

From: Alicia Mullins
To: Frederick A. Monette
Date: 03/19/2007 4:11:48 PM
Subject: SSES Draft Appendices

Fred,

Attached are the SSES Draft Appendices A through E. If you have any questions contact me.

Thanks

CC: axm7; Halil I. Avci; Jennifer Davis; Kirk E. LaGory

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MESSAGE	533	03/19/2007 4:11:47 PM
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Appendix A

Comments Received on the Environmental Review

Appendix A

Comments Received on the Environmental Review

Part I - Comments Received During Scoping

On November 2, 2006, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the Federal Register 71 FR 64566, to notify the public of the staff's intent to prepare a plant-specific supplement to the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2, to support the renewal application for the SSES operating licenses and to conduct scoping. The plant-specific supplement to the GEIS has been prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) guidance, and 10 CFR Part 51. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the Federal Register Notice. The NRC invited the applicant; Federal, State, and local government agencies; Native American tribal organizations; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or submitting written suggestions and comments no later than January 2, 2007.

The scoping process included two public scoping meetings, which were held at the Eagles Building in Berwick, Pennsylvania on November 15, 2006. Approximately 28 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. After the NRC's prepared statements, the meetings were open for public comments. Two attendees provided oral statements that were recorded and transcribed by a certified court reporter and written statements that were appended to the transcript. The afternoon and evening meeting transcripts are available from NRC's AgencyWide Documents Access Management System (ADAMS) under Accession Numbers ML063330279 and ML063330281 respectively.

At the conclusion of the scoping period, the NRC staff and its contractor(s) reviewed the transcripts and all written material to identify specific comments and issues. Each set of comments from a given commenter was given a unique identifier (Commenter ID), so that each set of comments from a commenter could be traced back to the transcript or letter by which the comments were submitted. Specific comments were numbered sequentially within each comment set. All of the comments received and the staff responses are included in the SSES Scoping Summary Report dated April 2007.

Table A.1 identifies the individuals who provided comments applicable to the environmental review and the Commenter ID associated with each person's set(s) of comments. The individuals are listed in the order in which they spoke at the public meeting, and in alphabetical

Appendix A

1 order for the comments received by letter or e-mail. To maintain consistency with the Scoping
2 Summary Report, the unique identifier used in that report for each set of comments is retained
3 in this appendix.
4

5 Specific comments were categorized and consolidated by topic. Comments with similar specific
6 objectives were combined to capture the common essential issues raised by the commenters.
7 The comments fall into one of the following general groups:
8

- 9 • Specific comments that address environmental issues within the purview of the
10 NRC environmental regulations related to license renewal. These comments
11 address Category 1 or Category 2 issues or issues that were not addressed in the
12 GEIS. They also address alternatives and related Federal actions.
13
- 14 • General comments (1) in support of or opposed to nuclear power or license
15 renewal or (2) on the renewal process, the NRC's regulations, and the regulatory
16 process. These comments may or may not be specifically related to the SSES
17 license renewal application.
18
- 19 • Questions that do not provide new information.
20
- 21 • Specific comments that address issues that do not fall within or are specifically
22 excluded from the purview of NRC environmental regulations related to license
23 renewal. These comments typically address issues such as the need for power,
24 emergency preparedness, security, current operational safety issues, and safety
25 issues related to operation during the renewal period.
26
27

1 **Table A.1. Individuals Providing Comments During Scoping Comment Period**

Comment ID^(a)	Issue Category	Comment Source and Adams Accession Number^(b)
Sue Fracke, Sugarloaf, PA (Commenter 1)		
1 MC-1-1, D-1-1	2. General Radiological Health Effects	Evening Scoping Meeting
2 MC-1-2, D-1-2	4. Alternatives	Evening Scoping Meeting
4 MC-1-4, D-1-4	5. High-Level Radioactive Waste	Evening Scoping Meeting
Eric Epstein, TMI-Alert (Commenter 2)		
5 MC-2-1	4. Alternatives	Evening Scoping Meeting
7 MC-2-3	1. License Renewal Process	Evening Scoping Meeting
13 MC-2-9	3. Surface-Water Quality, Hydrology, and Use	Evening Scoping Meeting
14 MC-2-10	1. License Renewal Process	Evening Scoping Meeting
17 D-2-1	1. License Renewal Process	Evening Scoping Meeting
19 D-2-3	5. High-Level Radioactive Waste	Evening Scoping Meeting
24 D-2-8	3. Surface-Water Quality, Hydrology, and Use	Evening Scoping Meeting
26 D-2-10	1. License Renewal Process	Evening Scoping Meeting

2 ^(a) The comment ID is defined as illustrated: MC-1-1 = Meeting Comment (MC), Commenter 1 (1),
3 Comment 1 (1); D-1-1 = Document (D), Commenter 1 (1), Comment 1 (1).
4

5 ^(b) The accession number for the afternoon transcript is ML063330279. The accession number for the
6 evening transcript is ML063330281. The accession number for the attachments to the evening
7 transcript is ML070380454.

1
2 Comments applicable to this environmental review and the staff's responses are summarized in
3 this appendix. The alphanumeric designator in parentheses after each comment is the
4 Comment ID (from Table 1). More than one comment number after a comment indicates that
5 the same comment was made both orally and in a document submitted at the meeting. This
6 information, which was extracted from the SSES Scoping Summary Report, is provided for the
7 convenience of those interested in the scoping comments applicable to this environmental
8 review. The comments that are general or outside the scope of the environmental review for
9 SSES are not included here. More detail regarding the disposition of general or inapplicable
10 comments can be found in the summary report. The ADAMS accession number for the
11 Scoping Summary Report is MLxxxxxxx.
12

13 This accession number is provided to facilitate access to the document through the Public
14 Electronic Reading Room (ADAMS) <http://www.nrc.gov/reading-rm.html>.
15

16 Comments in this section are grouped in the following categories:
17 (Insert any corrections by OGC)

18 **Comments Regarding the License Renewal Process**

- 19
20 1. License Renewal Process
21 2. Radiological Health Effects
22 3. Surface-Water Quality, Hydrology, and Use
23 4. Alternatives
24 5. High-Level Radioactive Waste
25
26

27 **1. Comments Regarding the License Renewal Process**
28

29 **Comment:** And finally, we don't really have a lot of confidence in this process. As an
30 organization we were founded in '77. We have been to the Supreme Court twice. We have
31 litigated before the NRC almost nonstop for 30 years in just about every other venue. And as I
32 told some of the NRC employees before, we have no confidence in the Commission or the
33 adjudicatory process. I think the last three relicensing the first three were licensing contentions
34 that were admitted. So that we will participate and we will be involved to the end. But I'm
35 letting you know from the outset really since the implementation of the reactor oversight
36 process we've seen a precipitous decline in the NRC's relationship with the communities,
37 reactor communities. It's a shame. Because we worked hard at Peach Bottom and TMI.
38 Against Susquehanna not as much. (MC-2-10)
39

40 **Comment:** NRC's industry-driven relicensing process limits public involvement, and disallows
41 debate over factors involving a plant's safety and security record.
42

43 PPL is applying for the license renewal so early due to the rubber-stamp approach by the Bush
44 administration's NRC. PPL wants to secure an extension to preempt public challenges over
45 additional safety problems, which tend to increase as plant's age. (D-2-10)
46

1 **Comment:** I really oppose the license extensions for a couple of reasons. Number one is we
2 think it's premature. There's 17 years left on this license. You know, this is a very strange
3 scenario where a license has that much time and you're going to relicense it before some of the
4 aging and safety issues manifest, which happens in an industrial application. That's reality.
5

6 Just look at Three Mile Island which obviously came on line ten years earlier. We replaced the
7 reactor vessel head there two years ago and we're going to change out the steam generators.
8 So there are industrial applications that are going to age that we're not going to evaluate, and I
9 think that's a shame. I think we should wait until we get closer to the end of its initial life span.
10

11 (Page 22, Lines 9–4) Obviously, and I've raised this before, I think there's age related
12 problems. I would really hope that Susquehanna PPL would think about postponing their
13 relicensing until the plant is closer to the end of its initial useful period. I mean 17 years in my
14 mind makes no sense and it's premature. (MC-2-3)
15

16 **Comment:** Three Mile Island Alert, Inc. (TMIA) announced its decision to oppose PPL's
17 premature request to relicense the Susquehanna Steam Electric Station (SSES) to operate for
18 20 more years.

19 TMI-Alert believes PPL's application is premature. "It would be irresponsible for federal
20 regulators to begin a relicensing process 17 years before the original license expires. PPL
21 wants to secure an extension to preempt public challenges over additional safety problems,
22 which tend to increase as plants age." (D-2-1)
23

24 **Response:** *These comments concern the license renewal process in general. The purpose of*
25 *the U.S. Nuclear Regulatory Commission (NRC) staff's environmental review is to carefully*
26 *consider the environmental consequences of renewing an operating license. Additionally, the*
27 *NRC has a safety review that focuses on managing the aging of structures, systems, and*
28 *components during the renewal term.*
29

30 *The NRC's environmental review process provides many avenues for public participation. As*
31 *part of the scoping process, the NRC staff held two public meetings seeking comments on the*
32 *scope of the Environmental Impact Statement (EIS) on November 15, 2006. Additionally,*
33 *comments regarding the environmental review and preparation of the draft EIS can be sent by*
34 *e-mail to SusquehannaEIS@nrc.gov, by phone to the Environmental Project Manager, Alicia*
35 *Mullins, at 301-415-1224, or by mail to Chief, Rules and Directives Branch, Division of*
36 *Administrative Services, Office of Administration, Mailstop T-6D59, U.S. Nuclear Regulatory*
37 *Commission, Washington, D.C., 20555-0001. Also, two public meetings will be held regarding*
38 *the Draft EIS where members of the public can submit comments on the draft EIS and the*
39 *environmental review process.*
40

41 *The Commission has established rules for the environmental and safety reviews to be*
42 *conducted regarding a license renewal application. Section 54.17(c) of Title 10 of the Code of*
43 *Federal Regulations (10 CFR 54.17(c)) allows licensees to submit license renewal applications*
44 *up to 20 years before the expiration of the current license. Applications for license renewal are*
45 *submitted years in advance for several reasons. If a utility decides to replace a nuclear power*

1 *plant, it could take up to 10 years to design and construct new generating capacity to replace*
2 *that nuclear power plant if license renewal is not granted. In addition, decisions to replace or*
3 *recondition major components can involve significant capital investment. As such, these*
4 *decisions may involve financial planning many years in advance of the extended period of*
5 *operation. The comment provides no new and significant information; therefore the comment*
6 *was not evaluated further.*

2. Comments Concerning General Radiological Health Effects

7
8
9
10 **Comment:** Every year 20,000 people die of cancer from naturally occurring background
11 radiation. You would think that this fact alone would be enough to say let us not produce
12 anymore radiation as it will kill more people. With all our other means of making energy,
13 especially all the various kinds of solar energy that we now have the technology to do, it makes
14 no sense to me to use a source of energy that is dangerous and will cause more people to die
15 of cancer and other degenerative diseases.

16
17 In the Federal Register December 15, 1982 Part 2 by the Environmental Protection Agency,
18 40 CFR Part 61 on national emission standards for hazardous air pollutants, radionuclides final
19 rule and notice of reconsideration stated "On December 27, 1979 the EPA listed radionuclides
20 as a hazardous air pollutant. EPA determined that radionuclides are a known cause of cancer
21 and genetic damage and that radionuclides cause or contribute to air pollution that may
22 reasonably be incapacitating and anticipated to result in an increase in mortality or an increase
23 in serious irreversible or incapacitating reversible illness and therefore, constitute a hazardous
24 air pollutant within the meaning of section 112(a)(1). There are three major types of long term
25 health impacts from exposure to radiation. Cancer, hereditary effects and developmental
26 effects on fetus such as mental retardation. In addition, risk distribution from radiation from
27 most of the sources considered for regulation show that fatal cancers occur much more
28 frequently than nonfatal cancers and cancers generally occur more often than genetic or
29 developmental effects." It also states that "numerous studies have demonstrated that radiation
30 is a carcinogen. It has assumed that there is no completely risk-free level of exposure to
31 radiation to cause cancer." Radiation corrodes metals such as in the pipes of nuclear power
32 plants causing holes that constantly emit radiation in our air under the routine operation of the
33 plants. Radiation is cumulative in our bodies and the effects of exposure can sometimes take
34 many years before showing up. And we were worried that Saddam Hussein had weapons of
35 mass destruction.

36
37 Along with radioactive air pollutants, the Environmental Protection Agency reports that in 2002
38 24,379 U.S. non-nuclear facilities released 4.79 billion pounds toxins into the atmosphere. Of
39 these pollutants, 72 million pounds were known carcinogens. We have no concept of the
40 synergistic effects of these toxins when they are mixed with radioactive pollutants. These toxins
41 impinge on health during your entire life, even before birth. A study in New York City shows
42 that the genetic material in fetuses still in their mother's womb is damaged by air pollution.

43
44 From the Radiation and Public Health Project in Norristown, Pennsylvania they have found that
45 current rates of infant deaths, childhood cancer and thyroid cancer all known to be effected by
46 emissions in nuclear reactors are elevated in Luzerne County, the site of the Susquehanna

1 Nuclear Plant.

2
3 These findings and other data on local disease rates should be part of the federal decision on
4 whether the U.S. Nuclear Regulatory Commission should approve the application of PPL
5 Susquehanna LLC to operate the plant until 2044. The current license only allows operations
6 until 2024. This information was presented at a federal hearing today in Berwick on the
7 application.
8

9 "These high disease rates should shock all Luzerne County residents and they should demand
10 a thorough study of the health risk posed by the Susquehanna plant," said Joseph Mangano,
11 MPH MBA of the Radiation and Public Health Project who presented the data. "If radioactive
12 emissions from the plant have been harmful, people should know this before the government
13 decides whether or not to extend the license."
14

15 The 2000-2004 [2003] county rate of white infants who died in their first month was 23 percent
16 above the U.S. rate based on 55 deaths. In that same period 43 Luzerne children under age 15
17 were diagnosed with cancer, a rate 38 percent above the nation. Data are taken from the
18 National Center for Health Statistics and the Pennsylvania Cancer Registry. (3) (4)
19 Thyroid cancer statistics may be most alarming. In the late 1980s as the two reactors at
20 Susquehanna were starting the Luzerne rate was 20 percent below the United States. However,
21 in 2000 to 2003 the Luzerne rate was a 100 percent above, double the nation. Radioactive
22 iodine found only in nuclear weapons and reactors seeks the thyroid gland where it kills and
23 impairs cells leading to cancer. (5)
24

25 Two large nuclear reactors have operated at Susquehanna beginning in 1982 and 1984
26 respectively. Virtually all of the 312,000 residents of Luzerne County live within 15 miles of the
27 plant and would be most likely to receive the greatest radiation exposures. Like all reactors,
28 Susquehanna routinely emits gases and particles into the air and water which enters human
29 bodies by breathing and the food chain. There are over 100 radioactive chemicals in this mix,
30 each causes cancer and is especially harmful to fetuses, infants and children.
31

32 INFORMATION ON SUSQUEHANNA NUCLEAR PLANT AND LOCAL HEALTH (submitted by
33 commenter, 11/15/06)
34

35 1. Susquehanna reactors 1/2 went critical (began producing radioactivity) on September 10,
36 1982 and May 8, 1984, respectively. Source: U.S. Nuclear Regulatory Commission.
37 www.nrc.gov.
38

39 2. From January 1, 1999 to September 30, 2006, Susquehanna 1 / 2 operated 91.8% and
40 93.0% of the time, an all time high. Source: U.S. Nuclear Regulatory Commission,
41 www.nrc.gov. Reactors operated 62345 and 63193 hours out of a maximum 67919.
42

43 3. From 2000-2003, 55 Luzerne county whites under 28 days old died out of 11601 live births,
44 a rate of 4.74 per 1000. This rate was 23% greater than the U.S. rate of 3.84. Source:
45 National Center for Health Statistics, <http://wonder.cdc.gov>, underlying cause of death.

1
2 4. From 2000-2003, 43 Luzerne county children under age fifteen were diagnosed with cancer.
3 Based on an annual average population of 52,567, the cancer incidence rate was 20.45 per
4 100,000, which was 38% greater than the U.S. average of 14.78. Sources: PA Cancer Registry
5 (www.state.pa.us) and U.S. Centers for Disease Control (<http://wonder.cdc.gov>, National
6 Association of Cancer Registries – represents 39 states).

7
8 5. From 1985-1988 the Luzerne county thyroid cancer incidence rate was 3.54 per 100,000,
9 based on 86 cases, or 20% below the U.S. rate of 4.40. From 2000-2003, the county rate was
10 16.41, based on 229 cases or 100% above the U.S. rate of 8.20. Sources: PA Cancer registry
11 (www.state.pa.us) and Surveillance Epidemiology and End Results (www.seer.cancer.gov),
12 representing 9 states and cities. (MC-1-1, D-1-1)

13
14 **Response:** *The NRC's primary mission is to protect the public health and safety and the
15 environment from the effects of radiation from nuclear reactors, materials, and waste facilities.
16 The NRC's regulatory limits for radiological protection are set to protect workers and the public
17 from the harmful health effects of radiation on humans and can be found in 10 CFR Part 20
18 (Standards for Protection Against Radiation). The limits are based on the recommendations of
19 standards-setting organizations. Radiation standards reflect extensive scientific study by
20 national and international organizations (International Commission on Radiological Protection
21 [ICRP], National Council on Radiation Protection and Measurements [NCRP], United Nations
22 Scientific Committee on the Effects of Atomic Radiation [UNSCEAR], and the National
23 Academy of Sciences [NAS]) and are conservative to ensure that the public and workers at
24 nuclear power plants are protected.*

25
26 *Health effects from exposure to radiation are dose-dependent. At low doses, radiation can be
27 responsible for inducing cancers such as leukemia, breast cancer, and lung cancer. At very
28 high doses (several hundred rem or higher) and dose rates, radiation has been known to cause
29 prompt (or early, also called "acute") effects, such as vomiting and diarrhea, skin burns,
30 cataracts, and even death.*

31
32 *Currently, there are no scientifically conclusive data that unequivocally establish the occurrence
33 of cancer following exposure to low doses, below about 0.1 Sv (10 rem). However, radiation
34 protection experts conservatively assume that any amount of radiation may pose some risk of
35 causing cancer and that the risk is higher for higher radiation exposures. Therefore, a linear,
36 no-threshold dose response relationship is used to describe the relationship between radiation
37 dose and cancer induction. Simply stated, any increase in dose, no matter how small, results in
38 an incremental increase in health risk. The NRC accepts this theory as a conservative model
39 for estimating health risks from radiation exposure and recognizes that the model probably
40 overestimates those risks. On the basis of this theory, the NRC conservatively establishes
41 limits for radioactive effluents and radiation exposures for workers and members of the public,
42 as found in 10 CFR Part 20.*

43
44 *The amount of radioactive material released from the Susquehanna Steam Electric Station,
45 Units 1 and 2 (SSES) is well measured, well monitored, and known to be very small. The total
46 whole body dose from both ingested radionuclides due to liquid and gaseous releases and*

1 *direct radiation from SSES is negligible compared with the public's exposure from natural*
2 *background radiation, medical irradiation, and radiation from consumer products of more than*
3 *300 millirem per year. The annual radioactive offsite doses, since operational in 1982, from*
4 *SSES have always been well below the limits as bounded by 10 CFR Part 20. These doses*
5 *are so low that resulting cancers have not been observed and would not be expected.*

6
7 *Although a number of studies of cancer incidence in the vicinity of nuclear power facilities have*
8 *been conducted, there are no studies to date that are accepted by the scientific community that*
9 *show a correlation between radiation dose from nuclear power facilities and cancer incidence in*
10 *the general public. Specific studies that have been conducted include:*

- 11
12 • *In 1990, at the request of Congress, the National Cancer Institute conducted a study of*
13 *cancer mortality rates around 52 nuclear power plants and 10 other nuclear facilities.*
14 *The study covered the period from 1950 to 1984 and evaluated the change in mortality*
15 *rates before and during facility operations. The study concluded that there was no*
16 *evidence that nuclear facilities may be linked causally with excess deaths from leukemia*
17 *or from other cancers in populations living nearby.*
- 18
19 • *In June 2000, investigators from the University of Pittsburgh found no link between*
20 *radiation released during the 1979 accident at the Three Mile Island power plant and*
21 *cancer deaths among nearby residents. Their study followed 32,000 people who lived*
22 *within 5 mi of the plant at the time of the accident.*
- 23
24 • *In January 2001, the Connecticut Academy of Sciences and Engineering issued a report*
25 *on a study around the Haddam Neck nuclear power plant in Connecticut and concluded*
26 *that radiation emissions were so low as to be negligible.*
- 27
28 • *The American Cancer Society in 2001 concluded that although reports about cancer*
29 *clusters in some communities have raised public concern, studies show that clusters do*
30 *not occur more often near nuclear plants than they do by chance elsewhere in the*
31 *population. Likewise, there is no evidence that links strontium-90 with increases in*
32 *breast cancer, prostate cancer, or childhood cancer rates. Radiation emissions from*
33 *nuclear power plants are closely controlled and involve negligible levels of exposure for*
34 *nearby communities.*
- 35
36 • *Also in 2001, the Florida Bureau of Environmental Epidemiology reviewed claims that*
37 *there are striking increases in cancer rates in southeastern Florida counties caused by*
38 *increased radiation exposures from nuclear power plants. However, using the same*
39 *data to reconstruct the calculations on which the claims were based, Florida officials*
40 *were not able to identify unusually high rates of cancers in these counties compared*
41 *with the rest of the state of Florida and the nation.*
- 42
43 • *In 2000, the Illinois Public Health Department compared childhood cancer statistics for*
44 *counties with nuclear power plants to similar counties without nuclear plants and found*
45 *no statistically significant difference.*

1
2 *Radiation exposure to the public during the license renewal term is a Category 1 issue that was*
3 *evaluated in the Generic Environmental Impact Statement for License Renewal of Nuclear*
4 *Plants, NUREG-1437 (GEIS). As part of its search for new and significant information, the NRC*
5 *staff will review recent results from the licensee's effluent and environmental radiological*
6 *monitoring programs and perform a comprehensive evaluation. These programs and the*
7 *impacts from SSES radiological effluents will be discussed in Chapters 2 and 4 of the*
8 *Supplemental Environmental Impact Statement (SEIS). The staff also will consider planned*
9 *changes in the status of SSES, including the planned power uprate, in the preparation of the*
10 *SEIS. The comments provide no new and significant information and, therefore, they will not*
11 *be evaluated further.*

12
13 **3. Comments Concerning Surface-Water Quality, Hydrology, and Use**

14
15 **Comment:** Water supplies. I did talk to a gentleman from PPL. In the interest of open
16 disclosure, we met with the Susquehanna River Basis Commission in Pennsylvania and
17 especially the DEP is going through a statewide exercise in water use management. So a lot of
18 what we do tonight may be moot in terms of FERC and also the Susquehanna River Basin
19 Commission may rule. Again, in terms of open disclosure I've already stated to the Basin
20 Commission we're going to oppose the license extension until in our view you view water as a
21 commodity. It doesn't just evaporate. It comes from somewhere.

22
23 Everyday about 30 million gallons are taken from the river and not returned. That's even during
24 a drought. That's not being a good neighbor. You know, when we're being asked to conserve
25 water and the plant keeps churning the water, there has to be a balance. We're not saying you
26 can't use the water, but you have to moderate your use and pay your fair share. So I think
27 that's an issue that may not even be relevant to this particular venue, but an issue we will raise.
28 (MC-2-9)

29
30 **Comment:** The magnitude of the amount of water used at a nuclear power plant is readily
31 evidenced at the SSES every day. The Susquehanna Steam Electric Station loses 14.93
32 million gallons of water per unit daily as vapor out of the cooling tower stack. Eleven million
33 gallons per day are returned to the river as cooling-tower basin blow down. On average, 29.86
34 million gallons per day are taken from the river and not returned; even during periods of
35 drought! (PPL, Pennsylvania Environmental Permit Report) (D-2-8)

36
37 **Response:** *The consumptive use of water by SSES is regulated through the Susquehanna*
38 *River Basin Commission (SRBC), which manages water usage along the entire length of the*
39 *river. The current permit granted to SSES is for consumptive usage of up to 40 million gal/day.*
40 *(Permit # 19950301 EPUL-0578). SSES has submitted an application to the SRBC to increase*
41 *the amount of consumptive water usage to 44 million gal/day. The SRBC is reviewing the*
42 *application and will make a decision independent of the NRC with regard to the modification of*
43 *the current SSES permit to reflect the increased consumptive water usage. SSES is required to*
44 *adhere to the water usage limits set by the permit and to any mitigative measures set by the*
45 *SRBC for continued operation of the facility.*

4. Comments Concerning Alternatives

Comment: California closed down the Diablo County Nuclear Plant many years ago. Through conservation solar and other forms of energy they created over 800 new jobs and lowered their rates. Nuclear power is only 19 percent of our energy in the United States. Through conservation and solar we could close down all the nuclear power plants in our country and save thousands of lives. I know those little candlelights look cute at night in your windows. But they aren't really necessary. Turning them off may help save someone's life, maybe your child's.

Anyway who wants nuclear power plants, and our President wants 55 more in this country, should be considered a terrorist. (MC-1-2, D-1-2)

Response: *Decisions regarding energy policy and energy planning, including whether to implement energy options like solar power, conservation, or even nuclear power, are also made by the utility, State and Federal (non-NRC) decisionmakers. These decisions are based on economics, energy reliability goals, and other objectives over which the other entities may have jurisdiction. The NRC does not have the authority to make these decisions. During license renewal, the NRC does, however, conduct an environmental review that compares the potential environmental impacts of a nuclear plant during the period of extended operation with the environmental impacts of energy alternatives as part of the National Environmental Policy Act (NEPA) process. The alternatives analysis may include consideration of conservation or solar power when reasonable, often in combination with other alternatives. In addition to an environmental review, NRC staff also evaluate nuclear plant safety and aging management in the course of license renewal. If the NRC decides to renew a plant's license, the decision of whether to operate the nuclear power plant or an alternative is left up to the appropriate State, utility, and/or Federal entities.*

The NRC staff notes that Diablo Canyon Units 1 and 2 are currently still in operation, as are San Onofre Units 2 and 3. In California, the Santa Susana SRE (Sodium Reactor Experimental), Vallecitos Nuclear Power Plant, Humboldt Bay Nuclear Power Plant, Rancho Seco Nuclear Power Plant, and San Onofre Unit 1 are no longer operating.

Comment: I'm saying that because Pennsylvania is primarily a coal and nuclear state. And I think we made a mistake before when we became so dependent on two sources of energy. So my plea is that we rationally evaluate relicensing and then think how we're going to meet future energy demand as we move forward. (MC-2-1)

Response: *Decisions about energy policy and energy planning, including choosing an energy generation mix (sometimes referred to as a generation "portfolio"), fall under the authority of the utility, and State and Federal (non-NRC) decisionmakers. These entities may also decide which energy generation options to implement in order to meet future energy demand. The NRC does not have the authority or jurisdiction in energy policy and planning, or in deciding whether to implement particular energy generation options. The NRC makes its decision whether or not to renew a license based on safety and environmental considerations. The final*

1 *decision on whether or not to continue operating the nuclear plant will be made by the utility,*
2 *State and Federal (non-NRC) decisionmakers.*

3
4 **5. Comments Concerning High-Level Radioactive Waste**

5
6 **Comment:** Does everyone realize that our new plants are also becoming high level waste
7 sites? Everyone's life is at stake here. Do what's right. Shut them down. (MC-1-4, D-1-4)

8
9 **Comment:** The Susquehanna nuclear power plant produces approximately 30 metric tons of
10 high-level radioactive waste per year per reactor. The nuclear garbage has no forwarding
11 address. In reality, the SSES is a *de facto* high-level radioactive waste site on the
12 Susquehanna River. There is no solution in sight for disposal of highly radioactive "spent" fuel
13 rods, although the National Academy of Sciences and other technical experts argue that
14 moving all radioactive waste into hardened, dry storage would reduce the risks associated with
15 current high-density cooling ponds at each plant. Susquehanna is one of 21 nuclear power
16 plants where used reactor fuel pools have reached capacity. (D-2-3)

17
18 **Response:** *The comments relate to Category 1 uranium fuel cycle and waste management*
19 *issues. The environmental impacts of the uranium fuel cycle, including the onsite storage and*
20 *disposal of spent nuclear fuel, will be addressed in Chapter 6 of the SEIS.*

Appendix B

Contributors to the Supplement

Appendix B

Contributors to the Supplement

The overall responsibility for the preparation of this supplement was assigned to the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission (NRC). The statement was prepared by members of the Office of Nuclear Reactor Regulation with assistance from other NRC organizations, the Argonne National Laboratory, and the Information Systems Laboratory.

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Alicia Mullins	Nuclear Reactor Regulation	Project Manager
Jennifer Davis	Nuclear Reactor Regulation	Backup Project Manager; Cultural Resources
Dennis Beissel	Nuclear Reactor Regulation	Hydrology
Jeffrey Rikhoff	Nuclear Reactor Regulation	Socioeconomics; Land Use; Environmental Justice
Nathan Goodman	Nuclear Reactor Regulation	Aquatic Ecology
Evan Keto	Nuclear Reactor Regulation	Terrestrial Ecology
Robert Palla	Nuclear Reactor Regulation	Severe Accident Mitigation Alternatives
Scott Werts	Nuclear Reactor Regulation	Air Quality
Drew Stuyvenberg	Nuclear Reactor Regulation	Alternatives
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Sarah Lopas	Nuclear Reactor Regulation	Administrative Support
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INFORMATION SYSTEMS LABORATORY ^(b)		
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(a) Argonne National Laboratory is operated for the U.S. Department of Energy by the University of Chicago.

(b) Information Systems Laboratories, Inc., is located in Rockville, Maryland.

Appendix C

Chronology of NRC Staff Environmental Review Correspondence Related to the PPL Susquehanna, LLC Application for License Renewal of SSES, Units 1 and 2

Appendix C

Appendix C**Chronology of NRC Staff Environmental Review Correspondence
Related to the PPL Susquehanna, LLC Application for
License Renewal of SSES, Units 1 and 2**

This appendix contains a chronological listing of correspondence between the U.S. Nuclear Regulatory Commission (NRC) and the PPL Susquehanna, LLC (PPL) and other correspondence related to the NRC staff's environmental review, under Title 10 of the *Code of Federal Regulations* (CFR) Part 51, of PPL's application for renewal of the SSES operating licenses. All documents, with the exception of those containing proprietary information, have been placed in the Commission's Public Document Room, at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, and are available electronically from the Public Electronic Reading Room found on the Internet at the following web address:

<http://www.nrc.gov/reading-rm.html>. From this site, the public can gain access to the NRC's Agencywide Document Access and Management Systems (ADAMS), which provides text and image files of NRC's public documents in the Publicly Available Records (PARS) component of ADAMS. The ADAMS accession numbers for each document are included below.

- | | |
|--------------------|--|
| August 2, 2006 | Letter from PPL Susquehanna, LLC (PPL) to NRC, "Pre-application activities regarding license application review schedule for Susquehanna Steam Electric Station, Units 1 and 2" (Accession No. ML062140549). |
| September 13, 2006 | Letter from PPL to NRC forwarding the application for renewal of operating licenses for SSES, Units 1 and 2, requesting extension of operating licenses for an additional 20 years (Accession No. ML062601570). |
| September 26, 2006 | Letter from PPL to NRC, "Receipt and Availability of the license renewal application for the Susquehanna Steam Electric Station" (Accession No. ML062690158). |
| October 2, 2006 | <i>Federal Register</i> Notice of Receipt and Availability of Application for Renewal of Susquehanna Steam Electric Station, Units 1 and 2 Facility Operating License Nos. NPF-14 and NPF-22 for an Additional 20-year period (71 FR 58014). |
| October 24, 2006 | Letter from NRC to Mr. Clifford Farides, Executive Director Mill Memorial Public Library, regarding Maintenance of Reference Material |

for SSES License Renewal at the Mill Memorial Public Library
(Accession No. ML0629600791).

- October 26, 2006 Letter from NRC to PPL transmitting Determination and Sufficiency for Docketing, Proposed Review Schedule, and Opportunity for a Hearing Regarding the Application from PPL Susquehanna, LLC., for Renewal of the Operating Licenses for the Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML062930293).
- October 26, 2006 Letter from NRC to Ms. Alice Zaikoski, Co-Director Berwick Public Library, regarding Maintenance of Reference Material for SSES License Renewal at the Berwick Public Library (Accession No. ML062960060).
- November 1, 2006 Letter to Ms. Susan Zacher, Historic Structures Section Chief, State Historic Preservation Office, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (SHPO No. 05-1588-079-A) (Accession No. ML062960009).
- November 2, 2006 Letter from PPL to NRC, "Susquehanna Steam Electric Station acceptability and sufficiency for docketing - application for renewed operating licenses numbers NPF-14 and NPF-22" (Accession No. ML063130413).
- November 2, 2006 Notice of Public Meeting to Discuss Environmental Scoping Process for the Susquehanna Steam Electric Station, Units 1 and 2 License Renewal Application (Accession No. ML062990010).
- November 2, 2006 *Federal Register* Notice of Acceptance for Docketing of the Application, Notice of Opportunity for Hearing and Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process for Facility Operating License Nos. NPF-14 and NPF22 for an Additional 20-year Period (71 FR 64566).
- November 13, 2006 Letter to Mr. Don Klima, Director, Advisory Council on Historic Preservation, regarding Susquehanna Steam Electric Station, Units 1 and 2 license renewal review (Accession No. ML062980237).
- November 13, 2006 Letter to Ms. Julie McMonagle, Director, Pennsylvania Environmental Council, Northeast Regional Office, regarding Susquehanna Steam Electric Station, Units 1 and 2 license renewal review (Accession No.

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- ML062980195).
- November 14, 2006 Letter to Mr. Mark Hartle, Chief, Aquatic Resources Section, Pennsylvania Fish and Boat Commission, regarding Susquehanna Steam Electric Station, Units 1 and 2 license renewal review (Accession No. ML062990018).
- November 14, 2006 Letter to Mr. Clint Halftown, Heron Clan Representative, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063030091).
- November 14, 2006 Letter to Mr. Raymond Cline, Chairman, Delaware Trust Board inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063030370).
- November 14, 2006 Letter to Mr. Gerald Danforth, Chairman, Oneida Nation of Wisconsin, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050363).
- November 14, 2006 Letter to Mr. Charles D. Enyart, Chief, East Shawnee Tribe of Oklahoma, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050355).
- November 14, 2006 Letter to Mr. Raymond Halbritter, Nation Representative, Oneida Indian Nation, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063030437).
- November 14, 2006 Letter to Mr. Leo R. Henry, Clerk, Chief, Tuscarora Nation, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040107).
- November 14, 2006 Letter to Ms. Rebecca Hawkins, Tribal Historic Preservation Officer,

Shawnee Tribe, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050595).

November 14, 2006 Letter to Mr. Tony Gonyea, Faithkeeper, Onondaga Nation, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050590).

November 14, 2006 Letter to Mr. Barry Snyder, Sr., President, Seneca Nation of Indians, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040153).

November 14, 2006 Letter to Ms. Karen Kaniatobe, Tribal Historic Preservation Officer, Absentee-Shawnee Tribe of Oklahoma, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050370).

November 14, 2006 Letter to Mr. James Ransom, Chief, St. Regis Band of Mohawk Indians, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040006).

November 14, 2006 Letter to Mr. Paul Spicer, Chief, Seneca-Cayuga Tribe of Oklahoma, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040032).

November 14, 2006 Letter to Mr. Irving Powless, Jr., Chief, Onondaga Indian Nation, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040171).

November 14, 2006 Letter to Mr. Robert Chicks, Tribal Chairman, Stockbridge-Munsee

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- Band of the Mohican Nation of Wisconsin, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063050608).
- November 15, 2006 Letter to Mr. Roger Hill, Chief, Tonawanda Band of Seneca, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063040075).
- November 15, 2006 Letter to Ms. Tamara Francis, NAGPRA, Director, Delaware Nation of Western Oklahoma, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML063030206).
- November 15, 2006 Letter to Jennifer Kagel, Fishery Biologist, U.S. Fish and Wildlife Service, inviting participation in scoping process related to NRC's environmental review of the license renewal application for Susquehanna Steam Electric Station, Units 1 and 2 (Accession No. ML062990053).
- November 17, 2006 Letter to Ms. Chris Firestone, Native Plant Program Manager, Pennsylvania Department of Conservation and Natural Resources, regarding Susquehanna Steam Electric Station, Units 1 and 2 license renewal review (Accession No. ML062990170).
- November 20, 2006 Letter from Douglas McLearn, Chief, Division of Archaeology and Protection to NRC "Regarding Susquehanna Steam Electric Station License Renewal Salem Township, Luzerne County: Area of Potential Effect" (ER 05-1558-079-C) (Accession No. ML063470607).
- November 27, 2006 Letter from Greg Bunker, Environmental Manager, Stockbridge-Munsee Band of Mohican Indians, regarding request for comments concerning the Susquehanna Steam Electric Station license renewal review (Accession No. ML070240192).
- December 7, 2006 Letter from Anthony Wonderley, Historian, Oneida Indian Nation, regarding request for comments concerning the Susquehanna Steam Electric Station license renewal review (Accession No. ML070240190).

December 15, 2006	Correction to the Notice of the Public Comment Period on the Environmental Scope of the Plant-Specific Supplement to the Generic Environmental Impact Statement Regarding License Renewal for Susquehanna, Units 1 and 2 (Accession No. ML063100474).
December 20, 2006	Letter from Mark Rubin, NRC Branch Chief to Rani Franovich, NRC Branch Chief, "Request for additional information to support the staff's Severe Accident Mitigation Alternative Review for Susquehanna Steam Electric station, Units 1 and 2" (Accession No. ML063600388).
December 21, 2006	Letter from David Densmore, Field Supervisor, U.S. Fish and Wildlife Service, forwarding a list of protected species which are under evaluation for Susquehanna Steam Electric Station, Units 1 and 2 license renewal (Accession No. ML070040431).
December 29, 2006	Summary of Scoping Meeting Held in Support of the Environmental Review for the SSES License Renewal Application (Accession No. ML063470573)
January 8, 2006	Letter from Rebecca Bowen, Environmental Review Specialist, Pennsylvania Department of Conservation and Natural Resources, forwarding a list of protected species which are under evaluation for Susquehanna Steam Electric Station, Units 1 and 2 license renewal (Accession No. ML070190672).
January 16, 2007	Letter to PPL from NRC Request for Additional Information Related to the Staff's Review of Severe Accident Mitigation Alternatives for SSES (Accession No. ML070030463).
March 1, 2007	Letter from David Densmore, Field Supervisor, U.S. Fish and Wildlife Service, regarding USFWS Project #2007-1111. (Accession No. ML070720347).
March 2, 2007	Letter to Susquehanna Steam Electric Station summarizing the telecommunication to discuss the Severe Accident Mitigation Alternatives (SAMA) Requests for Additional Information (RAIs) (Accession No. ML070580092).
Date, year	Note to Michael Lesar, Rules and Directives Branch , "Receipt of Comments Concerning the Scope of the Environmental Review of SSES, Units 1 and 2" (Accession No. MLXXXXXX)

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- June X, 2007** Letter to PPL from NRC, "Request for Additional Information Related to the Staff's Review of the License Renewal Environmental Report for SSES" (Accession No. MLXXXXXX)
- June X, 2007** Summary of Site Audit to Support Review of License Renewal Application of SSES (Accession No. MLXXXXXX)
- April X, 2007** Environmental Scoping Summary Report Associated with the Staff's Review of the Application by PPL Susquehanna, LLC (PPL) for Renewal of the Operating Licenses for SSES (Accession No. MLXXXXXX)
- Date, year** Letter from PPL to NRC, "**Response to Request for the Review of the SSES License Renewal Application.**" (Accession No. MLXXXXXX)

Appendix D

Organizations Contacted

Appendix D

Appendix D**Organizations Contacted Organizations Contacted**

During the course of the staff's independent review of environmental impacts from operations during the renewal term, the following Federal, State, regional, local, and Native American tribal agencies were contacted:

Absentee-Shawnee Tribe of Oklahoma, Shawnee, Oklahoma

Band of Mohawk Indians, Akwesasne, Wyoming

Borough of Berwick, Berwick, Pennsylvania

Cayuga Nation, Versailles, New York

Chamber of Commerce, Berwick, Pennsylvania

Delaware Nation of Oklahoma, Anadarko, Oklahoma

Delaware Trust Board, Bartlesville, Oklahoma

East Shawnee Tribe of Oklahoma, Seneca, Missouri

Luzerne Township, Pennsylvania

Oneida Indian Nation, Verona, New York

Oneida Nation of Wisconsin, Oneida, Wisconsin

Onondaga Indian Nation, Nedrow, New York

Onondaga Nation, Nedrow, New York

Pennsylvania Department of Conservation and Natural Resources, Harrisburg, Pennsylvania

Pennsylvania Department of Environmental Protection, Harrisburg, Pennsylvania

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Pennsylvania Environmental Council, Northeast Regional Office, Luzerne, Pennsylvania

Pennsylvania Fish and Boat Commission, Bellefonte, Pennsylvania

Pennsylvania State Historical Preservation Office, Harrisburg, Pennsylvania

Seneca-Cayuga Tribe of Oklahoma, Miami, Oklahoma

Seneca Nation of Indians, Irving, New York

Shawnee Tribe, Miami, Oklahoma

Stockbridge-Munsee Band of the Mohican Nation of Wisconsin, Bowler,
Wisconsin

Tonawanda Band of Seneca, Basom, New York

Town Supervisor, Berwick, Pennsylvania

Tuscarora Nation, Lewistown, New York

U.S. Fish and Wildlife Service, State College, Pennsylvania

Appendix E

Appendix E

**PPL Susquehanna, LLC's
Compliance Status and Consultation Correspondence**

Appendix E

Appendix E

**PPL Susquehanna, LLC's
Compliance Status and Consultation Correspondence
PPL Susquehanna, LLC (PPL)**

Correspondence received during the process of evaluation of the application for renewal of the license for Susquehanna Steam Electric Station (SSES) is identified in Table E-1. Copies of the correspondence are included at the end of this appendix.

The licenses, permits, consultations, and other approvals obtained from Federal, State, regional, and local authorities for SSES, are listed in Table E-2.

Table E-1. Consultation Correspondence

Source	Recipient	Date of Letter
U.S. Nuclear Regulatory Commission (R. Franovich)	State Historical Preservation Office (S. Zacher)	November 1, 2006
U.S. Nuclear Regulatory Commission (R. Franovich)	Pennsylvania Environmental Council, Northeast Regional Office (J. McMonagle)	November 13, 2006
U.S. Nuclear Regulatory Commission (R. Franovich)	Pennsylvania Fish and Boat Commission (M. Hartle)	November 14, 2006
U.S. Nuclear Regulatory Commission (R. Franovich)	Cayuga Nation (C. Halftown)	November 14, 2006 ^(a)
U.S. Nuclear Regulatory Commission (R. Franovich)	U.S. Fish and Wildlife Service (J. Kagel)	November 15, 2006
U.S. Nuclear Regulatory Commission (R. Franovich)	Pennsylvania Department of Conservation and Natural Resources (C. Firestone)	November 17, 2006
State Historical Preservation Office (D. McLearen)	U.S. Nuclear Regulatory Commission (R. Franovich)	November 20, 2006
Stockbridge-Munsee Community (G. Bunker)	U.S. Nuclear Regulatory Commission (R. Franovich)	November 27, 2006

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Oneida Indian Nation (A. Wonderley)	U.S. Nuclear Regulatory Commission (R. Franovich)	December 7, 2007
U.S. Fish and Wildlife Service (D. Densmore)	U.S. Nuclear Regulatory Commission (R. Franovich)	December 21, 2006
Pennsylvania Department of Conservation and Natural Resources (R. Bowen)	U.S. Nuclear Regulatory Commission (A. Mullins)	January 8, 2007
U.S. Fish and Wildlife Service (D. Densmore)	U.S. Nuclear Regulatory Commission (R. Franovich)	March 1, 2007

^(a) Similar letters were sent to fifteen other Native American Tribes listed in Appendix C.

Appendix E

Contractor Input Needed for Table E-2

Table E-2. Federal, State, Local, and Regional Licenses, Permits, Consultations, and Other Approvals for Susquehanna Steam Electric Station

Agency	Authority	Description	Number	Issue Date	Expiration Date	Remarks
NRC	10 CFR Part 50	Operating license, SSES				Authorizes operation of <u>Unit 1</u>
NRC	10 CFR Part 50	Operating license, SSES				Authorizes operation of <u>Unit 2</u>
FWS	Migratory Bird Treaty Act (16 USC 703-712)	Permit				<u>The permit authorizes carcass salvage and injured bird transport.</u>
FWS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation				Requires a Federal agency to consult with FWS regarding whether a proposed action will affect endangered or threatened species
NMFS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation				
Pennsylvania Division of Historic Resources	Section 106 of the National Historic Preservation Act (16 USC 470f)	Consultation				The National Historic Preservation Act requires Federal agencies to take into account the effect of any undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places.

Appendix E

<p><u>April 2002</u> E-6 Draft t NUREG- 1437, Supplement <u>32</u> App endix E <u>PDEP</u></p>	<p><u>Pennsylvania Statutes</u> <u>§403.088, FDEP Rule 62-620,</u> <u>Pennsylvania</u> <u>Administrative Code</u></p>	<p>National Pollution Discharge Elimination System Permit</p>	<p>Permit for discharge of <u>wastewater and once-through</u> <u>cooling water to the closed</u> <u>cycle recirculating cooling</u> <u>canal system. Section 1.E.15</u> <u>of the permit states that the</u> <u>permit constitutes certification</u> <u>of compliance with §401 of the</u> <u>Federal Water Pollution</u> <u>Control Act (Clean Water Act).</u></p>
<p><u>PDEP</u></p>	<p><u>Pennsylvania Statutes §??</u></p>	<p><u>Wastewater</u> <u>treatment permit</u></p>	<p>Permit for the onsite sewage treatment facility</p>
<p><u>PDEP</u></p>	<p><u>Pennsylvania Statutes,</u> <u>chapter XXX</u></p>	<p><u>Annual storage</u> <u>tank registration</u></p>	<p><u>This authorization covers</u> <u>operation of seven above-</u> <u>ground storage tanks for</u> <u>petroleum products and one</u> <u>above- ground tank for sulfuric</u> <u>acid.</u></p>
<p><u>PDEP</u></p>	<p><u>Pennsylvania Statutes,</u> <u>chapter XXX</u></p>	<p><u>Annual storage</u> <u>tank registration</u></p>	<p><u>This authorization covers three</u> <u>above-ground and two</u> <u>underground petroleum</u> <u>storage tanks.</u></p>
<p><u>PDEP</u></p>	<p><u>Pennsylvania Statutes,</u> <u>chapter XXX</u></p>	<p><u>Air emissions</u> <u>permit</u></p>	<p><u>The permit authorizes</u> <u>emissions from nine diesel</u> <u>emergency generators,</u> <u>miscellaneous diesel engines,</u> <u>and miscellaneous emissions</u> <u>units and activities.</u></p>
<p><u>PDEP</u></p>	<p><u>Pennsylvania Statutes,</u> <u>chapter XXX</u></p>	<p><u>Underground</u> <u>injection control</u> <u>permit</u></p>	<p><u>The permit authorizes disposal</u> <u>of sanitary wastewater to</u> <u>wells.</u></p>

Appendix E

<u>PDEP</u>	<u>Pennsylvania Administrative Code, chapter 39</u>	<u>Special purpose permit</u>	<u>The permit authorizes live capturing of 1) crocodiles for marking and scientific data collection purposes, and 2) alligators and Eastern indigo snakes to avoid their harm in the performance of PPL activities.</u>
Draft NUREG- 1437, Supplement <u>32</u> E-7 <u>Jan</u> <u>auray 2008</u> Appendix E <u>DERM</u>	<u>Code of Luzerne County, chapter ?</u>	<u>Multiple source annual operating permit</u>	<u>The permit covers the boiler makeup water treatment system, fleet operations, two underground storage tanks, barge slip operations, and refrigerant use and recovery.</u>
<u>DERM</u> <u>Luzerne County, Florida Fire Rescue Department</u>	<u>Code of Luzerne County, chapter ?</u>	<u>Domestic wastewater annual operating permit Burning permit</u>	<u>Sewage treatment facility</u>

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- CFR = Code of Federal Regulations
 - DERM = Luzerne County Department of Environmental Resources Management
 - FWS = U.S. Fish and Wildlife Service
 - NRC = U.S. Nuclear Regulatory Commission
 - EPA = U.S. Environmental Protection Agency
 - PDEP = Pennsylvania Department of Environmental Protection
 - NMFS = National Marine Fisheries Service
 - USC = United States Code
-