

THE TOLEDO EDISON COMPANY

Corporate Capabilities

for

Power Reactor Facility Operating License NPF-3

August 1979

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THE TOLEDO EDISON COMPANY

Corporate Capabilities  
for  
Power Reactor Facility Operating License NPF-3

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# THE TOLEDO EDISON COMPANY

## Corporate Capabilities for Power Reactor Facility Operating License NPF-3

### 1. Forward

The Nuclear Regulatory Commission Staff, by letter from the Director, Office of Nuclear Reactor Regulation, dated June 29, 1979, requested all power reactor licensees to submit information concerning the management and technical resources available to respond to, manage and control an unusual event of the type represented by the recent Three Mile Island, Unit 2 accident. This document is in response to that request and sets forth the capabilities of the holders of Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit 1 in this regard.

### 2. General

The Toledo Edison Company and The Cleveland Electric Illuminating Company jointly own the Davis-Besse Nuclear Power Station, Unit 1. The Operating Agreement between the companies, as well as the NRC Facility Operating License NPF-3, states that Toledo Edison will operate the facility. As a result, this document sets forth the capabilities of Toledo Edison, including the technical support capability from outside companies through contractual arrangements administered by Toledo Edison. It is the judgment of the licensees that these capabilities of Toledo Edison are fully adequate to meet any likely event without the need to draw upon the immediate resources of Cleveland Electric Illuminating. In any event, those extensive resources of Cleveland, including direct nuclear support capability, are available to Toledo Edison upon call.

Toledo Edison has extensive experience in coal-fired central station generating facilities. As a result, there is a depth of technical experience within the Company of central station engineering, construction, operation and maintenance beyond that directly associated with the Davis-Besse Station. Being of moderate to small size for an independent electric utility, Toledo Edison does not maintain an engineering capability to provide for all engineering services necessary for the design and construction of new generating facilities or for the complete design and analytical support of an operating nuclear unit. Toledo Edison, however, has always maintained a management organization and engineering staff capable of directing all activities of an architect-engineer and/or other consultant/contractor organizations necessary to provide services beyond that available from the corporate, engineering and station technical staff.

## 2. General (continued)

Being an independent Company, Toledo Edison has an overall corporate organization with the experience and capability necessary to support all normal activities of the Company. This also provides within the Company an organizational arrangement together with experienced management and other personnel to adequately respond to, meet the requirements of and mitigate the consequences of emergency and unusual events. Toledo Edison has general and specific emergency plans to cope with emergencies, including those associated with nuclear power station operations. These plans have been tested under extreme weather conditions where extensive mobilization or Company effort has been required, together with a high degree of coordination with local and state agencies.

In light of the Three Mile Island accident, reviews have been made of both the technical manning for operations and support of the Davis-Besse Station and the emergency preparedness planning. As a result of these reviews, both the station and offsite support staffs are being augmented and greatly expanded emergency preparedness planning is being done. This effort provides added assurance of full capabilities to adequately meet any likely event.

## 3. Management Resources

### A. General

Being an independent Company, Toledo Edison has a corporate organization necessary to provide and support all normal activities of the Company. To direct these organizational units, there is an experienced group of management persons at a senior level with a broad background of experience and capability to deal with management functions in any likely accident event. These individuals and their position in the corporate structure are shown on the following organization chart for the corporate staff. The functions, responsibilities and authorities of each position, as well as the educational and experience background for the individual in each corporate position shown is included.

The grouping of the principal corporate functions that would be required in coping with an unusual event, under the President and Chief Operating Officer, provides an inherent capability for prompt and coordinated action. This functional arrangement and the Company's moderate size provides the maximum flexibility and ability to concentrate resources as required.

Toledo Edison has retained, since 1977, a consulting team of three nationally recognized experts in the nuclear energy field for overall continuing review of the Company's capabilities to operate a nuclear power facility. This team is available on short notice to directly assist in an advisory capacity.

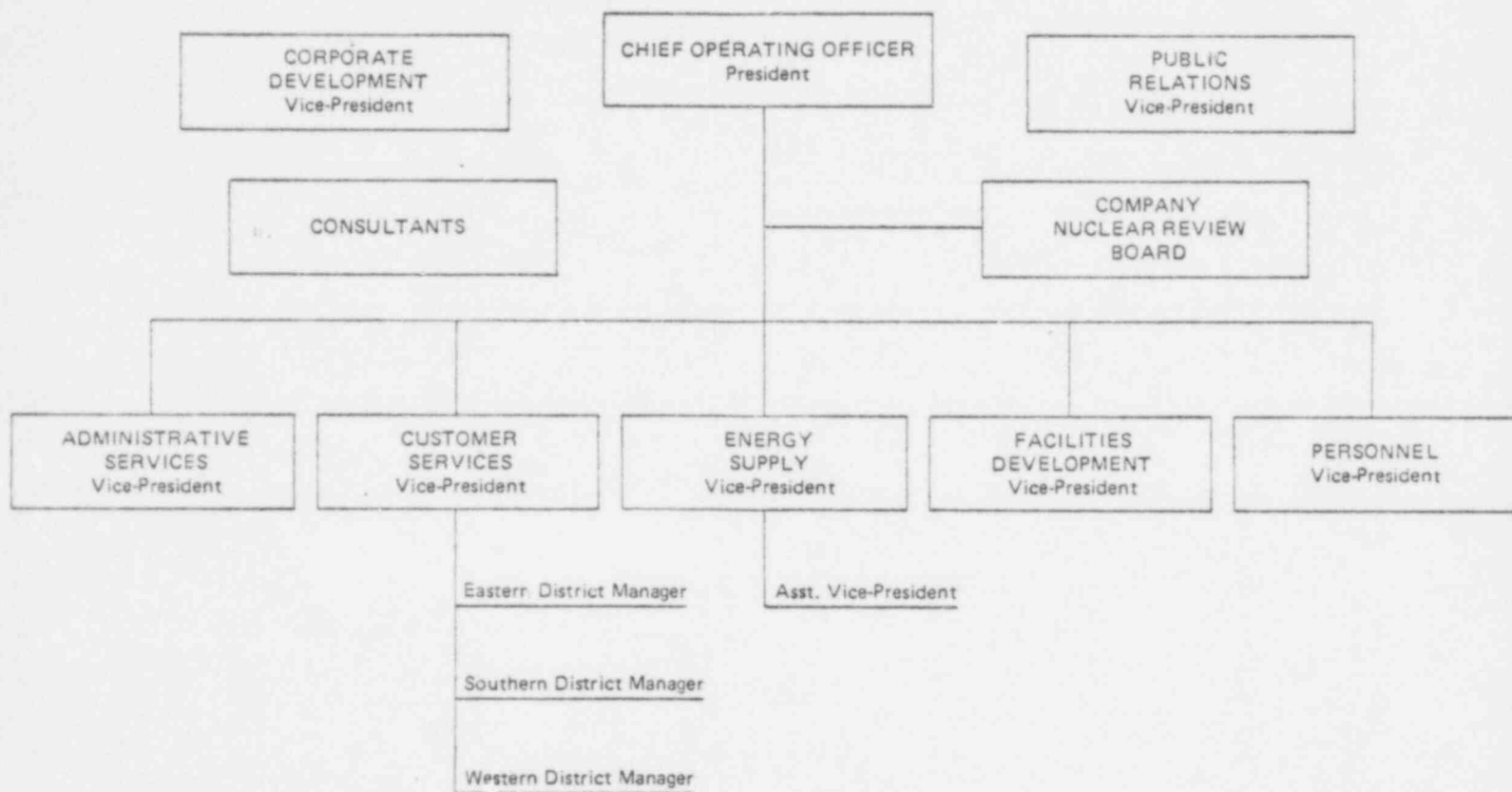


### 3. Management Resources

#### A. General (continued)

The Company Nuclear Review Board which is required by the Technical Specifications of Facility Operating License NPF-3 is shown on the organization chart. The persons serving on this Board provide a broad spectrum of technical and management capability for review and advice to the President during normal or emergency conditions.

THE TOLEDO EDISON COMPANY  
CORPORATE STAFF



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#### 4. Technical Resources

##### A. Davis-Besse Station Staff

###### (1) General

Operational responsibility for the Davis-Besse Station rests in the Energy Supply functional area of the Company with the Station Superintendent reporting to the Assistant Vice President, Energy Supply.

The Station professional/technical staff is an experienced staff with a great depth of technical education and experience. The Station organization is shown on the following series of organization charts, with a brief description of each principal position given below. The educational and experience background for each individual on the Station staff in a category of "Manager" and "Professional-Technical," as defined in ANSI N18.1 is contained in Appendix B. In addition to personnel in these categories, other persons have been included where their training and experience together with their current position provide support capability for normal station operation as well as critical support capability to satisfactorily cope with unusual events.

All positions described and personnel qualification summaries included are for the managerial and technical support positions and personnel and do not include the shift operation supervisors and normal station operators.

###### (2) Station Superintendent

The Station Superintendent is directly responsible for the operation and maintenance of the Station in a safe, reliable, and efficient manner. Responsible for the protection of the Station staff and the general public from radiation exposure. Responsible for compliance with facility operating license.

Reporting to the Station Superintendent are the Station managers responsible for Station operation activities as well as those managers and persons responsible for normal support as shown on the Station Organization Chart, Sheet 1.

#### 4. Technical Resources

##### A. Davis-Besse Station Staff

##### (2) Station Superintendent (continued)

###### Assistant Station Superintendent

Assists the Station Superintendent in overall operation of the Station. Directs and coordinates Operations, Technical, Maintenance, and Chemistry and Health Physics activities of the Station to ensure conformance and compliance with Federal and State Regulations and License requirements and continuous, efficient day-to-day operation. Directs the processing of reports such as Nonconformance Reports and Quality Control surveillance Reports. Serves as designated Station Superintendent in his absence.

###### Training Supervisor

Directs and supervises license and non-license training of the Station, including initial training, continuing training, special training and requalification training programs. Establishes training needs, designs training programs and supervises the implementation of the programs. Directs and supervises the Respirator Protection Program at Davis-Besse.

###### Reliability Engineer

Directs, coordinates and supervises reliability analysis and outage planning. Coordinates major maintenance and refueling outages.

###### Administrative Coordinator

Coordination of Station activities with county, State, and Federal Government. Responsible for Station Emergency Planning, coordination of Station activities with those of other Company agencies. Assists Station Superintendent as necessary in technical, administrative, and management activities.

###### Office Supervisor

Responsible for the clerical activities as a support group to the Station.

#### 4. Technical Resources

##### A. Davis-Besse Station Staff

###### (2) Station Superintendent (continued)

###### Nuclear Security Manager

Has the direct responsibility of the operational management for the Davis-Besse security organization and the overall command, control, direction, and supervision of the on-site security forces. Has the authority to direct the physical security activities of the security organization in meeting any threats or security emergency identified outside of vital areas at the Davis-Besse Nuclear Power Station.

###### (3) Assistant Station Superintendent

The principal operation and maintenance activities of the Station are the responsibility of this unit of the Station organization. The managers of these areas of the Station staff reporting to the Assistant Superintendent are shown on Sheet 1 of the Station Organization Chart.

###### Chemist and Health Physicist

Administers and maintains the Health Physics Program to ensure implementation and compliance of Radiological Control Procedures for personnel radiation safety, compliance with Federal and State regulatory agencies and to ensure proper response of facility personnel in the event of emergency situations. Administers the Chemistry and Radio-Chemistry Programs for the Station. Plans and directs water treatment procedures and programs.

###### Operations Engineer

Supervise and direct the Operations Section. This includes supervisory control of shift operations and engineers in the Operations Section.

###### Maintenance Engineer

Responsible for the Mechanical, Electrical and I&C Maintenance Program including all planned and corrective maintenance, personnel training, procedure preparation and approval of Maintenance Instructions, Work Order approval and review and identification of documentation of conditions adverse to quality discovered as a result of performing maintenance, assigned as a member of the Station Review Board.

#### 4. Technical Resources

##### A. Davis-Besse Station Staff

##### (3) Assistant Station Superintendent (continued)

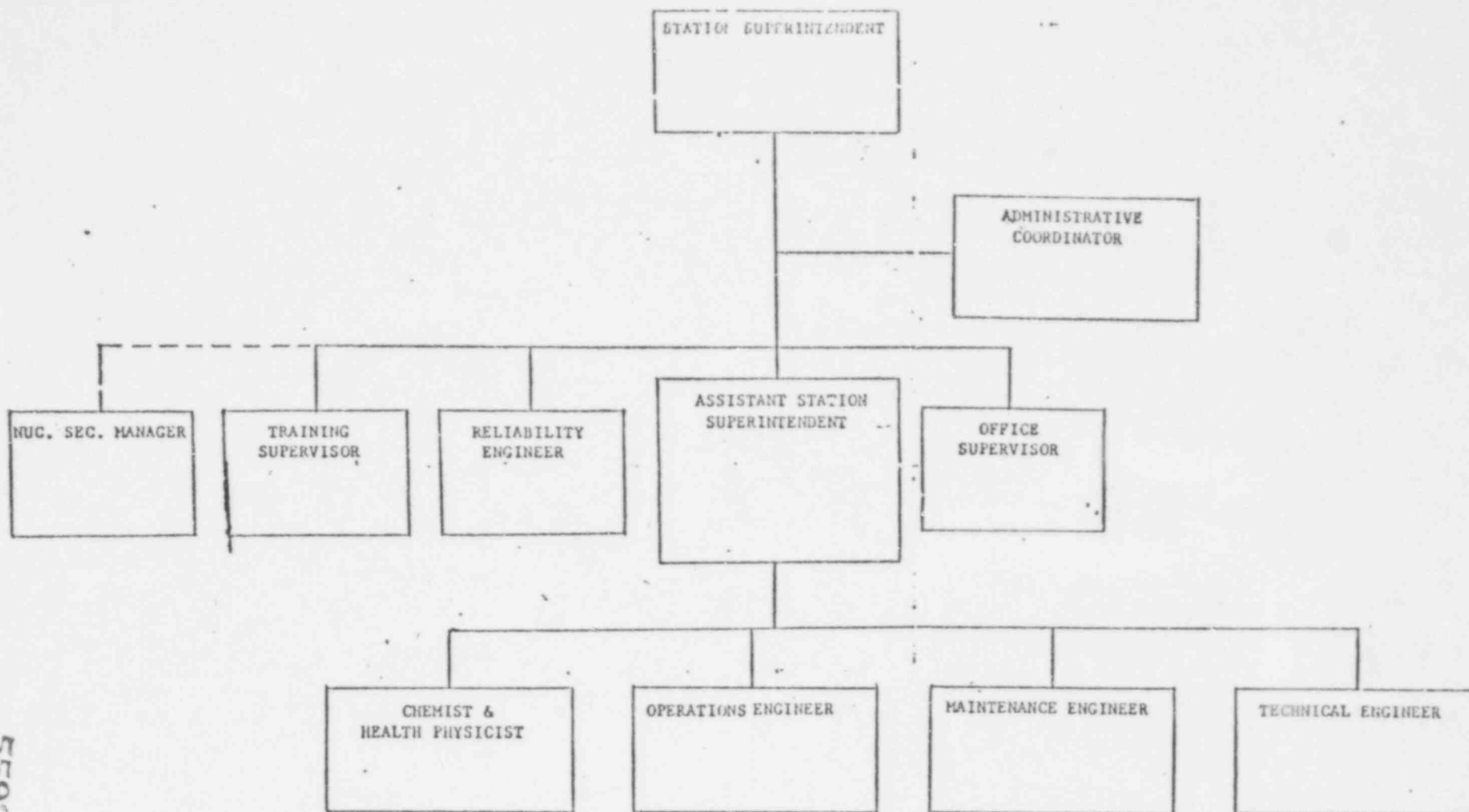
##### Technical Engineer

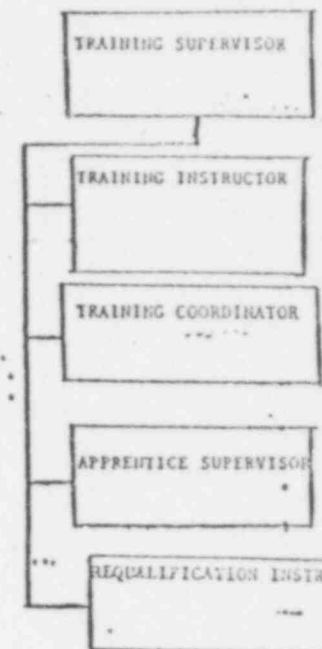
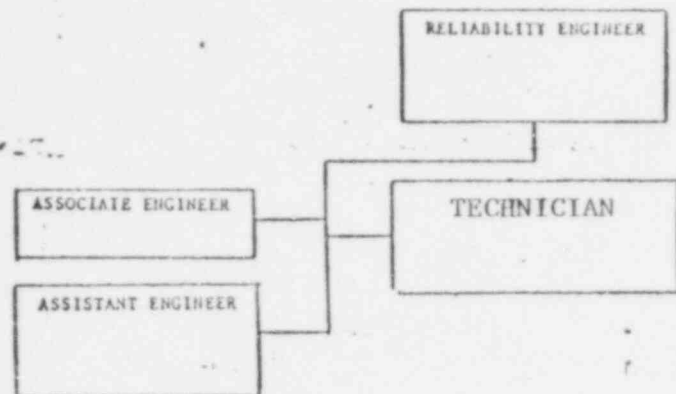
Responsible for reactor physics and analysis, station performance, computer applications and surveillance testing. Responsible for Station involvement in Licensee Event Reports, Facility Change Requests, Conditions Adverse to Quality, and various station procedures. Supplies cognizant engineers, supervises refueling, ILRT, physics testing, fuel management, performance test procedures, NSSS software. Responsible for technical specification interpretation, Station Review Board participation, and engineering support of Station activities.

##### (4) Station Sections

The organization structure of the Sections of the Station organization, headed by the above managers, are shown on the Station organizational chart sheets as indexed below. The educational and experience background of each individual occupying the positions shown on these Station organization chart sheets are contained in Appendix B.

Training Section	- Sheet 2
Reliability Section	- Sheet 2
Chemistry and Health Physicist Section	- Sheet 3
Operations Section	- Sheet 4
Maintenance Section	- Sheet 5
Technical Section	- Sheet 6
Nuclear Security Section	- Sheet 7

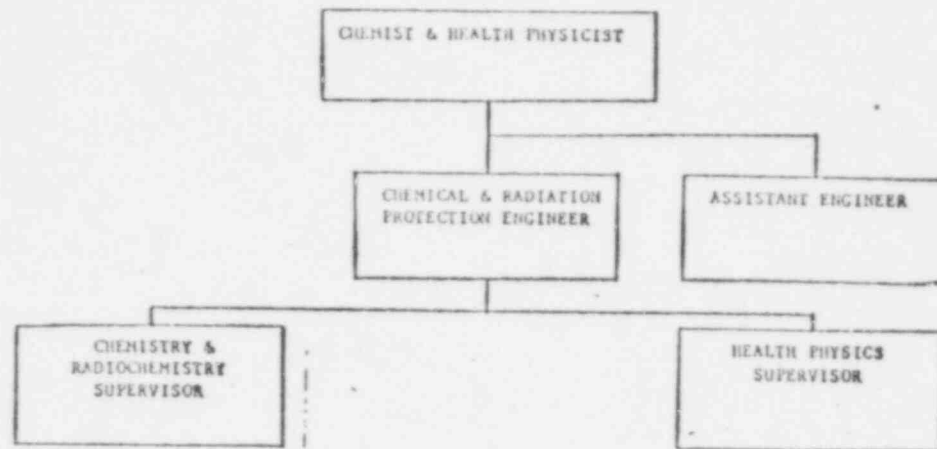




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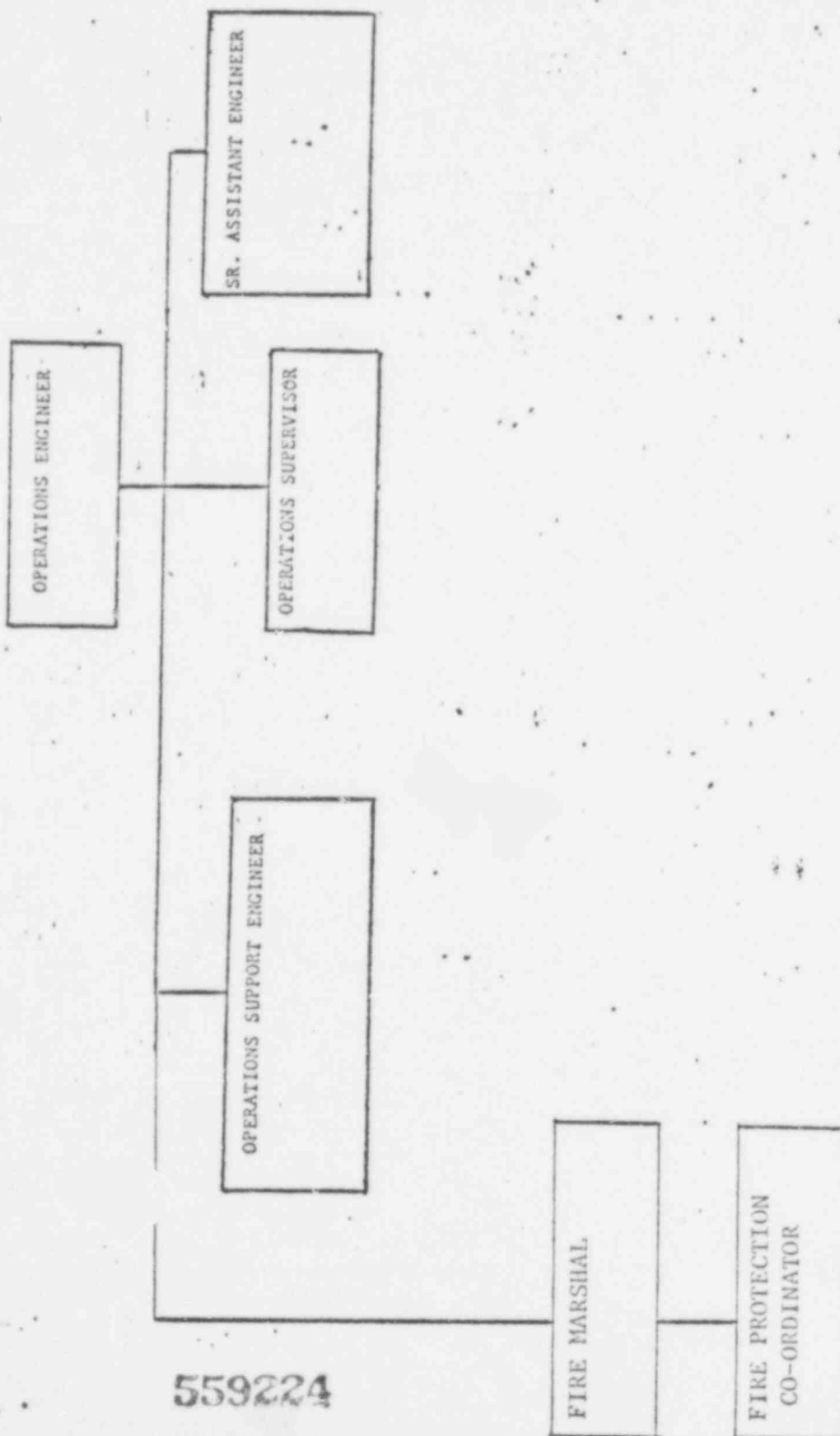
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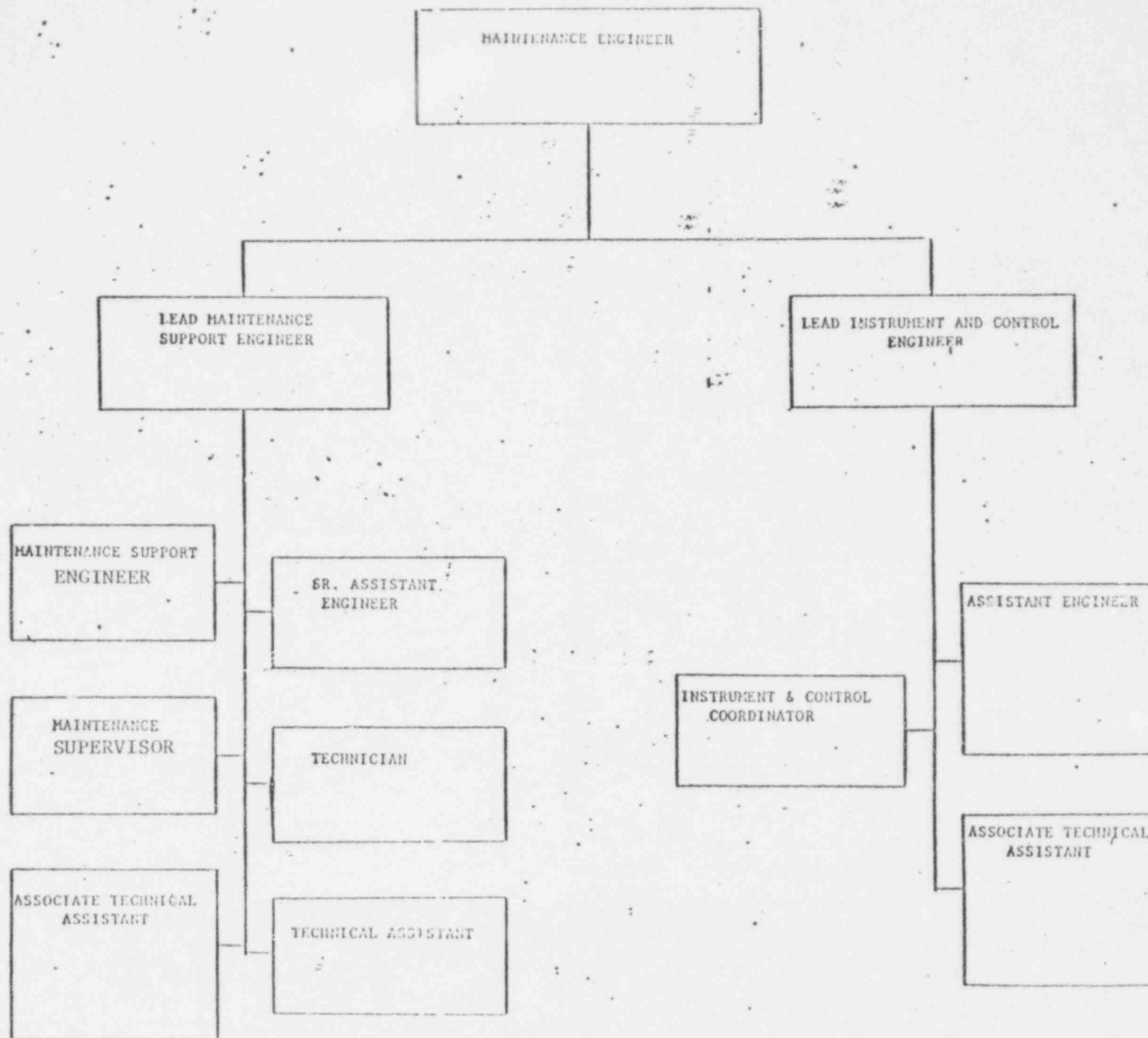


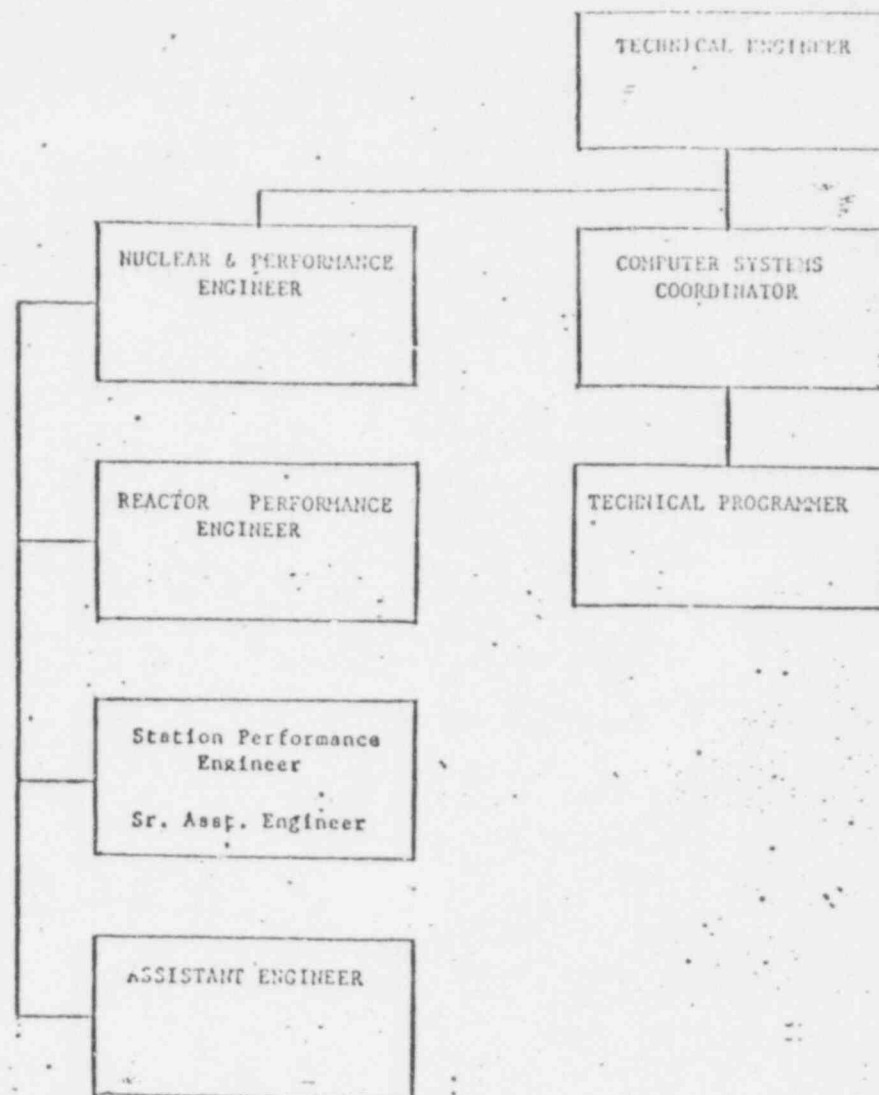
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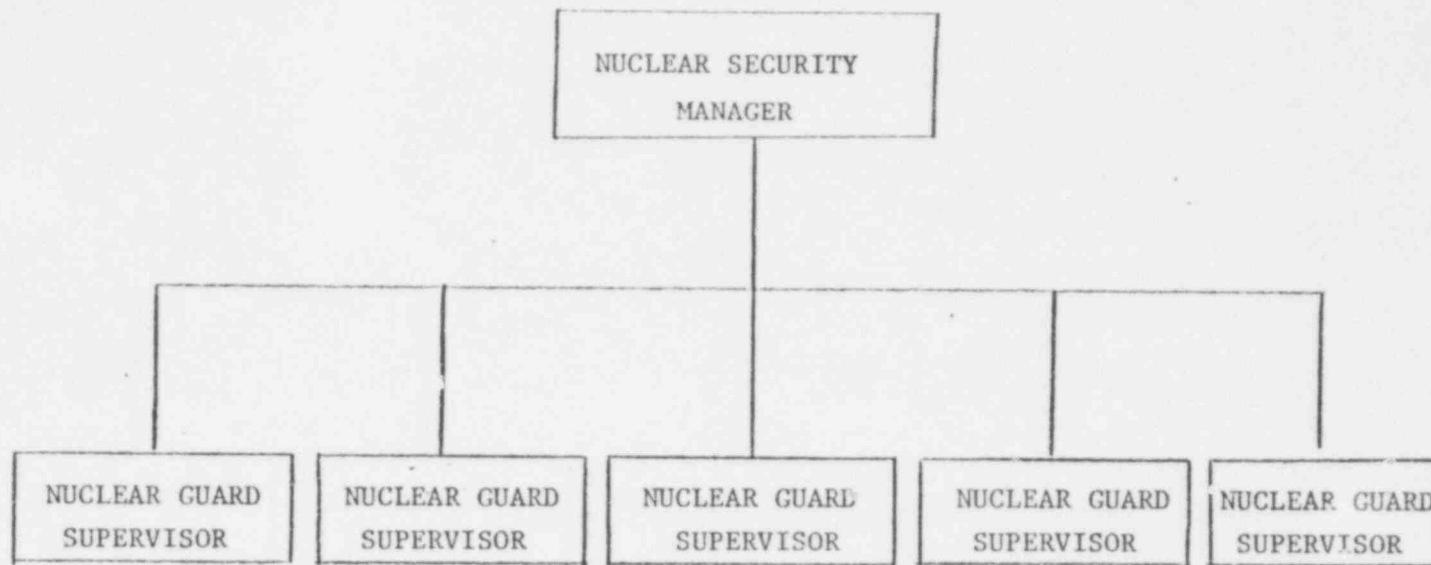


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#### 4. Technical Resources

##### B. Offsite Support Staff

###### (1) General

The principal technical resources within Toledo Edison that are associated with the normal support activities for nuclear activities which are available on an expanded scale in event of an emergency, reside in three functional areas. Each of these functional areas are organized under a corporate vice president who reports to the president. This position of the corporate organization is shown on the following organization chart.

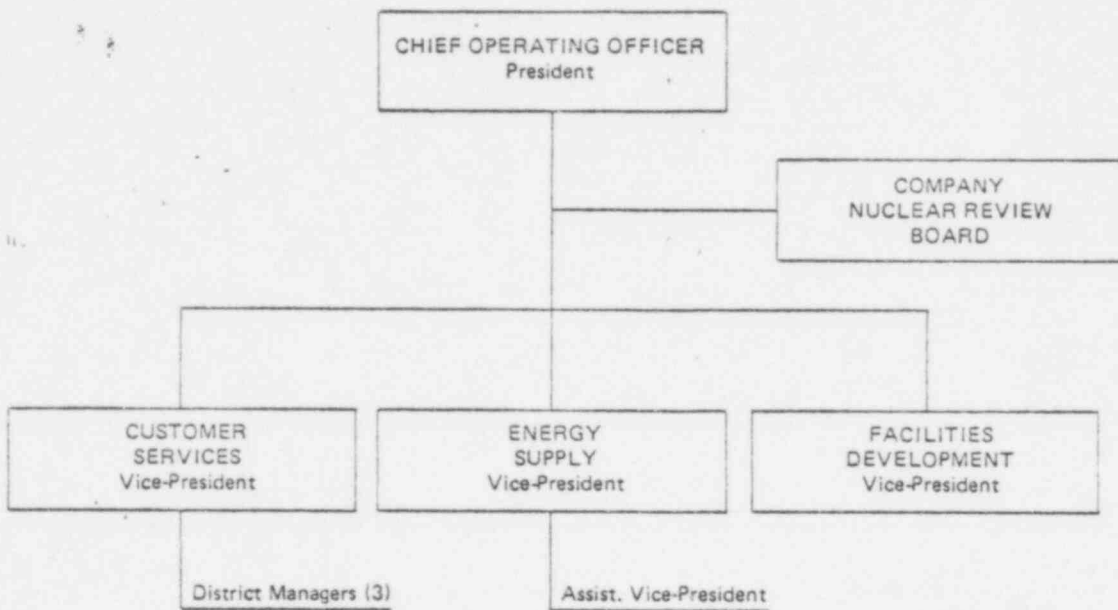
The Facilities Development functional area has the largest amount of technical resources outside of the station staff. These resources, in addition to being totally available in event of an accident, are involved in part in normal technical support of the station.

The Energy Supply functional area is directly responsible for the station operation and the Davis-Besse Station Superintendent reports to the Vice President, Energy Supply through an Assistant Vice President. All other power generating facility operations' activities, together with certain supporting activities, are in this area of operation. These activities provide technical support capability in the event of an accident with a broad level of experience in power station operation and maintenance.

The Customer Services functional area involves all Company activities associated with services to the customers. There is a technical staff that is available in event of an accident with experience in electrical transmission and distribution as well as industrial and other utilization.

Detailed descriptions of each functional area and summary information concerning the technical-professional staffs are included in the following sections.

THE TOLEDO EDISON COMPANY  
OFF-SITE SUPPORT STAFF



#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (2) Facilities Development Function

###### a. General

The Facilities Development functional area is responsible for the planning, design, and construction of all Company energy generation, transmission, and substation facilities for meeting Company energy generation requirements. The organization provides day-to-day and long-term off-site design and operations review support for the Davis-Besse Station thru the Power Engineering and Construction Division. Corporate quality assurance overview of Davis-Besse design, procurement, construction, and operation, including on-site QA/QC, is provided by the Quality Assurance Division. The Davis-Besse Project Management Department provides technical management of major construction tasks related to the on-site facility. On-site and off-site substation and electrical transmission facilities design, construction, maintenance, and review activities are conducted by the Transmission and Substations Division. Off-site review of environmental related matters is provided by the Environmental Activities Department.

Many activities of the Facilities Development area also relate to the technical planning, design, and construction of the Company's fossil generation and transmission facilities, thereby providing the subunits with a broad experience base to draw upon in providing technical and management support to Davis-Besse operation.

###### b. Power Engineering and Construction Division

Through a multidisciplined engineering and technical staff, the Division provides day-to-day and long-term off-site design and operations review support for the Davis-Besse Station including licensing interfaces with the USNRC. Station facility change requests are reviewed, analyzed, and engineered for conformance with Facility Operating License commitments as are station procedures and pre-operational test results. Minor and moderate sized construction tasks are managed on-site by Division staff. Additional engineering and technical support is available on a continuing contractual basis with Bechtel Company and with the Babcock & Wilcox Company. Other specialty technical resources are contracted on an as-needed basis.



#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (2) Facilities Development Function

##### b. Power Engineering and Construction Division (continued)

The Division also provides similar engineering design support for Company fossil generating facilities, thereby enhancing its technical reference base in utility power plant design, construction, and operation.

##### c. Quality Assurance Division

The Division coordinates, administers, and directs all quality assurance/quality control activities required by the Government and Company to ensure adequate quality assurance and quality control coverage throughout design, procurement, construction, operation and maintenance of nuclear-fueled facilities. On-site QA/QC coverage is provided as well as supplier/contractor and other Company nuclear-safety related activities QA coverage. Additional technical support is provided in the areas of audit assistance, records management, and in-service inspection through use of outside consultants.

##### d. Davis-Besse Project Management Department

The Department administers, coordinates, and provides Company direction to contracted sources associated with major Davis-Besse Station construction tasks. In such efforts the Department directs Company project and construction staff in measurement and evaluation of engineering, procurement, construction and preoperational activities essential to meeting project goals. The organization administers matters concerning major contractors, change orders, schedules, impacts and claims concerning the work.

##### e. Transmission and Substations Division

The Division conducts activities associated with design, procurement, construction, and maintenance of substation, switchyard, and electrical transmission facilities associated with the Davis-Besse Station and other Company electrical transmission systems. Activity areas include related instrumentation, control, and communication systems including Davis-Besse in-plant systems related to house power metering and relaying. Division technical resources, particularly in electrical engineering, are available to other Davis-Besse on-site and off-site support groups.

#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (2) Facilities Development Function (continued)

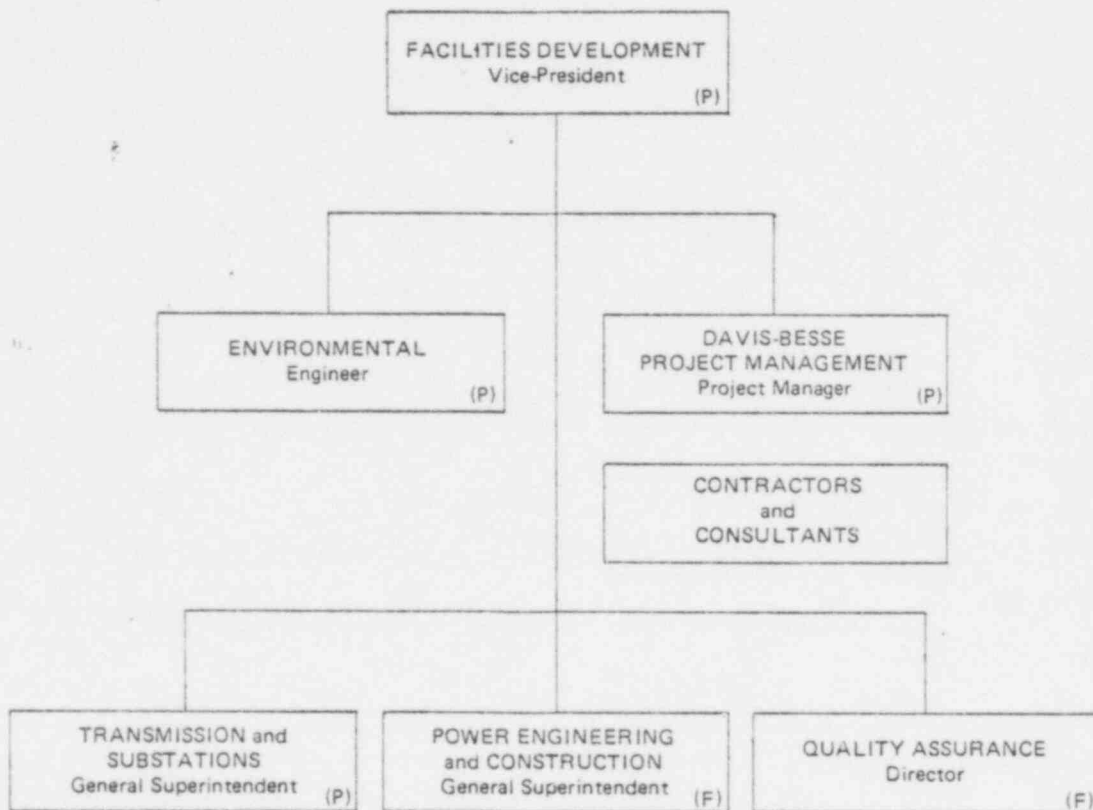
##### f. Environmental Activities Department

The Environmental Activities Department directs environmental review activities related to all aspects of the environment of all Company facilities, including the Davis-Besse Station. Off-site review of activities related to the Environmental Technical Specifications is provided by the staff as well as reviews of environmental problem areas related to daily operation. Contracted technical resources are utilized on an as-needed basis.

##### g. Personnel Information Summary

A tabulation summarizing the educational and work experience for the professional-technical personnel in the Facilities Development Function within each subunit described above is included in Appendix C.

THE TOLEDO EDISON COMPANY  
FACILITIES DEVELOPMENT STAFF



(F) - Full-time Nuclear Plant Technical Support  
(P) - Part-time Nuclear Plant Technical Support

#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (3) Energy Supply Function

###### a. General

The Energy Supply functional area is responsible for the operation and maintenance of all energy generating facilities. This includes the responsibilities for operation and maintenance of the Davis-Besse Nuclear Power Station, Unit 1, as well as the fossil-fueled facilities which are located in two generating stations and three combustion turbine installations. Planning of operational manning for future nuclear units as well as factoring operational experience into their design, is through an Assistant to the Energy Supply Vice President. Purchasing and contracting of nuclear fuel and related services is provided by the Nuclear Fuel Procurement and Analysis Manager. Operation and maintenance of the fossil-fueled generating units and stations is provided by the Fossil Operations group. Also included is the technical and chemical laboratory support activities. Electrical operation of generating units, transmission system and interconnections is provided by the System Operations group.

Most of the activities of the Energy Supply area relate to operation and maintenance of central station generating units which provides a broad operational experience base for technical and management support for nuclear operation.

###### b. Davis-Besse Station

The Davis-Besse Station Superintendent reports to the Assistant Vice President, Energy Supply. A description of the Davis-Besse organization together with the staff technical qualifications is included in Section 4.A.

###### c. Nuclear Fuel Procurement Department

The purchasing and contracting activities for uranium supply and other services required to provide nuclear fuel are performed within this department. Analyses of nuclear fuel performance related to these activities is also performed or directed.

#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (3) Energy Supply Function (continued)

##### d. Fossil Operations Group

Operation and maintenance of the fossil-fueled generating units and stations is provided by this group. The station superintendents and their individual staffs provide for the operation and normal maintenance of the stations. Major maintenance, minor construction and all associated planning is carried out by a Production Services area, separate from the normal station organization, and is available for maintenance support of the nuclear facility. Technical services and chemical laboratory services to support station activities are provided through a Service group which is independent of the stations and which has experienced resources available for support of related nuclear activities.

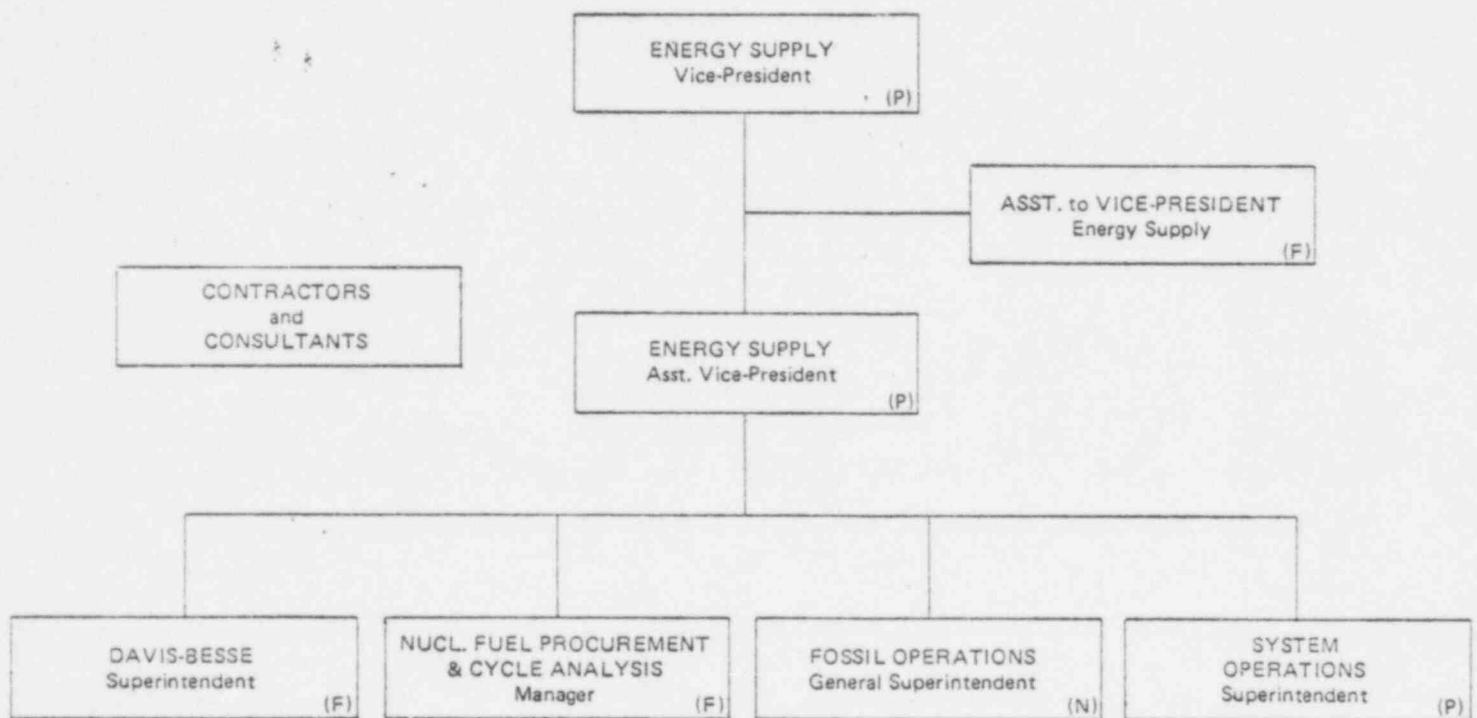
##### e. System Operations Department

The System Operations Department directs the electrical operations of the system through control of generating units and interconnections. This includes operation of the transmission system and substations as well as the economic dispatch.

##### f. Personnel Information Summary

A tabulation summarizing the educational and work experience for the professional-technical personnel in the Energy Supply Function, within each subunit described above, is included in Appendix C.

THE TOLEDO EDISON COMPANY  
ENERGY SUPPLY STAFF



(F) - Full-time Nuclear Plant Technical Support  
(P) - Part-time Nuclear Plant Technical Support  
(N) - Available

#### 4. Technical Resources

##### (B) Offsite Support Staff

##### (4) Customer Services

###### a. General

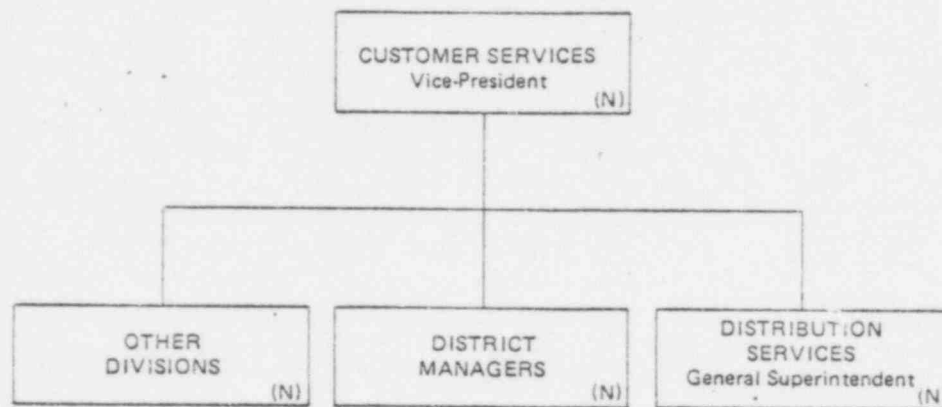
The Customer Services functional area is responsible for all activities associated with service to the customers. This includes the technical staff to design, construct and maintain electrical distribution facilities through the Distribution Services Division. Other Divisions within this area provide technical services to major industrial, manufacturing and commercial customers relating to the broad application of electrical energy. This provides within the company a broad technical base that can be drawn upon for technical support. The three service Districts which provide customer services in the areas to the east, south and west of the central service area have small technical staffs to provide many of the same functions described above. This provides further technical support.

A number of the individual technical and managerial people in the Customer Services functional area have experience in engineering, construction and operation of generating facilities. This provides for some technical support resource capability with specific power station experience and a larger group with a broad company and industrial technical experience.

###### b. Personnel Information Summary

A tabulation summarizing the educational and work experience for the professional-technical personnel in the Customer Services Function within each subunit described above is included in Appendix C.

THE TOLEDO EDISON COMPANY  
CUSTOMER SERVICES STAFF



(N) - Available



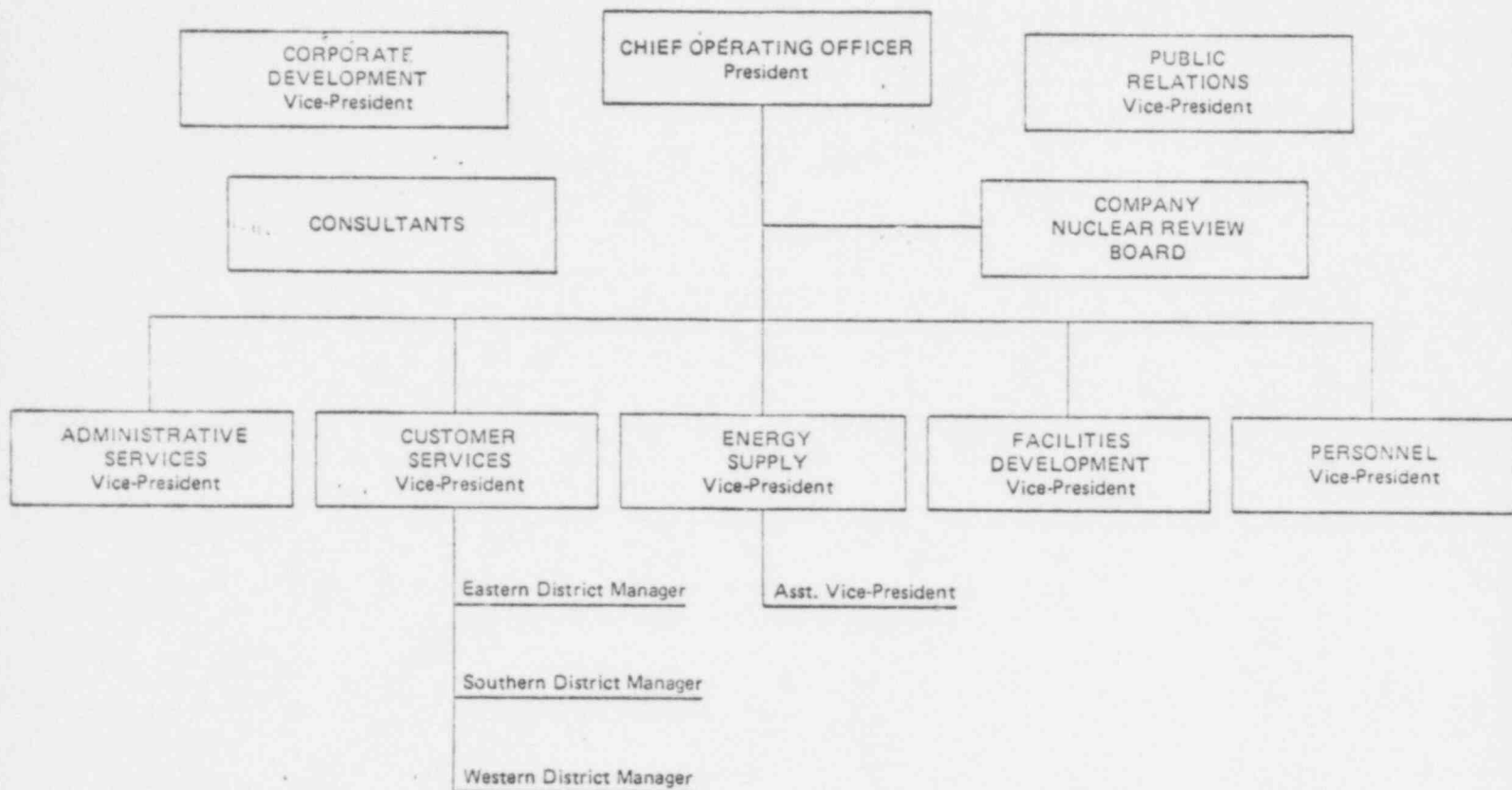
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License No. NPF-3  
Serial No. 532

APPENDIX A

Management Resources  
Corporate Staff  
Resumes

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THE TOLEDO EDISON COMPANY  
CORPORATE STAFF



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## PRESIDENT AND CHIEF OPERATING OFFICER

### A. Functions, Responsibilities and Authority

Chief Operating Officer and Director of the Company. Responsible for all operations with the exception of Public Relations, Finance and Corporate Development. Includes design, construction and operation of all energy generation, transmission, distribution and general facilities. Responsible for corporate support activities including procurement, security, legal and personnel functions. Also responsible for all customer contact and customer relations activities.

Reports to the Chairman of the Board and Chief Executive Officer. Directs the activities of the Vice President - Energy Supply, Vice President - Facilities Development, Vice President - Customer Services, Vice President - Administrative Services, Vice President - Personnel and Director - Legal Services.

### B. Educational Background

Marquette University 1944-45 - U. S. Navy V-12.

University of Minnesota 1946-49 - Bachelor, Electrical Engineering.

University of Toledo 1954-57 - Masters, Industrial Engineering.

Westinghouse Advanced Engineering Program 1959.

Numerous related technical, business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

1976 to present. As the Chief Operating Officer, responsible for directing Company operating activities, including all engineering, design, construction and operation activities, together with related personnel, procurement and security activities. This includes all activities associated with the operation of the Davis-Besse Nuclear Power Station, Unit 1 and the design and construction of the Davis-Besse Nuclear Power Station, Units 2 and 3.

#### 2. Other

Activities associated with engineering, design, construction and operation of transmission and distribution facilities from 1949-1969, including management of operating departments from 1964-1969. District Manager 1969-1974 including customer and community relations. Vice President - Customer Services from 1974-1976.

Active duty, U. S. Naval Reserve 1944-1946 and U. S. Army Reserve 1952-1954.

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## VICE PRESIDENT, ADMINISTRATIVE SERVICES

### A. Functions, Responsibilities and Authority

Corporate Officer. Responsible for all corporate security facilities and activities, all purchasing activities except for the procurement of fuel, the development, implementation and operation of information and computer systems, the design, purchase and maintenance of all transportation equipment, the stores and warehousing activities, and the building facilities and office services functions of the Company.

Reports to the President and is responsible for the activities of the Administrative Systems, Industrial Security, Purchasing, Building and Office Services, Stores, and Transportation Divisions in support of overall Company operations.

### B. Educational Background

The University of Toledo -- 1957 - 1962 -- BBA completed 1962

The University of Toledo -- 1962 - 1970 -- Graduate work toward MBA

Albion College -- 1969 - 1970 -- Company Management Development Program  
-- Completed 1970

American Management Association -- 1977 - 1978 -- The Management Course  
-- Completed 1978

Edison Electric Institute -- 1978 -- Executive Management Program  
-- Completed 1978

Numerous related technical, business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

1976 to present...In the position of Vice President, Administrative Services, responsible for the procurement (including stores and warehousing) of equipment, material, supplies and services associated with the construction, operation and maintenance of the Davis-Besse Nuclear Power Station, Unit No. 1 and for the procurement activities associated with the construction of Davis-Besse Units No. 2 and 3. Also responsible for the organization, plans, policies, procedures and all activities of the security organization at the Davis-Besse Nuclear Power Station, Unit No. 1.

Recently given responsibility for developing broad, comprehensive corporate emergency plan for the Davis-Besse Nuclear Power Station, Unit No. 1, which is to expand, supplement and compliment the existing emergency plan as filed with the Nuclear Regulatory Commission.

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C. Experience (Continued)

2. Other

1972 - 1976...In the positions of Treasurer or Assistant Treasurer, responsible for the direction of the treasury activities of the Company including those of the Insurance and the Fiscal Department, and for the development of legal prospectuses associated with the sale of corporate securities.

1962 - 1972...In various management positions, responsible in the areas of corporate information systems development and implementation and in the operations of the corporate data processing center.

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## VICE PRESIDENT, CUSTOMER SERVICES

### A. Functions, Responsibilities and Authority

Corporate Officer, reporting to the President. Coordinates and directs various activities within the Company including maintaining good relationships with local government bodies and officials; directing various customer service activities including credit and service order activities; directing all marketing activities to provide efficient and satisfactory services to our customers, and to promote efficient use of energy; oversees the distribution system to ensure its safe and efficient distribution of energy to the customer; and in addition, coordinates these activities in the three districts as well as the Toledo District.

Responsible for the activities of the Eastern, Southern and Western Districts and the Community Relations, Customer Relations, Marketing Services and Distribution Services Divisions to ensure that customer requirements are effectively met.

### B. Educational Background

University of Toledo, BBA in Finance, Ohio 1962

Numerous related business and management seminars and short courses.

### C. Experience

1/76 to Present: In addition to the duties of Vice President, Customer Services, is a member of the Company's Salary Administration Committee, Planning Council and the Rate Policy Committee.

Prior to becoming Vice President, various management positions were held throughout the Mission including Credit Manager, Customer Service Manager and Director, Customer Relations. In each of these positions, was responsible for coordinating the activities with the Eastern, Southern and Western Districts.

February 1952 to February 1955: U.S.A.F. at Scott Air Force Base in Illinois. Completed a course in Basic Electronics to become a radio mechanic. Upon discharge from service, was ranked as Airman 1st Class.

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## DISTRICT MANAGER - WESTERN DISTRICT

### A. Functions, Responsibilities and Authority

Directs the activities of the Company in the Western District to ensure economic and efficient operation and maintains positive customer and governmental relations. Member of the Corporate Staff.

Reports to the Vice President, Customer Services. Directs the activities of the District Operations, Engineering, Marketing Services and District Office Departments and coordinates the public relations activities in the district.

### B. Educational Background - License

Marquette University - Bachelor Mechanical Engineering - Feb. 1946

University of Toledo - Master Industrial Engineering - June 1957

Numerous related technical, business and management seminars and short courses.

Registered Professional Engineer - State of Ohio.

### C. Experience

#### 1. Nuclear

Completed a "6-week Atomic Defense Course" at the Army Chemical Warfare School, Ft. McClellan, Alabama.

Completed a "2-week Radiological Safety Course" at the U. S. Naval Base, Philadelphia, Penna.

Completed a short course in Fast Breeder Operation, in preparation of assisting in manning The Atomic Information Center at the site of the Enrico Fermi Atomic Power Plant.

Assisted in the manning of the above Atomic Information Center for a number of years during construction of Unit No. 1 of the Enrico Fermi Atomic Power Plant.

#### 2. Other

1973 to present date (August 1979). District Manager Western District. See (A) Functions, Responsibilities and Authority.

1966 to 1973. Power Engineer, Industrial Sales Division - As such, contacted Industrial customers, consulting engineers, architects, and contractors, and worked with electrical equipment representatives in promoting the use of electric power drives, electric heating, illumination, air conditioning and other electrical equipment and service.

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C. Experience (continued)

2. Other (continued)

1964 to 1966. Heating Operations Engineer - Duties and responsibilities were: 1) Assistant to plant superintendent of a steam power plant supplying steam to the downtown district heating distribution system and performed the duties of the plant superintendent in his absence. 2) Assumed responsibility for the operation and maintenance of the district heating distribution system. 3) Worked with customers and prospective customers regarding heating and steam service problems. 4) Worked with heating and ventilating contractors to insure correct installation of company supplied steam service equipment.

1955 to 1964. Associate Engineer, Mechanical Engineering Division. Under the chief mechanical engineer, duties involved mechanical engineering activities related to the selection, design, arrangement and layout of power plant equipment, preparation of reports, and making studies on capacity, costs, economics, and betterment of existing plants and facilities carrying on studies and investigations for improving efficiency and making studies and recommendations of equipment obsolescence, replacement and retirement.

Was assigned as Mechanical Engineer in the Construction Division to supervise and expedite the erection of the various piping systems, the setting of auxiliary equipment and the testing of same in connection with a \$26,000,000 plant expansion program.

1953 to 1955. Heating Supervisor - Was responsible for customer contact and efficient operation of the district steam heating systems (maintenance, construction, and operation).

1951 to 1953. Active duty, U. S. Naval Reserve.

1943 to 1951. Other less meaningful Engineering positions associated with plant efficiencies, operation and maintenance.

Tony Bosch, Jr.

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## EASTERN DISTRICT MANAGER

### A. Functions, Responsibility and Authority

Directs the activities of the Company in the Eastern District to ensure economic, efficient operation and to maintain positive customer relations. Member of the Corporate Staff.

Reports to the Vice President, Customer Services Mission and directs the activities of the Eastern District Operations, Engineering, Marketing and Office Departments. Coordinates Community Relations activity in the District.

### B. Educational Background

Illinois Institute of Technology, 1941 - Chemical Engineering

University of Illinois, 1946-1949 - Bachelor of Science in Industrial Psychology

University of Illinois, 1950-1951 - Completed course work for Master of Arts in Labor and Industrial Relations; Research Assistant

Toledo Edison Management Development Course, 1966

Numerous related technical, business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

June 1979 to Present: Member, Davis-Besse Corporate Emergency Plan Task Force. Participate in the preparation of plans in the event of an emergency at the Davis-Besse Nuclear Plant.

1976 to Present: Member, Nuclear Advisory Committee, Terra Technical College in Fremont, Ohio. Participates in the development of curriculum for the training of Nuclear Operators and Nuclear Technicians.

1964-1972: Member of the Davis-Besse Planning Committee. Participated in the planning for the construction and staffing of the Davis-Besse Nuclear Station. Assisted in the interviewing and selection of employees for the initial manning of the Station.

559247

2. Other

1974 to Present: As Eastern District Manager, responsible for the construction and maintenance of subtransmission and distribution substations and lines in the District. Responsible for the restoration of service in the event of storms or other emergencies. Responsible for the maintenance of good customer and community relations.

1962-1974: As Director of Union Relations coordinated the activities of the Division, negotiated contracts with the various unions and maintained harmonious labor relations.

1960-1962: As Employment Manager, interviewed and participated in the testing and selection of employees including technical and engineering applicants.

1958-1959: As Vice President, General Manager and Member of the Board of Directors of an electronics manufacturing firm, was responsible for and directed all manufacturing, engineering and processing operations of electronic cameras and power pack equipment.

1941-1945: Active Duty in the U.S. Air Force.

Leadership and management positions include:

1979 President, Sandusky County Chamber of Commerce  
1975 President, Lucas County Board of Education (Member 1972-76)  
1974-76 Member, Penta County Board of Education  
1974-76 Honorary Trustee, Owens Technical College  
1972 President, Toledo Personnel Management Association

559248

## MANAGER, SOUTHERN DISTRICT

### A. Functions, Responsibilities and Authority

Directs the activities in the Company's Southern District to ensure economic, efficient operation and to maintain positive customer relations.

Reports to the Vice President, Customer Services and directs the Operations, Marketing, Engineering and Customer and Community Relations activities of the District to ensure that customer requirements are effectively met.

### B. Educational Background

University of Notre Dame 1958-1962 - Bachelor of Business Administration.

University of Toledo 1962-1963 - Select courses in Graduate School of Business.

Numerous related business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

No experience.

#### 2. Other

1979 to present. Manager, Southern District - Responsible for construction and maintenance of sub-transmission and distribution facilities within the Company's Southern District. Responsible for electrical service restoration activities within the District. Also directs activities related to gas distribution system in the City of Defiance and its environs. Responsible for marketing services, customer and community relations activities in the District.

1976 to 1978. Director, Customer Relations - Directed the cashiering, credit, customer service, meter reading, service order and bill review activities of the Company.

1972 to 1975. Director, Building and Office Services - Directed duplicating, mailroom, word processing, telephone and building service activities of the Company.

1970 to 1972. Administrative Staff Assistant - Reported to Senior Vice President and performed special financial studies.

559249

C. Experience (continued)

1968 to 1970. General Accounting Manager - Supervised, directed and coordinated the general accounting activities of the Company including maintenance of general corporate accounting records, reports and procedures and payroll.

1962 to 1968. Various assignments as Accounting Analyst in Property Accounting, Budget and Rate areas.

559250

## VICE PRESIDENT, ENERGY SUPPLY

### A. Functions, Responsibilities and Authority

Corporate Officer and Director, member of the Company Nuclear Review Board (CNRB). Responsible for the operation and maintenance of all Company energy generating facilities to ensure a continuous energy supply to all Company customers: retail, wholesale, and other inter-connected utilities.

Reports to the President and directs the activities of Nuclear Fuel Procurement and Cycle Analysis, Fossil Operations, System Operations, Steam Services and Davis-Besse Nuclear Station.

### B. Educational Background

Toledo University 1939-43 - Bachelor of Engineering.

Post graduate at the University of Toledo plus various technical, business and management seminars.

### C. Experience

#### 1. Nuclear

1974 to present. In the position of Vice President, responsible for the operations of the Davis-Besse Nuclear Station and the organizational structure of this facility to ensure its safe and efficient energy generation. Responsible for ensuring that the Company has a continuous supply of raw materials required for energy production and that these raw materials are procured and used in accordance with relevant economic, environmental and technical requirements.

Responsible for advising and counseling to ensure that facilities development planning for nuclear generating facility provides due consideration to operating requirements. Responsible for managing, operating, and maintaining economically and efficiently a broad mix of nuclear and coal, electric and steam, generating and energy dispatching facilities so as to provide for base load, intermediate, peaking, and on-line energy production.

#### 2. Other

1973 to 1974. In the position of Assistant to the President carried out special assignments for the President and other matters concerning the Company.

1968 to 1973. In the position of Western District Manager directed the activities of the Company in the Western District to ensure economic, efficient operation, and to maintain positive customer relations.

559251

C. Experience (Continued)

2. Other (Continued)

During the period from 1946 to 1968, held various positions in the Company's Marketing function, was the Company's Chief Chemist for ten years and had the position of Assistant District Manager of the Company's Western District for one year. Vice President and Corporate Officer from 1974 to present.

Active duty, U.S. Naval Reserve - periods 1943 to 1946.

559252

## ASSISTANT VICE PRESIDENT, ENERGY SUPPLY

### A. Functions, Responsibilities and Authority

Corporate Officer and member of the Company Nuclear Review Board (CNRB). Responsible for the operation and maintenance of all Company energy generating facilities to ensure a continuous energy supply to all Company customers: retail, wholesale, and other inter-connected utilities.

Reports to the Vice President, Energy Supply and directs the activities of Nuclear Fuel Procurement and Cycle Analysis, Fossil Operations, System Operations, Steam Services and Davis-Besse Nuclear Station.

### B. Educational Background

University of Toledo 1957-61 - B. S. Chemical Engineering.

Numerous related technical, business and management seminars and short courses. Nuclear training courses 1968-73 covering various subjects from Nuclear Reactor Engineering through Radiological Health Protection.

### C. Experience

#### 1. Nuclear

May 1, 1979. Assistant Vice President, responsible for the operations of the Davis-Besse Nuclear Station and the organizational structure of this facility to ensure its safe and efficient energy generation. Responsible for ensuring that the Company has a continuous supply of raw materials required for energy production and that these raw materials are procured and used in accordance with relevant economic, environmental and technical requirements.

Responsible for advising and counseling to ensure that facilities development planning for nuclear generating facility provides due consideration to operating requirements. Responsible for managing, operating, and maintaining economically and efficiently a broad mix of nuclear and coal, electric and steam, generating and energy dispatching facilities so as to provide for base load, intermediate, peaking, and on-line energy production.

1970-71. Work experience in radiological health protection at various utilities and the Savannah River Plant, U.S.A.E.C.

#### 2. Other

1977-79. In the position of Fossil Operations, General Superintendent, responsible for the operation of the Company's fossil fuel plants as well as fossil fuel purchasing activities, to ensure an adequate supply of fuel at the most economical cost. Supervised the Company's Technical Services group to ensure the highest efficiency and economy in generation and the Purchase and Interchange Power group handling contracts for sales and purchases of bulk electrical power.

C. Experience (Continued)

2. Other (Continued)

1975-77. In the position of Energy Services Superintendent responsible for fossil and nuclear fuel procurement and also negotiation and administration of contracts covering sales and purchases of bulk electrical power.

1967-75. In the position of Chief Chemical Engineer was responsible for design, testing and control of water treatment systems, analysis of water, fuel and lubricating oils and various pollution control projects. Assisted in the design of various plant water treating systems for the Davis-Besse Nuclear Power Station and the design of its radiochemistry and health physics laboratories. Responsible for the initial staffing and training of Chemistry and Health Physics personnel at Davis-Besse Nuclear Power Station.

1961-67. Held various engineering positions in the Company's Energy Supply Group.

55925A



## VICE PRESIDENT, FACILITIES DEVELOPMENT

### A. Functions, Responsibilities and Authority

Corporate Officer and Director, Chairman of the Company Nuclear Review Board (CNRB). Responsible for the planning, design and construction of all energy generation, transmission and substation facilities, and maintenance of transmission and substation facilities.

Reports to the President and directs the activities of the Transmission and Substations Division, Power Engineering and Construction Division, Quality Assurance Division, Davis-Besse Project Management, and Environmental Activities Department.

### B. Educational Background

Bowling Green State University 1943-44 - U.S. Navy V-12.

Harvard University 1944-45 - U.S. Navy V-12 (NROTC).

The Ohio State University 1946-48 - Bachelor Mechanical Engineering.

Numerous related technical, business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

1977 to present. In the position of Vice President, responsible for activities associated with the engineering support, NRC licensing, quality assurance and construction of major modifications for Davis-Besse Unit 1. Responsible for activities associated with engineering, design, regulatory relations, quality assurance and construction of Davis-Besse Units 2 and 3.

1973 to 1977. In the position of Vice President, responsible for engineering, design, regulatory relations, quality assurance, construction and initial operation of the Davis-Besse Unit 1.

1967 to 1973. In the position of Chief Mechanical Engineer, responsible for engineering, design and regulatory relations for the Davis-Besse Unit 1.

1955 to 1961. As a Special Project Engineer and on partial leave of absence assigned to Atomic Power Development Associates, worked on the Enrico Fermi Fast Breeder project at Monroe, Michigan. This included construction and non-nuclear testing phase. In the position of Test Operation Section Head, was responsible for initial sodium fill and sodium test phase.

C. Experience (continued)

2. Other

Activities associated with engineering, design and construction of four coal-fired generating units and five combustion turbine peaking units. This was in various engineering positions, including Chief Mechanical Engineer during the period from 1948 to 1973. Vice President and Corporate Officer from 1973 to present.

Active duty, U.S. Naval Reserve - periods 1943 to 1946 and 1951 to 1953.

## VICE PRESIDENT, PERSONNEL

### A. Functions, Responsibilities and Authority

Corporate officer responsible for ensuring that the Company, in a non-discriminatory manner, recruits, develops, compensates appropriately and motivates highly qualified personnel at all levels and in all organizational units of the Company.

Reports to the President and directs the activities of the Human Resources Division, Personnel Services Division and the Wage and Salary Department.

### B. Educational Background

University of Michigan 1937-41 - Bachelor of Arts.

University of Michigan 1946-47 - Master of Arts.

Numerous business and management seminars plus night courses at the University of Toledo.

### C. Experience

#### 1. Nuclear

1962 to present. In the capacity of Vice President, Personnel, responsible for the recruitment and placement of employees throughout the Company's operation; involves managerial as well as non-managerial individuals. Responsible for the orientation and management training of professional and managerial personnel. Responsible for the establishment of starting rates of pay for management personnel and the administration of the merit appraisal program for management. Responsible for Union Contract negotiations and the coordination of strike preparations including the placement of non-union employees on union-classified positions. Responsible for the accident prevention activity of the Company.

#### 2. Other

Various personnel administration functions including counseling, psychological testing, interviewing while occupying positions of employment supervisor, Director of Employee Relations and Director of Personnel Administration.

Active duty, U.S. Marine Corp Reserve - 1941 to 1946 and 1950 to 1952.

559257

## VICE PRESIDENT, CORPORATE DEVELOPMENT

### A. Functions, Responsibilities and Authority

Corporate Officer and responsible for Research & Development, Strategic Planning, Generation & Transmission Planning, New Business Ventures, and Area Development.

Reports to the Chief Executive Officer. In cooperation with other members of the CAPCO pool, directs the planning of the addition of new nuclear and fossil generating facilities. Responsible for the study of the commercial and technical feasibility of adding various forms of new generating capacity.

### B. Educational Background

University of Florida 1958-1959 - Civil Engineering Program  
U.S. Naval Academy 1959-1963 - Bachelor Engineering  
San Diego State University 1969-71 - Master Business Administration

Numerous related technical, business and management courses and seminars.

### C. Experience

#### 1. Nuclear

No direct technical experience.

#### 2. Other

1963-1969 Line officer aboard destroyers U.S. Navy.  
1971-1972 Market Research Analyst - San Diego Gas & Electric Co.  
1972-1975 Manager, Marketing Research & Planning - General Atomic Co. Responsible for analysis of commercial aspects on the nuclear industry and utility customer generating requirements. New product applications for the HDQR.

1976-1977 Manager, Market Planning and New Business Ventures - TRW Controls.

1977-1978 Economist Gulf Oil. Worked on Gulf Oil litigation on uranium cartel allegation by Westinghouse.

1978-Present Vice President, Corporate Development - Toledo Edison. Responsible for Generation & Transmission Planning, Strategic Planning, Research & Development, New Business Ventures and Area Development.

## VICE PRESIDENT, PUBLIC RELATIONS

### A. Functions, Responsibilities and Authority

Corporate Officer, responsible for the development, implementation and execution of the corporation's unified communication programs with various publics including media, employees, customers, shareholders, regulatory bodies and related groups.

Reports to the Chief Executive Officer. Directs the activities of the Media Relations Section, Corporate Communications Department, Advertising, Educational Services Program, Nuclear Information program, Consumer Information and Public Relations projects.

### B. Educational Background

Bucknell University 1944-45 - U.S. Navy V-5.

Bowling Green State University (Ohio) 1946-50  
B.A. Journalism/Business Administration

Assorted graduate work at University of Michigan and Michigan State leading to uncompleted masters work.

Numerous related technical, business and management seminars and short courses.

### C. Experience

#### 1. Nuclear

##### a. Directly related

June 1977 to July 31, 1979. As Assistant Vice President, Public Relations, responsible for public and employee information activities related to the nuclear program. Responsible for implementation of Davis-Besse Public Information policy and procedures. Implemented Nuclear Confidence Program in Northern Ohio (after Three Mile Island) for Toledo Edison and Cleveland Electric Illuminating.

##### b. 1973 to 1977. As director of public relations for Edison Electric Institute, New York City, responsible for electric industry's coordinated information and public relations activities of which the nuclear program was part. Wrote speeches, pamphlets, educational material and policy guidance on nuclear for the electric industry.

559259

VICE PRESIDENT, PUBLIC RELATIONS (continued)

- c. 1970-1973. As General Supervisor, Environmental Relations, Consumers Power Company, Jackson, Michigan, was member of Corporate Task Force which provided policy guidance for the corporation in environmental matters.

Heavily involved in nuclear information programs for Big Rock Point, Palisades and (then-announced) Midland nuclear units.

1967-1970. As General Supervisor, News and Information Services, Consumers Power, re-organized the corporation's News Bureau into full-scale media relations operation. Filled press relations function for corporation at all public hearings and press conferences involving nuclear; addressed hundreds of citizens, schools, clubs, and groups on the topic.

1958-1967. As Editor, Employee Publications, Consumers Power Company, wrote in-depth articles of the beginnings of nuclear generation; followed construction of Big Rock Point; member of speakers bureau; one-year assignment to information program for Fermi I.

2. Other

1954-1958. Assistant editor, Toledo Edison Company. Was member of speakers bureau and involved in media relations for Northwest Ohio press and radio as well as employee information.

1952-1954. Editor, Montpelier, Ohio Leader-Enterprise.

1950-1952. Reporter, Findlay, Ohio Republican-Courier.

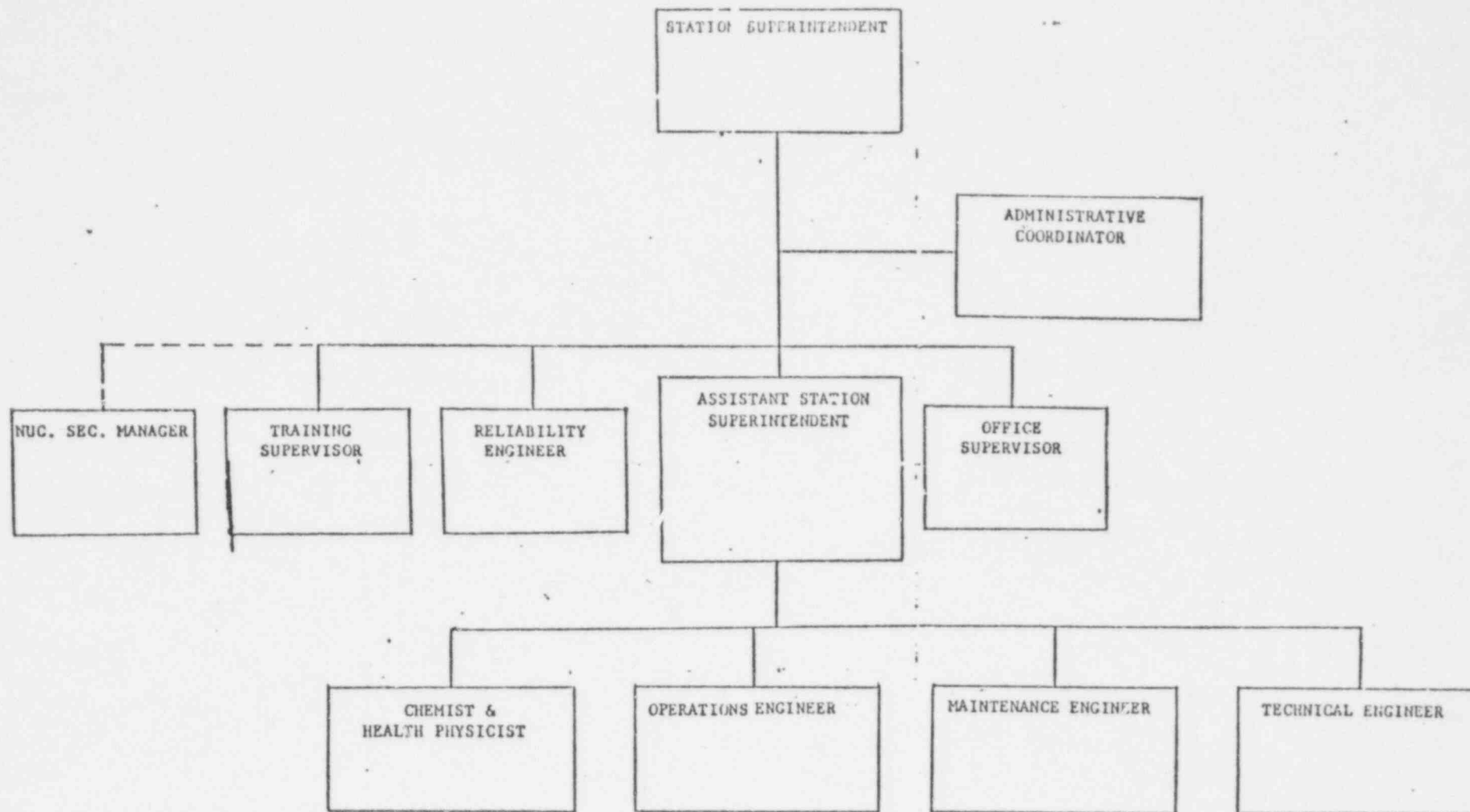
1944-1946. U.S. Navy (Air)  
(1945-1946 Public Information Office)

Docket No. 50-346  
License No. NPF-3  
Serial No. 532

APPENDIX B

Management Resources  
Station Staff  
Resumes

559261



559262



Station Superintendent

A. Direct responsibility for the operation and maintenance of the Station in a safe, reliable, and efficient manner. Responsible for the protection of the Station staff and the general public from radiation exposure. Responsible for compliance with facility operating license.

B. Bachelors of Mechanical Engineering  
(5 year program)

U. S. Navy Nuclear Power School  
(1 year program)

U. S. Navy Submarine School  
(6 month program)

Davis-Besse Nuclear Power Station  
Licensed Sr. Operator Training

C. (1)(a) 3 1/2 years as division officer  
on Polaris Submarine

6 1/2 years as Operations Engineer  
at Davis-Besse

4 months as Assistant Station Superintendent at Davis-Besse

1 1/2 years as Station Superintendent  
at Davis-Besse

(2) 1 1/2 years as Staff Engineer in coal  
fire generating plant

559263

Administrative Coordinator

A. Coordination of station activities with county, state, and federal government. Responsible for Station Emergency Planning, coordination of station activities with those of other company agencies. Assists Station Superintendent as necessary in technical, administrative, and management activities.

B. United States Armed Forces Institute (General Studies) 1962

U.S. Navy Nuclear Power Program 1962

Continuing Education (University of Maryland, University of Hawaii)  
20 hours

- C. 1.(a) Seventeen (17) years of operation, maintenance and supervision of pressurized water reactor plants. Includes the Navy S5W, S3G, S1C, A3W plants, B&W and Westinghouse PWRs. Activities have included:
- (i) Development of industrial facilities to support nuclear submarine maintenance
  - (ii) Overhaul management for fleets of nuclear submarines
  - (iii) Overhaul management of nuclear power plants in aircraft carriers and submarines
  - (iv) Management of industrial and budgetary resources to effect short and long range maintenance programs
  - (v) Direction of the operation of nuclear ship reactor operation
  - (vi) Reactor operator and Engineering Officer of the Watch on numerous naval reactors
  - (vii) Serving as Department Head in a Nuclear Submarine
- (b) Served as person in charge of fleet of non-nuclear ships long term maintenance programs, management of alteration program and configuration control of fleet units.

559264

Nuclear Security Manager

- A. He has the direct responsibility of the operational management for the Davis-Besse security organization and the overall command, control, direction, and supervision of the on-site security forces. He has the authority to direct the physical security activities of the security organization in meeting any threat or security emergency identified outside of vital areas at the Davis-Besse Nuclear Power Station.
- B. Hilltop High School, West Unity, Ohio - 1959  
International Business College - 1960-1961  
Ohio State Patrol Academy (320 hrs.) - 1961  
Various Police Seminars  
Toledo Police Academy (480 hrs.) - 1965  
Toledo University - Presently attending;  
working towards Bachelor's Degree in  
Police Science
- C. (1)(b) Nuclear Guard Supervisor - 1976-1977  
(2) Toledo Police Officer - 1965-1976

559265

1. Position Title: Training Supervisor - Davis-Besse
- a) Basic Function: Directs and supervises license and non-license training of the station, including initial training, continuing training, special training and requalification training programs. Establishes training needs, designs training programs and supervises the implementation of the programs. Directs and supervises the Respirator Protection Program at Davis-Besse.
- b) Education: High School Graduate, Attended university with major in Nuclear Physics, courses in Business and Medical Sciences, USN Nuclear Power School
- c) Experience
- (1) Nuclear:
- (a) Directly-related - 6 years Nuclear experience, Navy - experience on A1W, A2W, S1C, S5W Power plants,
- (b) Other - 5 years Nuclear experience at Davis-Besse, involved in developing training programs.

559266

Reliability Engineer

A. Reliability and availability analysis.

Outage planning and coordination.

Planning, coordination and contractor supervision of the Non-destructive Examination portion of the Inservice Examination.

Station Review Board Member.

Supervises six (6) Engineers and Technician

B. MBA, 1977, The University of Toledo.

BSEE, 1972, The University of Toledo.

Basic Academic Training-TECo (12 weeks).

Pressurized Water Reactor Technology-TECo (48 hours).

B&W Maintenance-B&W (1 week).

Non-destructive Examination Training in ultrasonics, magnetic particle, dye penetrant, radiography, and eddy current-Magnaflux (3½ weeks).

Quality Auditor Training-Bechtel (1 week).

Quality Control Uses of Statistics-ASQC Toledo Section (15 hours).

Microwave Radio Repair-U.S. Army (30 weeks)

Registered Professional Engineer in Ohio.

ASQC Certified Quality Engineer.

C. (1) Nuclear

(a) Test Leader for electrical system at Davis-Besse-5 years.

(2) Instructor in microwave radio repair for the U.S. Army-2 years.

559267

Assistant Station Superintendent

A. Assists the Station Superintendent in overall operation of the Station. Directs and coordinates Operations, Technical, Maintenance, and Chemistry and Health Physics activities of the Station to ensure conformance and compliance with Federal and State Regulations and License requirements and continuous, efficient day to day operation. Directs the processing of reports such as Nonconformance Reports and Quality Control Surveillance Reports. Serves as designated Station Superintendent in his absence.

B. Bachelor of Electrical Engineering (1965)

Master of Business Administration (1971)

Introduction to Nuclear Reactor Engineering,  
30 lecture hours

Babcock & Wilcox Nuclear Engineering  
Training Course; 48 lecture hours

Four-week concentrated course "The Basics  
of Nuclear Reactor Engineering"

Six-week course by Douglas United Nuclear,  
on-plant training for Maintenance Managers  
and Engineers.

Four-week Reactor Operator Simulator  
Training at B&W (1978)

Three and one-half weeks of non-destructive  
examination training at Magnaflux Corp.  
in Chicago

C. (1)(a) 1 year as Associate Engineer  
at Davis-Besse

6 years as Maintenance Engineer  
at Davis-Besse

1 year as Assistant Station  
Superintendent at Davis-Besse

(2) 6 years as Engineer in coal fire  
generating plant

559268

Office Supervisor

- A. Direct responsibility for the clerical activities as a support group to the station.
- B. Bachelors of Business Administration-  
The University of Toledo.
- C. (1B) 3½ years as Office Supervisor at  
Davis-Besse.  
  
(2) 3 years in Internal Auditing at  
Toledo Edison.

559269

Chemist and Health Physicist

A. Administers the Health Physics, Chemistry, and Radiochemistry Programs.

B. MS degree in radiological health  
(2 year program)

BS degree in chemistry  
(4 year program)

Health Physics related courses  
(24 weeks)

Health Physics training at Savannah River  
(3 months)

C. (1)(a) Seven years working for Dow Chemical Company in a radiochemistry laboratory; held a senior reactor operator's license for a research reactor.

Nine years working in chemistry, radiochemistry and health physics with Toledo Edison at a nuclear power station.

(2) One year working in chemistry with Toledo Edison at fossil power stations.

559270



Operations Engineer

- A. Supervise and direct the Operations Section of DBNPS. This includes supervisory control of on shift operations and engineers in the Operations Section.
- B.
  - 1. Bachelor of Science of Mechanical Engineering University of Toledo, March, 1972
  - 2. Completed the U.S. Army Heavy Equipment and Diesel Mechanic School at Fort Belvoir, Va. in November, 1972
  - 3. Completed the DBNPS License Training Courses and obtained and presently hold a Senior Operator's License. Obtained license in October, 1978.
- C.
  - 1. (a) Worked as Operations Engineer since October, 1978. Have worked at DBNPS since March of 1974 as an engineer in operations performing as a test engineer and test coordinator. Also worked in procedure preparation, review, and system startups and checkouts.
  - (b) None
  - (3) Worked as an Assistant Engineer from December, 1972 through March, 1974, at a fossil fired generating station in the Results Department.

Maintenance Engineer

A. Responsible for the Mechanical, Electrical and I&C Maintenance Program including all planned and corrective maintenance, personnel training, procedure preparation and approval of Maintenance Instructions, Work Order approval and review and identification of documentation of conditions adverse to quality discovered as a result of performing maintenance, assigned as a member of the Station Review Board.

B. Educational Background:

High School: Fredonia High School  
Fredonia, New York

College: Ohio State University  
B.M.E. 1962-1967

C.1. Military Experience:

US Naval Submarine and Nuclear Power  
Training, July 1967 to February 1969  
USS George Washington Carver (SSBN 656)  
February 1969 to December 1971  
Designated by Naval Reactors Division of  
the AEC as qualified to be the Senior  
Engineer of a Naval Nuclear Reactor Plant

Civilian Experience:

CVI Corporation (Subsidiary of Penwalt  
Corporation) January 1972 to August 1974  
Project Engineer- Nuclear Air Filtration  
Systems. Responsibilities consisted of  
overall project co-ordination from pro-  
posal stage to delivery of nuclear fil-  
tration systems and ASME nuclear vessels.  
Northeast Nuclear Energy Company, Millstone  
Station, August 1974 to June 1976, assisted  
with the Unit 2 startup test program as  
a shift Startup Test Engineer from initial  
equipment checkout, continuing through hot  
functional testing, fuel load and power  
range testing; June 1976 to June 1977,  
assisted with various plant problems on  
Unit 2 including main turbine stop and  
intercept valve repair and emergency  
diesel generator replacement. Assigned  
full responsibility for planning and  
co-ordination of main condenser retubing  
which was completed in June 1977; June  
1977 to May 1978, assigned to Millstone  
Unit 3 as a Startup Test Engineer. Assisted  
in setting up piping cleaning program and  
review of plant systems and facilities.  
Toledo Edison Company May 1978 to Present  
Maintenance Engineer

559272

Maintenance Engineer (continued)

C.2. Technical Organization Affiliations:

ASRAE

Registered Professional Engineer, State  
of Ohio E-039003

Management Courses:

Northeast Nuclear Energy Company -

Principles of Effective Supervision

Toledo Edison Company - Management Training

University of Michigan, Management I

559273

Technical Engineer

- A. High School: South Dade High School  
College: US Naval Academy, Annapolis,  
MD, BS Engineering  
North Carolina State University,  
Raleigh, NC, MS Nuclear Engineering  
University of Connecticut, MD,  
MS Mechanical Engineering  
Naval Nuclear Power School  
Naval Nuclear Prototype Training  
Naval Submarine School  
B&W Simulator Training

- B.1. (a) Reactor Controls Division Officer -  
responsible for all circuitry and  
instrumentation associated with the  
reactor plant, reactor protection  
system, rod control system, nuclear  
instrumentation, primary plant instru-  
mentation and steam generator water  
level control system.  
Electrical Division Officer - responsible  
for electrical generation and storage  
equipment, switchgear and instrumen-  
tation and control circuitry.  
Chemistry and Radiological Controls  
Officer - responsible for plant water  
chemistry, radiological controls,  
maintenance planning and records  
associated with these areas.  
Machinery Division Officer - responsible  
for maintenance of all mechanical  
systems and components (valves, turbine  
pumps, HXs, compressors, etc.) of  
reactor and steam propulsion plant.  
Training Officer - responsible for  
training at prototype as Senior  
Engineering Officer classroom instruct-  
or for EOOWS. Coordinated four operat-  
ing shifts' activities on a daily  
basis to insure maintenance and train-  
ing were accomplished.  
Technical Engineer - directs section  
responsible for reactor physics and  
analysis, station performance, compu-  
ter applications and surveillance  
testing. Section responsible for  
station involvement in Licensee Event  
Reports, Facility Change Requests,  
Conditions Adverse to Quality, and  
various station procedures. Section  
supplies cognizant engineers, super-  
vises refueling, ILRT, physics test-  
ing, fuel management, performance  
test procedures, NSSS software. Re-  
sponsible for technical specification  
interpretation, Station Review Board  
participation, and engineering support  
of station activities.

559274

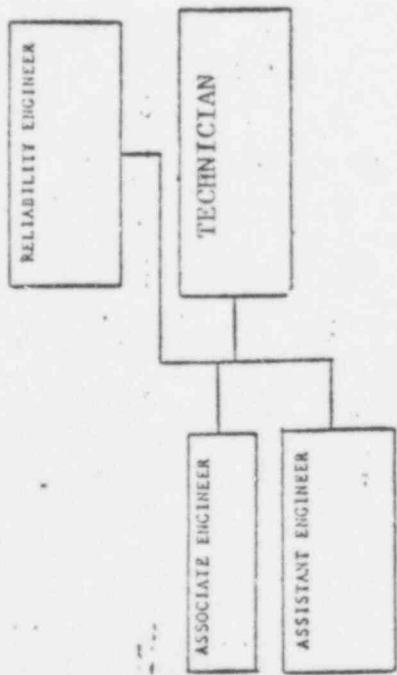
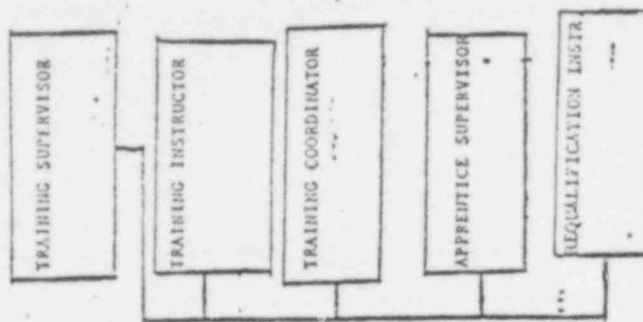
Technical Engineer (continued)

B.1. (b) Qualified: AlW Large Carrier Reactor  
SSW-R3 Standard Submarine  
Reactor  
S3G-3 Dispersion Fuel Reacto  
SlW Alloy Fuel Reactor  
SlC Small Core Reactor

Qualified Engineer

Registered Professional Engineer

559275



559276

Associate Engineer

A. Educational Background

BSME, granted December, 1972, from The University of Toledo.

25 graduate credit hours completed at The University of Toledo toward the degree of Master of Business Administration.

B. Experience

(1) Nuclear

(a) 2½ years-Nuclear power plant staff assistant engineer.

(2) Other

4 years-process engineer in private industry.

559277

Associate Engineer

A. Educational Background

B.S. Ae. Eng., Indiana Inst. of Tech., 1970

M.S. Eng. Science, University of Toledo, 197

1 semester Nuclear Engineering, Mass. Inst. of Tech.

Seminar on Inservice Inspection-Southwest Research Institute

B. Experience

(1) Nuclear

(a) 3 years-Operations experience  
at Plumbrook Research Reactor (NAS

5 years-TECo Power Engineering  
Design and Licensing

6 months-TECo, Davis-Besse  
Reliability Section

559278



Assistant Engineer

A. Educational Background

BSEE from The University of Toledo in 1979

B. Experience

(1) Nuclear

(a) TECo Student Engineer-1½ years  
part time

(2) Other

Detroit Edison-Associate Engineer-2 mos

559279

Assistant Engineer

A. Educational Background

BSNE, 1976, The University of Michigan

B. Experience

(1) Nuclear

(a) 6 months-Staff engineer

(2) Other

2 years-Hughes Aircraft Company-  
Reliability Engineer

559280

Technician

A. Educational Background

Electronic Engineering Technology diploma-  
2 years of study-in 1973 from the Ohio  
Institute of Technology

Radiation Protection, Tech/Ops (1 week)

Level II Qualified in Radiography, Liquid  
Penetrant, and Magnetic Particle Inspection

Vibration Analysis Classes, Atomics  
International (4 days) and Spectral  
Dynamics (1 week)

Qualified as an Emergency Medical  
Technician-A

B. Experience

(1) Nuclear

(a) TECo-2½ years technician

(b) ITT Grinnell-2 years NDE technician

(2) Other

Brush Wellman-1 year radiographer

559281

1. Position Title: Training Coordinator - Davis-Besse
- a) Basic Function: Participates in the Station training program by writing lesson plans, delivering lectures and in coordinating training programs to maximize utilization of programs being presented. Assists in the preparation of video programs and in the evaluation of training effectiveness.
- b) Education: High School Graduate, USN Nuclear Power School
- c) Experience ;
- (1) Nuclear:
- (a) Directly-related - 8 years Nuclear Navy experience on S1C & S5W Plants.
- (b) Other - 2 years experience as Training Coordinator at Davis-Besse.

1. Position Title: Training Instructor - Davis-Besse

a) Basic Function: Writes, reviews and revises lesson plans and participates in the preparation of video programs. Participates in administering, grading and evaluating examinations. Participates in designing Training Programs and in the coordination of Training activities. Delivers lectures and conducts training sessions in support of Station Training Program.

b) Education: High School Graduate, 4 years college majoring in engineering (did not graduate), USN Nuclear Power School

c) Experience

(1) Nuclear:

(a) Directly-related - 9 years Nuclear Navy experience

(b) Other - 2 years simulator instructor & startup engineer

Training Instructor at Davis-Besse from May of 78 to present

559283

1. Position Title: Training Instructor - Davis-Besse
- a) Basic Function: Writes, reviews, and revises lesson plans and participates in the preparation of video programs. Participates in administering, grading and evaluating examinations. Participates in designing Training Programs and in the coordination of Training activities. Delivers lectures and conducts training sessions in support of Station Training Program.
- b) Education: High School Graduate, 1 year college (pre-engineering)  
USN Nuclear Power School
- c) Experience
  - (1) Nuclear:
    - (a) Directly-related - 4 years Navy Nuclear experience
    - (b) Other - 3 years experience as Chem & Rad Tester at Davis-Besse

1. Position Title: Training Instructor - Davis-Besse

a) Basic Function: Writes, reviews, and revises lesson plans and participates in the preparation of video programs. Participates in administering, grading and evaluating examinations. Participates in designing Training Programs and in the coordination of Training activities. Delivers lectures and conducts training sessions in support of Station Training Program.

b) Education: High School Graduate, 2 years college majoring in Chemistry, USN Nuclear Power School

c) Experience

(1) Nuclear:

(a)

Directly-related - 6 years Navy Nuclear experience Operator at Davis-Besse for 4½ years.

RO License at Davis-Besse: July 31, 1978 to present

(b)

Other - Current job at Davis-Besse (Training Instructor)

559285

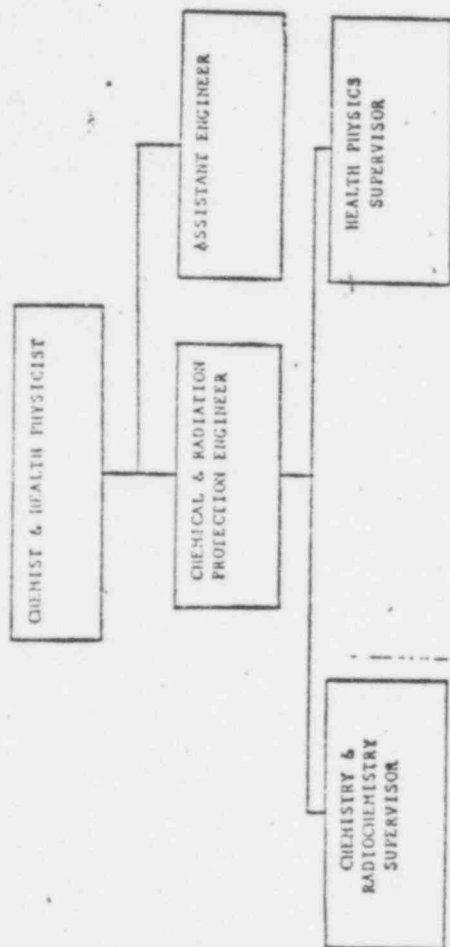
1. Position Title: Apprentice Supervisor - Davis-Besse
- a) Basic Function: Supervises the apprentice programs at Davis-Besse; interviews personnel for entry into Apprentice Programs; Performs evaluations of experience and education for presentation to the Davis-Besse Joint Apprentice Committee for placement in the Program, reviews apprentice progress; makes suggestions to foremen on areas apprentices need on the job training; enrolls personnel into Program and ensures training materials are available for personnel.
- b) Education: High School Graduate
- c) Experience
  - (1) Nuclear: Nuclear Instrument & Control Supervisor - 7 years at Davis-Besse  
  
Apprentice Supervisor - April of 1979 to present
  - (2) Other: I&C Mechanic for Toledo Edison, June 1940 to January 1956  
  
I&C Foreman for Toledo Edison, January 1956 to February 1972

553286



1. Position Title: Requalification Instructor - Davis-Besse
- a) Basic Function: Administers the requalification program and the simulator training program for Licensed Reactor Operators; prepares, administers, and evaluates the requalification program lecture series; establishes training needs of licensed operators by reviewing station activities; license event reports and other sources; writes and administers the annual requalification exam for operators; reviews training records to ensure compliance and conformance with commitments, procedures and regulatory requirements.
- b) Education: High School Graduate, 1 year college, majoring in math, USN Nuclear Power School
- c) Experience
- (1) Nuclear:
- (a) Directly-related - 6 years Nuclear Navy experience SRO, holding jobs of shift foreman at Davis-Besse and Operations Supervisor at Davis-Besse.  
SRO License: January 21 1977 to present  
Shift Foreman:  
Operations Supervisor:
- (b) Other - Current job at Davis-Besse (Requalification Instructor) January 19, 1979 to present

558297



559288

Chemical and Radiation Protection  
Engineer

- A. BS degree in chemical engineering.  
(4 year program)

Radiation Protection courses,  
(7weeks)

Nuclear Power Plant Technology,  
(6 weeks)

- B. (1)(a) Five years working experience  
working in chemistry, radio-  
chemistry, and health physics  
with Toledo Edison at a nuclear  
power station
- (2) Two years experience working  
in chemistry with Toledo Edison  
at fossil power plants.

559289

Chemistry and Radiochemistry  
Supervisor

A. Attended college  
(1 year)

Short courses relating to chemistry,  
radiochemistry and health physics,  
(18 weeks)

Observation training at nuclear power  
plants.  
(7 weeks)

Nuclear technology for PWR's  
(6 weeks)

B. (1)(a)  $4\frac{1}{2}$  years associated with Chem-  
istry, radiochemistry and  
health physics at Toledo Edison.

11 years at NASA Plum Brook Re-  
actor Facility in the radio-  
chemistry section. Extensive  
work on nuclear fuel burnup,  
cladding analysis, activation  
analysis, radioactive waste  
disposal.

(2) 2 years associated with chem-  
istry with Toledo Edison at  
fossil power stations.

559290

Health Physics Supervisor

- A. Navy Nuclear power program  
(1 year)

Attended college  
(1 year)

B & W radiochemistry course  
(2 weeks)

Industrial hygiene respiratory protection course.  
(1 week)

- B. (1)(a) Navy Nuclear Power Program 8  
years.

Chemical & Radiation Protection  
Technician at D. C. Cook Station 2  
years.

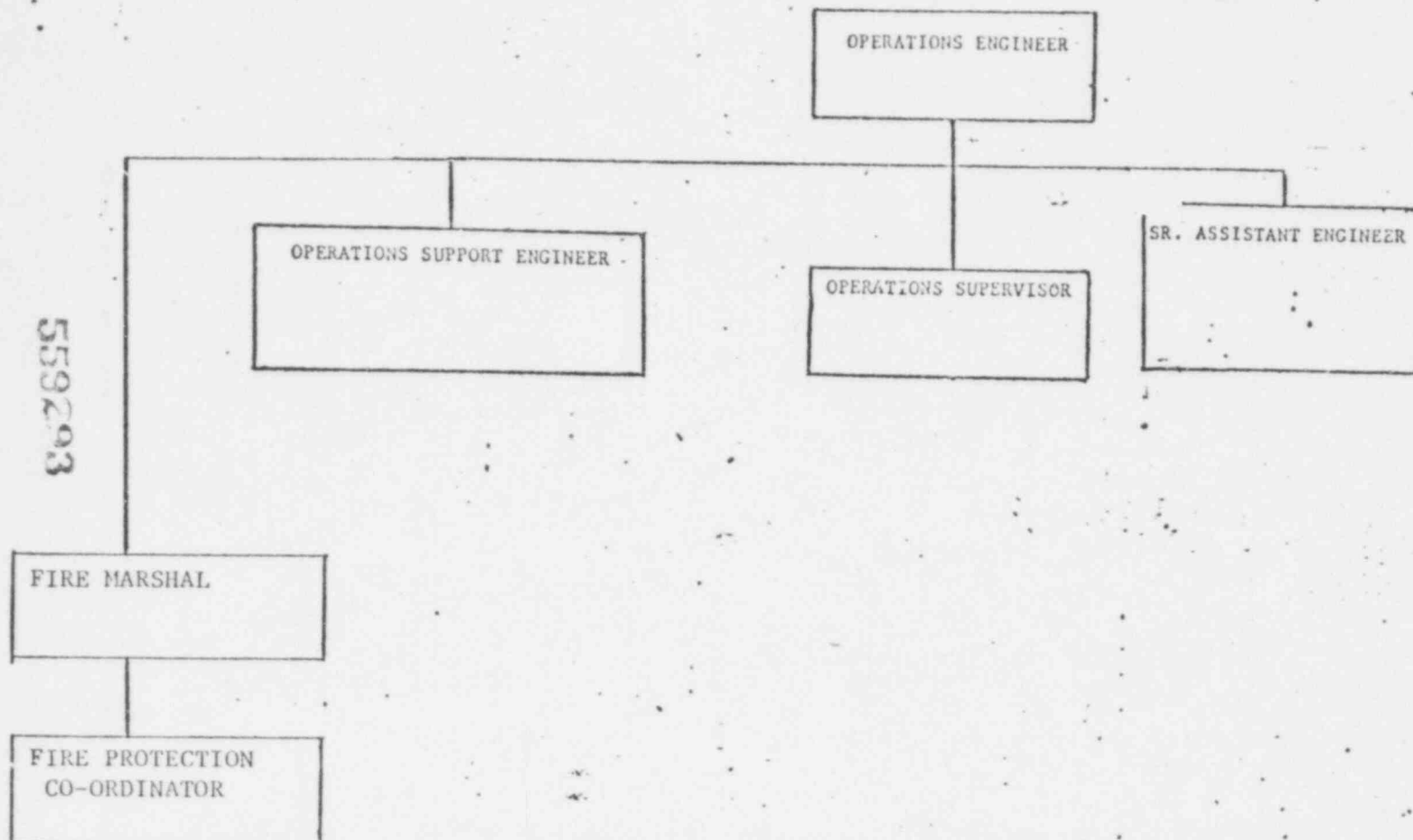
3 years experience working in health  
physics with Toledo Edison at a  
nuclear power station.

559291

Assistant Engineer

- A. BS degree in Nuclear Engineering with minor in Health Physics.
- B. (1)(a) One year experience in working radwaste operations, respiratory protection program, and whole body counting.

559292



Operations Support Engineer

- A. Bachelor of Science in Electrical Engineering  
Ohio State University - March, 1974

Navy Nuclear Power School - six months training  
in theory and design of nuclear propulsion  
plants and support equipment.  
April - September, 1974

Naval Nuclear Prototype Training - six months  
practical training in nuclear propulsion  
plant operation. Attended October, 1974 -  
March, 1975

Radiological Controls - five-week course in  
methods and procedures for Radiological  
Controls. Attended January - February, 1978

- B. 1. (a) Have worked at Davis-Besse Nuclear  
Power Station for one week.
- (b) Six months training in nuclear  
propulsion plant land based prototype.  
AIW type reactor plant.
2. Three years experience with D2G type reactor  
plant; including 10 months of new construc-  
tion startup and testing of the propulsion  
plant and reactor. This was followed by  
two years of operational experience.
3. Fourteen months experience in nuclear  
repair/radiological controls; responsible  
for all aspects of repairs to nuclear  
propulsion plants, D2G type
4. Qualified as Navy Nuclear Engineer



Operations Support Engineer

- A. BS in Nuclear Engineering  
University of Missouri-Rolla  
Dec., 1973
- B. 1. Employed at Davis-Besse Nuclear Power Station since Dec. 31, 1973 until present. Have been at Davis-Besse during all phases of plant startup including construction testing and power operation. The work experience included system design review, procedure preparation, system checkout, startup and surveillance testing and Operations Section management. Presently participating in the DBNPS SRO Training Program. Also responsible for all radwaste system operations including development of the basic station water management philosophy.
- 1b. During college, conducted numerous experiments on a 200 KW pool reactor including training similar to that for a reactor operator on that facility.
- 2. None

559295

Operations Support Engineer

Station Fire Marshall

A. Educational Background

Woodward High School-9/65-6/69

Ohio Northern University-9/69-6/70

University of Toledo-9/70-6/73

C. Experience

6 years at Davis-Besse

559296

Fire Protection Coordinator

- A. High School graduate  
One year college  
Completed Davis-Besse Training Program necessary  
to obtain Cold R.O. License
- B. 1. Reactor Operator  
Training (5 years)  
Licensed (2 years)
- 2. Fossil operator (5 years)  
Oil Refinery Operator (3 years)
- 3. 16 years volunteer fireman - training  
officer 2 years; 36 hour state T&I fire  
training - Bowling Green State Fire School  
5 years; Davis-Besse Assistant Fire Chief  
5 years; Davis-Besse Fire Chief 2 years

559297

Operations Supervisor

- A. High School Graduate  
Completed ICS course on Nuclear Power Technology  
Davis-Besse Nuclear Power Station Licensed  
Sr. Operator Training
- B. 1. (a) 7 yr. 9 mo. as Davis-Besse Shift  
Foreman  
  
7 mo. as Davis-Besse Operations  
Supervisor
- 2. 9 years operating experience in coal fired  
power generating plants for TECo  
  
1 year as Boiler operator coal and gas fired  
in chemical plant  
  
3 years operating experience U.S. Navy  
destroyer boilerroom

559298

Senior Assistant Engineer

- A. BS Welding Engineer  
Letourneau College

Electric Boat STE Qualification Program  
16 weeks formal classroom training -  
one year shipboard experience

- B. 1. (a) STE qualified on S6G and S8G naval  
reactors - responsible for startup  
and testing 3½ years
- (b) Davis-Besse from 11/30 to present.  
Worked as Maintenance Engineer for  
first six months - then transferred to  
Operations for next six months.
2. US Army Hawk Missile Repairman 3 years

559299

Senior Assistant Engineer

A. Bachelor of Science in Mechanical Engineering from Ohio University (3 quarter hours in Nuclear Engineering)

B. 1. (a) 16 months of experience in the following areas:

- reviewing, modifying, and writing of nuclear plant procedures
- coordination of major nuclear plant evolutions such as RCS draindown
- engineering investigation of plant system problems. These include the RCS, Aux Steam System, Condensate System, and Station Freeze Protection Heat Trace

(b) 16 months of general plant engineering experience at Davis-Besse. This included familiarization with Davis-Besse and TECo administrative policies.

2. Three years, ten months experience in power plant engineering. This included:

- vendor-customer coordination of main and feedpump turbine overhauls
- buying major turbine-generator replacement parts
- coordination of condenser repairs
- writing of EEI and ECAR operating reports
- coordination of Coal Inventory Audits
- coordination of Fossil Plant Stack Emissions Testing

Three months of fossil plant operations experience as an equipment operator.

Sr. Assistant Engineer

A. Bachelor of Science - Mechanical Engineering  
University of Toledo

B. 1. (a) Operations Section, 11/77 - 7/79  
Participated and supported various operations activities, revision and modification of station procedures, investigated and prepared Licensee Event Reports, coordinated implementation of Lock Valve Facility Change Request, periodic test and administrative procedures, performed responsibilities of designated reviewer for review of various surveillance tests.

(b) None

2. Power Supply Planning - 12/74 - 11/77  
Calculation of CAPCO generation allocations among the CAPCO companies, development of CAPCO data packages, participated in optimum generation capacity mix-studies, involved with studies on reliability, capacity availability and percent reserves.

559301

Sr. Assistant Engineer

A. Bachelor of Science ME Purdue University

- B. 1. (a) Two years experience with Toledo Edison at Davis-Besse I working on the review of RCS leakage tests and relief valve heat trace tests and on the operation of auxiliary feedwater pumps and turbines, main feedwater pump turbines and main turbine and auxiliaries.
- (b) Eight weeks experience with Commonwealth Edison working with Quality Assurance and Reliability.

559362



Senior Assistant Engineer

- A. Currently assuming prime responsibility for the operational aspects of rad. waste, including equipment operation procedures and system maintenance difficulties.

Designated reviewer for certain periodic test.

Assist Operation Engineer in department activities.

- B. Farrell High School, Farrell, PA-1960-1964

Central Connecticut State College-9/76-8/77  
(Industrial Tech-Manufacturing)

Thames Valley State Tech College-9/73-5/75  
(Manufacturing Engineering)

Military Service Schools-

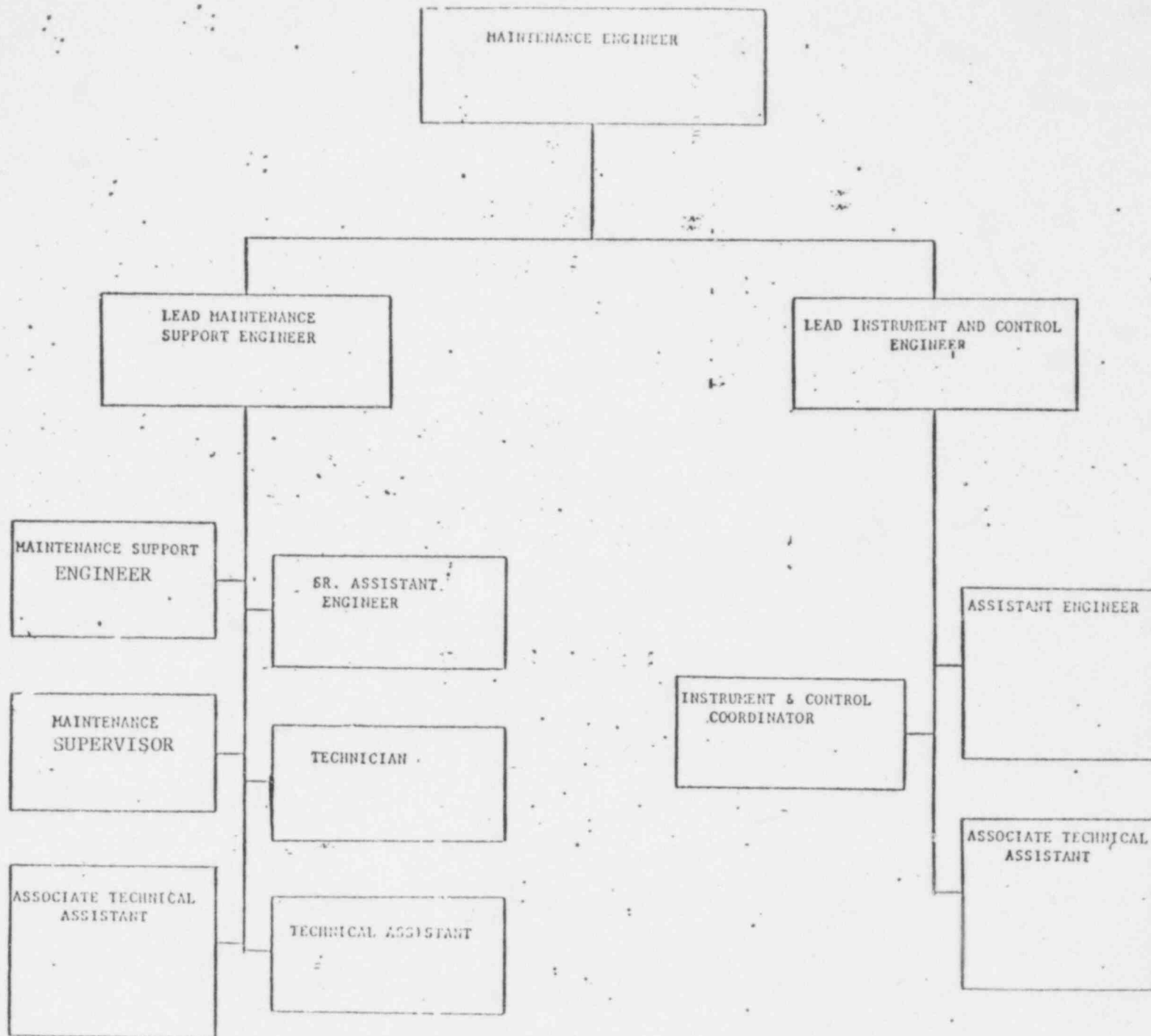
Sub School-Submarine Orientation

Nuclear Power School-Operation Theory

DIG Nuclear Training Site-Practical  
Operation

Emergency Welding-Carbon Steel & Stainless Steel Pipe Welding

559803



559304

Lead Maintenance Support Engineer

A. BSCE from Ohio Northern University (1974)

B.1. (a) 5 years as engineer in Maintenance  
Department at Davis-Besse (Asst Engr,  
Sr Asst Engr, Maint Support Engr,  
Lead Maint Support Eng)  
3 weeks outage experience at OCONEE 1  
EDO (Emergency Duty Officer)  
Preventive Maint and Noise Seminar  
Acting Maint Engr on numerous occasions

2. Toledo Edison Management Courses

559305

Maintenance Support Engineer

A. BSME from Toledo University (1974)

B.1. (a) 5 years as Engineer in Maintenance  
Department  
3 weeks outage experience at TMI  
Diesel Generator School Training by  
vendor  
1 week outage training at Lynchburg by  
B&W  
Mech Seal Seminar

559306

Maintenance Supervisor

- A. Graduate Rossford High School 1942  
US Navy Basic and Advanced Fire Control  
Schools  
Company sponsored seminars on plant equipment  
Group Leader/Foreman Training  
Company sponsored management seminars &  
training courses  
General Physics Corp. Basic Academic Training  
on Nuclear Technology Vibration Analysis  
Non-Destructive Testing
- B.1. (a) Maintenance Foreman - 6 years at D-B  
Maintenance Supervisor - 2 years at  
D-B
- 2. 23 years as Power Plant Electrician/Group  
Leader at Toledo Edison fossil stations.

5593C7

Associate Technical Assistant

- A. Chariho Reg High, Woodriver Jct, R.I.  
General College Course 1966-1972  
Trident Tech College, Charleston, S.C.  
Electronic Eng Tech 1976-1977  
Terra Tech College, Fremont, Ohio  
Industrial Elect Tech 1978 - present

- 3.1. (a) 4 yrs electrician, Navy Nuclear  
Operator stood EWS under instruction  
Nuclear Power Prototype School,  
Windsor, Conn.  
Nuclear power Cshool, Baenbridge, MD.  
Supervision of Decon teams, casualty  
assistance for supervision of repair  
to equipment and systems.
- (b) Fire Fighting Techniques, Nuclear &  
Biological warfare decon and control  
S5W Reactor Plant qualified, pressuri-  
zed water reactors and basic BWR  
Schooling in damage control for US  
Navy Ships.

- 2. Active member of the US Navy Reserve

559308

Associate Technical Assistant

A. Port Clinton High School - College Prep  
Medical College of Ohio - Paramedic

B.2. Timekeeping and Payroll Accounting - 2 yrs  
Paramedic - 3 yrs  
Volunteer Fireman - 6 yrs  
Production Scheduling & Merchandise  
Coordinator - 11 yrs

Associate Technical Assistant

A. Elyria High School  
ET"A" School (US Navy)  
"LORAC" School (US Navy)  
"URC-32" School (US Navy)  
Thermon Heat Trace School (Toledo Edison)  
BGSU Time Management Course (Toledo Edison)

B.1. (a) 4½ years purchasing at Davis-Besse

559310



Associate Technical Assistant

- A. High School Graduate (1972)  
Navy Nuclear Power School  
Qualified on D1G Prototype Plant  
Qualified Engine Room Supervisor on S5W  
Submarine Plant
- B.1. (a) Experienced in cleanup of contamination  
spills, including airborne activity.  
Experienced in use of damage control  
equipment, including Emergency Breathing  
apparatus. Performed much maintenance  
in contaminated equipment.  
  
6 months at Davis-Besse, responsible  
for snubbers.
- (b) Experienced (3½ years) in operation  
and maintenance of systems, primary  
and secondary, of PWGs.
- 2. Experienced in operation and maintenance  
of A/C units, absorption and compression  
units.

Senior Assistant Engineer

- A. University of Toledo, Toledo, Ohio  
Degrees: Associate of Science - Electrical Engineering  
Bachelor of Engineering Technology - Electrical Engineering
- B.1. (b) Operating experience in nuclear facilities has only been at Davis-Besse. Assigned to the Maintenance Staff, involved in daily maintenance activities, procedure preparation and trouble shooting electrical problems. Test Leader for several electrical test procedures and Unit Load Rejection Test. Attended schools for preventive maintenance programs, B&W NSSS Control System Course covering Mech & Elect control rod drives, Once Through Steam Generator, Nuclear and Non-Nuclear Instrumentation, Reactor Protection System & Integrated Control System, diesel generator maint, Woodward Governor controls & Limitorque.
2. Prior to coming to Davis-Besse, I was an electrical engineer with a consulting firm for 15 years. During this tenure, I was involved in the design, preparation of specs, drawings & equipment for fossil generating stations. Also, I was a start-up engineer in charge of electrical check-out for all major components required to be put in service for a generating facility.

559312

Technical Assistant

- A. High School - Cardinal O'Hara HS,  
academic  
College - Pennsylvania State University,  
Assoc Nuclear Eng Technology, Assoc  
Electrical Eng Technology.
- B.1. (a) 1 year in Maintenance Staff (TECo  
D-B 1) functioned in parts and HVAC
- (b) 5 years in Non-Nuclear functions

559313

Technical Assistant

- A. High School Graduate (vocational welding)
  - 32 week Naval Nuclear Welding Course
  - Naval QA Program
  - Naval RACON School
  - numerous damage control schools
  - Section IX of the ASME Code Course
  - Chesterton Mechanical Seal School

- B.1. (a) Welding on highly contaminated systems assisting in cleaning contaminated areas, assisting in setting up tents and glove bags, in charge of various maintenance functions while on shift work

one year at Davis-Besse in welding area

- (b) performed duties of a welding shop  
QA inspector  
performed duties of LPO while on duty

- 2. Performed all duties of a hull maintenance technician which includes piping, sheet metal, carpenter, damage control and various other maintenance functions.

559314

Lead Instrument & Control Engineer

- A. BSME University of Toledo, Aug. 1974  
160 Hr Nuclear Power Plant Operations  
Course at B&W Simulator, March 1978  
80 Hr Control Rod Drive Control System  
Course taught by Diamond Power Co.,  
January 1975  
40 Hr Radiation Monitoring System Course  
taught by Victoreen Instrument, November  
1974  
160 Hr Pressurized Water Reactor Technology  
Course taught by B&W, December 1974  
Several hundred training lecture hours on  
plant systems, August 1974 to present
- B.1. (a) May 1978 - Lead I&C Engineer, direct-  
ing, supervising & coordinating I&C  
activities in all modes of plant  
operation.  
July 1977 to May 1978 - I&C Engineer,  
supervising specific engineering  
assignments involving installation,  
repair, calibration & testing of  
instruments and controls.  
August 1974 to July 1977 - Assist  
Engineer, primarily responsible for  
testing of various systems during  
startup and preoperational testing.  
December 1972 to August 1974 -  
student engineer performing technical  
writing, station related drafting  
and maintaining the Drawing File  
System.

559315

Instrument & Control Coordinator

A. High School Graduate

US Navy: Construction Equipment Operators  
School - 16 weeks  
Nuclear Power School (Tri-Service) -  
52 weeks  
Electronics Technician School - 16  
weeks  
Nuclear Instrumentation School -  
52 weeks  
Foxboro Electronics School - 2  
weeks  
Allis-Chalmers Diesel Generators  
School - 2 weeks  
Replacement Crew Operators Training  
36 weeks  
Qualified RO & EO in 2 plants -  
PM3A & SMI  
Qualified Shift Super & Shift Advisor  
at PM3A (3 times)

B.1. (a) Leading Chief in decommissioning  
PM3A

Crew Chief in rebuilding fuel transfer  
mechanisms & re-establishing contain-  
ment integrity at PM3A following H2  
explosion in containment.  
15 years in Navy/Army Land Based Nuc  
plants.  
Refueling/Rigging Engineer for Morrison-  
Knudsen Co.  
Startup Engineer for B&W at D-B 1  
I&C Coordinator at D-B 1

2. Truck driver, lumberjack, hammer operator,  
carpenter, house wiring, plumbing.

Assistant Engineer I&C

A. University of Toledo, BSEE  
Specialty Area Systems & Control  
Twice went to Sygnatron (2 days each)  
for information & training on security  
system.

B.1. (a) Assistant Engineer Davis-Besse  
one year

(b) Student Engineer at DBNPS 1  
(B&W PWR) from 6/77 to 7/78

559017

Assistant Engineer I&C

A. Mech Engr Degree  
Pneumatic Instr Control Seminar  
Basic Nuclear Training (TECo Training)

B.1. (a) One year as Assistant Engineer  
on I&C Systems

(b) HVAC System

559318



Assistant Engineer I&C

A. BSEE Western Michigan University

B.1. (a) Engineer on Victoreen Radiation  
Monitoring System at D-B, 9/77 to  
9/78 (Assistant)

(b) Systems Engineer for D-B, 9/78 to  
present on SFRCS and SFAS

2. CTS Corp, Prod Engineer on Digital  
Electronic equipment

559319

Associate Technical Assistant

- A. 12 years High School
  - 72 hours credit toward associates degree in electronics
  - 6 months Basic Nuclear Power School
  - 6 months Prototype Training
  - 1 year of Electronics Technician School
  - 3 weeks Basic Computer School
  - 3 weeks Semi Conductor School
  - 1 week Preventive Maintenance Course
  - 1 week PDP-11-34 Minicomputer Diagnostic Course
  - 1 week General Electric EHC Seminar
- B.1. (a) 8 months at Davis-Besse as Associate Technical Assistant
- (b) 8½ years US Navy - Reactor Operator, Engineering Watch Supervisor, Reactor Controls Division Leading Petty Officer.

559320

Associate Technical Assistant

A. High School Education  
Naval Nuclear Power School  
various Naval Service Schools

B.1. (a) 6 years handling radioactive and  
contaminated materials  
Decontaminating procedures  
Wearing respiratory devices for working  
in areas of airborne contamination  
6 months at Davis-Besse

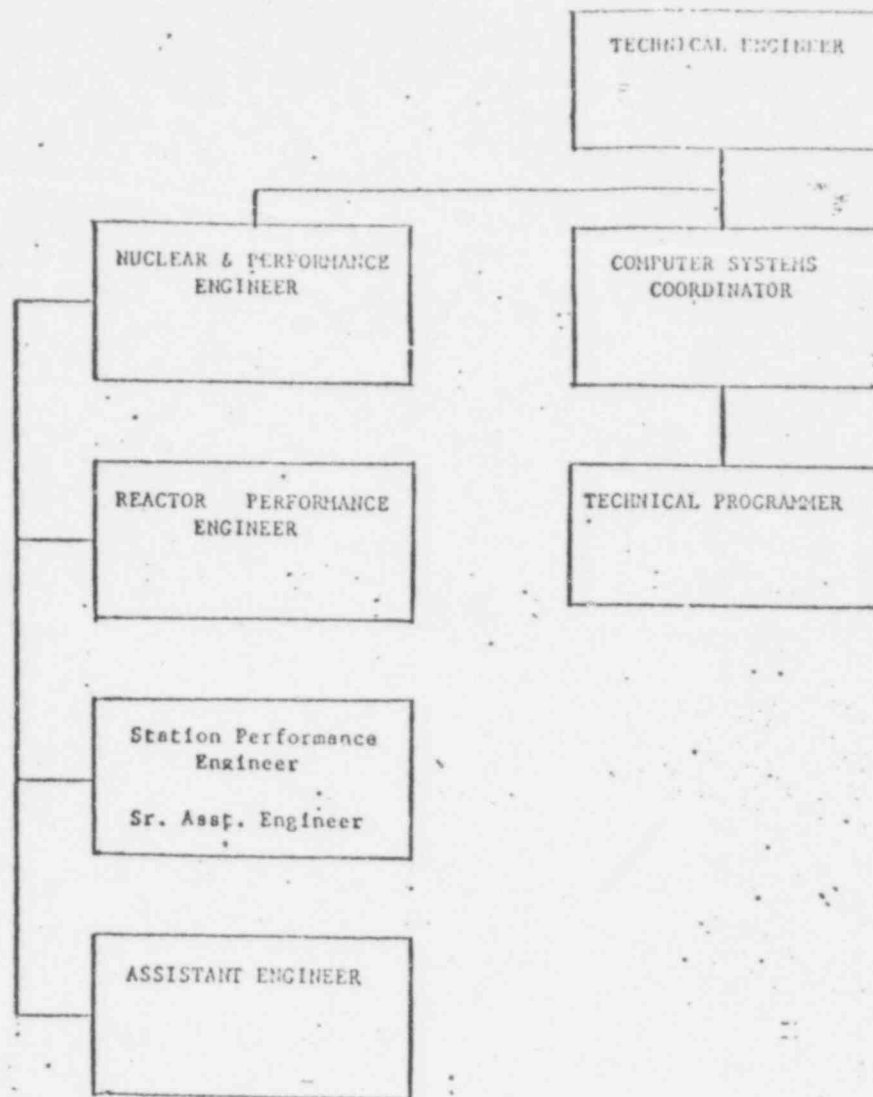
(b) Have an understanding of operation  
and proper use of various radiacs.

2. Qualified Mechanical Operator - S5G (GE  
PWR)

Qualified Mechanical Operator, Engineering  
Watch Supervisor - S5W with S3G core  
(Westinghouse GE PWR)

Experience in operation and maintenance  
of PWR and support systems

559321



559322

Nuclear & Performance Engineer

A. Educational Background

Bachelor of Aeronautical & Astronautical  
Engineering Ohio State University

Master of Nuclear Engineering Ohio State  
University

B. Formal Training

Full "Cold" license SRO Training and requal  
two week fuel cycle/management course at  
M.I.T.

Management training-Parts 1 & 2

Ballet schools on RPS & ICS-4 weeks

Ballet schools on 855 Computer-1 week

C. Experience

Procedure preparation-5 years

Administrative, NSSS Operating, Physics  
Testing; NSSS Testing; Fuel Handling,  
Loading, Accountability; Reactor  
Operations

SRB member-All activities-5 years

Technical specification interpretation  
and preparation-6 years

Pre-Op test program-acted as test leader  
throughout pre-op testing and power  
escalation testing especially with Physics  
and NSSS related testing-acted as Test  
Coordinator during NFT

Involved with procedures & training in many  
NSSS related special problems such as TMI  
concerns-continuous

Obtained and maintained SRO license

Assisted in startup test activities on Units  
1 & 2 at Oconee-4 months

Lead the initial development of the following  
programs-NPRD

## Reactor Performance Engineer

### A. Educational Background

University of Michigan, Ann Arbor, MI  
M.S. Nuclear Eng., 9/72-12/73

Michigan Tech. University, Houghton, MI  
B.S. Applied Physics, 9/68-6/72

### B. Formal Training

~30% of Phase V classes on plant systems

"Emergency Duty Officer" training

"Basic Academic Training"

4 week class on plant systems (by General Physics)

1 week of "zero power physics testing" at B&W simulator

7 days of 2 week class of B&W simulator training (including "startup certification")

### C. Experience

Directed all set-up, testing, and operation of fuel handling equipment.

Directed initial nuclear core components receipt and co-ordinator for core load.

Test leader for initial zero power physics testing and power escalation physics testing

Co-ordinator for removal of BPRA's and ORA's from reactor core.

Test leader for zero power physics testing and power escalation physics testing after BPRA's and ORA's removal.

Worked on revision of Station Emergency Plan

Participated in computerizing all reactor physics calculations required for operation.

Emergency Duty Officer for the station as scheduled.

Developed the reactor physics information data required for reactor operation and fuel management.

Station Performance Engineer

A. University of Toledo - BSME Degree 1975  
Clay High School - 1971 College Preparatory

B.1. (a) On-the-job training at Toledo Edison  
included completion of:

Toledo Edison Management Public  
Utilities Reports Course  
General Physics Basic Academic Train-  
ing Course  
General Physics Pressurized Water  
Reactor Technology Course  
Two week simulator training on B&W  
simulator in Lynchburg, Va

(b) March 1974 - June 1975 - I was a  
student engineer for Toledo Edison  
at Davis-Besse Unit 1. During this  
time, I was able to observe in detail  
the layout and construction of Unit 1.  
My job duties included drafting, filing,  
plotting curves and any other jobs as  
required by the engineering staff.  
June 1975 - Present - I have been a  
Station Performance Engineer at Toledo  
Edison's Davis-Besse Unit 1. My job  
duties include extensive in-plant  
experience while Test Leader for all  
Decay Heat, High Pressure Injection  
and Core Flood Preoperational Tests.  
I was also assigned as the Test Leader  
of all the Reactor Turbine Trip Pro-  
cedure Testing and the Natural Circu-  
lation Test. My present job duties  
include plant performance work and  
working closely with Region III  
Nuclear Regulatory Commission personnel  
in the reporting of Licensee Event  
Reports. I am also included in the  
analysis of unit trips and in the  
preparation of the unit trip reports.

Senior Assistant Engineer

A. ES Nuclear Engineering, University of Cincinnati  
Ohio State University Nuclear Reactor -  
Startup training and radiation protection  
and safety training

B.1. (b) Instructor for nuclear power technology program at Terra Technical College. Taught classes in the following subject areas: Nuclear/Reactor Physics, Radiation Protection, BWR/PWR Systems, Nuclear (PWR) Simulator, Steam Thermodynamics, Nuclear Instrumentation, Technical Report Writing. Plant Procedure preparation in areas of incore nuclear instrumentation, boron control, axial imbalance and quadrant power tilt, quench tank operation, borated water storage tank preoperational test. Preparation of computer codes to calculate reactivity balances, xenon and samarium calculations, and boron concentration control. Participated in zero power and power escalation physics testing. Lectured operations personnel on reactor physics for requalification.

559326



Assistant Engineer

A. BSME, University of Toledo, December 1974  
MSME, University of Toledo, August 1977  
Power Technology (4 week course)

B.1. (a) 2 years Asst Engineer at Davis-Besse  
Nuclear Power Station involved in the  
following areas:

Test Leader on Unit Acceptance Test  
in power escalation testing

Test Leader on Main Pump Turbine and  
Pumps Acceptance Test

Test Leader on Boron Injection Flowpat  
18 Month Surveillance Test

Procedure writing for most of the heat  
exchanger, turbine and pump performan  
tests

Overall station performance

(b) Taught heat transfer, fluids & instru-  
mentation lab courses at University of  
Toledo under a graduate assistantship  
program.

559327

Assistant Engineer

A. BS Nuclear Engineering

Pertinent Classes:

Reactor physics (theory & computer codes)

Thermo

Nuclear fuel cycle (enr calculations)

Heat Transfer

Reactor Safety (graduate course)

Reactor operations & instrumentation labs

Fluids

Basic Fortran, numerical methods

Major plant systems; fuel physics & engr

Mechanical systems (pumps, fans, etc.)

Basic Nuclear Training

559328

Assistant Engineer

- A. Fremont Ross High School, 1966  
Ohio Northern University, Ada, Ohio, 1971  
Mechanical Engineering  
Attended Nuclear Power Tech Courses at Terra  
Tech, Fremont, Ohio, 1977-1978  
Basic Nuclear Training  
Power Plant Technology

- B.1. (a) Previous engineering experience includes  
two years of plant equipment engineering

559329

Computer System Coordinator

A. Educational Background

High School: Jesup W. Scott

College: Owens Technical College  
University of Toledo

B. Formal Training

IBM Data Acquisition and Control Centers NY, N

NCR Programming School Dayton, OH

IBM Assembler & Fortran Programming Toledo, O

Bailey Meter Programming School Wickliff, OH

IBM JCL Toledo, OH

Digital Equipment Corp., Assembler Programming  
Chicago, IL

Basic Academic Training (Nuclear Personnel)  
Toledo, OH

Basic Nuclear Management Bailey Meter Co.

C. Experience

Systems Analyst, American Lincoln Corp. 3 yrs

Shift Supervisor, Toledo Trust Co. 2 yrs.

Scientific Programmer, Dundee Cement 1 year

Technical Programmer, Toledo Edison 3 yrs.

Senior Station Programmer, Toledo Edison 2 yrs

Computer Systems Coordinator, Toledo Edison  
2 yrs.

559330

Technical Programmer

A. Educational Background

Associates Degree Business Administration-  
University of Toledo

Major-Computer Programming Technology

B. Formal Training

General Electric-System Commands

General Electric-Editing Commands

General Electric-Fortran 77

Bailey Meter Co.-Assembler Programming

Bailey Meter Co.-On-Line Software Systems

Digital Equipment Corp.-Assembly Language  
Programming

Digital Equipment Corp.-Macro Assembler

C. Experience

19 months experience writing, debugging  
and implementing computer programs in order  
to aid in the safe and efficient operation  
of a nuclear reactor. Also experience in  
trouble shooting various software and  
hardware inefficiencies in order to place  
the plants monitoring computer system back  
on-line.

D. Other

I have also had formal training not directly  
job related in the following areas:

Basic Nuclear Technology

Power Plant Protection Security Train-  
ing

559331

Technical Programmer

A. Educational Programmer

Associate Degree-Computer Science Technology  
Computer Languages-Fortran IV, COBOL, &  
Assembler

B.B.A-Major Operations Analysis  
Computer Languages-Basic Fortran IV, PL/  
COBOL, & SPSS  
Course-Calculus, Statistic & Linear  
Programming

B. Formal Training

BNT

C. Experience

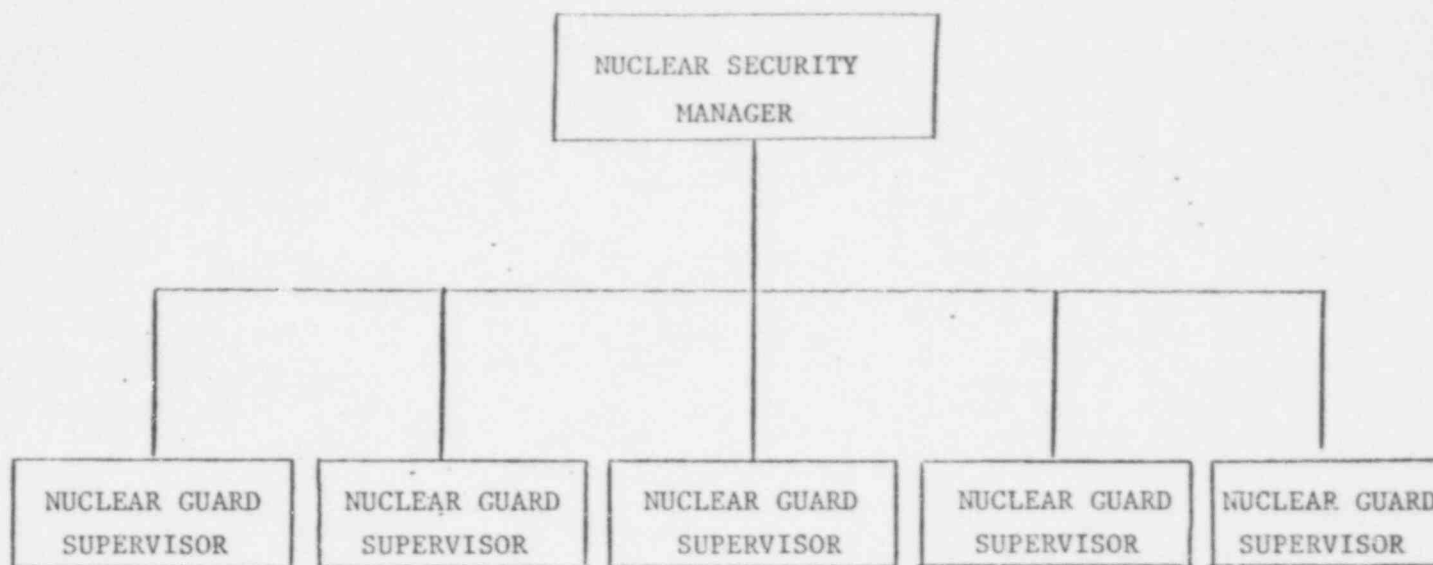
Rogers National Research  
Computer Operator-Questionnaire Process-  
ing

University of Toledo-College of Business  
Administration-Marketing Department  
Questionnaire Evaluation & Processing

Toledo Scale  
Computer Operator-Inventory, Production  
Orders

First National Bank of Toledo  
Computer Operator-Daily summary reports  
and check sorting

559332



559323

Nuclear Guard Supervisor

- A. Fremont Ross High School - 1963-1966  
Stautzenberger College - 1966-1968  
Terra Technical College - 1974-1975  
Criminal Justice Training Center -  
5/26/75-6/21/75  
• Military Police Training - 1969 (8 wks.)
  - B. (1)(b) Worked on the guard force from  
3/10/75 to 3/06/78 when promoted  
to Nuclear Guard Supervisor.
  - (2) Maps & Records Draftsman/Sr. Engineer  
Tech. Assistant at Toledo Edison  
Company Easter District from 5/73 to  
2/75.
- Draftsman at ITE Imperial Corporation  
from 2/71 to 3/73.

559824



Nuclear Guard Supervisor

- A. Oak Harbor High School - 1966-1970  
Heidelberg College - 1970-1973  
Owens Johnson Peace Officer Training - 1975
- B. (1)(b) Worked on the guard force from  
04/01/76 to 02/06/78 when promoted  
to Nuclear Guard Supervisor.
- (2) Patrolman on the Oak Harbor Police  
Department from 1973 to present on  
a part-time basis.

559335

Nuclear Guard Supervisor

- A. Maumee High School - 1968-1972  
Toledo University - Fall, 1974-Spring, 1975
- B. (1)(b) Worked on the guard force from  
5/13/75 to 11/17/78 when promoted  
to Nuclear Guard Supervisor.

559336

Nuclear Guard Supervisor

A. GED Certificate received in 1963 while in the U.S. Air Force

B. (1)(b) Worked on the guard force from 7/6/77 to 12/11/78 when promoted to Nuclear Guard Supervisor.

(2) Police Officer for the Village of Northwood from 2/70 to 10/76.

Police Officer for N.W. Railroad from 4/69 to 2/70.

559337

Nuclear Guard Supervisor

A. Genoa High School - 1960-1964

Owens Technical School - 10/75-2/76

B. (1)(b) Worked on the guard force from  
4/2/76 to 2/6/78 when promoted  
to Nuclear Guard Supervisor.

559338

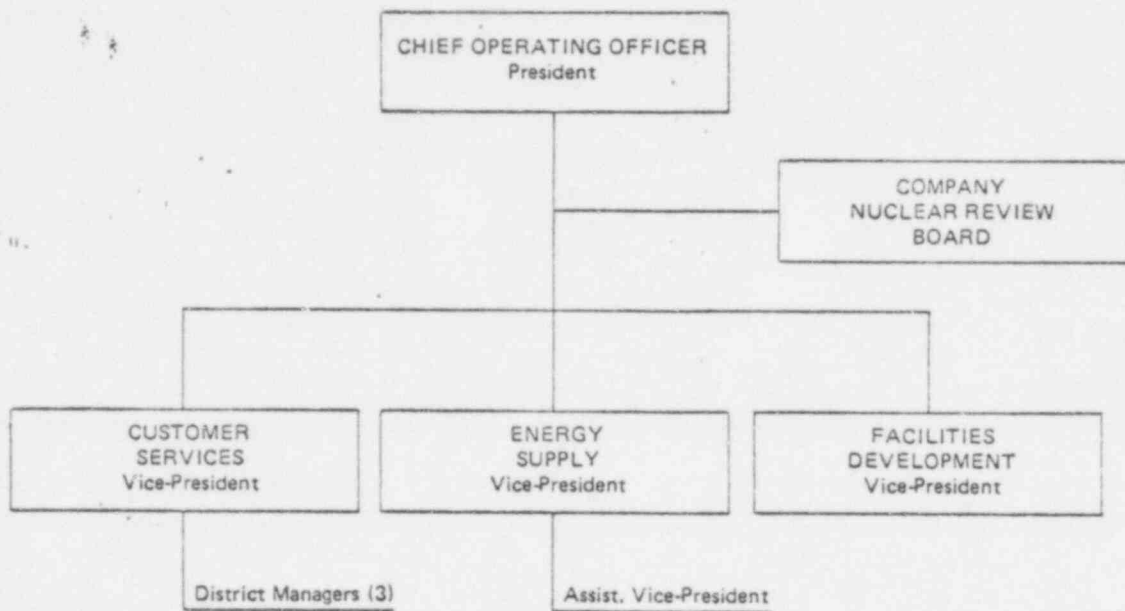
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APPENDIX C

Off-Site Support Staff

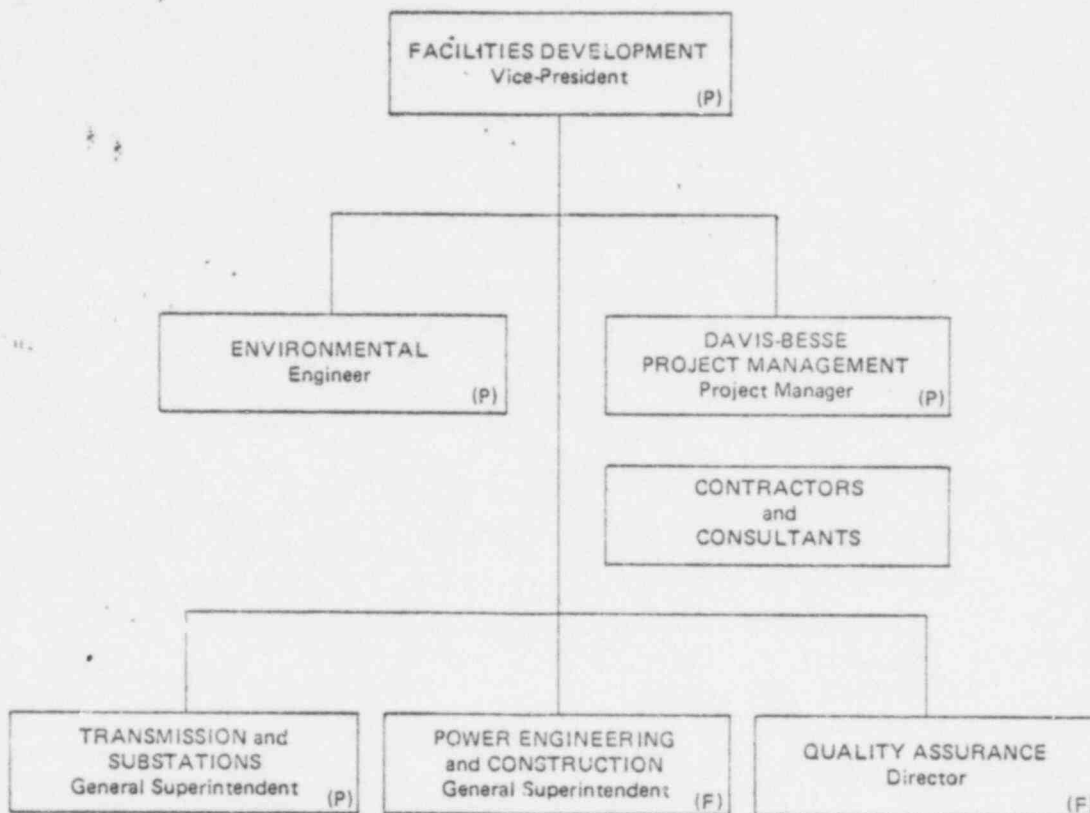
559339

THE TOLEDO EDISON COMPANY  
OFF-SITE SUPPORT STAFF



559340

THE TOLEDO EDISON COMPANY  
FACILITIES DEVELOPMENT STAFF



(F) - Full-time Nuclear Plant Technical Support  
(P) - Part-time Nuclear Plant Technical Support

559341

TABLE 2

## THE TOLEDO EDISON COMPANY TECHNICAL RESOURCES

Facilities Development Function

	TOTAL	P.E. & C.	Q.A.	D.B. PROJ. MAN.	TRANS & SUB	ENVIRN.
1. Total Number ( Managers, Engineers )	86	26	20	7	29	4
2. Education Background						
a. Doctorate Degree	1	1				
b. Masters Degree						
Nuclear	2	2				
Mechanical	3	3				
Electrical	8	4		1	3	
Civil	3	1			2	
Engineering Science/Physics	3	2				1
c. Bachelors Degree						
Mechanical	14	10	3			1
Electrical	28	9	1	1	17	
Civil	6	2	1	1	2	
Industrial	6		4		2	
Science/Physics	7	4				3
General, Marine, Business.	4	1		3		
d. Associate Degree						
Mechanical	1	1				
Civil	1				1	
Industrial	1				1	
Architectural	2			2		
NRC Liscenses (SRO)	1	1				

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TABLE 2

## THE TOLEDO EDISON COMPANY TECHNICAL RESOURCES

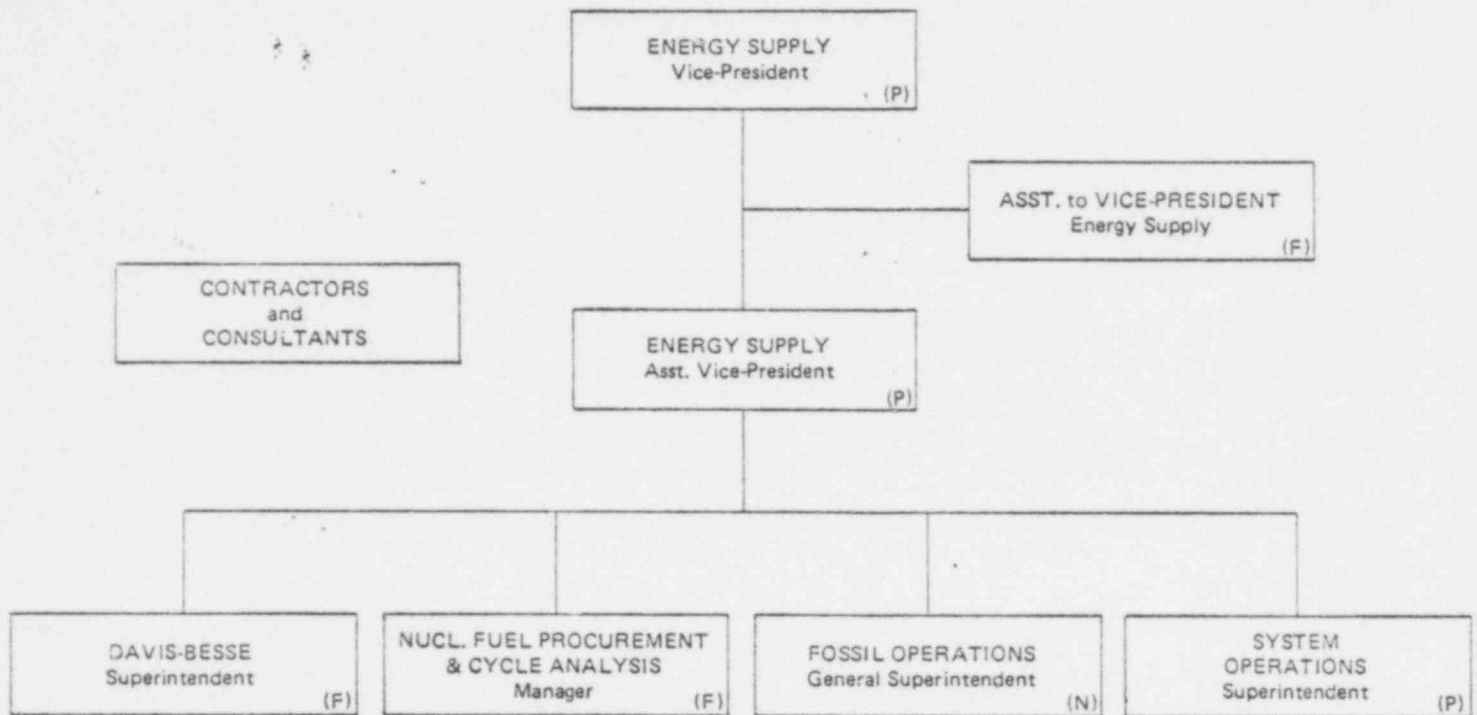
## Facilities Development Function

(Man-Yrs.)

	TOTAL			P.E. & C.			Q.A.			D.B. PROJ. MAN.			TRANS & SUB.			ENVIRN		
3. Technical Experience																		
a. Engineering																		
1. Nuclear Power Field	406			162			207			31						6		
2. Engineering Management	649			120			128			72			306			23		
3. Total Utility Experience	917			272			110			68			460			7		
b. Discipline	F	P	N	F	P	N	F	P	N	F	P	N	F	P	N	F	P	N
1. Nuclear Power Plant Operations			91			45			34			12						
2. Fossil Power Plant Operations	77			41			14			8			2			12		
3. Nuclear Engineering			60			58			2									
4. Mechanical Engineering	22		77	2		38	9		31	11		8						
5. Civil Engineering	6	9	13		7		4		8			5	2	2				
6. Construction Engineering	51	3	50	20		9	12		28	14		13	5	3				
7. Electrical Engineering	62	20	46	36	6	25	4		18		1	3	21	13				
8. Engineering Physics		1				1												
9. Metallurgical & Material Engineering	77		49	72		35	5		14									
10. Instrumentation & Controls Engineering	13		31	11		10	2		18			3						
11. Chemistry & Radiochemistry			11			5			6									
12. Health Physics			16			14			2									
13. Nuclear Fuels			10						10									
14. Maintenance	12		21				9		16	3		5						
15. Environmental	3	8	2				2		2	1								
16. Generation Planning		12																12
F = Fossil Experience																		
P = Partial Nuclear Experience																		
N = Nuclear Experience																		

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THE TOLEDO EDISON COMPANY  
ENERGY SUPPLY STAFF



(F) - Full-time Nuclear Plant Technical Support  
(P) - Part-time Nuclear Plant Technical Support  
(N) - Available

559344

TABLE 2

## THE TOLEDO EDISON COMPANY TECHNICAL RESOURCES

Energy Supply Function -- (OFF-SITE ONLY)

	TOTAL	ASSN' TO VICE PRES.	NUC. FUEL	FOSSIL OPR.	SYS. OPR.
1. Total Number (Managers, Engineers)	60	4	1	53	2
2. Education Background					
a. Doctorate Degree	1		1		
b. Masters Degree					
Mechanical	2	1		1	
Electrical	1			1	
c. Bachelors Degree					
Mechanical	17			17	
Electrical	8			6	2
Science/Physics	1			1	
Business Administration	1			1	
d. Associate Degree					
Mechanical	2	1		1	
Administration/Other	5			5	
e. Supervisors from "on-the-job" Training	20			20	
f. Navy Nuclear Power Training	2	2			
g. NRC Liscences	2	1 (SRO)	1 (RO)		

559845

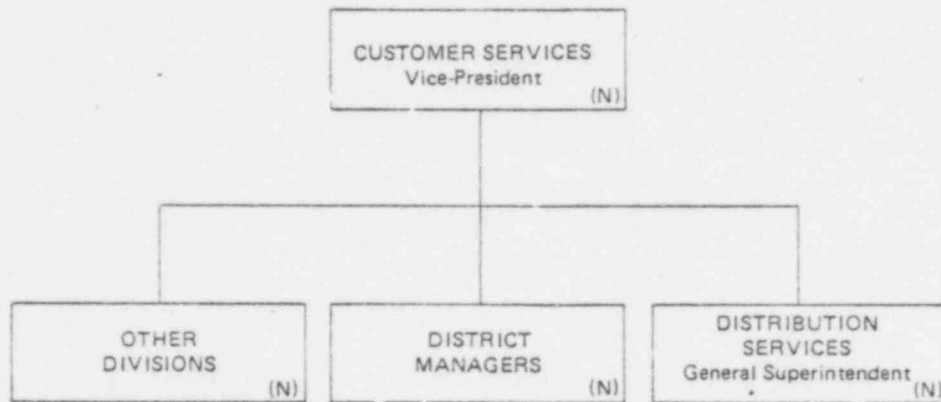
TABLE 2

THE TOLEDO EDISON COMPANY TECHNICAL RESOURCES  
Energy Supply Function

	TOTAL			ASSN'T TO VICE PRES.			NUC. FUEL			FOSSIL POR.			SYS. OPR.		
3. Technical Experience (in man-years)															
a. Engineering															
1. Nuclear Power Field	50			35			12			3					
2. Engineering Management	304			37			2			265					
3. Total Utility Experience	923			43			6			819			55		
b. Discipline	F	P	N	F	P	N	F	P	N	F	P	N	F	P	N
1. Nuclear Power Plant Operations		8	32			30			2						
2. Fossil Power Plant Operations	302			20						282					
3. Nuclear Engineering			5			3			2						
4. Mechanical Engineering	46	3		3	2					43	1				
5. Civil Engineering	4									4					
6. Construction Engineering	4	4								4	4				
7. Electrical Engineering	58		4							15			43		4
8. Instrumentation and Controls Engineering	58			10						40			8		
9. Chemistry and Radiochemistry:	61		3			3				61					
10. Health Physics			3			3									
11. Nuclear Fuels			13						10			3			
12. Maintenance	429									429					
13. Environmental	84									84					
14. Administration	45	5								45	5				
F = Fossil Experience															
P = Partial Nuclear Experience															
N = Nuclear Experience															

559346

THE TOLEDO EDISON COMPANY  
CUSTOMER SERVICES STAFF



(N) - Available

559847

TABLE 2

THE TOLEDO EDISON COMPANY TECHNICAL RESOURCES  
Customer Services Function

	TOTAL	DIST. SERV.	DIST. MNT'R.	OTHER DIVISIONS		
1. Total Number (Managers, Engineers)	43	21	10	12		
2. Education Background						
a. Masters Degree						
Mechanical	1	1				
Electrical	3	3				
b. Bachelors Degree						
Mechanical	1	1				
Electrical	30	17	5	8		
Science/Physics	1	1				
Agricultural	5		5			
c. Associate Degree						
Mechanical	2	1		1		
Electrical	6	4		2		
Industrial	1	1				

Customer Services Function

(Man-Yrs.)

	TOTAL			DIST. SERV.			DIST. MNGRS.			OTHER DIVISIONS								
3. technical Experience																		
a. Engineering																		
1. Nuclear Power Field																		
2. Engineering Management	120			87			20			13								
3. Total Utility Experience	693			289			204			200								
b. Discipline	F	P	N	F	P	N	F	P	N	F	P	N	F	P	N	F	P	N
1. Fossil Power Plant Operations	84			4			30			50								
2. Construction Engineering				5								5						
3. Electrical Engineering				6								6						
4. Instrumentation and Controls Engineering				2								2						
F = Fossil Experience																		
p = Partial Nuclear Experience																		
N = Nuclear Experience																		

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