purpose of determining wher to isolate the affected system or system train. Specify the parameters sensed, their set point, and procedure for initiation of containment isolation.

IV. Discuss the design provisions for testing the operability of the isolation valves.

V. Identify the codes, standards, and guides applied in the design of the containment isolation system and system components.

VI. Discuss the normal operating modes and containment isolation provision and procedures for lines that transfer potentially radioactive fluids out of the containment.

Attachment 3

Additional Systems and Operational Information Required

I. Provide copies of the procedures for loss of feedwater and small break LOCA.

II. Discuss the reactor water level measurement system. In particular:

1. Provide a diagram showing location of pressure taps used in measuring level. The diagram should be detailed enough to show whether the measurement is inside or outside the core shroud.
2. Describe the instrument piping arrangements and types of transducers used.
3. Which levels are monitored in the control room and how are they indicated (i.e., recorders, meters)?
4. Which measurements provide signals for safety systems, which for control systems, which for other systems?
5. Describe the dynamic response of each of the level measurement and indicating instruments for conditions typical of a small break LOCA.
6. What are the level measurement uncertainties?
7. What level difference is expected between core and measurement location for:
   a. normal operations,
   b. reactor shutdown with decay heat and with recirculation pumps running,
   c. reactor shutdown with decay heat and recirculation pumps not running, and
   d. moderate level transient as for a small break LOCA or stuck open SRV.

ENCLOSURE 2

REQUESTS FOR ADDITIONAL INFORMATION

BULLETINS & ORDERS ANALYSIS GROUP

Enclosure 2

REQUEST FOR ADDITIONAL INFORMATION

REGARDING SMALL BREAK LOCA ANALYSIS

I. The response of the reactor system of a given plant to a small break LOCA will differ greatly depending upon the break size, the location of the break, mode of operation of the recirculation pumps, number of ECCS systems functioning, and the availability of isolation condensers or RCIC. In addition, this response may differ for different plants designed by the same NSSS vendor because of differences in the recirculation loop configuration or different ECCS designs. In order for the staff to complete its evaluation of the response of currently operating BWR designs to postulated small break LOCA's, the following information is needed:

(1) Provide a qualitative description of expected system behavior for (a) a range of postulated small break LOCA's, including the zero break case, and (b) feedwater-related limiting transients combined with a stuck-open safety/relief valve. These cases should include situations where HPCI and RCIC (or isolation condenser) are assumed available and not available. The cases considered should also include breaks large enough to (a) depressurize the reactor coolant system, (b) maintain the reactor coolant system at some intermediate pressure and (c) repressurize the primary system to the safety/relief valve setpoint pressure. Various break locations in the reactor coolant system should be considered.

(2) Provide a qualitative description of the various natural circulation modes of expected system behavior following a small break LOCA. Discuss any ways in which natural circulation can be degraded, such as fluid stratification in the lower plenum caused by inoperation of the cleanup system. Assess the possible effects of non-condensible gases.

II. The following questions pertain to your small break LOCA analysis methods:

(3) Demonstrate that your current small break LOCA analysis methods are appropriate for application to each of the cases identified in items (7) through (10) below. This demorstration should include an assessment of the adequacy of system noding potential counter current flow limitations, and water accumulation above the core.

If, as a result of the above assessment, you modify your analysis methods (e.g., system noding), provide justification for any such modification.

(4) Verify the break flow model used for each break flow location analyzed in the response to Item (7) below.

(5) Verify the analytical calculation of fluid level in the reactor vessel for small break LOCA's and feedwater transients.

(6) Provide integral verification of your small break loss-of-accident method through comparison with experimental data. TLTA and LOFT small break tests are possible examples.

III. For each of the analyses requested in Items (7) through (10) below.

(i) Provide plots of the output parameters specified in Table 1 of this enclosure.

(ii) Indicate when the System safety/relief valve would open.

(iii) Include appropriate information about the role of control systems in the course of the transient. Describe how the system response would be affected by control systems.

(iv) If the scenario is different for different classes of plants (jet pump, non-jet pump, BWR 4, BWR 5), provide an example of each kind.

(7) Provide the results of a sample analysis of each type of small break behavior discussed in the response to item (1) (e.g., depressurization, pressure hangup, repressurization).

(8) Provide the results of an analysis of the worst small break size and location in terms of core uncovering assuming a failure in the ECCS and the RCIC (or isolation condenser). This may be a break which does not result in HPCI initiation. This may require more than one calculation.

(9) Provide the results of an analysis for a single stuck open safety/relief valve, and the maximum number of valves that could open following the worst single failure.

(10) Provide the results of a small break LOCA analysis assuming loss of feedwater. The case with the worst break location which affords the least amount of time for operator action should be analyzed. A single failure in the ECCS and failure of the RCIC (or isolation condenser) should be considered.

(11) Provide a list of transients expected to lift the SRVs; identify the assumed steam and two-phase flow rates through the valves for these transients. Provide justification for your assumptions, including the time at which two-phase discharge,if it is calculated to occur, would be experienced.

(12) Provide revised emergency procedures or guidelines for the preparation of operational procedures for the recovery of plants following small LOCA's. This should include both short-term and long-term situations and follow through to a stable condition. The guidelines should include recognition of the event, precautions, actions, and prohibited actions.

If recirculation pump operation is assumed under two-phase conditions, a justification of pump operability should be provided. Discuss instrumentation available to the operator and any instrumentation that might not be relied upon during these events. What would be the effect of this instrumentation on automatic protection actions?

IV. In addition to the short term requirement identified above, it is requested that the following information be provided by November 1, 1979.

(13) Provide an analysis of the symptoms of inadequate core cooling and required operator actions to restore core cooling. These analyses should include cases assuming the recirculation pumps are both operating and not operating. The calculation should include the period of time during which inadequate core cooling is approached as well as the period of time during which inadequate core cooling exists. The calculations should be carried out far enough so that all important phenomena and instrument indications are included. Each case should then be repeated taking credit for correct operator action.

(14) Provide emergency procedures or guidelines for the preparation of emergency procedures for plant recovery from inadequate core cooling.

(15) Provide revised emergency procedures or guidelines for the updating of emergency procedures for accidents and transients considered in Section 15 of plant SAR's.

(16) The NRC is planning to perform audit calculations of the BWR small break LOCA. The necessary computer program input information and comparative calculations should be provided to facilitate this study. To assist in the review of these cases, we will require computer output information in excess of that specified in Table 1.

TABLE 1

Plotted Output Parameters

Core: L, $X_{AVG.}$, W , T_{clad}

Reactor Vessel:

Lower Plenum: L, X - or T_{SUB}, P

Downcomer: L, X or T_{SUB}

Leak:

SRV, W, X

or

Break, W, X, $\int W dt$

Nomenclative:
- P - Pressure
- L - Mixture Level
- X - Quality
- T - Temperature
- W - Mass Flow Rate
- H - Enthalpy

JCP&L / GPU

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

July 13, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region I
United States Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Station
Docket No. 50-219
Monthly Operating Data

Enclosed are ten copies of the monthly operating data (Gray Book Information) regarding our Oyster Creek Nuclear Generating Station.

Very truly yours,

Donald A. Ross

Donald A. Ross, Manager
Generating Stations-Nuclear

cs

Enclosures

cc: Mr. William G. McDonald, Director (2 copies)
Office of Management Information and Program Control
United States Nuclear Regulatory Commission
Washington, DC 20555

Director of Regulatory Operations (1 copy)
United States Nuclear Regulatory Commission
Washington, DC 20555

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B/14

AVERAGE DAILY POWER LEVEL

DOCKET #..... 50-219
UNIT..... O. C. #1
REPORT DATE... July 11, 1979
COMPILED BY... C.M. MCCLAIN
TELEPHONE..... 201-455-8748

MONTH June 1979

DAY	MW	DAY	MW
1.	0.	17.	618.
2.	260.	18.	624.
3.	425.	19.	628.
4.	562.	20.	609.
5.	554.	21.	570.
6.	579.	22.	619.
7.	593.	23.	626.
8.	573.	24.	627.
9.	579.	25.	627.
10.	581.	26.	629.
11.	587.	27.	626.
12.	605.	28.	626.
13.	598.	29.	626.
14.	607.	30.	614.
15.	618.		
16.	620.		

OPERATING STATUS

UNIT NAME...OYSTER CREEK

DOCKET NUMBER...50-219

UTILITY DATA PREPARED BY...C.M. MCCLAIN 201-455-8748

REPORTING PERIOD... June 1979

LICENSED THERMAL POWER(MWT)...1930

NAMEPLATE RATING(GROSS MWE)...650

DESIGN ELECTRICAL RATING(NET MWE)...650

MAXIMUM DEPENDABLE CAPACITY(GROSS MWE)...650

MAXIMUN DEPENDABLE CAPACITY(NET MWE)...620

IF CHANGES OCCUR IN CAPACITY RATING SINCE LAST REPORT, GIVE REASON...
NONE

POWER LEVEL TO WHICH RESTRICTED, IF ANY(NET MWE)... NO RESTRICTION

REASON FOR RESTRICTION, IF ANY...
NO RESTRICTION

	MONTH	YEAR	CUMULATIVE
HOURS IN PERIOD	720.0	4343.0	83447.0
HOURS RX CRITICAL	714.5	3261.0	64282.1
RX RESERVE SHUTDOWN HRS.	0.0	0.0	468.2
HRS. GEN ON LINE	697.5	3195.7	62977.0
UT RESERVE SHUTDOWN HRS	0.0	0.0	0.0
GROSS THERMAL ENERGY	1254088.5	5933049.4	105969044.4
GROSS ELEC ENERGY	423850.0	2048050.0	36188055.0
NET ELEC ENERGY	408276.0	1968203.0	34885993.0
UT SERVICE FACTOR	96.9	73.6	75.5
UT AVAILABILITY FACTOR	96.9	73.6	75.5
UT CAPACITY FACTOR MDC	91.5	73.1	69.2
UT CAPACITY FACTOR DER	87.2	69.7	64.3
FORCED OUTAGE FACTOR	3.1	26.4	6.7

THE NEXT SCHEDULED OUTAGE IS TO BEGIN ON SEPTEMBER 15, 1979

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June 1979

DOCKET NO. 50-219
UNIT NAME Oyster Creek #1
DATE July 11, 1979
COMPLETED BY C. M. McClain
TELEPHONE 201-455-8748

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
4	790502	F	22.5	H	3	79-14-1T	CB	ZZZZZZ	A tripie low water level point was reached after a reactor high pressure scram occurred.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit 1 - Same Source

(9/77)

OPERATIONS SUMMARY - JUNE 1979

Preparations for startup following the May 2, 1979, reactor scram and low low low water level event were in progress at the beginning of the report period. The unit was returned to service on June 1, 1979. A startup testing program was successfully completed as described in a letter from Mr. I. R. Finfrock, Jr., to the Director of Nuclear Reactor Regulation, dated May 12, 1979. No evidence of fuel damage was observed.

The unit remained in service at near rated output through the month with several load reductions caused by repeated low vacuum on "C" condenser, cooling water intake problems, and a generator voltage regulator failure.

On June 13, preparations for reactor shutdown were initiated and then terminated when secondary containment integrity was defeated.

Three (3) reportable occurrences were identified during the month:

RO #79-20 occurred on June 13, 1979, when secondary containment integrity was defeated by a railroad airlock door failure.

RO #79-21 was identified on June 21, 1979, when one of four high drywell pressure switches for containment spray initiation was found to trip above the Technical Specification limit during routine surveillance testing.

RO #79-22 occurred on June 27, 1979, when an emergency service water relief valve nipple failed on Containment Spray System I during routine surveillance testing.

Oyster Creek Station #1
Docket No. 50-219

CORRECTIVE MECHANICAL MAINTENANCE ON QASL ITEMS FOR THE MONTH OF June 1979

Item #	Equipment	Malfunction	Corrective Action
1	B CRD Filter	Filter needs cleaning	Installed clean filter
2	Rx Bldg. Outside R.R. Airlock Doors	Vertical seam at top of doors does not seal properly	Tightened seal
3	CRD Accumulator 34-47	V-111 valve leaking	Replaced with a rebuilt spare
4	#1 Containment Spray Hx	Nipple is leaking on emergency service water side	Replaced nipple

Oyster Creek Station #1
Docket No. 50-219

CORRECTIVE INSTRUMENT MAINTENANCE ON QASL ITEMS FOR THE MONTH OF JUNE 1979

Item #	J.O. #	QASL #	EQUIPMENT	MALFUNCTION	CORRECTIVE ACTION
1	1999I	2714	Rx Level -(Yarway Sys.II)	Calibration required	Calibrated control rm yarway
2	1949I	2676	Source Range Monito	Surv. discrepancy	Adjusted AR-23R2 on CH#21
3	1962I	2683	Panel 10F	No audible alarm	Replaced alarm card
4	1925I	2662	Stack Gas Recorder 'B'	Indicator oscillates	Adjust recorder gain
5	1979I	2699	MSL Rad Monitor #1	Recalibrate	Adjusted detector position
6	1948I	2675	New Radwaste - Fill Sta. #3	Repair level instr.	Replaced cable connector
7	1932I	2665	LPRM Recorder (5F pnl.)	Broken	Replaced broken drive cord
8	1996I	2705	APRM Ch. #5	Downscale trip - 1/2 scram	Replaced defective power supply
9	1945I	2672	SGTS #1 HEPA Filter	Manometer lost fluid	No action taken - proper readings were observed with system operati
10	1927I	2664	Rx Level (Yarway Remote)	Not responding	Syst. I - cleaned/lubricated/cali Syst. II- replaced w/spare & cali
11	1937I	2669	#2 TIP detector	Failed	Replaced TIP detector
12	1964I	2684	C-9 Klaxon (119')	Failed to alarm	Replaced & tested
13	1939I	2671	TIP Syst. #4	No "ready lite"	Replaced lite bulb

Oyster Creek Station #1
Docket No. 50-219

CORRECTIVE ELECTRICAL MAINTENANCE ON QASL ITEMS FOR THE MONTH OF JUNE 1979

Item #	J.O. #	QASL #	EQUIPMENT	MALFUNCTION	CORRECTIVE ACTION
1	1244E	2682	Rotary Invertor	DC motor noisy	Brushes chattering - stoned commutator
2	1236E	2679	Drywell Sump High Leak Rate Alarm	Alarms intermittant	Repaired alarm card
3	1259E	2695	ESW Pump Breakers	Replace fuses for study	Replaced fuses with new
4	1294E	2711	V-3-87 ESW Breaker	Breaker tripping	Mag. element tripping due to keylock sw. - switch repaired
5	1295E	2712	Torus vacuum breaker pos. sw.	Check jam nuts on pos. sw.	Checked and found all OK

Oyster Creek Station #1
Docket No. 50-219

REFUELING INFORMATION - JUNE 1979

Name of facility: Oyster Creek Station #1

Scheduled date for next refueling shutdown: September 15, 1979

Scheduled date for restart following refueling: November 10, 1979

Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment?

No Technical Specification change relative to the refueling is anticipated.

Scheduled date(s) for submitting proposed licensing action and supporting information:

1. October 1979 - Cycle independent General Electric fuel design information and safety analysis for future use.

2. No submittal is scheduled for the use of Exxon fuel.

Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:

1. General Electric Fuel Assemblies - Fuel design and performance analysis methods have been approved by NRC. New operating procedures, if necessary, will be submitted at a later date.

2. Exxon Fuel Assemblies - No major changes have been made, nor are there are any anticipated.

The number of fuel assemblies (a) in the core - 560
(b) in the spent fuel storage pool - 620

The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies:

1,800

The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity:

The Fall 1986 Outage.