

APPENDIX B

TO FACILITY LICENSE NO. NPF-14  
SUSQUEHANNA STEAM ELECTRIC STATION  
UNITS 1 AND 2

PENNSYLVANIA POWER AND LIGHT COMPANY  
ALLEGHENY ELECTRIC COOPERATIVE, INC.

DOCKET NOS. 50-387 AND 50-388

ENVIRONMENTAL PROTECTION PLAN

MAY, 1982

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SUSQUEHANNA STEAM ELECTRIC STATION

UNITS 1 AND 2

ENVIRONMENTAL PROTECTION PLAN  
(NON-RADIOLOGICAL)

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## 1.0 OBJECTIVES OF THE ENVIRONMENTAL PROTECTION PLAN

The Environmental Protection Plan (EPP) is to provide for protection of environmental values during operation of the nuclear facility. The purpose of the EPP is to:

- (1) Verify that the station is operated in an environmentally acceptable manner, as required by the U.S. Nuclear Regulatory Commission (NRC).
- (2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.
- (3) Keep NRC informed of the environmental effects of station operation and of actions taken to control those effects.

Environmental concerns identified in the Final Environmental Statement - Operating License (FES-OL) which relate to water quality matters are regulated by way of the licensee's National Pollution Discharge Elimination System (NPDES) permit.

## 2.0 ENVIRONMENTAL PROTECTION ISSUES

In the FES-OL dated June 1981, the NRC staff considered the environmental impacts associated with the operation of the two-unit Susquehanna Steam Electric Station. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

### 2.1 Aquatic Issues

1. Thermal characteristics of the cooling water discharge, pH, chlorine and other chemicals that may affect water quality will be monitored as defined in the licensees' NPDES permit.
2. Impingement and entrainment studies (Federal Water Pollution Control Act, Section 316, b, 1972) will be monitored as defined in the licensees' NPDES permit.
3. The licensees will monitor algae and benthic macroinvertebrates both above the intake and below the discharge (FES-OL, Sec. 5.3.4).

### 2.2 Terrestrial Issues

1. General monitoring for bird impingement on cooling towers be conducted until two years after Station Unit 2 is in operation. (FES-OL Section 5.3)
2. The licensees will maintain records of transmission line management as specified in FES-OL Section 5.3.5.
3. Based on projections by the licensees, noise levels attributable to station operation may exceed the U.S. Environmental Protection Agency (EPA) recommended limit of 55 dBA (day-night equivalent sound level). Monitoring will be undertaken as indicated in Section 5.3.5 of the FES-OL.

NRC requirements with regard to the terrestrial issues are specified in Subsection 4.2 of this EPP.

### 3.0 CONSISTENCY REQUIREMENTS

#### 3.1 Plant Design and Operation

The licensees may make changes in station design or operation or perform tests or experiments affecting the environment provided such changes, tests or experiments do not significantly increase the environmental impact of plant operation. These changes are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional operational activities which may significantly increase the environmental impact of plant operation, the licensees shall prepare and record an environmental evaluation of such activity. When such activity involves a change in the EPP, such activity and change may be implemented only in accordance with an appropriate EPP amendment as set forth in Section 5.3.

The licensees shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include a written evaluation which provides a basis for the determination that the change, test, or experiment would not significantly increase the environmental impact of plant operation, nor constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensees shall include as part of the Annual Environmental Operating Report (Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

#### 3.2 Reporting Related to the NPDES permits and State certifications

Violations of the NPDES permit or the State certification (pursuant to Section 401 of the Clean Water Act) shall be reported within thirty days to the NRC by submittal of copies of the reports required by the NPDES Permit or certification. Changes and additions to the NPDES permit or the State certification shall also be reported to the NRC within 30 days following the date the change is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The NRC shall be notified of changes to the NPDES Permit proposed by the licensees by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the





application for renewal of the NPDES permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, or local environmental regulations are not subject to the requirements of Section 3.1.

#### 4.0 ENVIRONMENTAL CONDITIONS

##### 4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that is or could result in a significant additional environmental impact of plant operation shall be recorded and promptly reported to the NRC within 24 hours by telephone, telegraph, or facsimile transmissions followed by a written report per Subsection 5.4.2.

No routine monitoring programs are required to implement this condition.

##### 4.2 Environmental Monitoring

###### 4.2.1 Aquatic Ecological Survey

The aquatic ecological survey will estimate the effects on the river from station operation downstream of station discharge to that of an upstream control location.

Aquatic parameters monitored include: physical/chemical parameters, algae, benthic macroinvertebrates, and fishes for two years following operation of Unit 2.

###### 4.2.2 General Ecological Survey

The general ecological survey is to estimate the effects of station operation by comparing operational and preoperational values of selected ecological parameters. The terrestrial survey is to provide seasonal data on the impact of moisture and possible salt drift effects on vegetation and flora from the station cooling towers. Vegetation data will be collected from two upland forest plots and two abandoned field plots for two years following operation of Unit 2.

###### 4.2.3 Bird Impingement

Bird impingement studies will monitor losses of birds from impacting on the two 540 foot natural draft cooling towers. Birds will be monitored during spring and fall migrations for two years following operation of Unit 2.



#### 4.2.4 Transmission Line Management

The licensees will maintain records of transmission line management. The records shall include observations made during inspection surveys as well as details concerning major management actions undertaken. All pertinent information, concerning kinds, amounts, concentrations, application methods, etc., relevant to chemicals used in right-of-way management shall be recorded. Inspection surveys and remedial actions to ensure the efficacy of erosion control measures shall be documented. Brief summary reports of inspections and management actions shall be submitted as part of routine environmental operating reports. (FES-OL, Section 5.3.5)

#### 4.2.5 Environmental Noise

The licensees will monitor operational noise levels at one offsite location to the southwest of the station as well as at other nearby locations where relatively high noise levels are anticipated. The sound surveys will be conducted for two years following operation of Unit 2. (FES-OL, Section 5.3.5)



## 5.0 ADMINISTRATIVE PROCEDURES

### 5.1 Review and Audit

The licensees shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection by the NRC staff, as well as internally.

### 5.2 Records Retention

Records and logs relative to the environmental aspects of plant operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications (pursuant to Subsection 3.1) to plant structures, systems and components determined to significantly increase the environmental impact of plant operation shall be retained for the life of the plant. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

### 5.3 Changes in Environmental Protection Plan

Requests for change in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes.

### 5.4 Plant Reporting Requirements

#### 5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to May 1 of each year. The initial report for each unit shall be submitted prior to May 1 of the year following issuance of the operating license. The period of the first report shall begin with the date of issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities



required by Subsection 4.2 of this EPP for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends towards irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Operating Report shall also include:

- (a) A list of EPP noncompliances and the corrective actions taken to remedy them.
- (b) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant effect on the environment.
- (c) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

#### 5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of a nonroutine event pursuant to Subsection 4.1. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local



agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such report at the same time it is submitted to the other agency.

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