Met-Ed / GPU

Metropolitan Edison Company
Post Office Box 542
Reading Pennsylvania 19640
215 929-3601

Writer's Direct Dial Number
File: 2259.10

March 10, 1980
E&L-2182

Mr. Harold R. Denton
Director of Nuclear Reactor
Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Denton:

SUBJECT: THREE MILE ISLAND NUCLEAR STATION UNIT 1 (TMI-1)
DOCKET NUMBER 50-289
OPERATING LICENSE NUMBER DPR-50
AMENDMENT NO. 14 TO THE TMI-1 RESTART REPORT

Enclosed are 50 copies of the subject amendment for incorporation into the copies of the Restart Report that were submitted to you on September 12, 1979. Additional copies will be forwarded separately. This amendment provides a revised Chapter 5 which describes the current organization of the TMI Generation Group.

Very truly yours,

for J. G. Herbein
Vice President - Nuclear Operations

JGH/jed
Enclosures
cc: J. T. Collins
R. W. Reid
H. Silver
R. H. Vollmer

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5.0 THREE MILE ISLAND NUCLEAR STATION ORGANIZATION

5.1 GENERAL

Following the TMI-2 accident, Metropolitan Edison Company recognized through its own and other investigations of the accident that major organizational changes were desirable for more effective management control. These changes indicate Met-Ed's commitment to operational safety and provide significant improvement in the control of operational activities, and the technical and management resources directing and supporting facility operations.

The first step taken was to combine the technical and management resources of Met-Ed and GPU Service Corporation Generation Divisions into a single organizational entity identified as the TMI Generation Group.

The TMI Generation Group was formed on July 30, 1979 to strengthen the overall management and provide greatly increased technical resources for the restart of TMI Unit 1 and the recovery of TMI Unit 2. The Group is headed by R. C. Arnold. To effect this new organization, Mr. Arnold was elected to the position of Senior Vice President of Met-Ed, and he continues to serve as a Vice President of GPU Service Corporation. In this position, Mr. Arnold reports to Herman M. Dieckamp, President of GPU and GPUSC, and acting president of Met-Ed. This reporting structure provides a direct link from the Chief Operating Officer of these three companies to the activities at TMI. The primary objective of the TMI Generation Group is to operate and maintain the plant safely and in accordance with all laws, NRC Regulations, Technical Specifications and established procedures.

This group was formed to take advantage of the wealth of nuclear experience represented by management and technical staff from within the GPU Service Corporation and Metropolitan Edison Company. This realignment more than tripled the number of professionals that have TMI as their primary responsibility.

There are senior management personnel with an average technical experience well over 20 years reporting to the head of the TMI Generation Group in the areas of:

- TMI-1 Operations
- TMI-2 Recovery

- Nuclear Assessment
- Technical Functions
- Unit-2 Radiological Controls
- Administration

Various steps have been taken in this reorganization to strengthen key functions in the operation and support for Unit 1. Examples of this are:

- The line management responsibilities for TMI Units 1 and 2 are completely separated.
- Each TMI unit is to the maximum extent feasible, to have direct control of the resources necessary for effective and safe conduct of plant activities.
- The head of the TMI-1 Operations, Vice President-Nuclear Operations is serving full time as TMI and his responsibilities and functions are described in Section 5.2.1.
- The TMI-1 operations organization specifically gives the Unit 1 Superintendent only the responsibility for operations and maintenance and relieves him of the direction of administration, training, engineering, radiation protection and chemistry functions.
- The radiological control function for Unit 1 has been elevated so that it reports directly to the Vice President-Nuclear Operations.
- The GPU Service Company and Metropolitan Edison Company Quality Assurance and Control organizations were merged, and Operating Quality Assurance for TMI is their major function.

The following sections describe the pertinent details of the TMI Generation Group.

5.2 STATION ORGANIZATION

The TMI-1 Vice President utilizes the following management staff in carrying out his responsibilities:

- Manager Plant Engineering
- Manager Unit 1
- Manager Administration and Services
- Manager Radiological Controls

The Three Mile Island Nuclear Station organization as shown in Figure 5.2-1 will function in five principle areas under the managers listed above: Unit 1 operations and maintenance, plant engineering, administration and services, radiological controls and safety review.

The Operations and Maintenance Group under the Manager Unit 1 will be responsible for the day-to-day quality of operations and maintenance activities associated with the unit. Unit 1 will have a Shift Supervisor assigned only to Unit 1, who reports to the Unit 1 Operations Supervisor directing the operations on each of six shifts through the assigned Unit 1 Shift Foremen, Control Room Operators, and Auxiliary Operators. A maintenance force supporting only TMI-1 on both a shift and day basis in the areas of electrical, mechanical and instrument control maintenance and surveillance will also report to the Manager Unit 1 through the Unit 1 Maintenance Superintendent.

The TMI-1 Plant Engineering Group under the Manager Plant Engineering includes lead engineers in nuclear, mechanical, electrical, and instrument and control engineering disciplines to whom other engineers and analysts assigned to TMI-1 will report. Shift Technical Advisors with engineering degrees are assigned to each of the six operating shifts to maintain technical liaison and coordination between operating shift personnel and the plant engineering and Technical Functions Group staffs. In addition, a Supervisor-Chemistry and a Technical Analyst (Fire Protection) support the requirements of Unit 1 in their assigned areas.

The Training Department under the Manager of Training, who reports to the Director of Training and Operational Safety Support within the Nuclear Assurance Division, will provide Unit 1 Training Support in the three main areas of operator training, technician training, and career development training. Coordination between Unit-1 and the Training Department is the responsibility of the Training Coordinator who reports to the Manager Unit-1. The operator training section is organized to support both licensed operator and non-licensed operator training. The technician training section will support training of technicians in the maintenance, chemistry and health physics areas. The career development section will support general employee training, RWP training, and supervisor and management training. The managerial staff reporting to the TMI-1 Vice President will evaluate and as appropriate approve the adequacy of the existing level of training of assigned personnel.

The Administration and Services group will function in the areas of facilities, budgets/cost control, personnel and station security, procedure coordination, and general administration with direct support and guidance from the Administration Division under the Director-Administrative and Personnel Resources Management.

The Radiological Controls group under the Manager Radiological Controls will function in the areas of Radiological Control Program design, support, and enforcement as detailed in the approved Radiological Protection Plan, implementing procedures, training plan, and the Bioassay and Respiratory Protection programs. Additionally, the group will conduct surveys and assessments related to protective controls in order to assure that radiological control work practices are accomplished in compliance with approved procedures and applicable regulations.

The Plant Operations Review Committee (PORC), under the Safety Review Manager will report to the TMI-1 Vice President for the review activities specified in the technical specifications that are important to safety.

The following subsections detail the functions and responsibilities of various station supervisory personnel.

5.2.1 Vice President

a. Function

The Vice President - in carrying out his management responsibilities for day-to-day plant operations directs the management staff, identified in paragraph 5.2 Station Organization, in executing the following TMI-1 operational functions.

Shift daily operations and surveillance in accordance with Technical Specification requirements.

Preventive and corrective maintenance on safety related systems and components.

Administrative controls related to Technical Specification compliance not specifically assigned elsewhere.

Radiological controls including compliance with Radiological Effluent Technical Specifications.

Primary and Secondary plant Chemistry.

Radioactive waste processing and treatment including shipment.

Refueling operations and operational related shutdown surveillance requirements.

Evaluation of the training of licensed and non-licensed operations personnel, shift technical advisors, Radiation and Chemistry technicians, and maintenance personnel.

Planning of day-to-day maintenance, operations surveillance and refueling activities.

Plant engineering support of maintenance requirements and shift operations, including liaison with the offsite Technical Functions Group.

b. Responsibility

The Vice President - in carrying out his responsibility for overall direction of day-to-day TMI-1 operations is responsible for:

TMI-1 Technical Specification and Regulatory Requirements compliance, (unless specifically assigned elsewhere, e.g., the Radiological Environmental Monitoring Program and non-Radiological Environmental Monitoring Program) through the direction of the managers identified in paragraph 5.2.

Direction of the Manager TMI Unit 1 in the execution of his responsibilities which are set forth in paragraph 6.1 of the TMI-1 Technical Specifications.

TMI-1 compliance with all commitments made in the TMI-1 restart report submitted in response to the TMI-1 shutdown order dated 9 August 1979 unless specifically assigned elsewhere.

Implementation and compliance with the approved Quality Assurance Plan, the Security Plan, the Radiation Emergency Plan, the Fire Protection Plan, the Radiation Protection Plan, evaluating and as appropriate approving the adequacy of the existing level of training for licensed operators, non-licensed operators, maintenance personnel, Shift Technical Advisors, Radiation and Chemistry Technicians and the Security Force.

Direct interface with the Division Directors identified in paragraph 5.3 to insure the necessary TMI-1 support is provided in the areas of Engineering Change Modification coordinated review and approval, major corrective maintenance and construction, training, Nuclear Safety Analysis, quality assurance, licensing, environmental programs, Licensee Event Report Review, labortory analysis and Generation Review Committee support in accordance with the TMI-1 Technical Specifications.

Insuring the continuing TMI-1 staff readiness to implement the emergency plan by coordinating staff Emergency Plan drills and training through the "Emergency Plan Coordinator" and approving the qualifications and level of training achieved by the TMI-1 staff assigned duties in the Emergency Plan.

Direction of the Safety Review Manager (PORC Chairman) to insure the correct degree of on-site safety review of operational activities including department sponsored procedure changes, plant changes important to safety, test results and Technical Specification violations.

Development and implementation of the TMI-1 Annual Operating Plan, personnel plan, and corresponding budget to insure adequate levels of manning and proper work priorities.

c. Authority

The Vice President - has the authority to:

Implement the Radiation Emergency Plan.

Order the shutdown and cooldown of TMI-1 whenever the health and safety of the public is endangered.

Initiate emergency procurement.

Approve the adequacy of individual qualifications and the adequacy of achieved levels of training.

Approve recommendations from the Plant Onsite Review Committee (PORC) regarding activities in the technical specifications that are important to safety.

d. Minimum Qualifications

The Vice President - shall possess as a minimum the qualifications outlined in ANSI/ANS 3.1-1978, Section 4.2.1, Plant Manager. The Vice President shall have ten years of responsible power plant experience, of which a minimum of three years shall be nuclear power plant experience. A maximum of four years of the remaining seven years of experience may be fulfilled by academic training on a one-for-one time basis. To be acceptable, this academic training shall be in an engineering or scientific field generally associated with power production. The Vice President shall have acquired the experience and training normally required for examination by the NRC for a Senior Reactor Operator's License whether or not the examination is taken.

e. Incumbent Qualifications

The incumbent received a Bachelor of Science Degree in Naval Science and Engineering in 1960 from the U.S. Naval Academy. From 1960 to 1967, he spent six years on conventional destroyer ships in various capacities including Weapons Officer and Chief Engineer. In addition to the shipboard assignment, he spent one year at the U.S. Naval Nuclear Power School and qualified as Engineering Officer of the Watch at the DIG Prototype at West Milton, New York. From May 1967 to September 1967 the incumbent was the Assistant to the Operations Supervisor at Yankee Atomic. In September 1967, he became Staff Engineer at the Saxton Nuclear Experimental Station where he remained

until August 1968 when he assumed the position of Supervisor of Operations and test for Saxton. At that time he acquired a Senior Reactor Operator's License. In May 1970, he assumed the position of Supervisor of Reactor Plant Services at Saxton. In August 1970, the incumbent was transferred and assigned as Station Engineer at TMI. In that capacity, he was responsible for instrumentation, electrical, mechanical, nuclear, health physics and chemistry, site engineering and technical supervision. He remained in this position until January 1973, when he assumed the position of Assistant Superintendent of TMI. He acquired a Senior Reactor Operator's License in February, 1974. From January 1974, to June 1975, he held the position of Superintendent Nuclear Generating Station at TMI. In June 1975, he assumed the position of Manager - Generation Operations Nuclear in which he was responsible for day-to-day direction and Supervision of TMI. In September 1976, he assumed the position of Manager - Generation Operations in which he was responsible for nuclear, fossil and hydroelectric generation. In May 1977, he assumed the position of Vice President - Generation and in August 1979, he was assigned to TMI as Vice President - and is presently serving in that capacity.

f. Interfaces

The Vice President reports to and is held accountable for TMI-1 operations by the Met-Ed Senior Vice-President.

In carrying out his management responsibility for day-to-day TMI-1 operations the Vice President interfaces and communicates with the Directors shown on Figure 5.3-1 who also report to the Met-Ed Senior Vice-President.

The offsite Directors who interface and communicate with the Vice President and their corresponding direct support responsibilities relative to TMI-1 are identified in paragraph 5.3.

The Vice President interfaces and communicates directly with the Director TMI-2 Recovery to insure the separation and independence of TMI-2 decontamination and restoration activities from TMI-1. Additionally, this interface and related communications insures TMI-1 installed waste handling equipment which is required for operation as described in the TMI-1 FSAR is not relied on by operations at TMI-2.

The Vice President has the ability to call upon various components of the Technical Functions, Nuclear Assurance and Administration Divisions for assistance in the areas of: engineering, process computers, safety analysis, fuel performance and fuel management, training, radiological controls, emergency planning and quality assurance, security and administration.

5.2.2 Manager Unit 1

a. Function

The Manager reports directly to the Vice President and assists him in the overall operation and maintenance of TMI-1.

b. Responsibility

This position has direct responsibility for operating the unit in a safe, reliable and efficient manner; is responsible for off-site radioactive discharges and the protection of personnel from radiation exposures; bears the responsibility for compliance with the operating licenses and the rules and regulations of the Commonwealth of Pennsylvania; supervises the operations group and maintenance group and the radioactive waste processing and shipment group.

c. Authority

The authority of the Manager, delegated by the Vice President, is inherent in the position and commensurate with the assigned responsibilities. It includes the authority to issue procedures, orders, and other directives required in the execution of the assigned responsibilities. Necessarily included in the responsibility for plant operation, compliance with Technical Specifications, radioactive discharges and personnel protection from radiation exposure is the authority to assign and prioritize requirements to the Plant Engineering, Training and Administration and Services Groups. Similarly, the authority of the Manager includes the initiation and reprioritization of corrective maintenance, preventative maintenance or construction in the execution of his responsibilities. All personnel within the confines of Unit 1 protected area are subject to the authority and direction of the Manager. The Manager may delegate his authority and share his responsibilities with the Supervisor of Operations or Shift Supervisor during absences. This delegation of authority extends to the issuance of standing orders and directives in support of the responsibilities assigned. In the absence or incapacitation of the Vice President, the Manager Unit 1 is delegated the authority of that office for the centralized control supervision, coordination and planning of all aspects of TMI Operations.

d. Minimum Qualifications

The Manager shall have a minimum of eight years of responsible power plant experience of which at least three years will be in nuclear power plant design, construction, startup, operation, maintenance, or technical services. A maximum of two years of remaining five may be fulfilled by academic training. The Manager must hold a Senior Reactor Operator license.

e. Incumbent Qualifications

High School graduate. BSEE Newark College of Engineering, Newark, New Jersey 1966.
Construction Engineering 6-1966 to 3-1967, Pacific Gas and Electric, San Francisco, California
Distribution Engineer 3-1967 to 2-1968, Jersey Central Power and Light, Morristown, New Jersey
Test Engineer 1968 - 1970, Oyster Creek Nuclear Power Plant - GPU Corporation
Asst Test Supt. 1970 - 1974, TMI Unit #1, GPU Corporation
Test Supt. 1975 - 1978, TMI Unit #2, GPU Corporation
Unit Supt. 1979, Homer City Station, Penn Elec.

f. Interfaces

1. Offsite

The Manager interfaces with company, corporate, local commonwealth, and federal government organizations in fulfillment of responsibilities assigned, state and federal regulations, and directives received.

5.2.3 Supervisor of Operations

a. Function

The Supervisor of Operations has the responsibility for directing the actual day-to-day operation of the unit. He reports directly to the Manager Unit 1. The Supervisor of Operations coordinates operations and related maintenance activities with the Superintendent of Maintenance.

b. Responsibility

This position is responsible for the day-to-day direction of the Operations personnel, to ensure compliance with the conditions of the plant operating license and the technical specifications. He is also responsible for the Supervisor of the Unit 1 Radioactive Waste Processing and Shipment Group.

c. Authority

The Supervisor of Operations Unit 1 has the authority and responsibility to order the plant shutdown when in his judgment the safety of the plant or public is being compromised.

d. Minimum Qualifications

The Supervisor of Operations will have a minimum of six years of responsible power plant experience of which at least one year will be in nuclear power plant design, construction, startup, operations, maintenance, or technical services. A maximum of two years academic or related training may be included as part of the remaining five years of power plant experience. The Supervisor of Operations shall hold a Senior Reactor Operators License.

e. Incumbent Qualifications

Education:	High School Graduate 1960
Military Service:	U.S. Navy - 1960-1968
Relevant Assignments/Training:	U.S. Navy Nuclear Power School (26 weeks) - 1961
	Nuclear Power Prototype School 1961
	Reactor Operator - USS HADDO - 1962-1965
	Instructor - Nuclear Power Training Unit - 1965-1966 (Qualified as Engineering Officer)
	AEC Field Representative at NPTU - 1966-1968 (Passed Nuclear Engineer Examination)
	Operations Staff and Instructor - Saxton Nuclear Experimental Corporation - 1968-1970
	Shift Foreman - TMI - Aug. 1970-July 1972
	Shift Supervisor - July 1972-April 1978
	Supervisor of Operations - April 1978-Present

f. Interfaces

1. Onsite

The Supervisor of Operations has onsite interfaces with the Superintendent of Maintenance, the Emergency Planning Coordinator and the Training Coordinator.

5.2.4 Training Coordinator

a. Function

The Training Coordinator reports to the Manager Unit 1. In this position he will coordinate TMI-1 in-plant training activities and the assessment of the adequacy of training by TMI-1 Managers within their departments, with the training group in the Nuclear Assurance Division.

b. Responsibility

This position is responsible for the following activities:

. Coordinating shift training.

. Scheduling performance reviews to determine the adequacy of training within the TMI-1 functional groups.

. Providing liaison for TMI-1 with the training group in the Nuclear Assurance Division in conducting training needs analysis and establishing training requirements.

. Coordination and scheduling of personnel in the Operations Department to determine whether qualifications and achieved training levels are sufficient for recommending NRC Licensing Examinations.

c. Authority

The Training Coordinator has the authority to coordinate department in-plant training schedules subject to the approval of the Manager TMI-1. He also has the authority for direct interface and liaison with the Training Department and the TMI-1 Managers.

d. Minimum Qualifications

High School Graduate
Two Years Nuclear Power Plant Experience

e. Incumbent Qualifications

Position Vacant

f. Interface

Liaison with the Training Department in the Nuclear Assurance Division and with TMI-1 Department Managers and Supervisors in carrying out his training coordinating and scheduling functions.

5.2.5 Supervisor - Radwaste, Nuclear

a. Function

The Supervisor-Radwaste Nuclear in carrying out his supervisory responsibility in Radwaste Operations directs three (3) Radwaste Foremen and radwaste Utility workers in executing the following TMI-1 functions:

- Packaging of solid radwaste including both compacting and solidification.
- On-site temporary storage of radwaste material.
- Coordination of all shipments of radioactive waste material from TMI-1.
- Operation of the waste solidification system at TMI-1.
- Training of radwaste personnel in regulatory requirements.
- Minimizing the volume of radwaste generated and disposed of by the Unit.
- Shipment of radwaste in compliance with applicable regulations.

b. Responsibility

The Supervisor-Radwaste-Nuclear in carrying out his responsibility for overall radwaste operations is responsible for:

- NRC Packaging and DOT Packaging and Shipping Requirement Compliance.
- NRC and 10CFR20 Radioactive Material Storage Requirements through an interface with Radiological Control Department personnel.
- Insuring that training programs for radwaste personnel are developed, implemented and maintained in accordance with regulatory and management requirements.
- Direct interface with Radiation Protection personnel and Operations personnel to insure that regulatory compliance is achieved and the generation of radwaste is controlled.
- Insuring that appropriate management and administrative control systems and procedures are developed, implemented and complied with as necessary to fulfill the other listed responsibilities.

c. Authority

The Supervisor-Radwaste Nuclear has the authority to:

- Stop the shipment of any radioactive material which does not comply with regulatory or management requirements.

. Stop any activity which unnecessarily generates radioactive waste.

d. Minimum Qualifications

The Supervisor-Radwaste Nuclear shall possess as a minimum a Bachelor of Science Degree in an engineering or science discipline and four years of experience of which a minimum of two years shall be nuclear power plant experience. An additional four years of nuclear power plant experience may be substituted for the degree requirements.

e. The incumbent Supervisor Radwaste Nuclear has the following qualifications:

. BS Degree Chemical Engineering, Drexel University, 1973.

. 6 1/2 years of utility experience in waste disposal field.

. 3 1/2 years of that at TMI.

f. Interfaces

The Supervisor-Radwaste Nuclear reports to and is held accountable for radwaste operations by the TMI-1 Operations Supervisor.

In carrying out his supervisory responsibilities for radwaste operations the Supervisor-Radwaste Nuclear interfaces and communicates with:

. The Radiation Protection Supervisor for radiation and contamination surveys and radioisotope analysis to insure compliance with regulatory and management requirements.

. The Supervisor of Operations for systems operation and material control to minimize the volume of radioactive materials generated at TMI-1.

. The Training Department within the Nuclear Assurance Division for support in implementing adequate training programs for radwaste personnel.

5.2.6 Shift Supervisor

a. Function

This position directs the activities on his shift and is cognizant of operations, maintenance, construction and radiologically controlled maintenance activities being performed while he is on duty. This function includes the approval and insurance that all activities involving Nuclear Safety related Systems and components are accomplished in accordance with properly approved procedures.

b. Responsibility

The licensed Senior Reactor Operator assigned to the position of Shift Supervisor has the primary command and control responsibility for the management and direction of all operations and maintenance activities including the manipulation of any controls, equipment, or components in physical plant systems on his shift. The Shift Supervisor Command responsibilities are further defined in a management directive dated 11/28/79 signed by the acting Vice President. He is responsible for technical specification compliance regarding operations and maintenance activities occurring on his shift.

c. Authority

The Shift Supervisor has the authority and obligation to shut down the unit if, in his own judgment, conditions warrant this action. The Shift Supervisor also has the authority to refuse, or halt any activity, requested or in process, on any plant system if in his judgment, the safety of plant systems, the public or plant personnel are endangered.

d. Minimum Qualifications

Each Shift Supervisor shall have a high school diploma or an equivalent education. He shall have a minimum of 4 years power plant experience of which a minimum of one year will be nuclear power station operations or maintenance. A maximum of two years of academic or related education may be included as part of the remaining three years of required plant experience. The Supervisors in this category should hold a Senior Reactor Operator's License.

e. Incumbent Qualifications

Incumbent A

Education:	High School Graduate - 1954
Military Service:	U.S. Army 1958-1959

Relevant Assignments: Control Room Operator -
October 1969 - October 1976

Shift Foreman -
October 1976 - July 1979

Shift Supervisor -
July 1979 - Present

Incumbent B

Education: High School Graduate - 1961

Relevant Assignments: Auxiliary Operator -
October 1969 - December 1972

Control Operator -
December 1972 - July 1975

Shift Foreman -
July 1975 - July 1979

Shift Supervisor
July 1979 - Present

Incumbent C

Education: High School Graduate - 1959

Military Service: U.S. Air Force - 1959-1963

Relevant Assignments: Control Room Operator -
October 1968 - August 1976

Shift Foreman -
August 1976 - April 1978

Shift Supervisor -
April 1978 - Present

Incumbent D

Education: High School Graduate - 1965

Military Service: U.S. Navy - 1966-1971

Relevant Assignments/
Training: U.S. Navy Basic Nuclear Power
School (26 weeks) 1966-1967

Nuclear Power Prototype School
(26 weeks) - 1967

Reactor Operator -
U.S. Navy - USS Bainbridge
1969-1971

Auxiliary Operator -
February 1972-October 1973

Shift Foreman -
October 1973-May 1976

Shift Supervisor -
May 1976-Present

Incumbent E

Education: High School Graduate - 1964

Military Service: U.S. Air Force - 1964-1969

Relevant Assignments: Auxiliary Operator -
March 1969 - July 1970

Control Room Operator -
July 1973 - October 1975

Shift Foreman -
October 1975 - October 1977

Shift Supervisor -
October 1977 - Present

Incumbent F

Education: High School Graduate - 1963
Utah State University - 2 years

Military Service: U.S. Navy - 1966-1973

Relevant Assignments/
Training: U.S. Navy Basic Nuclear Power
School (26 weeks) 1967

Nuclear Power Prototype School -
(26 weeks) - 1967

Reactor Coolant - USS Greenling -
1968-1973

Auxiliary Operator -
April 1973 - August 1975

Control Room Operator -
August 1975 - November 1976

Shift Foreman -
November 1976 - March 1979

Shift Supervisor -
March 1979 - Present

f. Interfaces

1. Offsite

The Shift Supervisor has no offsite interfaces or responsibilities during normal operation. During off normal operation he is required to insure offsite notifications specified in the emergency plan are made in a timely manner.

2. TMI-2

The Shift Supervisor has no technical responsibilities in Unit 2.

5.2.7 Shift Foreman

a. Function

He reports directly to the Shift Supervisor. He directs the activities of the unit operators on his shift and is cognizant of all in plant activities being performed while he is on duty.

b. Responsibility

The Shift Foreman is responsible for the actual operation of the unit during his assigned shift. He is also responsible for insuring all control room activities including Control panel monitoring, processing of RWP and tagging applications, operational log and recording functions, and inter plant Communications are executed in accordance with prescribed guidelines and correct operating practices. He is responsible for the orderliness, correctness and proper decorum of control room operations and related activities.

c. Authority

The Shift Foreman on duty has both authority and the obligation to shut down the unit if, in his judgment, conditions warrant this action.

d. Minimum Qualifications

Each Shift Foreman shall have a high school diploma or an equivalent education. He shall have a minimum of 4 years power plant experience of which a minimum of one year will be nuclear power station operations or maintenance. A maximum of two years of academic or related education may be included as part of the remaining three years of required plant experience. The Foreman in this category should hold a Senior Reactor Operator's License.

e. Incumbent Qualifications

Incumbent A

Education	High School Graduate - 1963
Military Service:	U.S. Air Force - 1963-1968
Relevant Assignments:	Auxiliary Operator - July 1968 - June 1975
	Control Room Operator - June 1975 - July 1978
	Shift Foreman - July 1978 - Present

Incumbent B

Education:	High School Graduate - 1963
Military Service:	U.S. Navy - 1964-1971
Relevant Assignments/ Training:	U.S. Navy Nuclear Power School - (26 weeks) 1964-1965
	Nuclear Power Prototype School - (26 weeks) - 1965
	Mechanical Operator - USS Whale - 1968
	Engine Room Supervisor - USS Theodore Roosevelt - 1969-1971
	Auxiliary Operator - Febur[illegible] 1971 - April 1975
	Control Room Operator - April 1975 - May 1978
	Shift Foreman - May 1978 - Present

Incumbent C

Education:	High School Graduate - 1966
Military Service:	U.S. Navy 1968-1974
Relevant Assignments/ Training:	U.S. Navy Nuclear Power School - (26 weeks) - 1968

Nuclear Power Prototype School - (26 weeks) - 1968-1969

USS Sea Devil - Electrical System Opeator - 1969-1972

USS Bates - Sound and Vibration Analysis - 1972-1974

Auxiliary Operator - February 1974 - October 1976

Control Room Operator - October 1976 - July 1978

Shift Foreman - July 1978 - Present

Incumbent D

Education: High School Graduate - 1967

Relevant Assignments: Auxiliary Operator - January 1975 - October 1977

Control Room Operator - October 1977 - August 1978

Shift Foreman - August 1978 - Present

Incumbent E

Education: High School Graduate - 1957

Relevant Assignments: Auxiliary Operator - October 1969 - July 1970

Control Room Operator - July 1970 - June 1977

Shift Foreman - June 1977 - Present

Incumbent F

Education: High School Graduate - 1962

Military Service: U.S. Navy - 1963-1970

Relevant Assignments/ Training: U.S. Navy Nuclear Power School - (26 weeks) - 1965

Nuclear Power Prototype School - (26 weeks) - 1965-1966

Reactor Operator - USS George C. Marshall - October 1968-March 1970

Auxiliary Operator - June 1970 - February 1974

Control Room Operator - February 1974 - February 1978

Shift Foreman - March 1978 - Present

f. Interfaces

1. Offsite

The Shift Foreman has no offsite interfaces or responsibilities during normal operation. During off normal operation he may be delegated by the Shift Supervisor to assist in making the offsite notifications specified in the emergency plan.

2. TMI-2

The Shift Foreman has no technical responsibilities in Unit 2.

5.2.8 Control Room Operator

a. Function

Each Control Room Operator reports to the Shift Foreman and operates the reactor, turbine, generator, switchboards and all other equipment necessary to maintain continuous production with maximum safety and efficiency in accordance with the Operating License.

b. Responsibility

The Control Room Operator is responsible for all the equipment assigned to him in the Unit, and the reporting of any unusual performance of this equipment to the Shift Foreman. He is responsible for the correct manipulation of plant controls from the control room in accordance with the provisions of his Reactor Operator (RO) license.

c. Authority

The Control Room Operator has the authority to shutdown the unit when conditions in the unit warrant such action. He also has the authority to direct the auxiliary operators in their performance of Company approved procedures.

d. Minimum Qualifications

High School diploma or equivalent and two years experience in a power plant one of which is at a nuclear plant. The Control Room Operator must be licensed by the NRC.

5.2.9 Auxiliary Operator

a. Function

The main function of each Auxiliary Operator is to operate and inspect equipment in the nuclear power station as required to support day-to-day operation from his position outside the Control Room. He will be directed in the performance of his duties by the Shift Foreman or the Control Room Operator and will report any unusual performance of equipment.

b. Responsibility

The Auxiliary Operator shall be responsible for the operation and inspection of plant equipment. He also when directed performs the functions of radiological control monitor on his shift. He is responsible for notifying the appropriate supervisor if any portion of the unit exceeds established radiological control limits. He assists in the receipt, storage, loading and unloading of fuel, shipment of irradiated materials and disposal of radioactive wastes as directed.

c. Authority

The Auxiliary Operator shall have the authority to execute Company approved procedures as directed by Control Room Operators or Shift Foreman.

d. Minimum Qualifications

Each Auxiliary Operator should have a high school diploma or equivalent. The Auxiliary Operator shall be interviewed to verify that they exhibit mature judgement, testing will be used to aid in determining the individuals ability to progress to higher levels of responsibility and eventual NRC licensing.

5.2.10 Superintendent of Maintenance

a. Function

The Superintendent reports to the Manager Unit I and provides maintenance support for the unit.

b. Responsibility

This position is responsible for planning, organizing, integrating and directing the maintenance effort of the TMI Unit 1 in order to insure optimum equipment/systems availability and reliability.

This position is responsible for assuring the provision of adequate resources to carry out the Maintenance programs.

c. Authority

The Superintendent of Maintenance has the authority to assign Maintenance work to company and contract resources identified by management.

d. Minimum Qualifications

This position shall have seven (7) years of responsible power plant experience or applicable industrial experience, a minimum of one (1) year which shall be nuclear power plant experience. An Associate Degree in an Engineering or Scientific field is preferred and may be credited to the remaining six (6) years of experience. The individual should have non-destructive testing familiarity, craft knowledge and an understanding of electrical, pressure vessel and piping codes.

e. Incumbent Qualifications

The Superintendent of maintenance is a Navy veteran of twenty-seven years with experience in Marine and Power Plant operations, Maintenance and repair. He has served as Chief Engineer and Repair Officer on several large combatant Naval ships. He was a member of the Naval Board of Inspection and Survey as an engineering inspector. He attended engineering service schools as a prerequisite for qualification as Engineer Officer. He was appointed Supervisor of Maintenance at TMI in 1973.

f. Interfaces

1. Offsite

Contractors, vendors representatives.

5.2.11 Supervisor - Corrective Maintenance

a. Function

The Supervisor reports to the Superintendent of Maintenance and provides corrective maintenance support for TMI Unit 1.

b. Responsibility

This position is responsible for planning, organizing, integrating and directing the corrective maintenance effort for Unit 1 in order to insure optimum equipment/systems availability and reliability.

This position is responsible for the identification, justification and utilization of resources requisite to the maintenance program.

c. Authority

The Supervisor - Corrective Maintainance has the authority as delegated by the Superintendent - Maintenance to assign corrective maintenance tasks, to company and contractor resources identified by management.

d. Minimum Qualifications

This position is required to have seven (7) years of responsible power plant experience or applicable industrial experience, a minimum of one (1) year which shall be nuclear power plant experience. An Associate Degree in an Engineering or Scientific field is preferred and may be credited to the remaining six (6) years of experience. The individual should have non-destructive testing familiarity, craft knowledge, and an understanding of electrical, pressure vessel and piping codes.

e. Incumbent Qualifications

Education:	University of Missouri BSME - 1968
Relevant Assignments:	U.S. Navy Training - Naval Nuclear Power School, six (6) months; Naval Nuclear Prototype, six (6) months. Qualified - as Engineering Officer of the watch; Nuclear Engineer Officer. Duties - Electrical Officer, Main Propulsion Assistant, Engineer Officer (2nd in command) on two (2) different nuclear submarines. Supervised - Equipment overhaul, reactor defueling - refueling, startup and testing during two (2) nuclear submarine overhauls 1968-1979.

f. Interfaces

1. Offsite

Contractors, vendors' representatives.

5.2.12 Supervisor - Preventive Maintenance

a. Function

The Supervisor reports to the Superintendent of Maintenance and provides preventive maintenance support for the unit.

b. Responsibility

The Supervisor is responsible for organizing, modifying, and conducting the preventive maintenance for the Unit. The Supervisor - Preventive Maintenance has the responsibility to identify/justify resources requisite to accomplish the PM program.

c. Authority

The Supervisor - Preventive Maintenance has the authority as delegated by the Superintendent - Maintenance to assign preventive maintenance tasks, not performed by the operations department, to company and contractor resources identified by management.

He has the authority to establish and/or modify the operation of the PM Program not required by Technical Specification Surveillance.

d. Minimum Qualifications

The Supervisor of Preventive Maintenance shall have seven (7) years of responsible power plant experience or applicable nuclear power plant experience. An Associate Degree is an Engineering or Scientific field is preferred and may be credited to the remaining six (6) years of experience. The individual should have non-destructive testing familiarity, craft knowledge, and an understanding of electrical, pressure vessel and piping codes.

e. Incumbent Qualifications

Education: High School graduate - 1957

Relevent Assignments:

U.S. Navy (1958-1962) as Electronics Technician. Final rate: E-5. Was Lead Petty Officer last 1 1/2 years of enlistment.

Saxton Nuclear Experimental Corp.
Instrument Technician
July 1966 to August 1972.

TMI - Maintenance Foreman in Instrumentation
August 1972 to November 1976 and
June 1978 to December 1979.

Training - numerous training courses including at Penn State, a Management Development course, Electrical Theory course and Math course, and one (1) week of B&W simulator training.

f. Interfaces

1. Offsite

Contractors, Vendors' representatives.

5.2.13 Maintenance Foreman

a. Function

The Maintenance Foremen report to the Supervisor of Preventive Maintenance and provide support in the area of their descipline.

b. Responsibility

Maintenance Foremen are responsible for directing the work of assigned personnel in the performance of preventive maintenance.

c. Authority

Assigns production personnel to tasks. Resolves departmental interface problems at production level.

d. Minimum Qualifications

Each Foreman shall have a high school diploma or equivalent and four (4) years of experience in the craft or discipline supervised and shall have supervisory skills necessary to coordinate the activities of a crew or crews consisting of technical and/or non-technical personnel in the performance of their function.

5.2.14 Lead Maintenance Foreman

a. Function

Lead Maintenance Foremen reports to the Unit Supervisor of Maintenance and directs the day to day activities of the department for which they are responsible.

b. Responsibility

The Lead Maintenance Foremen prioritize and assign the duties to be carried out by the Foremen who report to them.

c. Authority

Assigns tasks to Foremen and production personnel.

d. Minimum Qualifications

Each Foreman shall have a high school diploma or equivalent and four (4) years of experience in the craft or discipline supervised and shall have supervisory skills necessary to coordinate the activities of a crew or crews consisting of technical and/or non-technical personnel in the performance of their function.

5.2.15 Manager Plant Engineering

a. Function

The Manager Plant Engineering reports to the Vice President and is responsible for the coordination of the technical engineering staff including the Nuclear Engineering, Mechanical Engineering, Electrical Engineering, Instrument and Control Engineering, Fire Protection Program and Chemistry.

b. Responsibility

The position is responsible for assisting the Unit Manager in the technical engineering for TMI Unit 1 in order to ensure safe, efficient and continuous generation. The incumbent ensures overall safety of Unit Operations through the review and evaluation of changes to procedures, systems and equipment in the light of their effect upon the FSAR, etc. This position is responsible for the effective direction of lead engineers and their functional areas, ensuring that technical support is provided in decisions involving all aspects of the Unit's operation, scheduling and coordination of all aspects involved with and during plant refueling, supervising budget preparation and controlling expenditures to conform to the unit budget, recommending various personnel actions, and effectively assists in the coordination of communications between TMI and the Technical Functions Division.

c. Authority

The Manager has the authority to approve minor plant design and modification work. He has the authority to approve Purchase Requisitions for material, equipment, supplies and services in the Engineering and Chemistry Area at TMI. He has the authority to introduce recommended procedure changes to the Plant Operating Review Committee. Additionally, he shall provide engineering support for the maintenance and operations departments.

d. Minimum Qualifications

The Manager shall have 8 years in responsible positions related to power generation, of which one year shall be nuclear power plant experience. A Bachelor of Science Degree in an Engineering or Scientific field is preferred and may be credited to the remaining 7 years of experience. The individual should have non-destructive testing familiarity, craft knowledge, and an understanding of electrical, pressure vessel and piping codes.

e. Incumbent Qualifications

B.S. Mechanical Engineering - Villanova University, 1963.
1963 - Cadet Eng. - Reading.
1965-67 - 2 years Crawford Station - Plant Eng. and then Mech. Maintenance Form.
1967 - 1 1/4 year Saxton Nuclear - obtained NRC Operator License. 8 years TMI Unit 1 - Supervisor Operations 8/1/68, Plant Engineer 1/1/73, Unit Superintendent 8/1/74 to May 77, obtained SRO License.

f. Interface

1. Offsite

The Manager will primarily interface with the Technical Functions Division in areas requiring specialized engineering assistance which cannot be performed by the on-site staff. He will also interface with other engineering firms where design assistance is required. He will interface with Materials Management on procurement/contract problems. He will interface with Regulatory Bodies such as the NRC on technical areas involved with the Technical Specifications.

2. Other TMI Staff

Supervisor Maintenance	- technical assistance when required - coordination of work - allocation of resources - feedback on program effectiveness
Supervisor - Operations	- technical assistance when required - scheduling of work
Manager Unit 1	- program technical support/evaluations

5.2.16 Lead Nuclear Engineer

a. Function

The Lead Nuclear Engineer functions to provide technical assistance to the plant operations and maintenance departments as directed by the Manager Plant Engineering.

b. Responsibility

This position is responsible for the support of plant operations activities related to Nuclear physics testing to verify core design parameters and the evaluation and interpretation of periodic surveillances related to the reactor core, including the review of safety related operating, test and maintenance procedures and procedure changes.

The responsibilities of the Lead Nuclear Engineer include membership in the Plant Operations Review Committee as defined by the Technical specifications.

The Lead Nuclear Engineer also has the responsibility for the direct supervision of physics testing and the evaluation of nuclear parameters to insure they are within the bounds permitted by the technical specifications.

Areas of plant operations and maintenance activity technical support include such areas as maintaining Special Nuclear Material inventory records required by 10 CFR 70 and the coordination of all nuclear fuel movements including fuel receipt.

c. Authority

The Lead Nuclear Engineer has the authority to coordinate activities which involve handling of fuel assemblies according to approved procedures. He has the authority to supervise and make the initial determination regarding the acceptability of testing involving nuclear fuel and related fuel handling equipment.

He has the authority to recommend procedure changes and design changes and may perform the initial nuclear safety evaluation on design and procedure changes.

d. Minimum Qualifications

The lead Nuclear Engineer shall meet the minimum qualification requirements of ANSI/ANS 3.1-1978.

e. Incumbent Qualifications

Education:	Rensselaer Polytechnic Institute BS Nuclear Engineering - 1976
Relevant Assignments:	Nuclear Engineering and Plant Performance Corporate Division Engineer I - Nuclear September 1976 - December 1976

f. Interfaces

The Lead Nuclear Engineer reports to the Manager Plant Engineering. In performing his duties the Lead Nuclear Engineer interfaces with other lead engineers, the Plant Operations Review Committee, offsite engineering support, Nuclear Regulatory Commission inspectors and maintenance operations and radiological control department personnel.

5.2.17 Lead Electrical Engineer

a. Function

The Lead Electrical Engineer functions to provide technical assistance to the plant operations and maintenance departments as directed by the Manager-Plant Engineering.

b. Responsibility

This position is responsible for the support of plant operations and maintenance activities relating to electrical systems and components, including the review of safety related operating, test and maintenance procedures and procedure changes. The responsibilities of the Lead Electrical Engineer include membership in the Plant Operations Review Committee as defined in the Technical Specifications.

Areas of plant operations and maintenance technical support activities include such components and systems as Control Rod Drive, Pressurizer Heater Control, Engineering Safeguards Actuation, Diesel Generators, Main and Auxiliary Transformers, Heat Trace, Main Generator Temperature Monitoring, Electrical Distribution, Grounding and Lightining Protection, Battery and Battery chargers, Inverters and Vital Busses, and Substation equipment.

c. Authority

The Lead Electrical Engineer has the authority to recommend procedure changes and design changes. He also has the authority to perform the initial nuclear safety evaluation on design and procedure changes.

d. Minimum Qualifications

The Lead Electrical Engineer shall meet the minimum qualification requirements of ANSI/ANS 3.1-1978.

e. Incumbent Qualifications

Education:	Pennsylvania State University Dubois Campus Associate Degree - Electrical 1963 - 1965
	Pennsylvania State University Capitol Campus Bachelor of Engineering Technology - Electrical 1968 - 1970
Relevant Assignments:	Summer Student - Engineering Assistant - TMI - June 1969 - September 1969

Project Engineer - TMI
June 1970 - November 1973

Lead Engineer - TMI
November 1973 - Present

Holds Senior Reactor Operator License
on TMI-1

f. Interface

The Lead Electrical Engineer reports to the Manager Plant Engineering. In performing his duties the Lead Electrical Engineer interfaces with the other lead engineers, the Plant Operations Review Committee, Offsite Engineering Support Nuclear Regulatory Commission Inspectors, and maintenance, operations and radiological control department personnel.

5.2.18 Lead Instrument and Control Engineer

a. Function

The Lead Instrument and Control Engineer functions to provide technical assistance to the plant operations and maintenance departments as directed by the Manager Plant Engineering.

b. Responsibility

This position is responsible for the support of plant operations and maintenance activities relating to Instrument and Control Systems and components including the review of safety related operating, test and maintenance procedures and procedure changes. The responsibilities of the Lead Instrument and Control Engineer include membership in the Plant Operations Review Committee as defined by the Technical Specifications.

Areas of plant operations and maintenance activity technical support include such components and systems as the Reactor Protection System, Integrated Control System, Non-Nuclear Instrumentation, Incore Monitoring System, Loose Parts Monitoring System, Pneumatic control valves and components, and the Turbine Electro-Hydraulic Control System.

c. Authority

The Lead Instrument and Control Engineer has the authority to recommend procedure change and design changes. He also has the authority to perform the initial nuclear safety evaluation on design and procedure changes.

d. Minimum Qualifications

The Lead I&C Engineer shall meet the minimum qualification requirements of ANSI/ANS 3.1-1978.

e. Incumbent Qualifications

Education:	University of Louisville BSEE - 1966 University of South Carolina MSEE - 1968
Relevant Assignments:	NSAEC Division of Naval Reactors (U.S. Navy - 03) - Nuclear Propulsion Engineer, I&C Section Training - Bettis Reactor Engineering School: Reactor 6 months Design; 3 weeks Prototype; 3 weeks - Shipyard-1968 - 1973.

Virginia Research, Inc. - Engineer
1973 - 1974

TMI - Lead I&C Engineer
Training - Several Inst. Vendor Courses
1 week B&W Simulator
1974 - Present

f. Interfaces

The Lead Instrument and control engineer reports to the Manager Plant Engineering. In performing his duties the Lead I&C Engineer interfaces with other lead engineers, the Plant Operations Review Committee, offsite engineering support, Nuclear Regulatory Commission Inspectors and maintenance, operations and radiological controls department personnel.

5.2.19 Lead Mechanical Engineer

a. Function

The lead mechanical engineer functions to provide technical assitance to the plant operations and maintenace departments as directed by the Manager - Plant Engineering.

b. Responsibility

This position is responsible for the support of plant operations and maintenance activities relating to mechanical systems and components including the review of safety related operating test and maintenance procedures and procedure changes. The responsibilities of the lead mechanical eengineer include membership in the Plant Operations Review Committee as defined by the Technical Specifications.

Areas of plant operations and maintenance activities technical support include such components and systems as Steam Generators, Reactor Coolant Pumps, pipe hangers, supports and snubbers, heat exchangers and coolers, Reactor Building structural integrity, Reactor Building containment isolation valve leak tightness, Emergency Diesels, ventilation systems, piping systems, pumps, valves, and filters.

c. Authority

The lead mechanical engineer has the authority to recommend procedure changes and design changes. He also has the authority to perform the initial nuclear safety evaluation on design and procedure changes.

d. Minimum Qualifications

The Lead Mechanical Engineer shall meet the minimum qualification requirements of ANSI/ANS 3.1-1978.

e. Incumbent Qualifications

Education:	Pennsylvania State University BS Chemistry
Military Service:	U.S. Navy 1969 - 1974

e. Incumbent Qualifications (continued)

Relevant Assignments/Training:

U.S. Naval Nuclear Power School and Prototype Training - 1969 - 1970

Qualified for Supervison of Operations and Maintenance of Naval Nuclear Propulsion Plant 1970 - 1974

Two years experience as TMI-1 Operations Department Engineering during first two years commercial operation of Unit and first refueling outage.

Three years experience as TMI-1 Lead Mechanical Engineer during commercial operation of Unit including three refueling outages.

f. Interface

The Lead Mechanical Engineer reports to the Manager - Plant Engineering. In performing his duties, the Lead Mechanical Engineer interfaces with other lead engineers, the Plant Operations Review Committee, off-site engineering support, Nuclear Regulatory Commission inspectors and Maintenance.

5.2.20 Supervisor Chemistry

a. Function

The Supervisor Chemistry functions to implement and support the total plant chemistry program, which involves laboratory chemical analysis, primary and seconda system chemistry control, water treatment, waste treatment and radiochemistry to ensure safe, reliable plant operations which meet the requirements of state and federal regulatory agencies.

b. Responsibility

The Chemistry Supervisor in carrying out his responsibility for overall direction of the day-to-day TMI-1 chemistry program is responsible for:

1. Proper operation and calibration of all chemical and radiochemical analytical and counting instruments.

2. Selection, set-up and calibration of new laboratory equipment necessary to maintain quality laboratory analysis concurrent with systems and discharge limitations.

3. Selection and development of chemical and radio chemical analytical procedures.

4. Insuring through appropriate analysis compliance with chemical sections of plant technical specifications, manufacturers specifications and discharge permits.

5. Preparation and/or review of chemically oriented operating procedures.

6. Providing technical supervision and assistance for the operation of the water treatment systems, chemical addition systems and waste treatment facilities.

7 Maintaining adequate chemistry records and preparing any necessary reports to various state and federal agencies.

8. Providing technical guidance for the selection, setup calibration and operation of on-line chemical analyzers.

c. Authority

The Chemistry Supervisor has the authority to specify required chemical additions to plant systems based on analysis and required chemistry parameter limits.

5.2.21 Technical Analyst - Fire Protection

a. Function

The Technical Analyst - Fire Protection functions to coordinate the implementation of the Fire Protection Program at Three Mile Island.

b. Responsibility/Authority

The Technical Analyst - Fire Protection is responsible for the overall readiness of all fire service and fire protection systems at Three Mile Island. The position is further responsible for evaluating related station fire protection activities to ensure satisfactory fire protection/prevention practices and conformance to required codes. This responsibility includes frequent station inspection, operation and maintenance (both corrective and preventative) assistance, and fire protection procedure review and development. This position is responsible for coordinating, developing ansd assisting the training department in the implementation of training programs for the Station's fire brigades and local fire companies.

c. Authority

The Technical Analyst - Fire Protection has the authority to make recommendations to improve the overall station Fire Protection program, including the areas of training, fire prevention, fire system and component material readiness and technical specification compliance.

d. Minimum Qualifications

The Technical Analyst - Fire Protection shall have a high school diploma or equivalent and shall have at least one year of practical experience in the fire protection field.

e. Incumbent Qualifications

Education:	High School Graduate - 1966 Completed 40 credit hours in Fire Service. Presently enrolled at Harrisburg Area Community College.
Military Service:	U. S. Navy 1968 - 1977
Relevant Assignments/Training:	Power School (26 weeks) - 1969
	U. S. Navy Prototype Instructor - 1970 - 1973
	Quality Control Assistant - TMI - 1977 - 1978

5.2.22 Shift Technical Advisor

a. Function

The Shift Technical Advisor will provide direct technical oversight of the plant reactor performance and associated safety systems in order to insure the safety of unit operations.

b. Responsibility

The Shift Technical Advisor (NUREG 0579-Section 2.2.1.b) is responsible for providing on Shift, technical support to the Shift Supervisor in the accident and operating experience assessment functions. The Shift Technical Advisor also has the responsibility for:

- monitoring the readiness of engineered safety features to perform their design function, including the evaluation of the need for and initiation of corrective action on such components and systems.

- advising the Shift Supervisor of any condition that may compromise the performance of Safety Systems of components, in the event of an emergency:

- providing technical liason with the Plant Engineering Department regarding matters pertaining to Nuclear Safety.

- providing technical advice to the Shift Supervisor during plant transients, abnormal events and emergencies.

c. Authority

The Shift Technical Advisor acts in a monitoring/advisory capacity to the Operations Shift Supervisor and Shift Foreman. He will advise and assist the Shift Supervisor in matters of reactor safety. He will also advise the Shift Supervisor whenever he believes it necessary to call for outside technical support.

d. Minimum Qualifications

The Shift Technical Advisor shall have a Bachelor of Science Degree in an Engineering or Scientific related field and a minimum of two years of related experience in power generation. In addition to the academic education, the Shift Advisor shall possess a thorough knowledge of plant systems and components. In addition, it is intended that the Shift Technical Advisor obtain the training necessary to be licensed as an SRO on as soon as practicable basis but need not be licensed.

e. Incumbent Qualifications

Incumbent A

High School Graduate. University of Missouri - B.S. Mechanical Engineering - 1972.
1972-76 Field Engineer, General Electric Co. Installation & Service Div.
1976-Present - Metropolitan Edison Company
1976 - Eng. II Nuclear TMI
1978 - Eng. III - Generation - Reading
1979 - Shift Engineer III - TMI
6/66 to 4/70 U.S. Air Force - Inventory Management Specialist, Dyess Air Force Base, Abilene, Texas.

Incumbent B

High School Graduate. North Carolina State University - B.S. Nuclear Engineering - 1976.
4/70 to 4/76 National Guard special schools in Accounting and Radar techniques.
1970-1971 - HP Tech. with Westinghouse Nuclear Fuel Div.
1971-1973 - Service Representative 3M Corp. - Instrumentation Technician.
1976 - Present - Metropolitan Edison Company - Engineer I - Generation.
1979 - Engineer II - Generation
1979 - Shift Engineer II - TMI.

Incumbent C

High School Graduate. 1976 - B.S. Physics Albright College and MSE Towne School of Engineering and Applied Science, University of PA.
1976 - Metropolitan Edison Company - Engineer I - Generation.
1979 - Metropolitan Edison Company - Engineer II - Generation.

Incumbent D

High School Graduate. B.S. Nuclear Engineering - Rensselaer Polytechnic Institute, Troy, NY - 1976.
Master of Engineering - Nuclear Engineering - Penn State University 1979.
6/78 to 9/79 - Metropolitan Edison Company.
6/78 - Engineer I - Generation
9/79 - Shift Engineer I - TMI

Incumbent E

High School Graduate. BSEE, Penn State University 1977.
U.S. Navy 7/68 to 7/72 - Aviation Electricians Mate-Class A. Flight Electrician and ECM Operator.
11/77 - Present - Metropolitan Edison Company - TMI.

11/77 - Eng. I - Nuclear
8/79 - Eng. II - Nuclear
9/79 - Shift Engineering

Incumbent F

High School Graduate. B.S. Nuclear Engineering - Penn State University 1977.
6/77 - Present - Metropolitan Edison Company - TMI.
6/77 - Eng. I - TMI
9/79 - Shift Technical Eng. - TMI.

f. Interfaces

1. Offsite

The Shift Technical Advisor will, at times, seek assistance from support organizations such as B&W and GPUSC. The Shift Technical Advisor will interface with the Technical Function Performance Analysis personnel assigned to the site.

5.2.23 Manager Administration and Services

a. Function

The Manager of Administration and Services reports to the Vice President TMI-1 and is responsible to plan, organize, and direct the day-to-day activities of the Personnel, Budgets/ Cost Control, Security, Facilities, Procedure Control, and General Administration Functions.

b. Responsibilities

This position assures that effective day-by-day programs are implemented for TMI Unit-1 in the areas of Personnel Administration, Personnel Recruiting and Employment, Personnel Wages and Salary Administration, Retention, Employee Benefits Administration, Labor Relations, Payroll Administration, and Employee Evaluation; that an effective Personnel, Operations and Maintenance, and Capital Budget preparation, review and approval process is in effect, that Budget/Expenditure Analysis is being performed, and that Special Accounting activities are accomplished; that the TMI Security Plan is implemented in accordance with all applicable regulations, that Unit Security Operations, Administration, and Access Control are properly conducted; that the Industrial Safety Program is developed, organized, and implemented to insure that a safe working atmosphere exists for all employees and that all applicable safety regulations are met, that Safety inspections are conducted, that medical surveillance is accomplished, that the proper safety equipment is issued to employees, and that work practices are monitored and evaluated in terms of safety; that an organized Buildings/Trailer Management Program is in effect, that office supplies are provided and properly managed, that Telecommunications and Mail service are provided to the on-site staff, that office equipment is economically repaired and serviced, and that an effective Vehicle Parking Policy is in effect; that Unit 1 Administrative Procedures are prepared and implemented, and that the Unit 1 procedure program is coordinated. In addition, this position provides staff assistance service to the Vice President TMI-1 in areas of Correspondence Control, Goals Coordination, Annual Operating Plan Coordination, coordination of Significant Events Report, Staff Planning, and Meeting Scheduling.

c. Authorities

Consistent with the responsibilities of this position, the Manager Administration and Services is authorized to institute procedures required to implement programs which improve or enhance the degree of Support Services provided to the plant operating staff. Additionally, consistent with the level of signature authority established, this Manager can extend job offers and approve other personnel transactions, authorize and approve expenditures and authorize facility changes.

d. Minimum Qualifications

This position is required to support the TMI Generation Group organization and shall have appropriate qualifications.

e. Incumbent Qualifications

The incumbent received a Bachelor of Science Degree in Civil Engineering in 1957 from the Pennsylvania State University. From 1957 to 1959 he served as a Navy Officer on an Amphibious Ship. He was employed by Met-Ed in 1959 and had held positions in the Transmission Engineering function for fourteen years, the Distribution Operations function for one year, the Operations Analysis function for four years, and is currently Manager-Generation Administration, having been named to that position on April 1, 1978. He has attended the Public Utility Executive Program at the Graduate School of Business Administration, University of Michigan.

f. Interfaces

Direct interfaces are maintained with and functional coordination and direction is provided from the Director-Administration and members of his immediate staff.

Close lines of communications are maintained with all other Managers reporting to the Vice President TMI-1 for the purpose of coordinating and responding to requests for administrative services required by their staffs.

Liaison with the TMI-2 Manager-Administration and Services is maintained to coordinate services and to insure consistent practices exist in the functional areas of responsibilities assigned.

5.2.24 Safety Review Manager (PORC Chairman)

a. Function

The Safety Review Manager (PORC Chairman) conducts the Committee meetings and manages the meeting records and activities.

b. Responsibility

This position is responsible for the conduct of Plant Operation Review Committee activities in accordance with the TMI Unit 1 Technical Specifications.

These activities include review of specific procedure changes, review of reportable events, and review of violations of regulations and procedures having nuclear safety significance.

c. Authority

The Chairman has the authority to conduct Plant Operations Review Committee Meetings in accordance with Technical Specification requirements and relate the findings and formal recommendations to the Manager of TMI-Unit 1 and the Vice President TMI-1.

d. Minimum Qualifications

The Chairman shall have a Bachelor of Science degree in an engineering or scientific related field and at least four years of nuclear power plant experience. The academic training may be replaced on a one-for-one time basis by power plant or other suitable industrial experience.

e. Incumbent Qualifications

This position is currently filled by the Lead Electrical Engineer.

Education:	Pennsylvania State University Dubois Campus Associate Degree - Electrical 1963-1965
	Pennsylvania State University Capitol Campus Bachelor of Engineering Technology - Electrical 1968-1970
Relevant Assignments:	Summer Student - Engineering Assistant - TMI - June 1969 - September 1969
	Project Engineer - TMI June 1970 - November 1973
	Lead Engineer - TMI November 1973 - President

Holds Senior Reactor Operator License on TMI-1.

f. Interface

The Plant Safety Review Committee Chairman reports to the Unit 1 Vice President and interfaces with the Onsite and Offsite Engineering Groups, the GRC Chairman, the Nuclear Regulatory Commission, and the Supervisor of Licensing in the execution of the Safety Review Committee responsibilities set forth in the technical specifications.

5.2.25 Manager Radiological Controls

a. Function

The Manager Radiological Controls - reports to the Vice President TMI-1 on all matters related to the implementation of the Radiological Control Program design, support and enforcement functions in the ongoing operation, maintenance and construction activities associated with TMI-1.

b. Responsibility

The Manager Radiological Controls is responsible for:

- The development and implementation of a Radiological Control Program which meets or exceeds those requirements specified in the Radiation Controls Plan, Technical Specifications, Code of Federal Regulations as related to the NRC or other Regulatory directives.

- The coordination of the Radiological Controls Department with the maintenance, operation and construction activities of other Unit 1 Departments.

- The direction of the technical review of all matters addressed to the Radiological Controls Department which involve personnel exposure to external or internal radiation.

- The technical review of all operations which release radioactivity to the environment.

- The monitoring and proper documentation of all radioactive material received, transferred or shipped offsite by Unit 1.

- The maintenance of records reflecting the results of all inspections and surveys pertinent to the Radiological Controls Program in Unit 1.

- The technical review and approval of all courses of training which may affect the Radiological Control Program including the approval of all examinations which measure the effectiveness of such training for both radiological control technicians, operations, maintenance and craft trades personnel.

- The certification of qualification of all personnel who perform radiation monitoring or survey functions directly affecting the radiological safety of other personnel.

- The support of Manger Unit 1 through the technical review of radio-chemical analyses and an independent monitoring of the performance of the conduct of such analyses by the Chemistry Department.

- The reporting to proper station authority all unusual operating conditions likely to affect personnel radiological safety.

- Support of the Operations Department in Radioactive waste processing and treatment activities.

c. Authority

The Manager Radiological Controls - has the authority to direct the termination of any operation, maintenance, or construction which is not being accomplished in accordance with radiological control practices and procedures.

d. Qualifications

The Manager Radiological Controls - shall have a Bachelor of Science Degree in Engineering or Scientific field and have 5 years of Nuclear Power Plant experience.

e. Incumbent Qualifications

Education:	BSEE Pennsylvania State University - 1970
Military Service:	U. S. Navy - 1960-1966
Relevent Assignments/ Training:	Test Engineer - Saxton Nuclear Experimental Corporation Mar. 1970 - Aug. 1970
	Supervisor Reactor Plant Services - Saxton - Aug. 1970 - Aug. 1972
	Supervisor - Quality Control TMI Unit 1 - Aug. 1972 - July 1976
	Supervisor - Licensing Met-Ed - July 1976 - Jan. 1979
	Superintendent - Technical Support Unit 1 - Jan. 1979 - Nov. 1979
	Basic Nuclear Power Review 16 hours NUS 1972
	PWR Simulator Training 104 hours B&W 1973
	Effective Communications 36 hours 1974

ASME Quality Assurance
24 hours
1974

Auditing Nuclear Quality
24 hours
1974

Supervisory Development Course
2 weeks
1978

f. Interface

A separate organization under the TMI-2 Manager Radiological Controls reporting to the President GPU Nuclear Corp., Senior Vice President, TMI Generation Group in addition to providing direct services to Unit 2, provides contract functions to Unit 1 through the TMI-1 Radiological Controls Manager. These functions provided include personnel dosimetry, respiratory protection technical support, maintenance and calibration of survey instrumentation, and technical support related to shipment of solid radioactive waste.

The Manager Radiological Controls - interfaces with the Managers of, Plant Engineering, Training, and Administration and Services for Radiological Control Program related activities in chemistry, maintenance, operations, construction, radwaste treatment and processing, technician training, and security.

5.2.26 Supervisor Radiological Controls

a. Function

The Supervisor Radiological Control reports directly to the Manager Radiological Control for the coordination and performance of Radiological Control support and enforcement functions accomplished by Radiological Control Technicians including contract technicians assigned to the Radiological Control Technicians Group.

b. Responsibility

The Supervisor Radiological Control is responsible for ensuring that radiological control functions thru the Supervision of the Radiological Control Foreman, are accomplished in full compliance with Title 10, Code of Federal Regulations, Part 20 (and other such regulations as applicable) and approved radiological control procedures and practices. Specific responsibilities include such items as:

. The execution of radiological surveys, including their scheduling and review, for radiation, airborne radioactivity, and surface contamination to assess radiological conditions in work areas.

. Coordinating and approving the tr ining given to personnel assigned to perform foreman and nician radiological control activities.

. The evaluation and approval of the qualifications of personnel assigned to perform radiological control foreman and technician functions.

c. Authority

The Supervisor Radiological Control has the authority to direct the termination of an operation or activity which is not being accomplished in accordance with regulations and radiological control practices and procedures.

d. Qualifications

The Supervisor Radiological Control shall have a minimum of five years of Nuclear power plant radiological control work experience.

e. Incubent Qualifications

. High School graduate - 1963

. Navy GED Correspondence

. College - 1 year - Navy GED Correspondence

- United States Navy Nuclear Power Program - 6 1/2 years 1964-1971
  - Mechanical Operator - Engineering Lab Technician - Nuclear powered submarine.
  - Nuclear power submarine
- Radiological Control Supervisor - Nuclear Submarine Tender
- Metropolitan Edison Company (Three Mile Island) 9 years 1971-present
  - Auxiliary Operator "A" - 3 years
  - Radiation-Chemistry Technician - 3 years
  - Radiation Protection Foreman - 3 years

f. Interfaces

This position interfaces with all TMI departments including Contractors to enforce compliance with approved radiological control and work practices.

5.2.27 Radiological Controls Foremen

a. Function

This position reports to the Supervisor of Radiological Controls on assigned areas of responsibility to implement and enforce the Radiation Protection Program.

b. Responsibility

This position is responsible for the implementation of the Radiation Protection Program by the Radiation Control Technicians. This includes insuring that all procedures involving Radiological Surveys, Radioactive Material Control and radiation exposure control and assessment are fully implemented. This position is also responsible to review the practices of other personnel working within restricted areas to provide additional assurance that all personnel are performing work in accordance with good radiological practices.

c. Authority

This position has the authority to direct the activities of the Radiological Controls Technicians in the performance of their duties as well as to determine the radiological control measures to be included in all work involving exposure of personnel to radiation or radioactive material. This position has the authority to stop any work being performed which is not in accordance with good radiological work practices.

d. Minimum Qualifications

High School graduate or equivalent and have at least three years experience as a technician qualified to ANSI/ANS-3.1-1978 paragraph 4.5.2.

e. Incumbent Qualifications

Incumbent A

- High School Graduate 1968
- RCA Institute 1966-1968
- United States Navy Nuclear Power Program - 6 years 1968-1974
- Metropolitan Edison Company (Three Mile Island) 5 years 1974-present
  - Radiation-Chemistry Technician 3 years
  - Radiation Protection Foreman 2 years

Incumbent B

. High School Graduate 1968
. College - 2 years - 1968 - 1970
. Metropolitan Edison Company (Three Mile Island) 9 years 1970-present
  . Lineman 3 years
  . Radiation-Chemistry Technician 5 1/2 years
  . Radiation Protection Foreman 1 1/2 months

Incumbent C

. High School Graduate 1969
. University of Pittsburgh - B.S. in Biology - 1969-1973
. PA Dept of Transportation - Lab Technician 4 months
. PA Dept of Environmental Resources-Maintenance 4 months
. PA Dept of Agriculturee - Assistant Entomologist 6 months
. Metropolitan Edison Company (Three Mile Island) 1973-present
  . Radiation-Chemistry Technician 6 yeras
  .. Radiation Protection Foreman 1 month

f. Interface

The position interfaces with every department and contractor organization which has need to enter the restricted area of the Unit to ensure the enforcement of approved radiological work practices and procedures. The interface includes interaction with regulatory agency inspectors in the review of the Radiation Protection Program.

5.2.28 Radiological Controls Technicians

a. Function

Under the direction of a Foreman, radiological controls Technicians support and enforce the implementation of the Radiological Control Program to insure that all procedures involving radiological surveys, radioactive material control, and radiation exposure control and assessment are fully observed; and, that work being performed with in restricted areas is in accordance with good radiological practices.

b. Responsibility

The Radiological Controls Technicians are responsible for the accomplishment of tasks related to the radiological support of plant operations, maintenance, and construction activities. Additionally, the Technicians are responsible to functionally enforce the field use of correct radiological control work practices.

c. Authority

Under the direction of a Foreman, the Technicians assure that radiological control measures are included in all work activities involving exposure of personnel to radiation or radioactive material. This position has the authority to stop any work which is not being performed in accordance with good radiological practices.

d. Minimum Qualifications

High School graduate or equivalent and meet or exceed the qualifications of ANSI/ANS-3.1-1978, para 4.5.2. All Technicians will be qualified by training and examination on each area or specific task related to their radiological control function prior to the performance of those tasks.

e. Interfaces

The position interfaces with every department and contractor organization which has need to enter the restricted area of the unit to ensure the enforcement of approved radiological work practices and procedures.

5.2.29 Supervisor Radiological Engineering

a. Function

The Supervisor Radiological Engineering reports directly to the Manager Radiological Control on all matters involving the Radiological Control program design and the technical aspects related to implementation of the program support functions including ALARA, Bioassay and Respiratory Protection.

b. Responsibility

The Supervisor Radiological Engineering is responsible thru the supervision of the technical staff for the accomplishment of:

. Design reviews for proposed facilities, systems, and equipment that potentially affect radiation exposures.

. Accomplishing ALARA through: periodic review of work conditions; review of procedures; requiring preplanning of work to include briefings; and developing and maintaining standard work practice and procedures.

. The calibration and maintenance of survey and laboratory instruments used in Unit 1.

. Maintaining technical liaison with the Radwaste Disposal group for the handling, storage, and shipping of radioactive material from Unit 1.

. The preparation and/or revision of radiological control program implementing procedures to meet current regulatory requirements/standards.

. The maintenance of required survey and exposure records.

. The timely submission of required reports and notifications.

. Respiratory protection.

. Dosimetry and bioassay.

. The review and approval of radioactive releases.

c. Authority

The Supervisor Radiological Engineering has the authority to direct the termination of any operation or activity which is not being accomplished in accordance with regulations and radiological control practices and procedures.

d. Qualifications

The Supervisor Radiological Engineering shall be qualified per paragraph 4.4.4 ANSI/ANS-3.1-1978 and further shall possess the qualifications prescribed in Regulatory Guide 1.8.

e. Incumbent Qualifications

Education:	BS Physics - Fairfield University - 1970
	MS Nuclear Engineering - Georgia Tech - 1971
Military Service:	U. S. Navy - 1972-1974
Relevent Assignments:	Radiation Health Officer - Nuclear Submarine Tender - 1972-1973
	Radiation Physicist - Naval Regional Medical Center - 1973-1974
	Radiological Engineer - TMI - 1974-1976
	Radiation Protection Supervisor - TMI - 1976-1977
	Supervisor Radiation Protection & Chemistry - TMI - 1977-1979

f. Interfaces

The Supervisor Radiological Engineering interfaces with other engineering groups, training, maintenance, operations, Nuclear Regulatory Commission, and other regulatory bodies necessary to perform his function.

5.2.30 Radiological Engineers

a. Function

As directed by the Supervisor-Radiological Engineering this position functions to provide engineering support for the Radiological Control Program.

b. Responsibility

This position is responsible for providing technical support to the Radiological Control Program in the areas of general program design, respiratory protection, dosimetry program design, and ALARA program design. This position is responsible to insure that various aspects of the Radiological Control Program are in accordance with regulatory requirements, guides and standards as well as correct radiation protection practices. The position is also responsible for the review of plant modifications and design changes to insure that they are in accordance with ALARA considerations.

c. Authority

Radiological Engineers have the authority to recommend changes to the Radiological Control Program to insure continued compliance with regulatory requirements. They have the authority to define procedural requirements necessary for implementation of approved program changes by the Radiological Controls Group.

d. Minimum Qualification

A Bachelors Degree in Health Physics, a Physical Science, Engineering or equivalent.

e. Incumbent's Qualifications

Education:	BS - Radiological Health Physics Lowell University - 1974
Relevant Assignments:	New England Nuclear - Cyclotron Operator and Health Physics Support 1973 - 1974
	Morrison Knudsen Co. (Knolls Atomic Powr Lab) - Associate Health Physicist 1974 - 1976
	Yale University - Associate Health Physicist 1976 -1977
	Metropolitan Edison Co. (Three Mile Island) - Radiological Engineer 1977 - 1979

As such time as a permanent staff of three (3) Radiological Engineers are available at TMI Unit 1, the Radiologcial Engineering Group will be supplemented by Contract Support Resumes of the present Contract Support personnel are as follows:

f. Support Radiological Engineer A.

Education: BS Math with Physics Minor 1969

Completed a nuclear power plant operation course in 1972 (52 weeks). Course consisted of academic training in nuclear, mechanical, and electrical engineering; nuclear power plant health physics and chemical control including personnel and environmental monitoring, waste disposal, area radiation surveys, operation and calibration of radiation protective devices, and the establishment of radiation control points and issuing radiation work permits, and operations training in light water reactors. Qualified as a basic nuclear power plant operator.

Completed a Nuclear Accident Control consisting of one week of formal training in 1974.

Experience:

Over six years experience in radiological protection and personnel monitoring including nuclear power operations, military safety programs, and government regulations.

Inspected Nuclear Regulatory Commission licensees within Region IV, that were authorized to use byproduct, source, and special nuclear materials; observed evaluated, and reported as to the compliance with the requirements of the NRC and the safety of licensee operations.

Performed as assistance health physics director for Walter Reed Medical Center. Duties included health physics supervision associated with a large medical research recovery group. Supervised up to 26 technicians.

Performed compliance evaluation of radiation protection programs at various military installations. Surveyed medical radiation emitting devices for conformance to military specifications. Reviewed AEC license applications and survey reports for completeness and accuracy.

Performed as senior health physics technician at Three Mile Island Nuclear Power Station (1979 - Present).

Performed as a health physics technician during refueling outage at Maine Yankee (1978).

g. Support Radiological Engineer B

Education:	1966	Central Florida Jr. College, Ocala, Florida, (Associates Arts Degree in Electroncis)
	1977	University of Florida, Gainesville, Florida (Bachelor of Engineering Technology)
Work Experience:	1978-Present	Assistant Health Physicist, NUS Corporation, Rockville, MD
	1977-1978	Jr. Health Physicist Oconee Nuclear Station, Seneca, SC
	1976 Winter	Assistant Radiological Safety Officer University of Florida Medical Center, Dept. of Occupational Health & Safety, Gainesville, Florida
	1976 Fall	Internship in the Environmental Health & Safety at the University of Mass. Medical Center, Worchester, Mass.
	1976 Summer	Departmental Assistant in Radiation Safety at the University of Mass. Medical Center, Worchester, Mass.
	1976 Spring	Internship in Radiation Control at the University of Florida
	1971-1973	Technician and operator of Electro-Mechanical Training Devices, Groton, Conn.
	1969-1970	Leading Technician in charge of Electro-Mechanical Systesm and Departmental Coordinator for Planned Maintenance Procedures while on U.S.N. vessel

Military Nuclear Experience:

April 1969 - June 1969	Health Physics Specialist SM-I Nuclear Power Plant Ft. Belvoir, VA
July 1969 - January 1970	Training Equipment Operator MH-1A Nuclear Power Plant Ft. Davis, CZ
February 1970 - March 1970	Equipment Operator MH-1A Nuclear Power Plant Ft. Davis, CZ
April 1970 - December 1970	Health Physics Specialist MH-1A Nuclear Power Plant Ft. Davis, CZ

December 1970 - January 1971	Technical Escort Spent Fuel Rod Shipments from Canal Zone to various locations within the continental US
January 1971 - January 1972	Health Physics Instructor Health Physics Br., Engineer Group Ft. Belvoir, VA
January 1973 - November 1973	Health Physics Specialist Research and Technology Division Engineer Power Group Ft. Belvoir, VA
April 1974 - January 1980	Health Physics Specialist Walter Reed Army Medical Center Washington, DC
January 1980 - Present	Nuclear Support Services, Health Physics Specialist, Senior Health Physicist for Nuclear Support Services, Inc. Three Mile Island Power Plant March 30 - April 1979

Civilian Nuclear Experience:

Worked as Senior Health Physicist for Institute for Resource Management, Bethesda, MD, and for Nuclear Support Services, Woodbridge, VA, during annual maintenance and refueling outages at the following nuclear power plants:

Oyster Creek (JCP&L)	Toms River, NJ	1974
H.B. Robinson (CP&L)	Hartsville, SC	1975
Prairie Island (NSP)	Red Wing, MN	1976
Prairie Island (NSP)	Red Wing, MN	1977

h. Support Radiological Engineer C

Education: BA - Benedictine College, Atchinson, Kansas - 1972

Short Courses: "Radionuclide Analysis by Gamma Spectroscopy"
Bureau Radiological Health, Winchester, MA
September 13-24, 1971

"Radiation Protection Guides and Dose Assessment"
Bureau Radiological Health, Montgomery, AL
March 29-April 9, 1971

"Health Physics Aspects of Radioisotope Use"
Walter Reed Army Medical Center, Washington, DC
June 24-28, 1974

"Nuclear Hazards Evaluation Course"
Interservice Special Weapons Training Group
Kirtland AFB, NM
October 7-11, 1974

"Ionizing & Nonionizing Radiation in Medicine"
HPS, University of Pennsylvania
Philadelphia, PA
July 2-6, 1979

"HP Certification Prep Course"
Baltimore Washington Chapter Health Physics Society
Gaithersburg, MD
January-May 1979

Military Training:

"Nuclear Power Plant Operator/Health Physics Course"
Nuclear Power Field Office
Ft. Belvoir, VA
February 1968 - March 1969

"X-ray Specialist Course"
Academy of Health Sciences
Fort Sam Houston, TX
October 19, 1973 - February 8, 1974

Technical Qualifications:

Certified Radioactive Materials Handler,
Engineer Reactors Group
Ft. Belvoir, VA 1970

Registered Radiation Protection Technologist,
National Registry of Radiation Protection Technologists
January 1977

i. Interfaces

This position interfaces with the Radiological Controls group, Operations Department, Maintenance Department and Engineering personnel as well as consulting engineers and Health Physicists in the normal performance of duties. This position also interfaces with regulatory personnel to insure adequate program design.

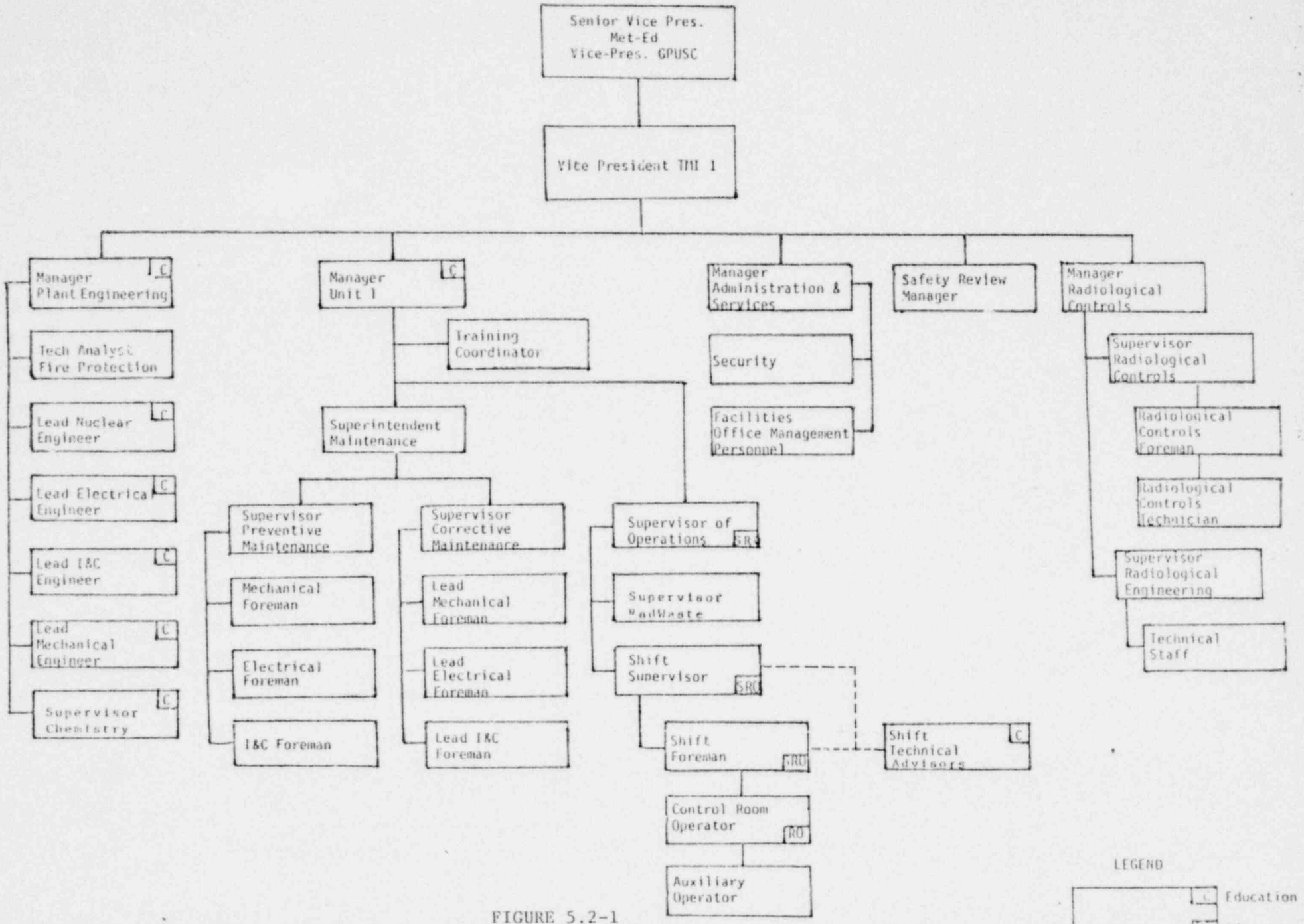
Senior Vice Pres.
Met-Ed
Vice-Pres. GPUSC
Vice President TMI 1
Manager Plant Engineering
C
Tech Analyst Fire Protection
Lead Nuclear Engineer
C
Lead Electrical Engineer
C
Lead I&C Engineer
C
Lead Mechanical Engineer
C
Supervisor Chemistry
C
Manager Unit 1
C
Training Coordinator
Superintendent Maintenance
Supervisor Preventive Maintenance
Mechanical Foreman
Electrical Foreman
I&C Foreman
Supervisor Corrective Maintenance
Lead Mechanical Foreman
Lead Electrical Foreman
Lead I&C Foreman
Manager Administration & Services
Security
Facilities Office Management Personnel
Safety Review Manager
Supervisor of Operations
SRO
Supervisor RadWaste
Shift Supervisor
SRO
Shift Foreman
SRO
Shift Technical Advisors
C
Control Room Operator
RO
Auxiliary Operator
Manager Radiological Controls
Supervisor Radiological Controls
Radiological Controls Foreman
Radiological Controls Technician
Supervisor Radiological Engineering
Technical Staff
LEGEND
C
Education
RO
License

FIGURE 5.2-1

5.3 STATION SUPPORT ORGANIZATION

The facility organization is supplemented by the resources of General Public Utilities. The GPU Station Support Organization, shown in Figure 5.3-1, will function in the three main areas of Technical Functions, Nuclear Assurance and Administration.

The Director Technical Functions reports to the Senior Vice President-Met-Ed, Vice President GPU. In this position he will be responsible to provide a centralized technical capability to support generating facilities. This capability will include licensing, environmental concerns, general mechanical, civil, electrical and instrumentation and engineering mechanics areas to assist in the solution of plant operating problems. In addition, this position will be responsible for supporting GPU nuclear plants in the areas of nuclear fuel management, process computer, control and safety analysis, and plant operational analysis. Also, the TMI Engineering Management section has been organized to be the focal point for the coordination of all out of plant technical support for TMI operations.

The Director-Nuclear Assurance reports to the Senior Vice President-Met-Ed, Vice President GPU. In the position he has overall authority and direct responsibility for all Nuclear Assurance activities. He provides a technical capability both in the home office and at the Nuclear Generating Stations in fulfilling these responsibilities. This capbility will include expertise in nuclear quality assurance, radiation control, emergency planning coordination, technical training, chemistry and metallurgy. Nuclear Assurance has responsibility for supporting GPU Nuclear plants in the areas of quality assurance, nuclear safety assessment, Training, and Operational Safety Support.

The Director-Administration reports to the Senior Vice President-Met-Ed, Vice President GPU. In this position he has overall authority and direct responsibility in the areas of personnel resource management, legal services, information management, budgeting and cost control, security, facilities management, industrial safety and labor relations. In fulfilling these responsibilities he will provide technical capability both at the home office and in the field.

5.3.1 Technical Functions Group

The Technical Functions Group consists of five departments, namely, Environment, Health and Safety, Systems Engineering, Engineering and Design, Technical Management aNd TMI-2 Recovery Engineering. This group provides offsite support for TMI-1 as specified below:

All staff, except as noted, includes only GPU permanent personnel. Support form outside contractors is not included but is available on short notice to supplement the GPU staff as necessary. This may be used to accommodate short term manpower intensive needs or accommodate temporary vacancies. The Technical Functions Group management personnel each have at least a B.S. degree in engineering or science and the following experience.

	Years of Eng. Experience	Years of Nuc. Experience
Director, Technical Functions	26	24
Director, Environment, Health & Safety	30	23
Manager, Systems Engineering	22	22
Manager, Engineering & Design	20	14
Manager, TMI-2 Recovery Engineering	14	14

a. The Environment, Health & Safety Department is responsible for the licensing and environmental safety of generating stations.

   The current department staff is 29; with a total staff of about 45 planned.

b. Systems Engineering Department is responsible for providing support in the areas of nuclear fuel management, process computer, control and safety analysis, plant operational analysis and human factors engineering. More detailed responsibilities are:

   1. Nuclear Analysis & Fuels - Responsible for analytical and other activities related to core reloads, fuel management and the physics performance evaluation, including shielding analysis.

   2. Process Computers - Responsible for all process computer systems including both computer hardware (main frame and auxiliary memory units, input/output equipment and CRT display devices) and computer software.

   3. Control & Safety Analysis - Responsible for plant control systems engineering. Plant subsystem dynamic simulation and safety analysis.

   4. Plant Analysis - Responsible for analyzing overall plant performance and the behavior of individual systems and components.

The current department staff is 30, with a total staff of about 50 planned.

c. The Engineering and Design Department provides a centralized capability in the general mechanical, civil, electrical and instrumentation, and engineering mechanics areas. Other services include civil engineering and engineering standards and procedures. More detailed responsibilities are:

1. Engineering Mechanics - Technical expertise for the analysis of all structural and fluid mechanics problems, including piping, stress analysis and supports, general vibration and dynamics of mechanical equipment, acoustic noise, and fluid dynamics such as water and steam hammer, cavitation and related problems.

2. Mechanical Systems - Primary responsibilities for the analysis, engineering and design of all fluid and materials handling systems.

3. Mechanical Components - Provides technical expertise in the aplication of specialized mechanical components including pumps, fans, valves, heat exchangers and power conversion equipment. Also responsible for the general area of water treatment and industrial waste management systems.

4. Electrical Power & Instrumentation - Responsible for analysis and design of plant main and auxiliary electrical power distribution systems, protective relaying, lighting, communications, and grounding and cathodic protection and design capability for instrumentation application and I&C circuits.

5. Design & Drafting - Responsible for providing generalized design and drafting sdupport. incluing piping systems, electrical power and instrumentation, plant arrangements and equipment installation.

The current department staff is 53; with a total staff of '$ planned.

d. The Technical Management Group is responsible for coordinating and directing of assigned projects including all out of plant technical support for TMI operations.

The current group staff is 8 with a total of about 10 planned.

e. The TMI-2 Recovery Engineering Department is responsible for coordinating and directing assigned projects dealing with TMI-2 recovery, including radwaste reactor systems and containment and in-containment restoration projects. This department also provides onsite engineering support in the following areas:

Fluid and electrical systems, radiation and radiochemistry analysis, and process and waste management systems.

The current department staff is 4 with a total staff of about 20 planned.

5.3.2 Nuclear Assurance Program and Procedural Control at TMI-1 Restart

5.3.2.1 The TMI-2 accident has required major readjustments in the organization and management of the TMI Nuclear Station. The organizational structure of the TMI Generation Group and the Quality Assurance Program for controlling the operational activities, at TMI Nuclear Station are contained in the Operational Quality Assurance Plan for TMI Nuclear Units. This Plan establishes the organization and the management controls and Quality Assurance Program necessary to assure that the operational phase activities at the Nuclear Station are performed and controlled in a manner that will not endanger the health and safety of the public or the employees or contractors of TMI Generation Group. These activities are performed by the Operations personnel and those supporting activities such as radiation protection, surveillance testing, environmental monitoring, refueling, inservice inspection, modification, etc. which are required to assure continued operation in a safe manner. Inherent also in the operations of the Nuclear Station are those activities associated with the verification of the completeness and adequacy of the work performed and the provision of independent safety review and operational advice.

5.3.2.2 Nuclear Assurance Organization

The Nuclear Assurance Organization consists of three departments identified as follows.

- Quality Assurance
- Training and Operational Safety Support
- Nuclear Safety Assessment

The Director-Nuclear Assurance has the overall authority and direct responsibility for all Nuclear Assurance activities as defined in the Operational Quality Assurance Plan. These activities include, but are not limited to performing overall management assessment in the following areas:

- Operational Quality Assurance Program
- Nuclear Safety Assessment Program

Additionally, the Director-Nuclear Assurance has specific staff responsibilities to the Sr. Vice President, Met-Ed, Vice President GPUSC relative to other departments within the GPU System in the following areas:

- Radiation Control Program Development
- Emergency Planning Coordination and Program Development
- Training Program Development and Technical Administration
- Chemistry Laboratory Analysis
- Technical Assurance to and Evaluation of Chemistry Control
- Metallurgical Analysis

The Quality Assurance Department provides independent assesment of these areas within the Nuclear Assurance Organization.

5.3.2.3 Quality Assurance Department

The Quality Assurance Department under the direction of the Manager of Quality Assurance reports to the Director-Nuclear Assurance. The Manager of Quality Assurance and the Director-Nuclear Assurance are independent of design, procurement, manufacturing, construction, operations, or maintenance and report at a sufficiently high level to provide an independent assessment and evaluation of the effectiveness of the implementation of the Quality Assurance Program.

The Manager of Quality Assurance has the overall authority and organizational freedom to identify quality or management control problems and provide recommended solutions. This authority and responsibility includes the stoppage of work or the recommendation that an operating nuclear unit be shut down, the Manager of Quality Assurance has direct reporting authority to the Sr. Vice President, Met-Ed, Vice President GPUSC and shall use this path when differences of opinion within the organization regarding quality cannot be settled to his satisfaction.

The organized Quality Assurance Department consists of five major sections. Listed below is a description of the responsibilities of each section.

(1) Design and Procurement Assurance Section - This section with a quality engineering staff located both in the corporate headquarters and at TMI constitute the main technical support sections establishing quality programs, and inspection requirements in support of design and procurement activities. The same group reviews quality related materials and product specifications and procurement requisitions to assure that the committed to requirements have been established. Additionally, this group is involved with evaluation of specific vendors (contractors) and their programmatic controls against established requirements.

An element of the on-site Design and Procurement Assurance Section has the responsibility for reporting quality trending and performing final verification and acceptance of installation/modification documentation packages before turnover to Records Storage.

(2) Manufacturing Assurance Section - The prime responsibilities of this section are to perform those necessary post award quality related activities required to assure that vendor's product is designed, manufactured, and tested in accordance with those specified quality requirements. Trend information supplied by this group weighs heavily in the maintenance of the vendor's classification list.

(3) Modifications/Operations Section - This section consists of two major sub-groups, Quality Control and Operational Quality Assurance.

Quality Control is responsible for receiving inspection and the inspection and/or surveillance activities related to corrective maintenance, modifications, installation or new construction. The group has specialists who are qualified to the appropriate levels of ANSI N45.2.6 and SNT-TC-1A. Additionally, the group has a welding engineering section which reviews contractors' procedures and monitors control of special processes.

Operational Quality Assurance is responsible for monitoring functional testing and performing surveillance of all operations activities. The latter includes monitoring of plant operations, preventative maintenance, radiation protection and the processing, packaging and shipped of contaminated products, and radioactive wastes.

The Operational Quality Assurance group is also responsible for in-service inspection and monitoring performance and results of pump and valve testing to the applicable requirements of ASME Section XI.

(4) Methods, Operations and Audit Section - This section is responsible for QA Department program development. It is, therefore, responsible for coordinating activities associated with department procedures and indoctrination and training. Additionally, the group conducts independent evaluation and assessment of the program's implementation through Quality Assurance Audit Program.

The latter includes an evaluation of effectiveness of the programmatic aspects of the Quality Assurance Program. This program satisfied the requirements of ANSI N45.2.12 and utilizes auditors qualified to ANSI N45.2.23.

Assisting in this assessment is a full-time site audit group reporting independently to the Manager of Quality Assurance and the Director-Nuclear Assurance through the Section Head thus providing management assessment of the effectiveness of the program. Additionally, both sections are available to provide timely close out and verification of identified problems.

(5) Materials Technology Section - This is an off-site section which has the responsibility of supporting design in establishment and/or review of requirements. Additionally, the group is available as a staff group to support Manufacturing, Construction and Operations in assessment and/or evaluation of identified materials technology problems. To help affect the implementation of this responsibility are the services of the off-site laboratory which now reports to the Training and Operational Safety Support Department.

The specific services provided by the Materials Technology Section include:

- Non-destructive Examination
- In-Service Inspection
- Materials Engineering Support
- Welding Engineering

Whereas, other sections have full-time technical expertise in these areas, this centralized group will provide technical direction.

5.3.2.4 Nuclear Safety Assessment Department

The Nuclear Safety Assessment Department (NSAD) under the direction of its Manager reports directly to the Director of Nuclear Assurance. NSAD is a safety review group which is independent of design, construction, operations, modifications, procurement and manufacturing and reports at a sufficiently high level to provide an independent assessment and evaluation of the effectiveness and implementation of the Operational Nuclear Safety Program. The department's evaluations are not bounded by established nuclear regulations.

NSAD conducts assessments of all facets of nuclear power plant design and operation and considers their potential for compromising nuclear safety and provides management recommendations for improvements. The primary functions include:

(a) Identification of potential problems in nuclear plant design and operation.

(b) Investigate and assess the functional controls presently in existence for nuclear plant design and operations and their adequacy to properly assure nuclear safety.

(c) Develop and recommend to functional department managers additional controls, criteria and/or procedures which may be required to improve the control of design and operation of nuclear plants in meeting nuclear safety considerations.

(d) Serve as an office of ombudsman for all members of the Corporation having a concern for nuclear safety.

5.3.2.5 Training and Operational Safety Support

Training and Operational Safety Support Department (T&OSS) reports directly to the Director of Nuclear Assurance. Training and Operational Safety Support is made up of the System Laboratory, the Training Department, and Safety Support Staff Group.

The System Laboratory performs off-site analysis for all plants within the GPU System. It also provides technical guidance and evaluation support to Operations and the Methods/Operations/Audit Section on technical audits of specific plant functions.

The Training Department will develop an overall training needs evaluation which will provide the basis for a total GPU Nuclear Training Program. The technical and administrative direction of the generation unit training programs will be provided by the Department Manager. Training programs will include such areas as:

(a) Management skills and supervisor training

(b) Licensed operator training (RO at SRO)

(c) Maintenance training

(d) Health physics and radiation control training

(e) Emergency plan training

(f) Quality assurance training

(g) Chemistry technician training

(h) General employee indoctrination and training

(i) Instructor training and certification

(j) Other specialized technical training

The Department will work with the generating units to develop effective job descriptions, course objectives and lesson plans. Final evaluation and certification of trainees will rest with the generating units and support organizations. The Training Department will coordinate the maintenance of appropriate training records, scheduling of training classes, and simulator training, and development of instructors. The Department will also conduct an ongoing evaluation of training program effectiveness, instructor performance and course material updates.

Requirements for full control room and part-trask simulators will be evaluated along with other training facility needs. Recommendations from investigative and special training study groups will be evaluated and appropriate responses developed. Close contact will be maintained with the Institute for Nuclear Power Operations and other appropriate industry groups.

T&OSS also provides Emergency Planning expertise in the following areas:

(a) Development and maintenance of the Emergency Plan.

(b) Provides competent staff members to act as the Emergency Plan Coordinators.

(c) Provides management evaluation of the Emergency Planning Program.

(d) Provides technical audit assistance to the Quality Assurance audit group.

5.3.2.5.1 Manager Training

a. Function

The Manager-Training reports to the Director Training and Operation Safety Support. In this position he is responsible for the operator training, technician training, accelerated operator retraining, and career development training. The technical training section will include training for maintenance, chemistry and radiological control technicians. The operator accelerated retraining program is a broad program based upon changes and lessons learned as a result of the TMI-2 accident.

b. Responsibility

This position is responsible for the training of all personnel at TMI. This responsibility is discharged through an organization structure devised to address training consistent with established functional disciplines. In addition, the organization provides the administrative support necessary

to conduct the major programs. The principle responsibilities of this position are:

1. To assure the content and conduct of training for Reactor Operators, Radiological Control and Maintenance Technicians, and to insure Professional personnel and management personnel meet Federal, state, and local regulatory requirements and conform to established industry standards.

2. To oversee the development and maintenance of a viable station training philosophy.

3. To select and dvelop competent training staff.

c. Authority

The Manager-Training has the authority to schedule and implement approved TMI training programs. He has the authority to recommend SRO and CRO candidates for NRC license examinations to the station superintendent.

d. Minimum Qualifications

This position is required to support the TMI Generation Group organization and shall have appropriate qualifications.

e. Incumbent Qualifications

BS Degree in Physics - III. Institute of Technology
Employed - U.S. Navy 1948-58 - Reactor Operator, Nuclear Power School Instructor.
Met-Ed - 1973 - Present - Head of Licensing, QA Program, Manager Generation Operations.
Argonne National Laboratory 6/58-7/58 - Instructor and Reactor Operator.
Vermont Yankee Nuclear Power Corp. 7/68-7/73.

f. Interfaces

1. Offsite

The position, Manager-Training, interfaces with Technical Functions in the areas of regulatory training and LER incorporation into the operator training program.

Interface with technical functions, insures the utilization of knowledgeable and qualified engineers to develop training materials and provide instruction in accordance with approved training programs.

2. Onsite

This position interfaces with the TMI-1 Station Training organization in the:

a. Conduct of on-shift training as scheduled by the Training Department.

b. Conduct of performance reviews of training programs.

c. Coordination of station personnel assignment to scheduled training.

d. Establishment of training requirements.

e. Conduct of Needs Analysis and Job Analysis with respect to training programs.

5.3.2.5.2 Supervisor Operator Training

a. Function

The Supervisor Operator Training reports to the Manager Training. In this position he is responsible for the planning, preparation and conduct of the licensed and non-licensed operator training and requalification programs. Included is the operator accelerated retraining program which is based upon the changes and lessons learned as a result of the TMI-2 accident.

b. Responsibility

This position is responsible for the training of all licensed and non-licensed operators and senior reactor operators at TMI. This responsibility is discharged through an operator training organizations structure devised to address the trainee along functional discipline lines. Principle accountabilities of this position are:

1. Formulation, administration and implementation of approved operator training programs for exempt and non-exampt personnel at the Three Mile Island Nuclear Station. This includes curriculum development, training material preparation and presentation, scheduling, examination preparation and administration, and program evaluation.

2. The implementation of specialized nuclear initial training programs for auxiliary operators, Control Room Operators, shift supervisors and foreman, and plant engineers.

3. The development and implementation of the TMI Operator Requalification Program (10 CFR 55 requirement) for continued NRC licensed operator certification and continued station operations.

4. The development of procedures necessary to implement and effective SRO, CRO and Auxiliary Operator training program.

c. Authority

The Supervisor of Operator Training has the authority to schedule and implement approved training programs.

d. Minimum Qualification

At the time of assuming the position, the Supervisor of Training shall have a high school diploma or equivalent and four years of experience in the educational or training discipline. At least one year of this experience should be nuclear.

e. Incumbent Qualifications

1. High School Graduate - Reading Senior High School, Reading, PA.
2. Employed - Western Electric Co. 1959-1961, Senior Electronic Technician
3. Employed - Penn State University Nuclear Engineering Dept. 1963-1969, Reactor Operator Training Supervisor
4. Employed - Met-Ed, 1969-1973, Training Specialist. 1973-1976, Administrator Nuc/Tech Training 1976-1978, Group Supervisor Tech Training
5. Attended Penn-State Unversity 1961-1969, Full and part-time accumulated 83 credits.
6. Held Senior Reactor Operator License-Penn State Universi Nuclear Reactor Facility
7. Graduate - Babcock and Wilcox Nuclear Steam Supply Schoo and Simulator Startup Certification Program
8. Fifteen years experience in operator training

f. Interface

The Supervisor Operator-Training, interfaces with the TMI-1 station training organization to insure continuity and compliance with training program requirements. Interface with the Nuclear Regulatory Commission Licensing Branch for the scheduling of NRC operator examinations. Interface with the Babcock and Wilcox Corp. for the scheduling of Nuclear Steam Supply System and Simulator Training.

5.3.2.5.3 Supervisor-Technician Training Section

a. Function

The Supervisor-Technician Training reports to the Manager-Training in performance of his duties. He is resonsible for supervising the performance of personnel assigned to the training department in the following groups:

1. Maintenance

2. Radiological Controls

3. Chemistry

4. Security

b. Responsibility

The Supervisor-Technician Training is responsible for developing and conducting training in the following areas:

1. Maintenance Technician Training

2. Radiological Controls Training

3. Chemistry Training

4. Security Training

5. Emergency Plan Training

In addition he is responsible for providing support training in the following areas:

1. General Employee Radiological Controls Training

2. General Employee Security Training

3. Operator Radiological Controls Training

c. Authority

The Supervisor-Technician has the authority to develop and conduct approved training programs in his areas of responsibility. In addition, he has the authority to meet directly with other Station Department Heads in order to develop specific technical training program needs and related requirements.

d. Minimum Qualifications

At the time of assuming the position, the Supervisor-Technician Training shall have a high school diploma or equivalent and four years of experience in the related educational or training discipline.

e. Incumbent's Qualifications

B.S. Degree in Engineering - U.S. Naval Academy
Employed - U.S. Navy, 1945-1970, various positions from hospital corpsman to commanding officer, nuclear submarine.

1972-1977 Supervisor Training - Nuclear Power Station. Held SRO license --PWR.

f. Interface

The Supervisor-Technician Training interfaces with the other training sections in the Training Department, the TMI-1 station training organization and with TMI Generation Group engineering personnel for technical assistance. In addition, direct liaison is authorized with other station Department Heads and off-site training contractors in performance of his duties.

5.3.2.5.4 Supervisor-Career Development Training

a. Function

The Supervisor-Career Development Training reports to the Manager Training. His functions are General Employee Training, Support Training and Supervisory Development Training. The General Employee Training group will include general training and retraining for TMI employees, Basic Radiological Control and Intermediate Radiological Controls training for contractor and vendor personnel and orientation training for newly hired personnel. The supervisory development groups will identify, develop and conduct those specific training courses and programs for supervisory and management personnel at the TMI Station. These include Shift Technical Advisor training and Decision Analysis training for shift supervision and management personnel.

b. Responsibility

This position is responsible for training general station personnel and station supervision and management. This responsibility is discharged through a training section organization structured along functional lines. Principle responsibilities of this position are:

1. To implement training directives from the Manager-Training for the areas of general employee training, support training and supervisory development training.

2. To direct, coordinate and administer the training and retraining programs and activities of the subordinate career development training groups.

3. To interface with other training sections and the TMI-1 Station training organization to identify, develop and implement general, supervisory, and support training programs.

4. To assure that training program content and conduct meet applicable Federal, state and local regulatory requirements and conform to industry standards.

5. To oversee the dissemination and implementation of appropriate training procedures and practices.

6. To assist the Manager-Training in the evaluation of training program effectiveness.

7. To administer and implement the department training philosophy and assure transmittal of the philosophy to subordinate groups.

c. Authority

The position is delegated the authority from the Manager-Training to discharge the necessary duties and responsibilities of the Career Development Training Section. He has the authority to develop and implement approved programs in the areas of his responsibility.

d. Minimum Qualifications

The Supervisor-Career Development Training will possess the education, training, expertise, and experience necessary to discharge the functioning of the training section, and shall have four years experience in education or training or equivalent.

e. Incumbent Qualifications

B.S. Mechanical Engineering

1957-1960	Plant Engineer, Salt River Power District
1960-1962	Field Engr., Lead Startup Engr., Project Manager, Bechtel Power Corporation
1972-1974	Assistant Manager Construction, PSE&G of New Jers
1974-1976	Construction Supt. SNUPPs, Bechtel Corporation
1976-1979	Site Manager, Phillips Getschow
Present	Supervisor, Career Development, Metropolitan Edis Company

f. Interface

1. Offsite

The position interfaces with the TMI Generation Group Administration Division in the areas of supervisory development training programs. Also interfaces with academic institutions and industry training organizations. Additional interface with regulatory agencies to further define requirements of training programs.

2. Onsite

The position interfaces with other training sections, the Station training organization, and TMI Station departments to develop and implement the training and retraining programs for general employees, support training, and supervisory development.

5.3.2.6 Radiological System Control Department

This department, which reports directly to the Director - Nuclear Assurance, provides staff support in the development of policy guidance in the area of Radiation Control. Additionally, technical expertise is available to assist in solving plant problems and in audit implementation.

5.3.3 ADMINISTRATION

The Administration Division's responsibilities are to provide administrative services in the areas of fiscal management, budgeting and cost control, information management, management information reporting, materials management, personnel resources, legal, security, industrial safety and facilities management in support of TMI Generation Group's plant and service divisions' operations and corporate objectives within the framework of five organizations:

5.3.3.1 The Fiscal/Administrative Group:

- Schedules, formats, solicits, collects, analyzes inputs for, questions variances and inconsistencies and ultimately issues annual capital and O&M budgets.

- Regularly examines actuals versus budget variances, by department and division, to assess where overruns and underruns may be developing to assist division heads to refocus their resources and/ or realign their authorizations to maximize Corporate Management objectives.

- Supports Technical Functions in evaluating and scheduling the design impacts analyses, spare parts and technical documentation addenda and cost estimates associated with potential or planned plant changes from point of decision to installation.

- Provides Cash Management, Accounts Payable, Accounts Receivable and General Accounting services.

- Prepares, coordinates and issues Corporate policies and procedures.

- Develops, analyzes, provides overall plant projects main event milestones schedules.

- Solicits, reviews, coorelates, publishes and progress-reports against Division and Department functional and projects goals.

- Resolves inconsistencies between main projects events, schedule status reports, results against goals, significant event reports and correspondence inputs (correspondence control); where a schedule may be lagging proposes potentially beneficial work-arounds and catchups.

- Creates, maintains and keeps current Central Corporate document control files.

- Provides the Corporation's central interface with the GPUSC Information Services hardware and software systems and provides terminalling services as needed for access to these systems.

5.3.3.2 The Materials Management Group:

. Bids, reviews quotations and places materials, equipment, fuels and services requirements by purchase orders and contracts at schedules responsive to projects requirements, on competitive and other economically justifiable basis and on favorable terms; expedites their timely delivery and receives, inspects, warehouses and issues such items consistent with sound industrial practices and regulatory requirements and maintains inventory levels of repetitively procured items at optimum levels consistent with continuity of operations and economy of service.

5.3.3.3 The Personnel and Labor Relations Group:

. Manages the recruiting, indoctrination and orientation of new employees; provides wage and salary, career progression planning, benefits development, E.E.O., and other employee retention programs, and supporting records.

. Provides professional and bargaining unit personnel with counseling, grievances review and negotiates and administers union contracts.

5.3.3.4 The Safety, Security and Facilities Group:

. Administers industrial safety programs, security and facilities (buildings, grounds, transportation and communications) services directed to creating a safe, convenient and protected work environment. This includes --

- Prescribing the manner and policies for administering and directing the plants' security forces to protect site facilities, personnel, and prepares, and assures compliance with, Corporate and Governmental policies and regulations.

- Prescribing the manner and frequency for periodic and regular maintenance of facility security systems.

- Providing performance assurance via visitations, reports review and other means to measure the effectiveness of plant security policies, measures, equipment and personnel.

- Establishing policies and procedures to comply with OSHA regulations.

- Developing accident reporting procedures.

- Administering safe working conditions surveys and membership, reporting and actioning followups.

- Assuring fire protection systems readiness.

- Developing the plant industrial safety training syllabus and assuring its implementation.

- Recommending, determining, implementing and co-administering with plant personnel, plant facilities requirements, arrangements, equipment and supplies including transportation, buildings, and communications.

5.3.3.5 The Legal Services Department:

. Provides legal services in support of various divisions operations including reviewing regulatory filings pre-submissions, reviews of policy and procedures; and consultations including pre-commitment purchase transactions reviews, vendor negotiations support. Also evaluates, coordinates and supports litigation, arbitration or administrative proceedings.

TMI GENERATION GROUP

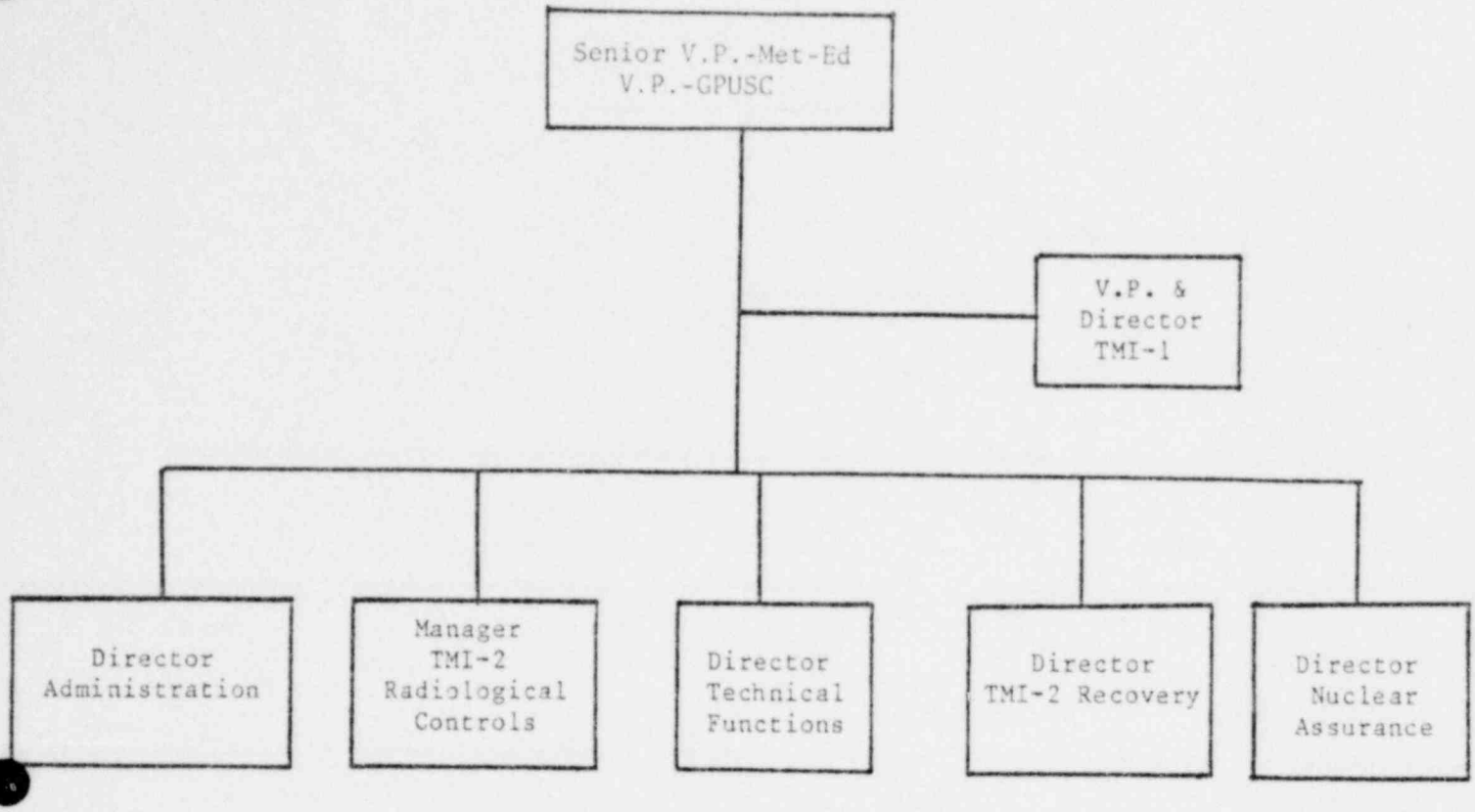

FIGURE 5.3-1