

**BEFORE THE
PENNSYLVANIA ENVIRONMENTAL HEARING BOARD**

ERIC JOSEPH EPSTEIN, <i>Pro se</i>	:	
Appellant	:	
v.	:	EHB DOCKET NO. _____
	:	
COMMONWEALTH OF PENNSYLVANIA,	:	
DEPARTMENT OF ENVIRONMENTAL	:	
PROTECTION; EXELON GENERATION	:	
CORPORATION, LLC; EXELON	:	
CORPORATION AND PSEG NUCLEAR, LLC	:	

NOTICE OF APPEAL

AND NOW, comes Appellant Eric Joseph Epstein, *Pro se*, (“Appellant,” “Epstein,” or “Mr. Epstein,”) in this matter, and sets forth the following Notice of Appeal from the Pennsylvania Department of Environmental Protection’s Approval of Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate for Exelon Generation Company, LLC’s Peach Bottom Atomic Power Station.

An original and a copy of the this Appeal was hand delivered to the Environmental Hearing Board at the Rachel Carson State Office Building. A copy was also hand delivered to the Office of Chief Counsel at the Rachel Carson State Office Building.

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DATED: September 2, 2014

I. Subject of Appeal:

The action of the the Department of Environmental Protection (“DEP,” “Department” or “PADEP”) for which review is sought is DEP’s issuance of Approval of Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate (“EPU”) for Exelon Generation Company, LLC’s Peach Bottom Atomic Power Station.

The action was directed by Mr. Scott Williamson, Southcentral Region Waterways and Wetlands Program Manager. Mr. Epstein accessed the filing on the Pennsylvania Bulletin web site on September 2, 2014 after receiving an e-mail correspondence from Mr. Williamson on September 2, 2014 at 8:30 am.

Peach Bottom Atomic Power Station (“PBAPS” or “Peach Bottom”)) is an existing nuclear-fueled boiling water reactor electric power generating facility located along the Susquehanna River in Peach Bottom Township, York County and Fulton and Drumore Townships, Lancaster County. PBAPS is owned by Exelon Generation Company, LLC (Exelon) (a wholly-owned subsidiary of Exelon Corporation) and PSEG (“PSEG”) Nuclear, LLC. The facility is operated by Exelon. Exelon has submitted a License Amendment Request (“LAR”) to the US Nuclear Regulatory Commission (“NRC”) for a proposed Extended Power Uprate for units 2 and 3. The proposed EPU would allow the units to change from the currently licensed 3514 megawatts-thermal (“MWt”) to nominally 3951 MWt per unit.

Impacts to aquatic resources associated with continued operation of the facility and the EPU include water withdrawal from the Conowingo Pond of the Susquehanna River, consumptive use, and the thermal impacts of the heated water discharges back to the Conowingo Pond. Water will

continue to be withdrawn at a maximum rate of 2,363.620 million gallons per day (MGD). Water intake will continue to have impingement and entrainment effects on the migratory and resident fish as well as other aquatic species. Consumptive water use at the facility is a maximum of 49.000 MGD. Discharge temperatures include a projected change in the temperature increase at a maximum from existing 22°F increase to a 25°F increase due to the EPU.

Exelon will mitigate the impacts of impingement and entrainment by providing one hundred thousand dollars (\$100,000.00) per year for habitat/sediment improvement projects in Lancaster and York Counties. This will include stream improvement projects, agricultural pasture and barnyard best management practices, and small dam removal projects. Consumptive use impacts will be mitigated by adherence to the Susquehanna River Basin Commission (“SRBC”) consumptive use authorization. Thermal impacts will be mitigated by adherence to the National Pollution Discharge Elimination System (“NPDES”) permit. Such payments hereunder shall be made for the duration of the operation of PBAPS as an electric generation facility.

The Department of Environmental Protection, by this notice, proposes to certify that the construction, operation and maintenance of the EPU complies with the applicable provisions of sections 301–303, 306, 307 and 316 of the Federal Clean Water Act (33 U.S.C.A. §§1311–1313, 1316 and 1317), and appropriate requirements of state law. The Department further proposes to certify that the construction, operation and maintenance of the EPU complies with

II. Peach Bottom Atomic Power Station Units 2 & 3

The Peach Bottom Atomic Power Station located in southern York County, Pennsylvania is co-owned by Exelon Generation Corporation based in Illinois and PSEG which is headquartered in New Jersey.

Philadelphia Electric's ("PECO") applied for a license to operate the Peach Bottom Atomic Power Station in July, 1960. The application was approved by the Atomic Energy Commission ("AEC").

Peach Bottom-1 was a 40 megawatt ("MWt"), High Temperature Graphite Moderated reactor that operated from 1966-1974.

Peach Bottom 2 & 3 are Boiling Water Reactor designed by General Electric and engineered by Bechtel. Both plants use a Mark 1 containment system. Peach Bottom 2's initial capacity was 1,159 MWt. Peach Bottom 2's capacity was initially set at 1,035 Net MWt for a total capacity of 2,194 MWt.

The construction permit for PBAPS, Units 2 and 3, was issued by the AEC on January 31, 1968. Both units were evaluated against the then-current AEC draft of the 27 General Design Criteria ("GDC") issued in November 1965.

On July 11, 1967, the AEC published for public comment, in the *Federal Register* (32 FR 10213), a revised and expanded set of 70 draft GDC. The licensee concluded that PBAPS, Units 2 and 3, conforms to the intent of the draft GDC."

On February 20, 1971, the AEC published in the *Federal Register* a final rule that added Appendix A to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "General Design Criteria for Nuclear Power Plants."

The NRC decided not to apply the final GDC to plants with construction permits issued prior to May 21, 1971.

Unit 2 and Unit 3 began operation in July, 1974, but had their licenses extended by the Nuclear Regulatory Commission ("NRC") and are expected to operate through 2034.

On March 31, 1987, PECO was ordered by the Nuclear Regulatory Commission to shutdown Peach Bottom 2 and 3 on due to operator misconduct, corporate malfeasance and blatant disregard for the health and safety of area.

On February 3, 1988, John H. Austin resigned as president of PECO after a unusually critical report by the Institute of Nuclear Power Operations (INPO) was published. The report asserted that Peach Bottom "was an embarrassment to the industry and to the nation." Zack T. Pate, president of INPO, added, "The grossly unprofessional behavior by a wide range of shift personnel...reflects a major breakdown in the management of a nuclear facility."

On February 1, 1989, the NRC staff recommended that nuclear power plants that utilize the Mark 1 containment shell, modify the structure to reduce the risk of failure during a serious accident. PECO said it would make the \$2 to \$5 million changes only if the NRC.

This was the second time in two years that the NRC staff has advised the Commission to make changes to the Mark 1 containment structure.

The NRC released a report on June 21, 1989 relating to Mark 1 containment buildings entitled "Severe Accident Risks: An Assessment for Five U.S. Nuclear Plants." The NRC's six-member panel were evenly divided as to whether the Mark 1 containment would be breached during a serious accident. "The NRC decided not to order immediate changes in the Mark 1 containment." Yet half of the panel stated "with near certainty" the Peach Bottom's containment structure would fail during a core melt accident.

On April 21, 2000, the NRC approved the transfer of the Peach Bottom licenses from Delmarva Power and Light Company and Atlantic City Electric Company to PECO and PSEG Nuclear LLC.

By 2002, the NRC had approved Measurement Uncertainty Recapture Uprates and Stretch Uprates for Peach Bottom 2 & 3. The proposed amendments would authorize an increase in the maximum reactor power level from 3,514 megawatts thermal (MWt) to 3,951 MWt.

On August 2, 2005 Exelon Generation Company, LLC., on behalf of itself and PSEG Nuclear LLC, filed to acquire 100% of the facility following approval of the proposed license transfers.

Peach Bottom nuclear units were licensed to operate for 40 years and designed to produce 2,194 net MWt. Forty years later, the plants' operational lives have been extended by an additional twenty years and their combined capacity will increase to 3,951 MWt.

III. Power Uprates at Peach Bottom Atomic Power Station Units 2 & 3

Peach Bottom 2 received approval for a 5% stretch uprate or 165 MWt increase on October 18, 1994. Peach Bottom 3 received approval for a 5% stretch uprate or 165 MWt increase on July 18, 1995.

Peach Bottom 2 & 3 received approval for a 1.62% Measurement Uncertainty Recapture (“MUR”) uprate or 56 MWt increase on November 22, 2002.

Peach Bottom 2 received approval for a 5% stretch uprate or 165 MWt increase in October 18, 2004.

In December, 2006 Exelon was fined \$640,000 by the Susquehanna River Basin Commission (“SRBC”) for water violations at Peach Bottom related to water use and power uprates. (SRBC, Docket #: 20061209). **Exelon failed to seek the Commission's approval for any change in their processes that required them to increase water usage by 100,000 gallons a day.**

On September 28, 2012, Exelon Generation Company, LLC (“Exelon” or “the licensee”) submitted a license amendment request for Peach Bottom Atomic Power Station, Units 2 and 3.

Peach Bottom announced an Extended Power Uprate (EPU) to 3,951 MWt core power for both units, which is 120% of Original Licensed (core) Thermal Power. The project was authorized for full implementation by co-owners Exelon and PSEG in July 2012. Implementation of modifications required for the EPU are planned over three refueling outages and during “online periods.”

On April 5, 2002, Exelon outlined the projected timeline for approval of License Amendment Request and anticipated approval in May 2014.

On June 13, 2014, 9:00 a.m., the the Pennsylvania Department of Environmental Protection filed PA. B. Doc. No. 14-1255 for public inspection.

On July 14, 2014 Eric Epstein Submitted Testimony Before the Pennsylvania Department of Environmental Protection Re: “Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate for the Peach Bottom Atomic Power Station.”

And, on August 2, 2014, issuance its Approval of Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate (EPU) for Exelon’s Peach Bottom Atomic Power Station.

In summary, the Extended Power Uprate process has been fluid with many open ended issues only recently closed out or left to future commitments as posted in the Federal Register.

IV. Objections to Department's Actions:

A. Federal and statewide statutes can not be unilateral exempted or ignored by the Department of Environmental Protection .

1) Regional water coordination was clearly recognized by the Department of Environmental Protection on June 16, 2007 when the DEP advertised that the Susquehanna River Basin Commission was proposing comprehensive revisions to its regulations governing water withdrawal and consumptive use projects. (Proposed Rules [Federal Register: October 1, 2007 (Volume 72, Number 189) [Page 55711-55712] PART 808.)

2) The regional changes include a number of markers that the DEP, and the NRC must address when considering Exelon's EPU request including a reduce the duration of consumptive use and withdrawal approvals from 25 years to 15; ending the recognition of "pre-compact" or "grandfathered" consumptive uses or withdrawals upon a change of ownership, and no longer allow the transfer of project approvals when a change of ownership occurs; and a require that sponsors of consumptive use projects involving ground or surface water withdrawals request approvals for the consumptive use and the withdrawals.

3) The SRBC stated, "If additional releases are made from new or existing sources, they will need to be accounted in the monitoring data at the Marietta gage. It will be important to understand how operations of Conowingo Dam will be affected and how existing CU [Consumptive Use] mitigation agreements for Peach Bottom Atomic Power Station and the City of Baltimore could be impacted. Operations of Conowingo Dam are

driven by flows at Marietta, as are existing mitigation agreements for the Peach Bottom Atomic Power Station and the City of Baltimore. It will be necessary to specify that those agreements remain in force despite upstream mitigation, and to resolve methodologies for implementing the agreements in instances when upstream mitigation releases are distorting the flow measurements at Marietta. Regardless, Exelon and Baltimore will still be required to mitigate the CU of their projects.” (Consumptive Use Mitigation Plan, *Publication No. 253*, March 2008, p. 29)

4) The Department of Environmental Protection and the Nuclear Regulatory Commission **exempted** Peach Bottom Atomic Power Station from preparing a final Environmental Impact Statement.

5) The Final Environmental Impact Statement (“EIS”) was concluded by the NRC’s predecessor agency - the Atomic Energy Commission - **in 1973 - prior to the Commonwealth of Pennsylvania enactment of aggressive statutes and regulations**. Among the legislation passed were the Radiation Act (1984), Chesapeake Bay Commission Agreement Act (1985), Hazardous Site Cleanup Act (1988), Pennsylvania Environmental Stewardship and Water Protection Act (1999) and Act 129 (2008).

6) The initial EIS was issued decades prior to the emergence of the Environmental Protection Agency (“EPA”) Section 316(b) of the Clean Water Act. EPA issued regulations on the design and operation of intake structures in order to minimize adverse environmental impacts. EPA promulgated regulations in 2001, 2003, 2006 and 2014. The requirements are included in the National Pollutant Discharge Elimination System (“NPDES”) permit regulations, 40 CFR Parts 122 and 125 (Subparts I, J, and N).

B. The NRC Staff's Safety Evaluation - Accepted by the DEP - is Replete with Assumptions, Generalizations and Delayed Compliance Deadlines.

7) The Federal Register Notice ("FR" or "the Notice") is populated with general, unqualified and vague assumptions and statements posited as empirical data. The DEP accepted the NRC's general, unqualified and vague assumptions and statements posited as empirical data.

8) The plant's cooling towers are not "routinely used" (see "Aquatic Resource Impacts"); and, are not planned to be "routinely used" during and after implementation of the EPU. Therefore, consistent with the discussion in NUREG-1437, Supplement 10, Section 2.2.8.4, "Visual Aesthetics and Noise," there should not be any significant impacts from the EPU, such as icing, fogging, plume, or noise impacts from the operation of cooling towers."

9) The NRC did not define and quantify the terms "plume" and "routinely." (FR, p. 18075). The DEP accepted these undefined terms.

10) The Federal Register projected, "Once the EPU has been implemented, water consumption for plant cooling will not significantly change from pre-EPU operation." (FR, p. 18075)

11) The NRC not define and quantify current and post water consumption levels and define the term "significantly." The DEP accepted these undefined terms.

12) “If the proposed EPU is approved and is implemented, PBAPS is predicted to have a slightly larger and hotter mixing zone than pre-uprate conditions during full flow and capacity.” (FR, p. 18079)

13) The NRC did not define and quantify “slightly larger” and “hotter mixing zone.” The DEP accepted these undefined terms.

14) “The NRC staff anticipates that PBAPS will continue to operate post- EPU in full compliance with the requirements of the PADEP. The PADEP would evaluate PBAPS compliance with its individual wastewater facility permit. “(FR, p. 18079)

15) The NRC did not explain how it measures and verifies “anticipation.” The DEP accepted these undefined terms.

16) “The potential impacts to aquatic resources from the proposed action could include impingement of aquatic life on barrier nets, trash racks, and traveling screens; entrainment of aquatic life through the cooling water intake structures and into the cooling water systems; and effects from the discharge of chemicals and heated water.” (FR, p. 18075)

17) The NRC staff concluded in NUREG–1437, Supplement 10, Section 4.1.3, “Impingement of Fish and Shellfish;” that, during the continued operation of PBAPS, the potential impacts caused by the impingement of fish and shellfish on the debris screens of the cooling water intake system would be small (i.e., not detectable or so minor that they will neither destabilize nor noticeably alter any important attribute of the resource) and that impingement losses would not be great enough to adversely affect Susquehanna River aquatic populations.”

18) The NRC staff also concluded in NUREG-1437, Supplement 10, Section 4.1.3, “that, in the early life stages in the cooling water system, the potential impacts of entrainment of fish and shellfish would be small, and that there are no demonstrated, significant effects to the aquatic environment related to entrainment.”

19) The NRC provided no empirical data to support its environmental impact conclusions, and ignored the aggregate impact of three EPU s implemented since the initial license was granted.

20) The staff also failed to define and quantify “alter,” “so small, or “significant impact.” The DEP accepted these undefined terms.

21) The NRC’s conclusions relating to “Aquatic Resource Impacts” are based on ongoing studies and co-mingled and mix assumptions relating station conditions under the grandfathered NPDES permit.

22) This conclusion was made assuming station conditions under the previous NPDES permit... “After the study is completed and based on the study results, Exelon will submit to PADEP an application to modify the NPDES permit. These modifications may include actions to manage the thermal discharge under EPU conditions. For any such future modifications, the PADEP must, in accordance with Section 316(a) of the Clean Water Act, ensure thermal effluent limitations assure the protection and propagation of a balanced indigenous community of shellfish, fish, and wildlife in and on Conowingo Pond.” (FR, 18706)

23) The conclusions stated under “Aquatic Resource Impacts” may not be consistent with EPA 316 (b), and are based on a dated NPDES permit. (FR, p. 18075).

24) The DEP and the NRC granted waivers based on outdated assumptions, data and studies to be concluded at a later date. The NRC conclusions are also inconsistent with the historical facts on the ground as enumerated in the discussed under III. Peach Bottom’s Environmental Impacts on the Susquehanna River Basin, pp. 6-10. The DEP accepted these conclusions.

25) Regarding the potential impacts of thermal discharges, in NUREG-1437, Supplement 10, Section 4.1.4, “Heat Shock,” the NRC staff concluded that the “impacts are small and that the heated water discharged to Conowingo Pond does not change the temperature enough to adversely impact balanced, indigenous populations of fish and wildlife.” (FR, pp. 18075-10876).

26) What are the “small impacts” and why did the EPA, the DEP, the NRC and the SRBC accept a generic rather than a site specific evaluation? Has the DEP anticipated or projected impacts after the “renewed license period...”? If the period is more than 15 years, please explain how this time period has been exempted by SRBC regulations.

27) Additionally, the NRC failed to explain how the intake structure is designed to reduce the impingement and entrapment of aquatic organisms, and how this design comports with 316 (b).

28) The DEP accepted a fee for impingement and entrapment damage, but does not require Exelon remediate the impact it caused by the EPU.

29) the NRC has “generically” determined that the “effects from discharge of chlorine or other biocides, as well as accumulation of contaminants in sediments or biota, would be small for continued operations during a renewed license period at all plants as discussed in Section 4.5.1.1, “Surface Water Resources, Discharge of Biocides, Sanitary Wastes, and Minor Chemical Spills,” of the “Generic Environmental Impact Statement for License Renewal of Nuclear Plants,” NUREG–1437, Volume 1, Revision 1, dated June 2013.” (ADAMS Accession No. ML 13106A241). (FR, p. 18076)

30) The DEP has not specified what plan(s) are in place to confirm and monitor what and how much “chemical effluents [are] discharged”? How are regulatory agencies going to monitor the changes or quantify or type of discharges?

31) The DEP and the NRC failed quantify site-specific aquatic challenges, and invasive species challenges based on the documented challenges that currently exist in the Susquehanna River.

32) The DEP and the NRC are allowing Exelon’s to postpone flood reevaluation for Peach Bottom 2 & 3 - due on March 12, 2014 - **until March 12, 2015**. Exelon discussed the milestones for completion of the flooding hazard reevaluation as follows in a letter to the NRC on March 12, 2104.

33) The DEP and the NRC are allowing Exelon to complete development of the scenarios for the Probable Maximum Flood at PBAPS, Units 2 and 3, by the end of July 2014 or almost two month after the Notice in the Pennsylvania Bulletin was published.

34) The DEP and the NRC are allowing Exelon to complete the calculations of flood levels and associated effects based on Appendix H to NUREG/CR-7046, "Design-Basis Flood Estimation for Site Characterization at Nuclear Power Plants in the United States of America," by the end of **December 2014**.

35) The DEP and the NRC are allowing Exelon to start its “internal review” of the PBAPS flooding hazard reevaluation in mid-January 2015.

The DEP and the NRC are allowing Exelon to submit PBAPS flooding hazard reevaluation by March 12, 2015.

36) The 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 the area.

37) 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)

38) Zebra mussels, like Asiatic clams, shad and other biological fouling, can invade the Peach Bottom Atomic Power Station from the Chesapeake Bay or Susquehanna River.

The DEP did not review the impact of Zebra mussels, like Asiatic clams, shad and other biological fouling on the EPU.

40) In recent years, 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 DEP did not review the impact of Algae blooms on the EPU.

40) The DEP did not address health, safety and structural challenges caused by micro fouling versus macro fouling, micro biologically influenced corrosion, algae blooms, biofilm's disease causing bacteria such as Legionella and listeria, the difficulty in eliminating

established biofilms, oxidizing versus non-oxidizing biocides, chlorine versus bleach, alkaline versus non-alkaline environments, possible decomposition into carcinogens, and the eastward migration of Asiatic clams, zebra mussels and the anticipated arrival quagga mussels. NRC staff noted the limitation of the inspection protocol and “requested that licensees establish a routine inspection and maintenance program to ensure that corrosion, erosion, protective coating failure, silting, and biofouling/tube plugging cannot degrade the performance of the safety-related systems supplied by service water. These issues relate to the evaluation of safety-related heat exchangers using service water and whether they have the potential for fouling, thereby causing degradation in performance, and the mandate that there exist a permanent plant test and inspection program to accomplish and maintain this evaluation.”

41) “The regulations in 10 CFR 50.36, set forth NRC requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls. **The regulation does not specify the particular requirements to be included in a plant's TSs.** (NRC, “Peach Bottom Atomic Power Station, Unit 2 & 3, Issuance of Amendment Re: Revise Normal Heat Sink Operability Requirement”, Tag Nos. M9805 & M98906, June 5, 2014).

The DEP was silent on these issues.

43) The NRC identified the need for biological and thermal studies. When are the biological and thermal studies going to be completed? Why would the DEP the NRC approve an uprate prior to the completion of the studies? Why is NPDES compliance being delayed until after the uprate is implemented?

The DEP did establish metrics or timelines regarding these issues.

44) The Department of Environmental Protection announced that it issued a water quality (“WQ”) certification for the continued operation and maintenance of Exelon’s Muddy Run hydroelectric project in Martic and Drumore Townships in southern Lancaster County.

45) Pennsylvania WQ certification is required for relicensing by the Federal Energy Regulatory Commission for projects like the Muddy Run Project under the Federal Power Act. WQ certifications are authorized under the Federal Clean Water Act, the Pennsylvania Dam Safety and Encroachments Act and the Pennsylvania Clean Streams Law.

46) The hydro plant that is owned by Exelon and produces 22.4% of the electricity of its nuclear sibling agreed to make substantial commitments to mitigating the aquatic resource impacts of the project.

47) While DEP and the NRC gave Exelon a free pass on the EPU at Peach Bottom, the same company acknowledged that in order for the Muddy Run project to continue operation and to minimize the effects of the facility on aquatic resources, Exelon had to agree to:

- Provide \$500,000 per year for 16 years for agricultural pasture and barnyard best management practices to address sediment introduction and other habitat improvement projects, such as stream improvement projects, riparian buffers and small dam removal in Lancaster and York counties.
- Provide a version of Exelon’s computer model for evaluating river flows on the Lower Susquehanna River to the Susquehanna River Basin Commission.
- Provide \$8 million over 16 years by Exelon to the Lancaster and York County conservation districts.

47) By contrast; and without an environmental overview, the DEP meekly required the following nominal conditions for approving the Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate for Peach Bottom Atomic Power Station:

- Exelon will mitigate the impacts of impingement and entrainment by providing one hundred thousand dollars (\$100,000.00) per year for habitat/sediment improvement projects in Lancaster and York Counties. This will include stream improvement projects, agricultural pasture and barnyard best management practices, and small dam removal projects. Consumptive use impacts will be mitigated by adherence to the Susquehanna River Basin Commission (SRBC) consumptive use authorization. Thermal impacts will be mitigated by adherence to the National Pollution Discharge Elimination System (NPDES) permit. Such payments hereunder shall be made for the duration of the operation of PBAPS as an electric generation facility.

- 5. Habitat Improvement Projects—

- a. Commencing on the first March 1 after completion of the EPU of Unit 2, and by March 1 of each year thereafter, PBAPS shall provide a total ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) annually in compensatory mitigation to the PFBC, or to such other conservation district, resource agency or 501(c)(3) organization as directed by the

PADEP, for the implementation of habitat/sediment improvement projects. This will include stream improvement projects, agricultural pasture and barnyard best management practices, and small dam removal projects.

- b. This annual compensatory mitigation shall be by corporate check, or the like, made payable to the PFBC in the amount of ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) for habitat/sediment improvement projects in Lancaster or York Counties or to such other entities as the PADEP shall direct. PBAPS and PADEP shall receive from PFBC an annual accounting of projects implemented and fund expenditures. The funds shall be deposited by the PFBC into a special non-lapsing interest bearing account established and to be used only for the HIP Projects required by this Water Quality Certification ("PBAPS HIP Funds").

- c. PADEP shall ensure that each project proposed by the PFBC shall be submitted to the DEP South-central Regional Office Waterways and Wetlands Program Manager, or the successor position, for approval. No single project shall receive more than \$75,000.00 in compensatory mitigation funding from the PBAPS HIP Fund. Funding priority shall be given for projects that include stream forested buffers of at least 50 feet in width and wetland creation projects. Project funding shall not include any indirect administrative costs and, except where specifically authorized by the DEP, shall not include direct administrative costs. In no case shall direct administrative costs be greater than 10% of the project funding. At PBAPS's option, and subject to land owner approval, for each project signage shall be displayed acknowledging PBAPS's funding of the habitat improvement.

- d. Exelon may request that the PADEP revise the compensatory mitigation in response to actions or activities by Exelon that reduce the degree of impingement and/or entrainment at the PBAPS.

V. Conclusions:

Power generation, cooling and safety are inherently connected. There is no invisible legal fence between generation and safety. And there should be no regulatory moat created by artificial safety definitions erected by nuclear generators. The lack of regulatory coordination establishes a deleterious precedent, and constitutes *de facto* approval of grandfathered and outdated regulations.

Even more baffling are the regulatory moats that federal and state agencies erect to protect rigid and exclusive zones of interest. This type of laissez-faire regulatory behavior gives rise to undesired corporate behaviors such as “grandfathering” and “back fits,” deterioration of monitoring equipment, time delays causing avoidable leaks, and waivers for monitoring wells.”

Populations long the Susquehanna River are potentially impacted by contaminated water, liquid-release exposure pathways, irrigated crops and external exposure during recreational activities.

The DEP staff must also review dated and delayed submissions, reconcile “grandfathered” regulations and clarify general and vague assumptions.

The proposed Extended Power Uproot License Amendment for the Peach Bottom Atomic Power Station Units 2 & 3 should be held in abeyance until all the open and unresolved environmental, health and safety issues identified in this Testimony have been addressed and closed out.

The Department of Environmental Protection and the Nuclear Regulatory Commission **exempted** Peach Bottom Atomic Power Station from preparing a final Environmental Impact Statement.

The Final Environmental Impact Statement (“EIS”) was concluded by the NRC’s predecessor agency - the Atomic Energy Commission - **in 1973 - prior to the Commonwealth of Pennsylvania enactment of aggressive statutes and regulations.** Among the legislation passed were the Radiation Act (1984), Chesapeake Bay Commission Agreement Act (1985), Hazardous Site Cleanup Act (1988), Pennsylvania Environmental Stewardship and Water Protection Act (1999) and Act 129 (2008).

The initial EIS was issued decades prior to the emergence of the Environmental Protection Agency (“EPA”) Section 316(b) of the Clean Water Act. EPA issued regulations on the design and operation of intake structures in order to minimize adverse environmental impacts. EPA promulgated regulations in 2001, 2003, 2006 and 2014. The requirements are included in the National Pollutant Discharge Elimination System (“NPDES”) permit regulations, 40 CFR Parts 122 and 125 (Subparts I, J, and N).

The DEP must investigate the impact of the Environmental Protection Agency (EPA) 316 (a) and 316 (b) and establish compliance milestones on applications from nuclear power plants.

Neither DEP or NRC can bypass Act 220 of 2002 which “establishes the duty of any person to proceed diligently in complying with orders of the DEP.” (Section 3133)

Seasonal flow, Act 220, and the competing demands for limited water resources may make the amount of water available for power generation unreliable. Frequent power decreases and scrams show up as safety indicators and put stress on the nuclear generating stations. 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.

VI: Other Board Appeals:

The Appellant is aware of no Appeals now pending before the Board related to this matter. The information submitted is true and correct to the best of my information and belief.

WHEREFORE, for the reasons set forth in this Notice of Appeal, the Appellants respectfully request that the Environmental Hearing Board, after full opportunity for a hearing on the merits, reverse and set aside the Pennsylvania Department of Environmental Protection's Approval of Water Quality Certification under Section 401 of the Federal Clean Water Act for the Extended Power Uprate for Exelon Generation Company, LLC Peach Bottom Atomic Power Station; and, grant such other relief as justice requires.

By:

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Harrisburg , Pennsylvania
17112
Phone: (717)-541-1101

DATED: September 2, 2014

PROOF OF SERVICE

I, Eric Joseph Epstein, *Pro se* hereby certify that a copy of the attached Notice of Appeal was served on the following parties via hand delivery or overnight mail September 2, 2014 .

Service by First Class Mail:

Environmental Hearing Board,
Rachel Carson State Office Building Floor 2,
400 Market Street,
Harrisburg, PA 17105

Department of Environmental Protection
Office of Chief Counsel, Litigation Support Unit
Attention: Glenda Davidson, Esquire
9th Floor, Rachel Carson State Office Building
400 Market Street, PO Box 8464
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