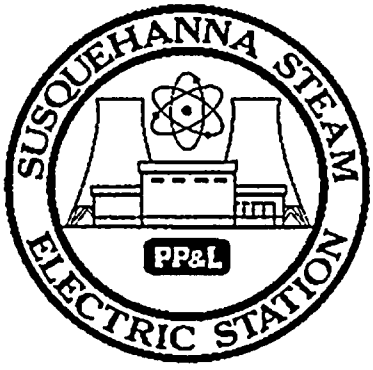


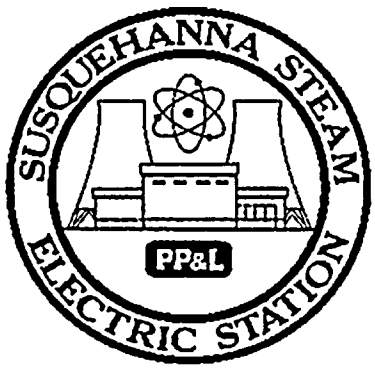
Susquehanna Steam Electric Station
Units 1 & 2

1990 Annual Environmental Operating Report (Nonradiological)

PP&L

Pennsylvania Power & Light Company
Allentown, PA

April 1991



Susquehanna Steam Electric Station
Units 1 & 2

1990 Annual Environmental Operating Report (Nonradiological)

Facility Operating License Nos. NPF-14 & NPF-22
Docket Nos. 50-387 & 50-388

prepared by
Environmental & Chemistry Group
Nuclear Services
Pennsylvania Power & Light Company
Two North Ninth Street, Allentown, PA 18101-1179

April 1991

SUSQUEHANNA STEAM ELECTRIC STATION

ANNUAL ENVIRONMENTAL OPERATING REPORT

(NONRADIOLOGICAL)

1990

Prepared by: Jerome S. Fields Date: 4/10/91
Jerome S. Fields
Senior Environmental Scientist - Nuclear

Reviewed by: Kenneth E. Shank Date: 4/16/91
Kenneth E. Shank
Environmental and Chemistry
Group Supervisor - Nuclear

Approved by: Richard L. Doty Date: 4/17/91
Richard L. Doty
Supervisor-Radiological and
Environmental Services

FOREWORD

The Susquehanna Steam Electric Station (Susquehanna SES) consists of two boiling water reactors, each with a net electrical generating capacity of 1,050 megawatts. The 1,500 acre site is located in Salem Township, Luzerne County, Pennsylvania approximately five miles northeast of Berwick, Pennsylvania. Under terms of an agreement finalized in January 1978, 90% of the Susquehanna SES is owned by the Pennsylvania Power and Light Company (Licensee) and 10% by the Allegheny Electric Cooperative, Inc.

The 1990 Annual Environmental Operating Report (Nonradiological) for Units 1 and 2 describes results of programs necessary to meet requirements of Section 2F of the Operating License, Protection of the Environment, and Appendix B, Environmental Protection Plan, as well as commitments in the Final Environmental Statement related to operation (NUREG-0564), June 1981. This report discusses environmental commitments and impacts from January 1, 1990, through December 31, 1990.

TABLE OF CONTENTS

SUSQUEHANNA STEAM ELECTRIC STATION
ANNUAL ENVIRONMENTAL OPERATING REPORT
1990

TABLE OF CONTENTS

TABLES

FIGURES

1.0 OBJECTIVES

The Licensee submitted an Environmental Report-Operating License Stage for the Susquehanna SES to the U.S. Nuclear Regulatory Commission (NRC) in May, 1978. This report reviewed the results of the preoperational impacts of construction and described the preoperational and proposed operational environmental monitoring programs. The NRC and other agencies reviewed this report and made recommendations for operational environmental monitoring programs which were listed in the Final Environmental Statement (FES) related to the operation of the Susquehanna SES, Unit 1 and 2, NUREG-0564, June 1981. In addition, the Licensee developed procedures and guidelines to ensure that operation of the Susquehanna SES does not adversely affect the environment in the vicinity of the station.

Procedures were developed to allocate responsibilities and interfaces necessary to monitor environmental impacts. These include coordination of NRC requirements and consistency with other federal, state, and local requirements for environmental protection. To keep the NRC informed of other agency activities, copies of environmental correspondence are routinely provided. In addition, this 1990 Annual Environmental Operating Report (Nonradiological) provides a summary of both environmental programs and procedures as required in the FES and Appendix B - Environmental Protection Plans (EPP) to Operating Licenses, No. NPF-14 and No. NPF-22. The 1990 report is the ninth Annual Environmental Operating Report (Nonradiological) submitted to meet EPP requirements.

2.0 ENVIRONMENTAL ISSUES

2.1 AQUATIC ISSUES

The aquatic monitoring program for operation of the Susquehanna SES is divided into two phases. Phase 1 includes effluent monitoring required by a National Pollutant Discharge Elimination System (NPDES) permit issued by the Pennsylvania Department of Environmental Resources (PaDER). Monthly discharge monitoring reports are submitted to the PaDER as part of the permitting requirements. The station operational NPDES permit No. PA-0047325 was reissued on January 22, 1990, and expires on January 21, 1995. Phase 2 of the aquatic monitoring program deals with programs listed in the FES involving environmental monitoring.

The PaDER in Phase 1 is responsible for regulating the water quality permit for the Susquehanna SES. The NPDES permit deals with discharge parameters for the Susquehanna SES sewage treatment plant, cooling tower blowdown, and miscellaneous low volume waste discharges. The cooling tower blowdown also includes in-plant process streams which discharge to the Susquehanna River. Various low volume waste sumps discharge to the storm sewers which flow into Lake Took-a-while, and eventually into the Susquehanna River. The parameters included in the sewage treatment plant effluent limits are as follows:

Flow
pH
Total Suspended Solids (TSS)
Carbonaceous Biochemical Oxygen demand (CBOD-5)
Fecal Coliforms

In-plant process effluents combine with the cooling tower blowdown before being released to the Susquehanna River. These process effluents are monitored for flow, TSS, and oil and grease. Parameters monitored in the combined cooling tower blowdown to the Susquehanna River are:

Flow
pH
Free Available Chlorine
Chromium
Zinc

The parameters monitored in the various sumps and drains that discharge to storm sewers leading to Lake Took-a-while are:

Flow
pH
TSS
Oil and Grease

Phase 2 of aquatic monitoring programs, identified in the FES and Appendix B of the Operating License for the Susquehanna SES, included monitoring algae and benthic macroinvertebrates both above the intake from and below the

discharge to the Susquehanna River. Requirements for these activities were completed in 1988.

In Spring of 1990, the Susquehanna Anadromous Fish Restoration Committee directed the capture of 15,964 American shad in the fish lift below the Conowingo Dam on the Susquehanna River. Of these, 15,075 shad were transported and stocked upstream of all major dams, with less than 2% observed mortality (Ref. 2.1-1). Some of these fish could have migrated farther upriver and spawned near the Susquehanna SES. For this reason, the river water intake of the Susquehanna SES was monitored to determine if any juvenile American shad (progeny) were impinged on the traveling screens during their out-migration to the sea. Results of this impingement study, conducted from 5 September to 12 October 1990, revealed that no American shad were found on the screens. Other fish collected included one channel catfish, one common carp, three sunfish, and five minnow species. Several crayfish were also taken, and leaf litter was very abundant (Exhibit 1). This study met commitments in Section 5.3.4, Aquatic Monitoring of the FES (Ref. 2.1-2).

Results of an Asiatic clam, Corbicula fluminea, survey in the Susquehanna River near the Susquehanna SES showed that none were present in 1990. However, each year the Asiatic clam continues to migrate farther up the river. In 1989, it was found 78 miles downriver from the Susquehanna SES. But in 1990, it was reported approximately 50 miles downriver near Sunbury, Pennsylvania (Ref. 2.1-3).

2.2 TERRESTRIAL ISSUES

2.2.1 STUDIES PREVIOUSLY COMPLETED

Terrestrial environmental studies completed prior to 1989 included cooling tower bird impaction and sound level surveys.

2.2.2 MAINTENANCE OF TRANSMISSION LINE CORRIDORS

During 1990, trees and brush in the transmission line corridors were maintained with herbicides and by manual clearing. The terrestrial monitoring program for the Susquehanna SES transmission lines was initiated in response to commitments in Section 5.3.5 of the FES. Three major transmission lines are associated with the Susquehanna SES: 1) Stanton-Susquehanna No. 2-500 kV line, 2) Sunbury-Susquehanna No. 2-500 kV line and 3) Susquehanna-Wescosville 500 kV line (former Susquehanna-Siegfried line). These lines may be operated at either 230 kV or 500 kV. The maintenance program for transmission line corridors is discussed in detail in subsection 4.2.1 of this report.

The schedule for conducting periodic erosion control inspections of these lines and access roads is based on the age of the line. Susquehanna's transmission lines are inspected twice per year by foot patrols and three times per year by helicopter patrols. A comprehensive overhead inspection is performed once every five years.

In 1990, the three transmission lines were inspected by helicopter and foot patrols with no adverse impacts reported.

A 1989 audit showed that no corrective actions were necessary along these rights-of-way. These audits are conducted biennially. The next one is scheduled for 1991.

2.3 CULTURAL RESOURCES ISSUES

Environmental Protection Plan actions required to satisfy Title 36, Code of Federal Regulations, Part 800, were completed in 1987. The Advisory Council on Historic Preservation (ACHP), in accordance with 36 CFR 800.6 (a)(1), approved the NRC's determination of "no adverse effect" for archeological sites SES-3, SES-6, SES-8, and SES-11 located on the Licensee's property (NRC letter dated October 28, 1987, to ACHP).

As part of the determination of effect process, the Licensee committed to and is taking appropriate measures to mitigate impacts from plant maintenance and operation to sites SES-3, SES-6, SES-8 and SES-11. There was no impact to these sites from plant maintenance and operation in 1990.

REFERENCES

2.1-1 Restoration of American Shad to the Susquehanna River, Annual Progress Report-1990, Susquehanna River Anadromous Fish Restoration Committee, February 1991.

2.1-2 Final Environmental Statement Related to the Operation of Susquehanna Steam Electric Station, Units 1 and 2, Docket Nos. 50-388, Pennsylvania Power and Light Company and Allegheny Electric Cooperative, Inc., U.S. Nuclear Regulatory Commission, June 1981.

2.1-3 Clam-O-Gram, Philadelphia Electric Company, Fall 1990.

3.0 CONSISTENCY REQUIREMENTS

3.1 PLANT DESIGN AND OPERATION

In accordance with the Environmental Protection Plan (EPP), the Licensee shall prepare and record an environmental evaluation of proposed changes in plant design, operation, or performance of any test or experiment which may significantly affect the environment. Before initiating such activities, the Licensee shall provide a written evaluation and obtain prior approval from the Director, Office of Nuclear Reactor Regulation. Criteria for the need to perform an environmental evaluation include: (1) a significant increase in any adverse environmental impact previously evaluated by the NRC or Atomic Safety and Licensing Board, (2) a significant change in effluent or power level, or (3) a matter not previously evaluated which may have a significant adverse environmental impact.

During 1990, the Licensee reissued a Nuclear Department procedure developed to evaluate unreviewed environmental questions and significant environmental events. This revision incorporated additional guidelines for determining when an evaluation is necessary and also describes the review and reporting of significant environmental events.

The EPP requires that if an activity meets any of the criteria to perform an environmental evaluation, the NRC will be notified. If the change, test, or experiment does not meet any of these criteria, the Licensee will document the evaluation and allow the activity to occur.

During operation of the Susquehanna SES in 1990, there were ten proposed activities which the Licensee reviewed as part of the unreviewed environmental question evaluation. These were:

1. Discharge of nitrited water from the Closed Cooling Water Systems to the blowdown via the Cooling Tower Basins.

2. Discharge of Standby Liquid Control water (borated water) to the blowdown via the Cooling Tower Basins.

3. Packing of four River Water Makeup pump shaft column bearings with grease instead of water.

4. Discharge of Diesel Jacket Cooling Water containing sodium molybdate corrosion inhibitor to the blowdown via the Cooling Tower Basins.

5. Use of Rhodamine WT tracer dye to determine Circulating Water System flows.

6. Discharge of cartridge-filtered air (containing lead pollutants prior to filtering) into the atmosphere outside of the Bisco work area of the Combo Shop.

7. Testing of Clam-trol (CT-1), a nonoxidizing biocide for microbiological growth control, in the Unit 2 Circulating and Service Water Systems.

8. Discharge of Diesel Generator Closed Cooling Jacket Water containing sodium nitrite corrosion inhibitor to the storm drains via the S&A Building sump.

9. Discharge of approximately 53,000 gallons of demineralized water from the Demineralized Water Storage Tank to the storm drains.

10. Uprating of licensed power output of Units 1 and 2 to design power level.

Records of these evaluations are maintained by the Licensee and include a brief description of the activity as well as analyses, interpretations, and results of the evaluation. Only Item 10, uprating of licensed power output, was determined to involve an unreviewed environmental question. The information regarding this change will be provided in a formal licensing amendment package scheduled for presentation to the NRC during 1991.

3.2 REPORTING RELATED TO NPDES PERMITS & STATE CERTIFICATIONS

All reports and information required by the NPDES Permit were submitted to both the NRC and PaDER. Pennsylvania is a NPDES Permitting Agreement State with the U.S. Environmental Protection Agency, therefore, State Certification pursuant to Section 401 of the Clean Water Act is not required.

3.3 CHANGES REQUIRED FOR COMPLIANCE WITH OTHER ENVIRONMENTAL REGULATIONS

During 1990, the NPDES permit was reissued to the Licensee by the PaDER to allow the discharge of all wastewater to the Susquehanna River. This permit, No. PA-0047325, was reissued on January 22, 1990.

4.0 ENVIRONMENTAL CONDITIONS

4.1 UNUSUAL OR IMPORTANT ENVIRONMENTAL EVENTS

During 1990, three operating occurrences were reviewed as part of the significant environmental event evaluation.

Two events not directly reported to the NRC are as follows:

1. February 26 - Spill of two gallons of electrolyte on frozen ground from a C&D Power Systems computer uninterrupted power supply battery. The acid was neutralized with sodium bicarbonate and cleaned up.

2. October 28 - Overflow of river water from Intake Structure debris pit. Trash and debris from river that blocked the debris pit screen were removed.

One event directly reported to the NRC is as follows:

1. January 31 - Discharge of approximately 50 gallons of concentrated sulfuric acid from a damaged common acid line during excavation activities east of the Acid Chlorine Building.

Additionally, all required notifications were made to the other state and federal agencies.

4.2 ENVIRONMENTAL MONITORING

4.2.1 MAINTENANCE OF TRANSMISSION LINE CORRIDORS

4.2.1.1 HERBICIDES USED

All herbicides utilized to control incompatible vegetation within the transmission line corridors from the Susquehanna SES are approved for use by the U. S. Environmental Protection Agency. In addition, major manufacturers or formulators all have had these products registered for distribution by the Commonwealth of Pennsylvania under the authority of the Pennsylvania Pesticide Control Act of 1973.

The following herbicides are specified for use in the Licensee's programs and are applied according to the instructions on the label.

Commercial Name	Active Ingredients	EPA Registration Number
Krenite S	Fosamine	352-395
Tordon 101	2,4-D, Picloram	464-306
Tordon RTU	2,4-D, Picloram	464-510

Commercial Name	Active Ingredients	EPA Registration Number
Garlon 3A	Triclopyr	464-546
Access	Triclopyr, Picloram	464-576
Garlon 4	Triclopyr	464-554
Roundup	Glyphosate	524-308-AA
Accord	Glyphosate	524-326

Additional herbicides may be needed if the level of control (i.e., new/different species, sudden increases, resistance to established chemicals) changes.

4.2.1.2 RECORDS

Records of herbicide use are maintained for a period of at least five years in appropriate Division Offices of the Licensee. These records include the following:

1. Copies of labels of specified herbicides which designate commercial names, active ingredients, rates of application, warnings, and storage and handling requirements.
2. Concentrations of active ingredient formulations diluted for field use.
3. Diluting substances (carriers).
4. Rates of application.
5. Methods of application.
6. Locations and dates of application.

4.2.1.3 TYPES OF MAINTENANCE REPORTED

A. Selective Herbicide Applications

In 1990, herbicides were applied on only two of the three transmission line corridors - Sunbury-Susquehanna No. 2 and Susquehanna-Wescosville 500 kV Lines. The Stanton-Susquehanna No. 2 corridor was not treated. Herbicides used, their active ingredient, acid equivalent, amount of concentrate in a designated carrier, drift retardant, and wetting agents are summarized in Table 4.2-1.

Application data for both lines are presented by number of acres on which herbicides were applied, total amount of solution used, rate of application in gallons per acre, total amount of concentrate used, average gallons of concentrate applied per acre, total pounds of acid equivalent, and average pounds per acre applied. Dates and locations by structure number of the applications are listed with the title of the responsible Division Manager, the phone number, and the mailing address.

B. Vegetation Maintenance by Manual Methods

Maintenance of Transmission Line Corridors, Table 4.2-2, summarizes vegetation maintenance activities other than the utilization of herbicides. The only manual activity used in 1990 is as follows:

1. Selective Reclearing - cutting incompatible vegetation where herbicide applications are restricted.

4.2.2 AQUATIC PROGRAMS

The aquatic monitoring requirements, identified in the FES and Appendix B of the operating license for the Susquehanna SES, have been completed and confirm that effects on aquatic biota and water quality due to plant operation were no greater than predicted.

Table 4.2-1

SUSQUEHANNA SES
Maintenance of Transmission Line Corridors
Selective Herbicide Application

1990 (Year) | Susquehanna - Wescosville 500 KV (Line Names) | Central (Division)

Herbicides					Additives		Carrier	
Alt. No.	Commercial Name	Active Ingredient	Acid Equiv.	Spec. Am't. Per 100 Gal. Solution	Commercial Name	Spec. Am't. Per 100 Gal. Solution	Name	Spec. Am't Per 100 Gal. Solution
1	Garlon 3A	Triclopyr	3#/Gal.	.5 Gal.	Arborchem Clean Cut	1 Quart	Water	98.75 Gal
	Tordon 101	Picloram	.54#/Gal.	.5 Gal.	Arborchem 38E	6 oz.		
		2, 4-D	2#/Gal.					
3	Access	Triclopyr	2#/Gal.	12.5 Gal			Kerosene	75 Gal.
		Picloram	1#/Gal.					
	Garlon 4	Triclopyr	4#/Gal.	12.5 Gal				

Application Data

Alt. No.	No. Of Acres	Total Gallons Solution	Application Rate Gal./A.	Total Gallons Concentrate	Rate Gal./A.	Total Pounds Acid Equivalent	Pounds Per Acre
1	4.49	500.0	111.36	Garlon 3A 2.5	.56	Triclopyr 7.50	1.67
				Tordon 101 2.5	.56	Picloram 1.35	.30
						2,4-D 5.00	1.11
3	100.04	125.5	1.25	Access 15.69	.16	Triclopyr 31.38	.31
						Picloram 15.69	.16
				Garlon 4 15.69	.16	Triclopyr 62.76	.63

Alt. No.	Application Dates From	Application Dates To	Location By Grid No. From	Location By Grid No. To
1	6/4/90	6/4/90	44656 N 32205	44718 N 33456
			44956 N 33419	45061 N 33446
3	6/12/90	6/12/90	46699 N 33605	46800 N 33582
	6/26/90	6/26/90	53473 N 22784	53522 N 32633

SEE PAGE 2 of 4 FOR ADDITIONAL DATES/LOCATIONS ALT #3

Line Clearance Forester (Title) | 717-459-7415 (Phone) | 344 S. Poplar St., Hazleton, PA 18201-0558 (Address)

Table 4.2-1

SUSQUEHANNA SES

Maintenance of Transmission Line Corridors
Selective Herbicide Application

1990	Susquehanna-Wescosville 500 KV	Central
Year	Line Names	Division

ALT. No.	Application Dates		Location By Grid No.	
	From	To	From	To
3	10/8/90	10/16/90	52674 N 35040	52249 N 34958
			52766 N 34803	52809 N 34692
			49917 N 34591	49390 N 34560
			49528 N 34513	49220 N 34388
			48472 N 33970	48156 N 34015
			48295 N 33995	48020 N 34034
			47209 N 33494	47117 N 33515
			46935 N 33553	46800 N 33582
			46407 N 33647	46254 N 33748
			46699 N 33605	46610 N 33617
			46001 N 33919	45918 N 33972
			53400 N 33014	53151 N 33790

Line Clearance Forester (Title) | 717-459-7415 (Phone) | 344 S. Poplar St., Hazleton, PA 18201-0558 (Address)

Table 4.2

SUSQUEHANNA SES
Maintenance of Transmission Line Corridors
Selective Herbicide Application

1990 (Year) | Susquehanna-Wescosville 500KV (Line Names) | Central (Division)

Herbicides					Additives		Carrier	
Alt. No.	Commercial Name	Active Ingredient	Acid Equiv.	Spec. Am't. Per 100 Gal. Solution	Commercial Name	Spec. Am't. Per 100 Gal. Solution	Name	Spec. Am't Per 100 Gal. Solution
5	Accord	Glyphosate	3#/Gal.	1.0 Gal.	Arborchem Aquatic Surfactant	2 Qts.	Water	98.5 Gal.
					Arborchem 38F	6 oz.		

Application Data

Alt. No.	No. Of Acres	Total Gallons Solution	Application Rate Gal./A.	Total Gallons Concentrate	Rate Gal./A.	Total Pounds Acid Equivalent	Pounds Per Acre
5	244.75	25,902.0	105.83	259.02	1.06	777.06	3.17

Alt. No.	Application Dates		Location By Grid No.	
	From	To	From	To
5	6/7/90	9/20/90	44899 N 33377	46001 N 33919
			46800 N 33582	47209 N 33494
			47117 N 33515	49220 N 34388
			49776 N 34586	53151 N 33790

Line Clearance Forester (Title) | 717-459-7415 (Phone) | 344 S. Poplar St., Hazleton, PA 18201-0558 (Address)

SUSQUEHANNA SES
Maintenance of Transmission Line Corridors
Selective Herbicide Application

1990 (Year) | Sunbury-Susquehanna #2 500KV (Line Names) | Susquehanna (Division)

Herbicides					Additives		Carrier	
Alt. No.	Commercial Name	Active Ingredient	Acid Equiv.	Spec. Am't Per 100 Gal. Solution	Commercial Name	Spec. Am't Per 100 Gal. Solution	Name	Spec. Am't Per 100 Gal. Solution
3	Access	Triclopyr	2#/gal.	12.5 gal.			Kerosene	75 gal.
		Picloram	1#/gal.					
	Garlon 4	Triclopyr	4#/gal.	12.5 gal.				

Application Data

Alt. No.	No. Of Acres	Total Gallons Solution	Application Rate Gal./A.	Total Gallons Concentrate	Rate Gal./A.	Total Pounds Acid Equivalent	Pounds Per Acre
3	6.428	26	4.04	Access 3.25	.51	Triclopyr 6.5	1.01
						Picloram 3.25	.51
				Garlon 4 3.25	.51	Triclopyr 13.0	2.02

Alt. No.	Application Dates		Location By Grid No.	
	From	To	From	To
3	12/5/90	12/6/90	25608N24339	25791N24175

Line Clearance Forester (Title) | 717-368-5219 (Phone) | P.O. Box 158, Montoursville, PA 17754 (Address)

Table 4.2-2

SUSQUEHANNA SES
MAINTENANCE OF TRANSMISSION LINE CORRIDORS

1990 (Year) — Susquehanna-Wescosville 500KV (Line Names) — Lehigh (Division)

Selective Reclearing

Dates From	Dates To	Grid Location From	Grid Location To	Acres
10/90	12/90	60354 S 48202	60313 S 48429	0.5
		61092 S 50819	61188 S 50929	0.5
		60424 S 48080	60454 S 47963	0.1
		60649 S 47442	60607 S 47457	0.5

Side Trimming

Dates From	Dates To	Grid Location From	Grid Location To	Lin. Ft.

Danger Tree Removals

Dates From	Dates To	Grid Location From	Grid Location To	Trees

Screen Trimming

Dates From	Dates To	Grid Location From	Grid Location To	

Line Clearance Forester (Title) — 215-774-3258 (Phone) — P.O. Box 3500, Allentown, PA 18106 (Address)

5.0 ENVIRONMENTAL PROTECTION PLAN REPORTING REQUIREMENTS

5.1 REVIEW AND AUDIT

The Licensee has established procedures for an independent group to review and audit compliance with the EPP. Audits of EPP compliance are conducted by the Nuclear Quality Assurance Department with support from the Environmental Management Division (EMD). The Auditing Organizational Chart (Fig. 5.1-1) lists the various groups utilized in environmental reviewing and auditing of the Susquehanna SES environmental monitoring programs. The Manager-Nuclear Services is responsible for off-site environmental matters and for providing any related support concerning licensing. The Superintendent of Plant-Susquehanna is responsible for on-site environmental matters. The Manager-Nuclear Quality Assurance with support from the Manager-Environmental Management Division of the System Power and Engineering Department is responsible for verifying compliance with the EPP.

Audits of the EPP are conducted every other year. There was an audit of the EPP in 1989.

5.2 RECORDS RETENTION

Records and logs relative to environmental aspects of plant operation and audit activities are retained in the Susquehanna Records Management System. This system provides for a convenient review and inspection of environmental documents which are available to the NRC upon request.

All records concerning modifications of plant structures, systems and components which are determined to potentially affect the continued protection of the environment, shall be retained for the life of the plant. All other records, data, and logs relating to the environmental programs and monitoring shall be retained for at least five years or, where applicable, in accordance with the requirements of other agencies.

5.3 CHANGES IN ENVIRONMENTAL PROTECTION PLAN

There were no requests for changes in the EPP during 1990.

5.4 PLANT REPORTING REQUIREMENTS

5.4.1 ROUTINE REPORTS

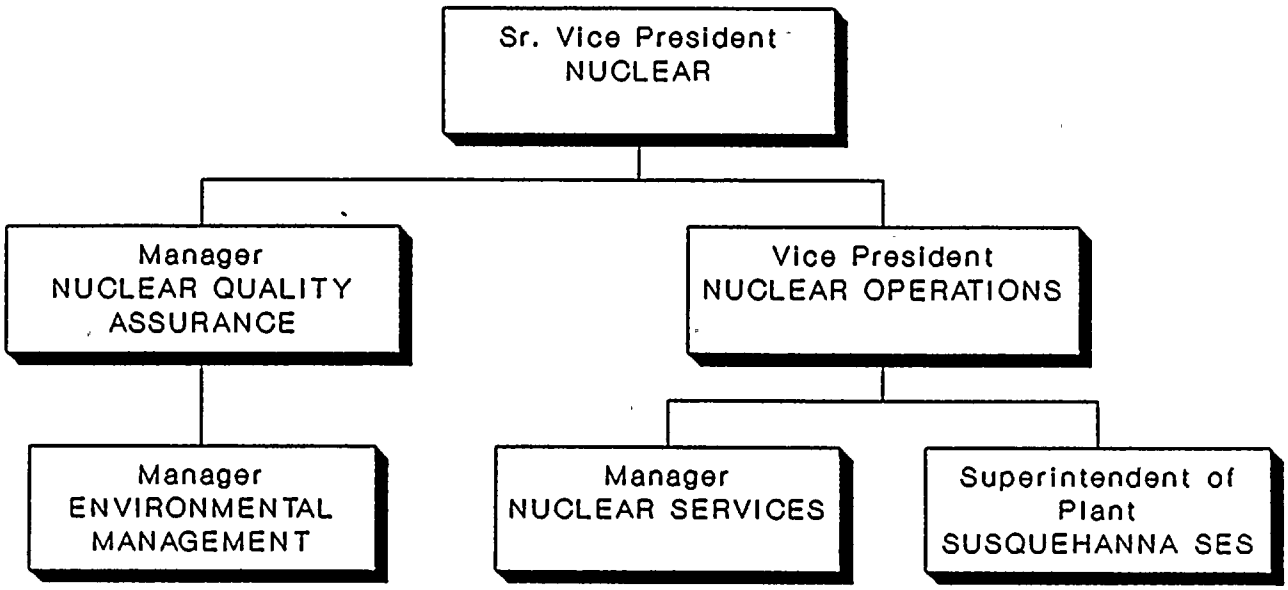
This Annual Environmental Operating Report (Nonradiological) was prepared to meet routine reporting requirements of the EPP for 1990. It provides summaries and analyses of environmental protection activities required in Subsection 4.2 of the EPP for the reporting period.

5.4.2 NONROUTINE REPORTS

A sulfuric acid spill, reported to the NRC as a nonroutine event in 1990, was discussed in Section 4.1 of this report. This activity was reviewed as part of the EPP Significant Environmental Event Evaluation.

Figure 5.1-1

AUDITING ORGANIZATION CHART



Key: - - - Support

Ecology III, Inc.

ENVIRONMENTAL SERVICES

R.D.#1 — Berwick, PA 18603
(717) 542-2191
FAX NO. (717) 542-2193

SUSQUEHANNA SES BIOLOGICAL LABORATORY

31 October 1990

Mr. Richard St. Pierre
U.S. Fish & Wildlife Service
1721 North Front Street, Suite 105
Harrisburg, PA 17102

Dear Dick:

Ecology III personnel monitored the river water intake of the Pennsylvania Power and Light Company's Susquehanna Steam Electric Station near Berwick to determine if any juvenile American shad were impinged from 5 September to 12 October 1990. Sampling baskets with 1/2-inch mesh were used to filter wash water from both the traveling screens and the trash bars at the intake. The baskets were checked daily, Monday through Friday (weekend washes were included with the Monday collections).

No shad were found throughout the monitoring period. Other fish collected included one channel catfish, one common carp, three sunfish, and five minnow species. Several crayfishes were also taken. Leaf litter was very abundant.

If you have any questions or comments, please contact me at your convenience.

Sincerely yours,

Theodore V. Jacobsen,
President

cc: J. S. Fields (PP&L)