

August 5, 2007

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
PPL SUSQUEHANNA LLC ) Docket Nos. 50-387 -388  
Susquehanna Steam Electric Station ) Units 1 and 2; ASLB  
 ) No. 07-854-01-OLA-BD01

Office of the Secretary  
Mail Stop O-16 C1  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
Attn: Rulemaking and Adjudications Staff

**Re: Eric Joseph Epstein's Appeal of the  
Atomic Safety & Licensing Memorandum and Order  
(Ruling on Standing and Contentions)  
In the Matter of PPL SUSQUEHANNA LLC;  
Susquehanna Steam Electric Station; Docket Nos. 50-387 -388)  
Units 1 and 2; ASLB No. 07-854-01-OLA-BD01**

August 5, 2007

Office of the Secretary  
Mail Stop O-16 C1  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
Attn: Rulemaking and Adjudications Staff

Dear Mr. Secretary:

Please find enclosed for filing in the above-stated matter an original and five (5) copies of **Eric Joseph Epstein's Appeal of the Atomic Safety & Licensing Memorandum and Order (Ruling on Standing and Contentions) In the Matter of PPL SUSQUEHANNA LLC; Susquehanna Steam Electric Station; Docket Nos. 50-387 -388) Units 1 and 2; ASLB No. 07-854-01-OLA-BD01**

Respectfully submitted,

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I hereby certify that on August 5 , 2007, a copy of **Eric Joseph Epstein's Appeal of the Atomic Safety & Licensing Memorandum and Order (Ruling on Standing and Contentions) In the Matter of PPL SUSQUEHANNA LLC; Susquehanna Steam Electric Station; Docket Nos. 50-387 -388) Units 1 and 2; ASLB No. 07-854-01-OLA-BD01** was sent via electronic or by overnight delivery with tracking numbers and United States Postal Service to:

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## **I. Introduction.**

Eric Joseph Epstein (“Mr. Epstein” or “Epstein”), pursuant to 10 C.F.R. § 2.309 (d) and (e), petitioned for Leave to Intervene, Request for Hearing, and Presentation of Contentions with Supporting Factual Data in response to the Notice of Opportunity for a Hearing relating to PPL Susquehanna LLC’s Proposed Amendment Requests for the Susquehanna Steam Electric Station’s 1 & 2 (“SSES” or “Susquehanna” or “the Company” or “the applicant”) as published in the Federal Register on March 13, 2007 (Vol. 72, No. 48), pp. 11392-1139. (1)

Mr. Epstein requested a hearing consistent with 10 C.F.R. § 2.309(a). Pursuant to 10 C.F.R. § 2.309(o), and should be granted leave to intervene because he has standing; and, submitted three admissible contentions.

## **II. History of Proceeding**

PPL’s amendment request was initially submitted to the Nuclear Regulatory Commission (“NRC” or “Commission”) on October 11, 2006, and supplemented on October 25, November 21, and December 4, 2006. (1)

A notice of opportunity for a hearing, as well as the NRC’s staff’s review and determination that “processes to determine that the amendment request involves no significant hazards consideration,” was published in the Federal Register on March 13, 2007 (Vol. 72, No. 48), pp. 11392-11395.

Eric Joseph Epstein’s Petition for Leave to Intervene, Request for Hearing and Presentation of Contentions and Supporting Factual Data was submitted to all identified entities in a timely manner on May 11, 2007.

Establishment of Atomic Safety and Licensing Board was announced by Chief Administrative Law Judge E. Roy Hawkins on May 31, 2007.

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1 PPL Susquehanna’s request before the NRC would extend the license of Susquehanna Unit 1 and 2 for an additional 20 years beyond the current expiration dates on July 17, 2022 and March 23, 2024.

On June 5, 2007, PPL Susquehanna LLC and the NRC Staff filed Responses to Eric Joseph Epstein's Petition for Leave to Intervene, Request for Hearings and Contentions.

On June 12, 2007, Eric Joseph Epstein's filed a Reply to PPL Susquehanna LLC and the NRC Staff's Responses to Eric Joseph Epstein's Petition for Leave to Intervene, Request for Hearings and Contentions.

On July 10, 2007, the U.S. Nuclear Regulatory Commission Atomic Safety & Licensing Board Panel, convened the Initial Prehearing Conference In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 10 2007: Judge G. Paul Bollwerk, III, Chairman. (2)

On July 27, 2007, the U.S. NRC Atomic Safety & Licensing Board Panel, issued a Memorandum & Order, In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 27, 2007: Judge G. Paul Bollwerk, III, Chairman.

Eric Joseph Epstein, the Petitioner, is Appealing the U.S. NRC Atomic Safety & Licensing Board Panel's Memorandum & Order, In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 073.)

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<sup>2</sup> The transcript of the telephone prehearing conference can be found in the NRC's ADAMS document access system under Accession No. ML071970391.

<sup>3</sup> Mr. Epstein received the Order via electronic mail from "G Paul Bollwerk" <GPB@nrc.gov>, Licensing Board Memorandum and Order, Susquehanna Extended Power Uprate Proceeding on July 27, 2007 1:49:44 PM EDT.

### III. Background

On July 27, 2007, Eric Joseph Epstein, presently a Petitioner before the United States Regulatory Commission's ("NRC") in the matter of the PPL Susquehanna LLC ("PPL") Proposed Amendment Requests for the Susquehanna Steam Electric Station's 1 & 2 Would Increase Thermal Power to 3,952 Mega-Watts Which is 20% Above the Original Rated Thermal Power (RTP) 3293 MWt, and Approximately 13% Above the Current RTP of 3,489 MWt, Docket Nos. 50-387 PLA-6110 and 50-388, was notified that all that all three of his contentions ("T-1," "T-2," and "T-3") were rejected by the U.S. NRC Atomic Safety & Licensing Board Panel, issued a Memorandum & Order, In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 27, 2007: Judge G. Paul Bollwerk, III, Chairman.

After repeated requests and attempts to resolve numerous water use, water safety, and interagency issues with PPL Susquehanna and the Nuclear Regulatory Commission, it has become apparent to Mr. Epstein through filings, petitions, responses, and oral argument, that neither the NRC or PPL will address outstanding issues and noncompliance violations. The NRC has either relegated water use, water safety, and interagency issues to the domain of the Susquehanna River Basin Commission or deemed these challenges "outside the scope" of the present Nuclear Regulatory Commission uprate proceeding. (3)

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3 There is no "agreement" or "understanding" between the NRC and the SRBC relating to the conduct of "respective reviews in a cooperative, coordinated manner," although the Susquehanna River Basin Commission has established provisions that allow for a Memorandum of Understanding ("MOU"), i.e., "Timing of SRBC Project Approvals Vis-à-Vis Signatory Approvals," Policy No. 9501, May 11, 1995, and **§ 806.7 Concurrent project review by member jurisdictions** (Federal Register, December 29, 2006, p. 78583.)

## IV. Technical Contention 1

*a) PPL never received approval from the Susquehanna River Basin Commission for the 2001 uprate. PPL is currently in violation of SRBC regulations.”*

Mr. Epstein’s Technical Contention 1, which was rejected by the Atomic Safety & Licensing Board on July 27, 2007, stated:

PPL failed to consider the impact of the proposed uprate on certain state and federal water use issues, and the potential impact these regulations will have on water flow, water volume and surface water withdrawal for the SSES’s cooling systems. The traditional implications of the Pennsylvania Public Utility Commission (“Pa PUC”) policy and regulations relating to “withdraw and treatment” of water, i.e., referred to as “cost of water” under the Public Utility Code, Title 66, have to be factored in this application absent a PUC proceeding as well as Act 220 water usage guidelines. PPL has not established (nor has the NRC reviewed) compliance milestones for EPA’s Act 316 (a) or 316 (b) and their impact on power uprates at the Susquehanna Electric Steam Station.

On June 5, 2007, PPL and NRC filed Responses in opposition to Mr. Epstein’s Contentions at the Nuclear Regulatory Commission. NRC staff alleged that Mr. Epstein’s contention (T-1) is “outside of the scope” and “not material” to this proceeding, and that there is not enough information to establish a “genuine dispute.” (4) (NRC Staff, June 5, 2007, p. 8)

NRC staff misinterpreted and ignored parallel regulatory guidelines relating to state, Basin and federal regulations. (“NRC Staff Response, June 5, 2007.) “It is the watchword of the Commission’s system that [t]he responsibilities of the Board are independent to those of the staff.” (5)

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4 No. 07-854-01-OLA-BD01, PPL Susquehanna LLC (“PPL”) Proposed Amendment Requests for the Susquehanna Steam Electric Station’s 1 & 2 Would Increase Thermal Power to 3,952 Mega-Watts Which is 20% Above the Original Rated Thermal Power (RTP) 3293 MWt, and Approximately 13% Above the Current RTP of 3,489 MWt, Docket Nos. 50-387 PLA-6110 and 50-388.

5 Offshore Power Systems (Floating Nuclear Power Plants) ALAB-489, 8 NRC 194, 202 (1878.)

The Commission also recognizes: “[A]s a practical matter, without resources of [their] own, [ALABs] are helpless without reliable Staff evidence.”

(6) The Commission stated:

To be sure, the staff is a party to the proceedings before us. But it is also an arm of the Commission and is the primary instrumentality through which we carry out our statutory responsibilities. It would be contrary to the facts of the administrative process to pretend that the staff is always merely a party whose submissions are to be given no more weight than those of any other party. On some questions, such as interpretations of statutes or judicial decisions, the staff submissions have no more weight than those of any other party. But in other cases that would not be so. (7)

Unfortunately, the ASLBP took their cue from the staff who was poorly prepared, and unwilling to pursue numerous interagency issues relating to the PPL. (8)

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6 Carolina Power & Light Co., (Shearon Harris Nuclear Power Plant, Units 1-4), LBP-79--19, 10 NRC 37, 107 (1979), modified and affirmed, ALAB-577, 11 NRC 18 (1980),

7 Public Service Company of New Hampshire, (Seabrook Station, Units 1 and 2) CLI-76-17, 4 NRC 451, 462 (1976).

8 Mr. Epstein began raising interagency issues with the SRBC at the November 15, 2006 hearing held in Berwick. (pp. 40-43). Rani Franovich Chief of the Environmental Branch that manages the Staff's environmental review of the uprate, was introduced to representatives of the Susquehanna River Basin Commission by Mr. Epstein. **Ms. Franovich acknowledged to Mr. Epstein she was unaware of the SRBC's charge:**

“Epstein can also provide local insight that cannot be provided by the Applicant or other potential parties as was witnessed at the Environmental Scoping meeting in Berwick on November 15, 2006. Mr. Epstein identified the legitimate and peculiar interests of the Susquehanna River Basin Commission, and introduced representatives from the NRC-NRR's, Division of License Renewal Chief, Environmental Branch to members of the SRBC in attendance.” (Eric Joseph Epstein's Petition for Leave to Intervene, Request for Hearing, and Contentions, Re: PPL Susquehanna LLC Application for Susquehanna Steam Electric Station's Renewed Operating Licenses, NPF-14 and NPF-22 Docket Nos. 50-387 PLA-6110 and 50-388, January 2, 2007.)

Dating back to the Public Meeting on November 15, 2006, Mr. Epstein repeatedly provided information to the NRC staff. At the end of that meeting Ms. Franovich stated, “You guys live here, you know the community better than we do and so any information you can provide is certainly helpful. So thanks again for coming out.” (9)

Yet, the water use, water safety and interagency issues Mr. Epstein raised throughout the NRC proceedings, are **not raised or addressed** in PPL’s Application For Surface Water Withdrawal Request to Modify Application 19950301-EPU-0572. Unfortunately, the NRC staff remains steadfast in their opposition to follow-up meetings or conversations with the SRBC to resolve outstanding water use, water safety, and interagency issues.

During the Prehearing Conference convened on July 10, 2007, Susan Uttal, Counsel to the NRC, was clear that the staff has **no intention of following up and meeting with the SRBC to resolve these outstanding issues.**

Judge Bollwerk: “This is Judge Bollwerk. Just one question for the staff. Does the staff contemplate or through the process having interactions with the SRBC as this goes forward.”

Ms. Uttal: “Not that I’m aware of, Judge.” (10)

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9 Transcript of Susquehanna Steam Electric Station (Units 1 and 2) Evening Public Meeting on November 15, 2006, pages 1-46.)

10 Transcript, p. 54, Lines: 12-16, U.S. Nuclear Regulatory Commission Atomic Safety & Licensing Board Panel, Initial Prehearing Conference In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 10 2007: Judge G. Paul Bollwerk, III, Chairman.

The transcript of the July 10, 2007 telephone prehearing conference can be found in the NRC's ADAMS document access system under Accession No. ML071970391.

This pattern of decided disengagement by the NRC staff began on November 15, 2006, continued through the Staff's Response Brief on June 5, 2007, and was apparent during the Initial Prehearing Conference on July 10 2007. The staff's advocacy on behalf of PPL contravenes time-tested NRC precedent, "That the staff has the obligation to lay all relevant materials before the Board to enable it to adequately dispose of the issues before it." (11)

PPL failed to consider the impact of the proposed uprate on state and federal water use issues, and the potential impact these regulations will have on water flow, water volume and surface water withdrawal for the SSES's cooling systems as well as water safety and numerous state and federal interagency issues. It's not the staff's role to serve as a surrogate cheerleader in "support" of an application. (12)

Absent artificial financial deadlines established by PPL (13), there is no need to rush approval of PPL's EPU application until all outstanding issues are properly vetted. PPL's financial calculation to factor the "increased generation output into its projected long-term compound annual growth rate of 11% and its 2010 earnings target of \$3.50 per share" (14) should not come at the expense of a thorough and exhaustive due diligence review by the NRC.

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1 1 Consolidated Edison Co. of N.Y., Inc. (Indian Point Station, Units 1,2 & 3 (CLI-77-2, 5 NRC 13, 15(1977.) Accord., Virginia Electric and Power Co. (North Anna Nuclear Power Stations, Units 1 and 2), ALAB-551, 9 NRC 704, 706 (1979).

1 2 Carolina Power & Light Co., (Shearon Harris Nuclear Power Plant, Units 1-4), ALBP-79--19, 10 NRC 37, 107 (1979), modified and affirmed, ALAB-577, 11 NRC 18 (1980),

1 3 "A month after announcing tentative plans to build Pennsylvania's first new nuclear reactor in a quarter-century, PPL Corp. has assigned a high-ranking executive to develop a comprehensive nuclear strategy." (*The Morning Call*, August 1, 2007)

1 4 PPL Press release, October 17, 2006.

In short, “PPL Susquehanna, LLC Application for Surface Water Withdrawal Request to Modify Application 19950301-EPU-0572” is fatally flawed based on material **omitted** from its Application and current unresolved violations of SRBC statues. The Nuclear Regulatory Commission cannot allow an Applicant to play a regulatory shell game. (15)

PPL never received approval from Susquehanna River Basin Commission for the 2001 uprate, (16) and **is currently in violation of SRBC regulations**. (17) The SRBC has a charge to enforce § 803.42 and § 803.44 relating to approval and a reporting requirement for surface water withdrawal, and § 806.13 § 806.22-23, § 806.34, § 806.4, § 806.5, and § 806.6, but has no operating MOU with the NRC.

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15 The SRBC codified, published, and adopted regulations pertaining to the present uprate request in the Federal Register/Vol.71, No. 250/Friday, December 29, 2006/Rules and Regulations, “Susquehanna River Basin Commission: 18 CFR Parts 803, 804, 805 et al. Review and Approval of Projects; Special Regulations and Standards; Hearings and Enforcement Actions; Final Rule.”

16 “The proposed license amendment would revise the FOLs and Technical Specifications (TS) of SSES, Units 1 and 2, to allow the licensee to increase the licensed core power level from 3441 MWt to 3489 MWt, which represents a 1.4 percent increase in the allowable thermal power.”

- On April 23, 2001, PPL announced it would petition the NRC to increase the capacity of SSES by 100 megawatts. “The \$120 million of improvements at the Susquehanna plant are expected to add to earnings as soon as they go into operation.” (*Reuters*, April 23, 2001)

- July 17, 2001, the NRC approved PPL’s capacity expansion request. Unit 1 will be increased this month while the upgrade at Unit 2 is planned for Spring, 2002, after the planned refueling outage.

17 Published in the Federal Register/Vol.71, No. 250/Friday, December 29, 2006/Rules and Regulations (p. 78581).

The alteration in water withdrawal from the Susquehanna River and Cowanesque Lake, triggers SRBC review and approval. (18)

Yet in PPL's current application, the Company recognizes the need to file for such a request. PPL's Attorney, Mr. David Lewis stated, that Section 3.1.2.1 of PPL's environmental report "reflects the fact that with uprated conditions we will have to change the approval that we need with respect to the maximum amount of water that we will be consuming." (NRC Staff, June 5, 2007, p. 12)

Water use and consumption as well as water supply and water chemistry have direct and indirect relationships with safety related components, plant cooling, and are intimately connected to the health and safety of the River and the local community.

The Nuclear Regulatory Commission should not approve the current EPU application until PPL's 2001 1.4% Measurement Uncertainty Recapture (MUR) uprate has been examined and approved by the Susquehanna River Basin Commission.

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18 No public documentation exists that indicate PPL Susquehanna filed an application for review and received approval from the SRBC. ("PPL Susquehanna, LLC; Susquehanna Steam Electric Station Environmental Assessment and Finding of No Significant Impact [Federal Register: June 25, 2001 (Volume 66, Number 122)][pp. 33716-33717] Federal Register NRC, [Docket Nos. 50-387 and 50-388], PPL Susquehanna, LLC; SSES, Environmental Assessment and Finding of No Significant Impact."

*b) PPL's failure to apply and receive necessary approvals for the SRBC undermines the veracity of commitments to resolve pending water use issues.*

Acknowledging the need for a change does not guarantee PPL Susquehanna will receive such approval. PPL's counsel conceded:

“...But I think the gist of what I heard was that PPL will need approval to increase its consumptive water use and approval by the Savannah -- sorry, the Susquehanna River Basin Commission,

And I would submit to you that that is true, but irrelevant. On page 18 of our answer, we cited the Commission's case law that indicated that nuclear plant operations may depend on other state permits that are required for water discharges, and I submit a water consumption is no different.

But it's not the job of the NRC to litigate whether another agency is going to grant permits that are solely within the agency's jurisdiction. If we don't have a permit to withdraw water, then we need -- . Then we would not be able to operate, and there would be no safety issue.

If we do get the permit that we need, we will have the water, and there will be no safety issue. In any event, you know whether we get that permit or not is a matter that is -- will be resolved by the SRBC, and the Commission has indicated the Board should construe the scope of their authority to avoid litigation the issues within the primary responsibility of another agency.

And that while water may be necessary for a nuclear plant to operate, NRC licensing is not dependent on those permits. You know, whether those pe[permits will be obtained will be determined by the agencies that grant those permits.” (19)

This is a striking admission primarily because PPL never made a similar effort during the 1.4% Measurement Uncertainty Recapture (MUR) uprate in 2001 that was approved by the NRC, yet opted to seek approval for a Stretch Power Uprate (SPU) in 1994, which raised the SSES rated power by 4.5%.

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19 Transcript, p. 34, Lines: 19-25 and p. 35, Lines 1-22. , U.S. Nuclear Regulatory Commission Atomic Safety & Licensing Board Panel, Initial Prehearing Conference In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 10 2007: Judge G. Paul Bollwerk, III, Chairman. The transcript of the July 10, 2007 telephone prehearing conference can be found in the NRC's ADAMS document access system under Accession No. MLO71970391.

There is no evidence that an application was filed, reviewed or approved by the SRBC in 2001. Furthermore, during the NRC Prehearing Conference convened on July 10, 2007, Mr. Epstein raised the issue of PPL's failure to apply for approval of the 2001 uprate application with the Susquehanna River Basin Commission on **five separate occasions**. (20) The NRC staff and PPL remained mute, and the Atomic Safety and Licensing Board Panel (ASLBP) failed to investigate the allegation. (21)

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- Transcript, p. 12 , Lines: 15-18, p. 13. Lines 19-25, and p. 14 Lines 1-2.
  - Transcript, p. 33, Lines: 4-14.
  - Transcript, p. 41, Lines: 1-5.
  - Transcript, p. 51, Lines: 8-15.
  - Transcript, p. 66, Lines: 12-14.

U.S. NRC Atomic Safety & Licensing Board Panel, Initial Prehearing Conference In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 10 2007: Judge G. Paul Bollwerk, III, Chairman. The transcript of the July 10, 2007 telephone prehearing conference can be found in the NRC's ADAMS document access system under Accession No. ML071970391.

21 The ASLBP, like PPL and the NRC staff, **completely ignored the issue of PPL's failure to seek and recover permission from the SRBC for the 2001 uprate**. The Panel's only comment was consigned to Page 2, Footnote 1, paragraph 2: "Previously the SSES units each were approved for a SPU (1994) and an MUPU (2001), which raised their rated power by 4.5% and 1.4 percent% respectively."

U.S. NRC Atomic Safety & Licensing Board Panel, Memorandum & Order, In the Matter of the PPL Susquehanna LLC, (Susquehanna Steam Electric Station, Units 1 and 2), Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 27, 2007: Judge G. Paul Bollwerk, III, Chairman.

*c) The NRC should coordinate with the SRBC and address the 2001 and 2006 uprates. Lack of regulatory coordination establishes a deleterious precedent, and could constitute de facto approval of PPL's original water use permits. Failure of the NRC to initiate and coordinate with the NRC on the 2001 and 2006 uprates could possibly codify regulatory gaps and exasperate safety and health challenges created by the uprates.*

PPL and the NRC must coordinate with the SRBC and address the 2001 uprate. This "inaction" establishes a deleterious precedent and could constitute *de facto* approval of PPL's original water use permits and impact pending NRC applications.

For example, the owners and operator of Three Mile island (TMI), Exelon Generating Company, LLC, have filed a Letter of Intent to Apply for License Renewal between January - March 2008. (22) Three Mile Island-1 routinely returns water to the River at temperatures in excess of 110 degrees, and it is not uncommon for the plant to discharge chlorinated water (necessary to minimize bacterial contamination of turbines) or Clamtrol (chemical agent used to defeat Asiatic clam infestation) directly into the River. TMI will also require SRBC approval and has a history of impingement and entrainment problems:

The owners of the Three Mile Island nuclear plant hope they may escape the safer water-intake measures because of the lower amount of water they withdraw, but no determination has been made. "It's been a concern for years," says Leroy Young, chief of aquatic resources for the Pennsylvania Fish and Boat Commission. "The numbers are significant. There are thousands of larger fish (killed) per facility per year. Entrainment rates (referring to organisms sucked into pipes and killed) can be 10 million or more -- mostly floating eggs and larval fish. "Whether it's having a population level effect, I don't think anyone's measured that yet," Young says. (23)

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22 US NRC, Three Mile Island, Unit 1 Exelon Generating Company, LLC MLO63630037.

23 NEW STEPS TO SAVE RIVER CREATURES, "Feds order Susquehanna power plants and others to stop killing off fish--or replace them," *Intelligencer Journal*, Jan. 15, 2005.

The Present Case will inform future nuclear uprate and relicensing requests that will come before the Commission from the Peach Bottom Atomic Power Station, the Three Mile Island Nuclear Generating Station, and the Susquehanna Steam Electric Station as well as Early Site Permits for the construction of new nuclear power generation stations on the Susquehanna River. (24)

Water use and consumption as well as water supply and water chemistry have direct and indirect relationships with safety related components, plant cooling, and are intimately connected to the health and safety of the River and the local community.

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24

**PPL seeks 3rd nuclear reactor**  
**If OK'd, another tower will be built near Berwick**  
*Times Leader, June 13, 2007*

PPL Corp. announced on Wednesday it notified the U.S. Nuclear Regulatory Commission that it plans to apply for a license to construct and operate a third nuclear generator at its Susquehanna River plant near Berwick.

The Allentown-based company also filed a request for an interconnection study with PJM Interconnection, an organization that coordinates the movement of electricity throughout much of the mid-Atlantic region.

PPL is awaiting a license renewal for its two Salem Township nuclear generators, which supply about 25 percent of PPL's total output, and company spokesman Dan McCarthy said a rejection of those renewals could have serious repercussions for the new license.

PPL credits the spray pond as a safety component but not water withdrawal or surface water consumption. The NRC is concerned with the cooling towers and the makeup systems. However, the NRC's Reactor Oversight Process uses Performance Indicators to track scrams (25) and power changes of 20% or more. Each scram or power change creates a safety challenge. If the SSES has to make **generation reductions** based on compliance with water use restrictions (SRBC § 803.42 and § 803.44 ) or a water budget (consistent with Act 220), and those water conditions cause scrams and/or power reductions, then it is not accurate or factually correct to segregate generation from safety. If PPL has to shut down the plant or reduce power, then alternative systems and backups are also shut or challenged, e.g., Emergency Core Cooling Systems (ECCS) systems.

Power generation, plant cooling and public safety are inherently connected. There is no separate imaginary fence between generation and safety. And there should be no regulatory moat created by artificial safety definitions erected by PPL. Mr. Epstein has postulated an unplanned scenario which maintains that aging equipment coupled with water shortages could create safety challenges. Yet, the Panel ignored the real possibility that state law and aging equipment can produce a synergistic impact:

Certainly nothing that has been presented suggests that the periodic modification of power generation n levels that might possibly result from Susquehanna River water use restrictions would be the type of unplanned reactor scram that has been identified as potentially resulting in safety significant challenges to reactor systems. (26)

The NRC and PPL must plan and anticipate for unplanned safety challenges, even if they fall outside the conventional nuclear tool box.

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25 Scram: The sudden shutting down of a nuclear reactor, usually by rapid insertion of control rods, either automatically or manually by the reactor operator. May also be called a reactor trip. It is actually an acronym for "safety control rod axe man," the worker assigned to insert the emergency rod on the first reactor (the Chicago Pile) in the U.S. (NRC website.)

26 "Memo and Order," July 27, p. 22 Footnote 19.

Seasonal flow, Act 220 (27), and competing demands for limited water resources may make the amount of power for generation unreliable. Frequent power decreases and scrams show up as safety indicators and put stress on the SSES. The NRC does not compile generation indicators, it analyzes safety indicators, like scrams and power reductions. The uprate clearly has the potential to create safety challenges by abruptly scrambling the plant or forcing power reductions to accommodate a water use budget.

We need to tear down the fictional fence that PPL and the NRC have erected between power generation and safety. Mr. Epstein has established the nexus between safety and generation, and defeated PPL's argument, that "...Mr. Epstein provides no basis to assume that SSES' surface water withdrawals will be restricted or that possibility is material to the licensing." (NRC Staff, NRC-ASLBP), June 5, p.17) However, PPL can not produce any evidence that water use or consumption **will not be restricted**, and PPL acknowledges an "increase in consumptive water use" (PPL, June 5, NRC-ASLBP p. 18) will **be required**. In addition, the SSES may be already out of compliance with the SRBC due to the 2001 uprate.

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27 Act 220 of 2002 mandates that the Department of Environmental Protection update the state water plan by 2008. "The Environmental Quality board will adopt regulations addressing water use registration, period reporting and record keeping (Section 3118), and the DEP is authorized "to enforce the Act." It also "establishes the duty of any person to proceed diligently in complying with orders of the DEP." (Section 3133)

*d) The SRBC must investigate the impact of the Environmental Protection Agency' (EPA) 316 (a) and 316 (b) compliance milestones on PPL's present request. PPL has not established compliance milestones for EPA's Act 316 (a) or 316 (b), and their impact on power uprates at the Susquehanna Electric Steam Station, or provided an action plan to defeat site-specific aquatic challenges.*

The Nuclear Regulatory Commission should initiate, coordinate, and execute a MOU with the Susquehanna River Basin Commission to clarify, delineate, and establish mutual zones of interest.

Per the ASLBP directive, Mr. Epstein argued the impact of the Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007) case on PPL's proposed uprate. (28) However, the Panel did not acknowledge or discuss Mr. Epstein's argument (29) in their ruling.

The most current decision relating to 316 (a) and 316 (b) in regard to nuclear power production is the Nuclear Regulatory Commission's reversal of Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007)(ADAMS Ascension No. ML071010217).

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28 Atomic Safety & Licensing Board Panel, Memorandum, (Initial Prehearing Conference Items), p. 1, Docket Nos. 50-387 and 50-388-OLA, ASLBP No. 07854-01-BD01, July 10 2007: Judge G. Paul Bollwerk, III, Chairman.

29 Transcript, p. 13, Line: 10 through p. 15. Line: 6.

The 2nd Circuit’s Opinion in the Vermont Yankee case is instructive, and focuses on alternative thermal effluent limitations. This specific issue was never raised by Mr. Epstein because the SSES is a closed-cycle plant. The Vermont Yankee decision supports Mr. Epstein’s argument that PPL cannot subvert existing state regulations. PPL will have to comply with 316 (a) and 316 (b) regardless of the timing, and the majority decision does not preclude the application of a site-specific scoping brush from being applied to PPL’s surface water withdrawal application.

The 2nd Circuit’s Opinion majority option stated:

“We first consider the significance of the three elements of the Section 316(a) permit's status, on which the majority decision relies - the permit's five-year duration, its stayed effectiveness, and the pendency of its appeal.”

The Coalition's argument to this effect constitutes a *de facto* collateral attack on the scope of section 51.53(c)(3)(ii)(B)'s requirement and thereby contravenes our rule prohibiting such attacks on our regulations unless the NRC grants a waiver of the prohibition. Section 51.53(c)(3)(ii)(B) requires merely that an applicant submit the EPA Section 316(a) variance or the equivalent state document. The regulation does not limit this requirement to those situations where the state permit expires within a period greater than five years. Nor could it, because Section 402(b)(1)(B) of the Clean Water Act expressly *prohibits* any state from issuing an NPDES permit for a period longer than five years. (30)

The Court’s ruling supports Mr. Epstein’s argument that PPL can not subvert or “attack” existing state regulations (Act 220) or federal statutes (of the Susquehanna River Basin Commission) or assume compliance based on timing or lack of a firm time frame.

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30 Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007)(ADAMS Ascension No. ML071010217).

Next, we conclude that the Vermont Environmental Court's stay is irrelevant to the issue now before us. All the stay accomplishes is to reinstate, temporarily, the pre-March 30th version of the permit - an action that does not adversely affect the Coalition's interests (in fact, it favors them). The stay does *not*, as the Coalition would have us believe, render the March 31st permit "wholly superseded," "without any effect," and "a nullity." It merely places that permit in limbo pending the conclusion of the Court's deliberations on the merits of Entergy's thermal increase amendment application. The Coalition thus confuses a stayed permit with a vacated one. (31)

This logic supports Mr. Epstein's argument that a resubmission of the December 20, 2006 Application will not be untimely, and further suggests that this issue will need to be revisited after judicial "limbo." The NRC staff argued, "As a result of the 2nd Circuit's Opinion, the EPA has advised that the rule should be considered suspended. Thus, inherent in this context within the scope of this proceeding, the Licensee is not required to comply with the suspended rule. As such the contention is inadmissible as it has no basis in fact." (32)

This ruling doesn't mean that 316 has disappeared or PPL will **not** have to be complaint with a federal mandate *or* that that postponement of 316 compliance milestones moves the NRC into "the business of deciding abstract questions." (33) Only the timing for compliance has changed. The impact of delay for PPL is negligible since the anticipated project completion date is January 2008, **but** the current licenses do not expire until 2023 and 2025. Absent artificial corporate deadlines, there is no rush to get the SRBC's approval for the uprate prior to the resolution of the status of 316.

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31 Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007)(ADAMS Ascension No. ML071010217).

32 NRC Staff Response, p. 9.

33 Northern States Power Company, (Prairie Island Nuclear Generating Plant, Units 1 and 2), ALAB-419, 6 NRC 3, 6 (1977).

And finally, under Commission precedent, the pendency of the appeal to the Vermont Environmental Court and any resulting "uncertainty" as to the permit's status are not relevant here. In Seabrook, we accepted as conclusive the EPA's determinations on aquatic impact, despite the fact that the EPA decision was under judicial review at the time. Moreover, we see no "uncertainty" at all if the Vermont Environmental Court either revokes the permit or does not include the increase when it renews the permit. Under either of those circumstances, the effluent levels would revert to their previous (pre-March 30th) values, rendering the Coalition's contention moot. (34)

Mr. Epstein is *not challenging* the permit, but seeking to include an evaluation of the uprate on Act 220, SRBC § 803.42 and § 803.44, and the potential of the uprate to harm a fragile, unique and endangered aquatic system that is the Susquehanna River. PPL should not be allowed to "revert" to grandfathered statutes superseded by current and binding SRBC protocols.

Despite an explicit oral argument (35), the Atomic Safety and Licensing Board remained mute. Through default, the NRC accepted the NRC staff's "head-in-the-sand" option: "As a result of the 2nd Circuit's Opinion, the EPA has advised that the rule should be considered suspended. Thus, inherent in this context within the scope of this proceeding, the Licensee is not required to comply with the suspended rule. As such the contention is inadmissible as it has no basis in fact."

The NRC must review the impact and timing of PPL's compliance with 316 (a) and 316 (b) based on the impact of the regulation on the Susquehanna River, the duration of the license extension, and PPL's self-imposed haste to seek approval prior to the resolution of EPA's compliance milestones.

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34 Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007)(ADAMS Ascension No. ML071010217).

35 Transcript, p. 13, Line: 10 through p. 15. Line: 6.

While the NRC begs off evaluation of these critical issues, it does not announce how these issues, which are outside of the agency's "scope," (36) should be cured or approached: "Additionally, as the Commission has made apparent in other contexts absent some need for resolution to meet the agency's statutory responsibilities, the agency's adjudicatory process is not the forum for litigation matters that are primarily responsible of other federal or state/local agencies." (37)

The NRC is content to let a regulatory wall catch fire in the naive hope that it will not spread to other walls that may (or may not) be its responsibility; while at the same time, acknowledging the potential harm:

To be sure, the EPU request will have implications in terms of increased water consumption, entrainment and impingement, and thermal and liquid effluent discharges, all of which are evaluated in the ER accompanying the PPL application that has not been the subject of Epstein's contentions. (38)

The Board has explicitly recognized that the Petitioner has "stimulated" the NRC's "interest," (39) and passed the requisite curiosity litmus test. (40)

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36 Essentially, the NRC's ASLBP ignored most of the substantive issues raised by Mr. Epstein and discounted their merit as being "outside the scope" of an uprate proceeding. The ASLBP agreed and spent nine pages saying why the above identified issues were outside the scope of the NRC's proceeding. ("NRC Memo and Order", July 27, 2007 pp. 21-30)

37 Ibid, Vermont Yankee Nuclear Power Station, LBP-06-20, 64 NRC 131.

38 See Hydro Resources, CLI-98-16, 48 NRC 119, 121-122, US NRC, "Memorandum and Order", In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), Docket No. 50-271-LR., ASLBP No. 06-849-03-LR, September 22, 2006, pp. 54-55.)

39 Metropolitan Edison Company, Three Mile island Nuclear Station, Unit-2, ALAB-384, 5 NRC 612, 618 (1977).

40 Union Electric Co., Callaway Plant, Units 1 and 2) ALAB-348, 4 NRC 225, 228-230 (1976); PPL Co., (Susquehanna Steam Electric Station , Units 1 and 2), ALAB-613, 12 NRC 317, 340 (1980).

The NRC Staff incorrectly opined, “PPL’s excessive use of water is also an issue outside of the NRC’s jurisdiction.” (Staff Response, p. 10) However, the Staff, the ASLBP, and PPL ignored a recent ASLBP Memorandum and Order:

Certainly, 511 (c) bars the NRC from reviewing limitations, water quality certification requirements, or other FWPCA requirements. But it does not bar NRC from including water quality matters in the assessment of the environmental impact of the license renewal. To the contrary, NEPA requires the NRC to do so. The required, EIS, including water quality matters, then become a basis for the NRC’s ultimate EPA determination of “whether or nor the adverse environmental impacts of license renewal are so great that preserving the option of license renewal for energy planning decision makers would be unreasonable at the license renewal stage.” (41)

Moreover, PPL’s ER § § 7.2.1 to 7.24. submitted to the Nuclear Regulatory Commission is a broad scoping brush that does not address Susquehanna River Basin issues, and presumes the complete **nullification** of 316 (a) and 316 (b) as a future event. Mr. Epstein concerns include 316 (a) and 316 (b) issues, but also numerous water challenges caused by the uprate and relicensing of the SSES that fall under the purview of the NRC and SRBC. (42)

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4 1 Ibid, Vermont Yankee Nuclear Power Station, LBP-06-20, 64 NRC 131.

4 2 **Susquehanna River Basin Commission: §801.6 Water supply**

(b) The Commission may regulate the withdrawal of waters of the basin not regulated by the signatory parties for domestic, municipal, industrial, and agricultural uses if regulation is considered essential to further the aims set forth in the comprehensive plan.

(c) The Commission shall study the basin’s water supply needs, the potential surface and ground water resources, and the interrelationships to meet these needs through existing and new facilities and projects. Efficient use and management of existing facilities with emphasis on the full utilization of known technology will be explored in meeting water supply needs for domestic, municipal, agricultural, and industrial water supply before new programs or projects are approved.

PPL's Susquehanna Electric Steam Station plans to increase the volume of surface water it removes from the Susquehanna River regardless of seasonal fluctuations, impending water restrictions, or periods of drought. Communities and ecosystems that depend on these aquatic resources will also be affected, and it is likely more fish and aquatic life will be harmed as a result of the uprate's impact on the River environment. PPL's planned uprate and application for relicensing will further place pressure on already limited water resources.

A snapshot of the amount of water used at nuclear power plants is readily evidenced at PPL's Susquehanna Steam Electric Station (SSES) located on the Susquehanna River in Luzerne County. The plant draws 40.86 million gallons per day from the Susquehanna River. For each unit, 14.93 million gallons per day are lost as vapor out of the cooling tower stack while 11 million gallons per day are returned to the River as cooling tower basin blow down. On average, 29.86 million gallons per day are taken from the Susquehanna River and not returned. This data is public information, and can be easily referenced by reviewing PPL's Pennsylvania Environmental Permit Report.

Water use and consumption by large consumers have an innate and overt relationship with the health and safety of the local community. Most components at the SSES have inherent safety related consequences and are part of the "defense in depth" system deployed by PPL. Water supply and water chemistry are intimately connected to the health and vitality of the River. (43)

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43 The Susquehanna Steam Electric Station is a large industrial consumer of a valuable and limited commodity from the Susquehanna River. Freshwater water withdrawals by Americans increased by 8% from 1995-2000, and Americans per capita water withdrawal is three times above the international average, "U.S. National Report on Population and the Environment" (2006) published by the Center for Environment and Population, a nonprofit corporation based in Connecticut.

Mr. Epstein contends that the Intake is a safety related system that impacts the Susquehanna River (44) regardless of the NRC's restrictive definition of the term "safety." (45) PPL admitted, "the pond requires replenishment from the Susquehanna River." "Consumptive water" use at the SSES results from evaporation from detention basins, thermal loading, along with evaporation and drift losses when the cooling towers are in operation. Assuming the makeup pond requires .36 (366,000) mgd per day, and .065 (65,000) mgd evaporate, than there is at least a 300,000 gpd relationship assuming between the River and the SSES assuming no leakage.

PPL's comments before the NRC defy logic and sound science, unless the Company uses a magical pond that does not suffer from evaporation. As PPL admitted, the pond requires replenishment from the the Susquehanna River. PPL cannot argue that it's consumption has no relationship to plant cooling, the state of the River, ground water supplies and aquatic life. "Consumptive water" use at the SSES results from evaporation from detention basins, thermal loading, along with evaporation and drift losses when the cooling towers are in operation.

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44 The Susquehanna River was named America's **Most Endangered River** on April 13, 2005, by American Rivers. As a point of reference, please note that the SSES is located in the "West Branch, Upper, Middle Susquehanna and Chemung River Basins" Region. This area also suffers from **chronic acid mine drainage** runoff. The mines have been abandoned, but their 3,000 miles of underground tunnels -- some of them 5,000 feet below ground -- still cause problems along the Susquehanna River. Water fallout of the Susquehanna River bottom enters and floods the coal tunnels. That fresh water flushes out heavy metals and toxic pollutants. According to Pennsylvania's Susquehanna River Basin Commission, acid mine drainage is the source for more than 70% of the stream impairment in the Middle Susquehanna sub-basin. The Wyoming Valley in the Middle Susquehanna sub basin includes Scranton, Wilkes-Barre, Carbondale and Sunbury.

45 "...although it provides makeup water to the SSES cooling towers, the Susquehanna River **is not a safety-related source of water in the context of this amendment**" (**Boldface type added**). (ASLBP, Memo and Order, p. 21, July 27. 2007)

But the NRC **never** required or investigated site-specific aquatic challenges. Both the NRC and PPL are content to cast a vague generic net across a sensitive and important waterway.

DEP confirmed that zebra mussel adults and juveniles have been found in Goodyear Lake, the first major impoundment on the Susquehanna River's main stem below Canadarago Lake in New York. Zebra mussels are an invasive species posing a serious ecological and economic threat to the water resources and water users downstream in the river and Chesapeake Bay. On June 19, 2007, zebra mussels were discovered in Cowanesque Lake, Tioga County. This marks the first time zebra mussels have been discovered in a Pennsylvania waterway in the Susquehanna River watershed. (46) Zebra mussels, like Asiatic clams, shad and other biological fouling, (47) can invade the SSES from the Susquehanna River.

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46 "In 2002, the first report of zebra mussel populations in the Chesapeake Bay Watershed were reported from Eaton Reservoir in the headwaters of the Chenango River, a major tributary to the Susquehanna River in New York. A short time later, zebra mussels also were found in Canadarago Lake, a lake further east in the Susquehanna main stem headwaters. Now, through DEP's Zebra Mussel Monitoring Network, reports were received that both zebra mussel adults and juveniles, called veligers, have made their way down to the Susquehanna main stem headwaters" (Pa DEP, *Update*, July 16, 2004)

47 Algae blooms recently "caused continuous clogging of multiple strainers of all pumps in TMI the intake structure; including: the two safety related DR pumps, all three safety related NR pumps, and all three non-safety related secondary river pumps." (NRC IR 05000289/2006004, p. 7)

The SSES will require accurate metering to within five percent on the water diverted to the SSES, which can not be achieved if the intake pipes are impaired by residual deposits as identified in PPL's SRBC Application.

The NRC ASLBP took an offhand swipe at these challenges, stating: “The nearest shad ladders are on dams 100 miles below the SSES...” Yet PPL owns two of the dams that shad must hurdle (48), and the NRC is unaware or unconcerned that juvenile shad are released in New York.

The NRC ignored the fact that zebra mussels were recently discovered at PPL’ fail-safe water supply in Cowanesque Lake and noted: “There is no evidence zebra mussels have been found in anywhere in the vicinity of the SSES...” But the NRC acknowledges the “SRBC requirement that the SSES compensate consumptive water use during river low-flow conditions by sharing the costs of the Cowanesque Lake Reservoir, which provides river flow augmentation source.” (49)

And, according to the NRC, “the Asiatic clam is being controlled with an approved molluscicide in the spray pond, and any chlorine discharge is controlled by the NPDES permit.” The NRC’s institutional memory failed to account for the incident at Three Mile Island on June 23, 1999 when the plant released too much of a potentially hazardous chemical into the Susquehanna River trying to rid itself of Asiatic clams. “State regulations allow TMI to release 0.3 parts per million of Clamtrol back into the Susquehanna River. For about an hour, the plant was releasing 10,500 gallons per minute containing twice the amount.” (*York Daily Record*, July 7, 1999.) Though not a “safety concern “ for the NRC, this type of discharge has a real and adverse impact on the River.

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48 Shad passages occur through two of the four hydroelectric dams owned and operated by PPL on the Lower Susquehanna River. These dams are not attracting and funneling shad; especially, at PPL's Holtwood Dam, where a proposed \$275 million expansion is contingent upon PPL solving shad lift problems. While PPL noted that the dams are 100 miles south of the SSES (p. 21), the failed to note that 30% to 50% of the shad stock is wild and migrates north to south. This natural stock is critical since 2002, 2003 and 2004 were bad years for stocked fry. (*Shad run tanks in the Susquehanna* Mike Hendricks, PA Fish and Boat Commission, fisheries biologist, “Pennsylvania Outdoor News”)

49 “Memo and Order,” July 27, 2007, p. 24, Footnote 20.

PPL's lack of "defense in depth" presumes an isolated and unconnected cooling network, "However, the Susquehanna River is not relied upon as a safety-related source of water for reactor cooling. Rather SSES has an UHS. Thus while a regulatory restriction on surface withdrawals by the SSES might affect generation of electricity, it would not endanger the health and safety of the public." (PPL Response, June 5, 2007, p. 17) Yet, the same company publicly advertises, "Water level in the pond is maintained by adding water from the Susquehanna River as needed." (Ibid.)

The NRC is not restricted by the artificial limitations and narrow scope the staff and Panel imposed on itself: "...absent some need for resolution to meet the agency's statutory responsibilities, the agency's adjudicatory process is not the forum for litigating matter that are primarily the responsibility of other federal federal or state/local regulatory agencies." (50) The NRC is also charged with protecting the public's health and safety, and federal, state and local regulatory agencies usually defer to the NRC because they lack the requisite technical competencies to investigate nuclear-related matters. In fact, the Commission may grant a stay in order to maintain the *status quo* and preserve its jurisdiction to consider the merits of a question before it. (51) Absent some special statutory standard of proof, factual issues decided by this or any other Federal agency are determined by a preponderance of the evidence." (52) Playing regulatory hot potato does not constitute a "preponderance of evidence," and ignoring regulatory gaps is not in the best interest of the public's health and safety.

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50 "Memo and Order," July 27, p.22.

51 Texas Utilities Generating Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-83-6, 17 NRC 333 (1983). (A stay had been denied by the Appeal Board, ALAB-716, 17 NRC 341 (1983).

52 TVA (Hartsville Nuclear Plant, Units 1A, 2 A, 1 B and 2B), ALAB-463, 7 NRC 341, 360, reconsideration denied, ALAB -467, 7 NRC 459 (1978). But see Virginia Electric and Power Co. (North Anna Nuclear Power Stations, Units 1 and 2), ALAB-256, 1 NRC 10, 17 n. 18 (1975); Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-616, 12 NRC 419, 421 (1980).

Mr. Epstein raised 316 (a) and 316 (b) compliance issues as well as site-specific impacts and relations between the Susquehanna River and the Susquehanna Steam Electric Station's proposed uprate expansion and relicensing application; which to date, no agency at any level has thoroughly reviewed.

Water use and consumption as well as water supply and water chemistry have direct and indirect relationships with safety related components, plant cooling, and are intimately connected to the health and safety of the River and the local community.

*e) The NRC must examine the impact of a possible water budget enacted by Act 220 on PPL's 2006 uprate request. Act 220 of 2002 mandates that the Department of Environmental Protection update the state water plan by 2008.*

Act 220 of 2002 is the law, and mandates that the Department of Environmental Protection update the state water plan by 2008. "The Environmental Quality Board (EQB) will adopt regulations addressing water use registration, period reporting and record keeping (Section 3118), and the DEP is authorized to enforce the Act. The Act "establishes the duty of any person to proceed diligently in compiling with orders of the DEP." (Section 3133)

Had PPL Susquehanna or the NRC staff scratched the regulatory surface in their uprate application and review, they would have disclosed the need to coordinate, and perhaps submit an "alternative plan" as a result of Act 220. (54) The Company simply failed to include this data in their application.

In March 2008, areas will be identified where water use exceeds (or is projected to exceed) available supplies. If the SSES is designated as an endangered or sensitive area, PPL will have to comply with a "water budget" established by the Regional Water Resource Committee and the Critical Advisory Committee and codified by the EQB.

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54 Act 220 of 2002 mandates that the Department of Environmental Protection update the state water plan by 2008. "The Environmental Quality board will adopt regulations addressing water use registration, period reporting and record keeping (Section 3118), and the DEP is authorized "to enforce the Act. It also "establishes the duty of any person to proceed diligently in compiling with orders of the DEP." (Section 3133)

The US EPA and Army Corps of Engineers issued new guidelines for the protection of wetlands and bodies of water under the Clean Water Act on June 6, 2007. This is an **"unanticipated future"** regulatory guideline promulgated after the uprate amendment was filed by PPL. While the problem of hypoxia is critical, Mr. Epstein did not suggest that this issue had to be revisited after PPL filed its amendment request.

New or increased withdrawals of 10,000 bgd trigger a review and permit process from the Susquehanna River Basin Commission. PPL must also demonstrate that their proposed withdrawals will not significantly impair or reduce the flow of perennial streams in the area,” (18 CFR § 430.13 (d) (4)). In fact, PPL Susquehanna acknowledged: “Water from the Susquehanna River makes up for cooling water lost to evaporation.” (55)

The NRC must examine the impact of possible water budget enacted by Act 220 on PPL’s 2006 uprate request. Act 220 of 2002 mandates that the Department of Environmental Protection update the state water plan by 2008. “The Environmental Quality board will adopt regulations addressing water use registration, period reporting and record keeping (Section 3118), and the DEP is authorized “to enforce the Act.” It also “establishes the duty of any person to proceed diligently in complying with orders of the DEP.” (Section 3133)

NRC staff alleges that T-1 was “outside of the scope” and “not material” to the NRC proceeding, and that there was “not enough information to establish a “genuine dispute.” Staff erroneously alleged that “vague data” and references to “anticipated enactment of state regulations” do not provide sufficient information. (NRC Staff, p. 8) Staff created a specious syllogism by stating, “Petitioner offers no support for his assertion that PPL must anticipate a future a law...” (Staff, p. 10.) The ASLBP agreed and spent nine pages saying why the above identified issues were outside the scope of the NRC’s proceeding. (“NRC Memo and Order”, July 27, 2007 pp. 21-30) The Commission can not stick its head in the regulatory sand, and take comfort in a regulatory “hail Mary.”

PPL failed to consider the coordination of water use issues with state and federal agencies, and the potential impact these regulations will have on water flow, water volume and surface water withdrawal for the SSES’s cooling systems.

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55 PPL, *Susquehanna Nuclear Energy Guide*, www.pplweb.com, June 11, 2007, p. 13.

## V. Technical Contention 2

PPL failed to disclose damaging information included in a hastily filed Application for Surface Water Withdrawal (56) ."[W]hen a party has relevant evidence within his control which he fails to produce, that failure gives rise to an inference that the evidence is unfavorable to him." (57)

PPL Susquehanna actually references the NRC filings in the Susquehanna River Basin Commission ("SRBC") application, yet their amendments (and the NRC's subsequent review) fails to include action plans to repair bio-fouling and corroded piping identified by the applicant in another venue. (58)

PPL and the Staff both provide excuses for failing to explicitly report this information, and never explain why the information was omitted from PPL's supplemental filings. The NRC refers to a pre-hearing conference that took place over the phone six months **after the uprate application was filed**. The NRC also relies on an oblique reference in Section 3.1.2.1 of the license renewal application as an adequate representation that deposits in the intake valve have not impaired PPL's ability to monitor flow. (Staff, pp. 12-13). (59)

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56 Request to Modify Application 19950301 EPUL-0578 PPL's Letter to the Susquehanna River Basin Commission was filed on December 20, 2006, p. 2)

57 Public Service Company of New Hampshire, Seabrook Station Units 1 and 2), ALAB-471, 7 NRC 477, reviewed as to other matters, CLI -78-14, 7 NRC 952 (1978)

58 "In order to fulfill its regulatory obligation, the NRC is dependent on all of its licensees for accurate and timely information...[L]icensees are the first line to ensure the safety of the public." (Petition for Emergency and Remedial Action, CLI-78-6, 7 NRC 400, 418 (1978). See also Consumer Power Co. (Midland Plant, Units 1 and 2), CLI-74-3, 7 NRC 7, 11 (1974) The ASLBP flat out ignored this precedent in their July 27, 2007 decision.

59 As was the case with PPL's failure to report the 2001 uprate to the SRBC, or poor management that resulted in the exemption that enabled PPL to begin loading Framatome spent fuel into the Nuhoms 61BT storage system, **PPL cannot electively submit information based on fluid definitions of "safety-related" components.**"

PPL never directly addressed or rebutted T-2, but is pained to describe why their inability to monitor the withdrawal of River water (PPL Response, pp. 22-27) is irrelevant, "...the Susquehanna River is not relied upon as a safety - related source of water for reactor cooling, and the River intake is not a safety-related system." (PPL Response, p. 23) The Company never addressed or explained their failure to submit this damaging data in their uprate filing. The NRC has found that withholding negative information is not to be countenanced (10 C.F.R. & 51.45 (e)), and the present instance is no exception to the rule.

The River Intake Structure flow meters to measure withdrawal. However, metering of the withdrawal has been inaccurate due mainly to corrosion and fouling of the intake pipes. The intake pipes are made of carbon steel, and PPL is evaluating replacement of sections of this pipe with stainless steel pipe to minimize flow measurement meter error... If the pipe replacement project proceeds and withdrawal quantities determined by the two methods are comparable, then PPL will use the metered withdrawal to periodically verify the calculated withdrawal based on the sum of cooling tower water loss, cooling tower blow down, and emergency spray makeup. If the metered withdrawal is significantly different from the calculated withdrawal, PPL will discuss with the Commission the appropriate next steps for measuring withdrawal. PPL will keep the Commission apprised of these activities.  
(60)

The NRC should physically inspect the intake pipes and request six month inspections.

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60 Request to Modify Application 19950301 EPUL-0578 PPL's Letter to the Susquehanna River Basin Commission was filed on December 20, 2006, p. 2)

## VI. Remedies:

Eric Joseph Epstein is presently a Petitioner before the United States Regulatory Commission's in the matter of the PPL Susquehanna LLC Proposed Amendment Requests for the Susquehanna Steam Electric Station's 1 & 2 Would Increase Thermal Power to 3,952 Mega-Watts Which is 20% Above the Original Rated Thermal Power (RTP) 3293 MWt, and Approximately 13% Above the Current RTP of 3,489 MWt, Docket Nos. 50-387 PLA-6110 and 50-388.

In order to adequately protect the public health and safety, PPL must be proactive and defend and manage aging systems. Intended and unintended challenges to systems, structures and components can not be defeated or managed through the overuse of unquantifiable terms like "routine," "periodic," "future," "reduction," "preventive" and "superior.

The Commission is not bound by the "substantial evidence rule" and where more than result is supported by the record, the Commission is free to choose a result different than that reached by the Licensing Board. (61)

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61 US NRC, "Memorandum and Order," In the Matter of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), Docket No. 50-271-LR., ASLBP No. 06-849-03-LR, September 22, 2006 & Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006) CLI-07-16, 65 NRC \_\_\_ (Apr 11, 2007) Public Service Company of New Hampshire (Seabrook Stations Units 1 and 2), ALAB-422, 6 NRC 33, 42 (1977), affirmed sub. nom. New England Coalition on Nuclear Power v. NRC, 582 F. 2d 87. (1st Cir. 1978); Consumers Power Co. (Midland Plant, Units 1 and 2) ALAB-452, 6 NRC 892, 1022-23 (1977); TVA (Hartsville Nuclear Plant, Units 1A, 2 A, 1 B and 2B), ALAB-367, 5 NRC 92, 94n. 4 (1977); Duke Power Co. Catawba Nuclear Station, Units 1 and 2), ALAB-355, 4 NRC 397, 402-404,(1976).

The Commission can base its decision on grounds wholly foreign to those considered and relied on by the Licensing Board so long as parties have had an opportunity to address those grounds in argument. (62)

Mr. Epstein respectfully requests that the Nuclear Regulatory Commission hold PPL Susquehanna LLC (“PPL”) Proposed Amendment Requests for the Susquehanna Steam Electric Station’s 1 & 2 Would Increase Thermal Power to 3,952 Mega-Watts Which is 20% Above the Original Rated Thermal Power (RTP) 3293 MWt, and Approximately 13% Above the Current RTP of 3,489 MWt, Docket Nos. 50-387 PLA-6110 and 50-388, in **abeyance** until:

1) Mr. Epstein contentions are reviewed by the Commission and remanded back to the Atomic Safety and Licensing Board Panel for litigation;

2) The Nuclear Regulatory Commission should not approve the current EPU application until PPL’s 2001 1.4% Measurement Uncertainty Recapture (MUR) uprate has been examined and approved by the Susquehanna River Basin Commission;

3) The Nuclear Regulatory Commission should execute a Memorandum of Understanding with the Susquehanna River Basin Commission;

4) The NRC should order PPL to provide an action plan or water amendment in the event the proposed uprate creates competing water demands in “water budgeted” areas;

5) The NRC must review the impact and timing of PPL’s compliance with 316 (a) and 316 (b) based on the impact of the regulation on the Susquehanna River, the duration of the license extension, and PPL’s self-imposed haste to seek approval prior to the resolution of EPA’s compliance milestones; and,

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62 Public Service Company of New Hampshire), Seabrook Station, Units 1 and 2, ALAB-422, 6 NRC 33, 42 (1977) affirmed, CLI-78-1, 7 NRC 1 (1978), affirmed sub. nom. New England Coalition on Nuclear Pollution v. NRC, 582 F. 2d 87 (1st Cir. 1978)

6) The NRC should physically inspect the intake pipes and request six month inspection be built into the Reactor Oversight Process. Failure to adhere to a regular schedule as stated above should result in the initiation of a the cornerstone matrix.

Respectfully submitted,

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DATED: AUGUST 5, 2007