Three Mile Island Alert Inc.'s Testimony
Re: Federal Register Volume 80, Number 76
(Tuesday, April 21, 2015) [Notices] [Pages 22231-22232]
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NUCLEAR REGULATORY COMMISSION

June 4, 2015

Bloomsburg, Pa.

NUREG-2179, "Draft Environmental Impact Statement (EIS) for Combined Licenses for Bell Bend Nuclear Power Plant." The draft EIS will be available on Regulations.gov under Docket ID NRC-2008-0603.

[Docket No. 52-039; NRC-2008-0603]

Bell Bend Nuclear Power Plant

Executive Summary:

Pennsylvania Power Light ("PPL") submitted the application on October 10, 2008, for the construction of a new reactor – the Bell Bend Nuclear Power Plant ("BBNPP") – on a site adjacent to the Susquehanna nuclear power plant, which the company also owns and operates. The proposal calls for the use of a single U.S. Evolutionary Power Reactor ("EPR") at the site. That design has not yet been approved by the Nuclear Regulatory Commission ("NRC").

On September 17, 2012, the NRC staff informed PPL that they did not have sufficient information for the draft EIS sections regarding consumptive water use. On November 28, 2012, and February 19, 2014, the NRC staff issued requests for additional information ("RAI") to PPL regarding consumptive water use and held an audit the week of March 17, 2014. After thorough review of PPL's response to the RAIs and supplemental information provided during and following the audit, the NRC and United Sates Army Corps of Engineers ("USACE") now agree that PPL has provided sufficient information to allow both agencies to proceed with the draft EIS.

The environmental review schedule has been principally impacted by technical challenges. There has not been a resolution to consumptive water use, surface water withdrawals or an approved plan for compensatory measures.

On April 24, the NRC and Army Corps, Baltimore District, issued the Draft Environmental Impact Statement ("DEIS.") The NRC staff's preliminary environmental recommendation is that a license for the new reactor could be issued. This recommendation is based on the application, including the environmental report submitted by the company; consultation with federal, state, tribal, and local agencies; the NRC review team's independent evaluations; the consideration of public comments; and the assessments summarized in the draft environmental report.

The NRC staff's preliminary environmental recommendation is that the license could be issued. The staff's conclusion is based on its its review of information in the application submitted by PPL Bell Bend. The review took into account consultations with other federal agencies.

The NRC and USAEC's conclusions are cursory, fatally flawed and reek of regulatory negligence. There is no approved reactor design. There is no approved consumptive water use permit. There is no money.

TMI-Alert will request a formal audit by the Government Accountability Office to determine if regulatory collusion and willful manipulation of data has taken place.

1) There is no approved reactor design.

The French-owned AREVA nuclear corporation has requested that the US Nuclear Regulatory Commission suspend indefinitely its design certification review of the US Evolutionary Power Reactor on February 25, 2015. Several US nuclear utilities have submitted applications for combined construction and operation licensing to the federal agency.

Despite receiving roughly $8 billion in federal loan guarantees from the US Department of Energy, Constellation bailed out of the financially dubious project in 2012 leaving EdF, France's state-run nuclear corporation as the sole entity in UniStar and in clear violation of the US Atomic Energy Act which prohibits foreign ownership, control and domination of US nuclear projects. Not one US utility stepped in to fill the vacant partnership with EdF. Instead, the NRC and US nuclear industry have gone into discussions to take a "fresh look" at the foreign ownership prohibition.

"UniStar, in the meantime has withdrawn its application to build the Nine Mile Point-3 EPR in upstate New York. Ameren has suspended its NRC application to build an EPR in Missouri. **PPL has likewise suspended its NRC application to build an EPR at Bell Bend, Pennsylvania.**"

"The AREVA announcement suspending the NRC design review process sows more doubt for French reactors in the US ever being constructed, given that a license cannot be issued without the agency approving design safety." (Source: Areva requests NRC to suspend US EPR design certification review The French-owned AREVA nuclear, NIRS, March 7, 2015.)

2) There is no water.

PPL has never completed the application for consumptive water use, surface water withdrawals or provided an approved plan for compensatory measures to the Susquehanna River Basin Commission ("SRBC"). PPL has submitted a *pro forma* sketch that lacks substance, technical specifications and is not remotely close to being in final format. In fact, during low flows, water would have to come from upstream. There is not enough water to accommodate another nuclear power plant.

Communities and ecosystems that depend on limited water resources are adversely affected by the SSES which draws 40 million of water a day and returns the back wash at elevated temperatures. As of May 26, 2015, the Department of Environmental Protection is maintaining a drought watch for 27 Pennsylvania counties — including Luzerne County. Yet PPL is exempted from water conservation efforts. Should nuclear power plants continue to be exempt from drought restrictions?

Consumptive water use, surface water withdrawals and an approved plan for compensatory measures have not been approved by the Susquehanna River Basin Commission.

3) There is no money.

PPL wants to build a new nuclear reactor, but needs a federal subsidy of $4.5 billion or 80% of the projected cost of the project. This "nuclear loan" is guaranteed by the U.S. Treasury (that is - taxpayers); and the real cost, based on overruns in Florida and Texas, is actually $10 billion! Which begs the obvious question: Why aren't the shareholders of one the "best managed" and "most profitable utilities" (*Forbes Magazine,* December, 2007) assuming the risk for a multibillion dollar slam dunk?

Please note that Georgia Power's Vogtle nuclear plant will likely be delayed even further — months beyond the three-year delay that project developers have already acknowledged. A report by staff and engineers to the Georgia Public Service Commission extended the deadline by two to three months to begin work on concrete walls and hoisting a section of the plant into place. Regulators estimate it will cost Georgia Power $2 million each day that it runs behind on the project's schedule. The first new reactor at the facility was slated to begin operations in April 2016, with another to follow a year after. Now, it will likely be sometime in 2019 and 2020 when those units come online. (Source: Utility.Drive.com. May 15, 2015).

PPL's operating nuclear plants were projected to cost $2.1 billion, but cost overruns resulted in a $4.10 billion price tag for rate payers. Don't be fooled again by the same people who brought you electricity "too cheap to meter."

1) The NRC and the U.S. Army Corps of Engineers should compel PPL to address, factor and analyze water use and site-specific aquatic challenges identified in Arnie Gundersen's Expert Testimony.

2) The NRC and the U.S. Army Corps of Engineers should compel PPL to address, factor and analyze water use and site-specific aquatic challenges identified in TMI-Alert's testimony.

3) The NRC and the U.S. Army Corps of Engineers should delay issuing a final Environmental Impact Study until the Susquehanna Basin River Commission approves PPL's applications for consumptive use, mitigating measures and surface water withdrawals.

I. Introduction.

I am Eric Epstein ("Epstein" or Mr. Epstein"), the Chairman of Three Mile Island Alert, Inc. ("TMIA). I am offering comments and testimony in opposition to the above mentioned Draft Environmental Impact Statement (DEIS").

II. Affected Interests.

Mr. Epstein has clearly defined interests at stake in the Application submitted by PPL Bell Bend, and actively pursued those interests at the Nuclear Regulatory Commission ("NRC") and the Susquehanna River Basin Commission ("SRBC"). TMI-Alert actively monitored the construction, licensing and operation of the Susquehanna Steam Electric ("SSES") Station since 1984.

TMI-Alert is a safe-energy organization based in Harrisburg, Pennsylvania and founded in 1977 with members throughout central and eastern Pennsylvania. TMIA monitors Peach Bottom, Susquehanna, and Three Mile Island nuclear generating stations. TMIA is the largest and oldest safe-energy group in central Pennsylvania.

TMIA has enjoys widespread public and political support in its role as a watchdog of nuclear power production. In the spring of 1987, TMIA was recognized by the Pennsylvania House of Representatives for 10 years of community service. The House, along with the City of Harrisburg, formally applauded TMIA's efforts on behalf of the community at their 20th and 25th anniversaries.

Mr. Epstein is the Chairman of TMI-Alert. He has served as either Spokesperson or Chairman of the organization since 1984.

Three Mile Island Alert membership has suffered through the 1979 meltdown at Three Mile Island Island Unit-2 and the forced shutdown of Peach Bottom Units 2 & 3 in 1987. TMIA's membership living with 50 miles of the the proposed Bell Bend Nuclear Generating Station ("BBNPP" or "Bell Bend") have immediate concerns relating to the plant's operation.

TMIA's membership have legitimate and historic concerns regarding radiological contamination resulting from radiological releases related to normal and abnormal operations that impact the value of its property, and interfere with the organization's rightful ability to conduct operations in an uninterrupted and undisturbed manner.

Mr. Epstein's participation may reasonably be expected to assist in developing a sound record. Epstein is well versed and an acknowledged nuclear expert, Aron careful review of the pleadings, we acknowledge Epstein's expertise in the areas of nuclear decommissioning, nuclear waste isolation, nuclear economics, nuclear safety, universal service, and community investment. (*See* Epstein Protest, para. 10." (1) Mr. Epstein's most recent advocacy on behalf of TMIA membership living within proximity of the Susquehanna Steam Electric Station ("SSES") was well established at the NRC between 2006-2009. (2)

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1 PA PUC Commission, Public Meeting held July 14, 2005, A-110550F0160 Joint Application of PECO Energy Company and Public Service Electric and Gas Company for Approval of the Merger of Public Service Enterprise Group Incorporated with and into Exelon Corporation.

2 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.

TMIA's history and mission are germane and important to this proceeding. Many TMI-Alert members live are subject to radiological contamination, evacuation, loss of property, or other harms in the event of any mishap at the plant. *Id.* Members also use, recreate, fish and enjoy the segment of the Susquehanna River adjacent and below the the proposed site. (3)

III. Background

PPL Bell Bend failed to factor, consider and address numerous water use and site-specific aquatic challenges to the Susquehanna River and its environs if this Application is approved. The Applicant did not adequately consider the additional impact another nuclear power plant will have on environment, habitat and ecosystem.

A sample of the magnitude of the amount of water used at nuclear power plants is readily evidenced at PPL's Susquehanna Steam Electric Station located on the Susquehanna River in Luzerne County. The plant draws 0.86 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.

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3 An organization has standing to sue on behalf of its members when a member would have standing to sue in his or her own right, the interests at issue are germane to the organization's purpose, and participation of the individual is not necessary to the claim or requested relief." *Hunt v. Washington State Apple Advertising Cornrnn,* 432 U.S. 333, 343 (1977).

The proposed PPL Bell Bend nuclear power plant will be one of the largest nuclear reactors in the world. "Due to its sheer size and because it also has a lower thermodynamic efficiency (discussed in detail below), Bell Bend will draw an inordinately large amount of water from the Susquehanna River in order to cool the reactor. The amount of water anticipated for use by the PPL proposed Bell Bend nuclear power plant is detailed in a recent report written by Normandeau Associates, paid for by PPL, and submitted to the Susquehanna River Basin Commission. (4)

Recent and consistent droughts in Pennsylvania (2002) as well as flooding (2006) have forced state and regulatory bodies to reexamine water as a commodity in the Commonwealth of Pennsylvania.

The SRBC Drought Management Information Sheet 5, droughts and low-water flow demonstrates that regular that droughts occur in the region. occurred quite recently, with droughts occurring every decade except the 1970s.

Mr. Gundersen sated, "One of the considerations for review is plant reliability, and the potential for drought would reduce the reliability of the plant during the middle of the summer exactly at the time the area's need is greatest."

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4 Expert Witness Report of Arnold Gundersen, Re: Bell Bend Nuclear Power Plant Application for Groundwater Withdrawal Application for Consumptive Use, BNP-2009-073, Susquehanna River Basin Commission, January 5, 2010.

"Like floods, the magnitude of drought events can be categorized based on historical frequency, i.e., 5-year droughts, 10-year droughts, 50-yea droughts, etc. (The higher numbers indicate more severe, and less frequent, droughts.) Droughts can affect the entire basin or cause localized water shortages."

"Since the beginning of the 1900s, the basin has experienced droughts in every decade except the 1970s. The worst droughts occurred in 1930, 1939 and 1964. During the 1990s through mid-2000s, periodic low flows throughout the basin or in regions resulted in frequent droughts, including 1991, 1995, 1997, 1998, 1999, 2000, 2002 and 2006." (5)

In addition, a number of infestations, specifically Asiatic clams and Zebra mussels, have required power plants to prepare plans to defeat these aquatic invasions.

The Applicant did not address water quality, water use, aquatic communities, groundwater use, entrainment and impingement, and impact microbiologic organisms throughout the license application, but offered only cursory and superficial data, and failed to address numerous issues that could adversely impact the area surrounding the the proposed plant.

5 Gundersen, p. 16.

Nuclear power plants require large amounts of water for cooling purposes. PPL's Susquehanna Electric Steam Station power plant already removes large amounts water from the Susquehanna River. Animals and people who depend on these aquatic resources will also be affected Refer to Charts A-1 and A-2). PPL's Application will further place pressure on limited water resources. Freshwater withdrawals by Americans increased by 8% from 1995-2000, and Americans per capita water withdrawal is three times above the international average. (6)

Millions of fish (game and consumable), fish eggs, shellfish and other organisms are sucked out of the Susquehanna River and killed by nuclear power plants annually. Now large water consumers, including PPL, are compelled to invetorize mortality rates and identify species of aquatic life affected by water intakes. It is hard to know just what the impact on fisheries is, because cool water intakes have been under the radar screen compared to some types of pollution, said Pennsylvania Fish and Boat Commission aquatics resources chief Leroy Young. (7) But any time you have a man-induced impact on top of what nature is doing, you're affecting the ecosystem, Young said.

6 "U.S. National Report on Population and the Environment" (2006) published by the Center for Environment and Population, a nonprofit corporation based in Connecticut.

7 Ad Crable, *Intelligencer Journal*, January 15, 2005.

PPL Bell Bend has not disclosed or quantified the how many fish (game and consumable), fish eggs, shellfish will be killed annually if this Application is approved. Is the Corps in possession of this data? Has it been made available to the public for review? Has the Corps established "acceptable levels" of fish kills? If so, where can that data be found? What impact will the Application have on shad ladders? What impact will this Application have on sport and commercial fishing?

On July 9, 2004, the Environmental Protection Agency (EPA) issued the Final Phase II rule implementing Section 316 (b) of the Clean Water Act: The first national standards for reducing fish kills at existing plants. "The rule established requirements for reducing adverse environmental impacts from the entrainment and impingement of aquatic organisms living near power plants."

What will the Corp's compliance reporting requirements be in regard to onsite 316 (a) and 316 (b) monitoring? Where will the results be published? Has the Corps and EPA executed a MOU? What will the Corps compliance reporting requirements be in regard to off site tritium monitoring? Where will the results be published?

It is not uncommon for the plants 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. Will the water be treated with chemicals? How does PPL plan to defeat Asiatic clam and/or Zebra mussel infestations? (8)

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8 In February 1986, one celled organisms believed to be fungus, bacteria and algae like creatures were discovered at Three Mile Island. These creatures obscured the view of the reactor core and impeded the defueling of the damaged reactor.

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...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, (Pa DEP, Update, July 16, 2004.)

How does PPL plan to defeat Asiatic clam and/or Zebra mussel infestations?

Nuclear plants use millions of gallons daily for coolant and to perform normal industrial applications. There are five nuclear generation units on the Susquehanna River. Two plants, with three units, are located on the Lower Susquehanna, and have the capacity to draw in as much as half the flow of a River in a day. Bell Bend will increase the pressure on the River's resources.

In its application to the SRBC, PPL has requested approval for consumptive use of up to 31 mgd as a measure of conservatism and to account for variability within the range of monitoring accuracy required by SRBC.

"As a result, the PPL proposed Bell Bend nuclear power plant will withdraw at least 15,000,000,000 (15 billion) gallons of water from the Susquehanna River every year."

"Consequently, each year the 4,000,000,000 (4 billion) gallons of water that will be returned to the river will have been heated and will contain additional chemical contaminants discussed below."

"The difference between what is withdrawn from and what is returned to the Susquehanna River each year will be *consumed* by the PPL proposed Bell Bend nuclear power plant, and as a result, this consumptive use of water amounts to 11,000,000,000 (11 billion) gallons per year."

"The 11,000,000,000 (11 billion) gallons of water withdrawn each year from the Susquehanna River will be emitted as water vapor from the proposed cooling towers."

It is hard to visualize exactly how much 11,000,000,000 (11 billion) gallons of water per year would be. To put the *consumed* water into a visual perspective, the 11 billion gallons of water would fill the equivalent of 50-football fields 500-hundred feet high with river water."

"Subsequently, in addition to the environmental burden of 4 billion gallons of heated and chemically contaminated water that will be dumped into the River each year, the Susquehanna River Basin and the Chesapeake Bay will face an enormous yearly consumption of Susquehanna River Water that will be withdrawn and never returned." (9)

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9 Gundersen, p. 4.

How will the Corps account for the loss of water? How will the Corps track the chemicals dispersion and maintain a "chain of custody?" How often will the Corps test for differential water temperatures?

"Because both the hyperbolic tower and the forced draft tower evaporate water, as discussed in detail in the previous section, some river water must still be used to cool the power plant. *Make-up water* is the term used to describe the water used to replace the evaporated water."

"All hyperbolic or forced-air cooling towers also create dirty water called ***blow down water*** that is returned back to the river with contaminants concentrated within it. ***Make-up*** water is also used to replace ***blow down*** water."

"The dirty water released from the cooling towers back into the Susquehanna River as ***blow down*** will be approximately 25% of the amount of water that is withdrawn. For every four gallons the plant withdraws, it sends back one gallon of ***blow down.***"

The blow down is a pollutant for three reasons:

"Three out of every four gallons of withdrawn evaporate water (consumptive use water) that will be initially drawn from the Susquehanna River will be returned to the river as blow down with four times more concentration of pollutants and minerals than when that water was withdrawn." (10)

Note: Bold face type added.

10 Gundersen, p. 10

"In addition to concentrating contaminants and minerals that already existed in the river, the blow down contains biocides and algaecides used within the cooling towers to prevent them from becoming clogged with mold and mildew."

"Along with chemical contamination and highly concentrated minerals, the dirty blow down water will be approximately 20 degrees hotter than the river water to which it is being returned."

"The PPL proposed Bell Bend nuclear power plant will use about 1% of the flow in the Susquehanna River for its ***make-up*** water due to evaporation."

"Whereas, in an air-cooled condenser design, the steam that leaves the turbine passes directly to a dry cooling tower thus using no river water. The air-cooled condenser sits at the base of a dry cooling tower." (11)

Water quality, fish kills, thermal inversion and effluent discharges, need to be included and factored into the Bell Bend Application.

Water shortages on the Lower Susquehanna reached critical levels in the summer of 2002. During the 2002 drought, the SSES was exempted from water conservation efforts. For the month of August 2002, 66 of 67 Pennsylvania counties had below normal precipitation levels. (12)

Note: Bold face type added.

11 Gundersen, p. 10

12 Pennsylvania Department of Environmental Protection, *Drought Report* and *Drought Conditions Summary*, August-September, 2002).

The U.S. Geological Survey stated that "...changes in evaporation and transpiration during a drought depend on the availability of moisture at the onset of a drought and the severity and duration of a drought. Also, weather conditions during a drought commonly include below-normal cloud cover and humidity and above-normal wind speed. These factors will increase the rate of evaporation from open bodies of water and from the soil surface, if soil moisture is available."

Gundersen observed, "One of the considerations for review is plant reliability, and the potential for drought would reduce the reliability of the plant during the middle of the summer exactly at the time the area's need is greatest." (13)

What actions will Bell Bend take to curb water use during periods of conservation and/or drought?

IV. Gundersen Testimony Relating to Impact K, M and O.

Enclosed please find the Testimony and Vitae of Arnold Gundersen.

Mr. Gundersen's Testimony speaks to the negative impacts embedded in the current DEIS as outlined in Re: PPL Bend Nuclear Power Plant's Application Number NAB 20008-01401-P13 (Bell Bend Nuclear Power Plant) Before the U.S. Army Corps of Engineers

* Impact K (See Discussion on pp. 3, 4 & 15).

* Impact M (See Discussion on pp. 10, 15 & 22).

* Impact O (See Discussion on pp. 10, 15 & 22).

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13 Gundersen, p.16

V. On Site Alternatives

"In conclusion, air-cooled condensers could be successfully integrated into the PPL Bell Bend project design and the use of such air-cooled condensers would completely eliminate the need for the PPL Bell Bend nuclear power plants to have such a projected massive consumptive water use from the Susquehanna River.

"However, the proposal presently in front of the Susquehanna Basin River Commission never discusses this viable alternative. Moreover, it is critical that the substitution of an air-cooled condenser and air-cooled cooling towers receive adequate analysis now, prior to final design and preliminary construction, as it is impossible to adapt the plant to the use of air-cooled condensers after the construction process is initiated." (14)

14 Gundersen, pp. 18 & 22.

VI. Compensatory Measures and Alternatives Fall Under the Purview of the SRBC.

It is clear black letter law that issues relating to"Compensatory Measures" in the PPL's Application fall Under the unambiguous purview of the SRBC.

> "18 CFR § 803.42 H) Other alternatives. (2) Alternatives to compensation may be appropriate such as discontinuance of that part of the project's operation that consumes water, imposition of conservation measures, utilization of an alternative source that is unaffected by the compensation requirement, or a monetary payment to the commission in an amount to be determined by the commission from time- to-time.

In Fact the SRBC explicitly told the NRC and USACE of Engineers during the Scoping Process that PPL would need approval for water withdrawal, consumptive use and mitigating strategies"

> Water Withdrawal. In accordance with the standard contained in SRBC regulations, the surface water withdrawal and the groundwater withdrawal may not cause significant adverse impacts to the water resources of the basin. In its evaluation, SRBC staff may consider effects on stream flows and other users; water quality degradation that may be injurious to any existing or potential water use; effects on fish, wildlife, or other living resources or their habitat; and effects on low flows of perennial or intermittent streams. SRBC staff also considers the reasonable foreseeable water needs of a project. SRBC staff evaluates each proposed withdrawal to determine the need for a protective passby flow condition, which restricts the ability to take water during low flow conditions. SRBC staff undertakes that evaluation using criteria that are applicable to all surface water and groundwater withdrawals influencing surface water. This protocol,

adopted in 2003, enables SRBC to evaluate the impact of the withdrawal and involves looking both upstream and downstream to assess cumulative impact, taking into account all other withdrawals and discharges and their impacts on the resource, particularly during low flow periods...Because a passby flow is the "trigger" for projects to cease their withdrawal during low flows, upstream storage is typically necessary for projects pursuing non-interruptible withdrawals to allow continued operations during all flow conditions. Should SRBC determine that the requested surface water withdrawal cannot be approved without a passby condition, PPL would need to provide for water storage upstream of BBNPP to assure that all sections of the Susquehanna River are protected during periods of low flow." (**0004-3** [Richenderfer, James])

"Consumptive Water Use. Consumptive use is defined by SRBC as the loss of water withdrawn from the basin through a process by which the water is not returned to the waters of the basin undiminished in quantity including, but not limited to, evaporation, transpiration by vegetation, incorporation in products during their manufacture, injection into a subsurface formation, and diversion out of basin. In accordance with SRBC regulations, PPL must propose (and the SRBC commissioners must approve) mitigation for its requested consumptive water use of 28 mgd. SRBC staff finds appropriate mitigation for consumptive use by a new facility of this magnitude and at this location must be in the form of compensatory water or discontinuance of use during designated low flow periods rather than payment of the mitigation fee.

PPL is proposing an innovative approach of pooling its various water storage "assets" to meet its consumptive use mitigation requirements at several existing projects within the basin and at the proposed BBNPP facility. This approach was presented to the commissioners in the form of a general concept and not a specific plan on June 23, 2011. PPL refers to the plan as the Stored Asset Plan (SAP). PPL has not made a formal submission to the SRBC of the SAP; however, applications for several assets within the SAP have been submitted for review. The U.S. Nuclear Regulatory Commission (NRC) and

other appropriate agencies will be on the distribution list for relevant correspondence pertaining to the SAP. Some of the details required in the plan include a list of specific water supply assets located upstream of BBNPP that are being considered as part of the SAP proposal, including the proposed amount of mitigation and Page 10 of 38 expected licensing/permitting or contractual actions for each asset. In addition to sources of storage being identified, all necessary agreements among the different entities, both within the PPL corporate structure and any other project sponsors or owners of assets, must be resolved prior to approval of an asse into the SAP. As a separate action from the BBNPP applications, SRBC staff will make a recommendation to the commissioners regarding acceptance, modification, or rejection of the consumptive use mitigation plan. (**0004-1** [Richenderfer, James]) (15)

The SRBC has suspended review of PPL's applications.

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15 Tomeka L. Terry, Project Manager/**RA**/ Environmental Projects Branch Division of New Reactor Licensing Office of New Reactors SUBJECT : SCOPING SUMMARY REPORT RELATED TO THE ENVIRONMENTAL SCOPING PROCESS FOR THE BELL BEND NUCLEAR POWER PLANT COMBINED LICENSE APPLICATION, April 21, 2014, pp. 10-11

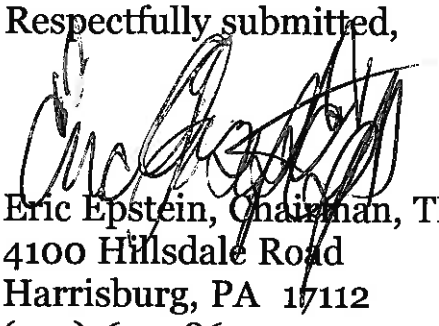
VII. Remedies:

1) The NRC and the U.S. Army Corps of Engineers should compel PPL to address, factor and analyze water use and site-specific aquatic challenges identified in Arnie Gundersen's Expert Testimony.

2) The NRC and the U.S. Army Corps of Engineers should compel PPL to address, factor and analyze water use and site-specific aquatic challenges identified in TMI-Alert's testimony.

3) The NRC and the U.S. Army Corps of Engineers should delay issuing a final Environmental Impact Study until the Susquehanna Basin River Commission approves PPL's applications for consumptive use, mitigating measures and surface water withdrawals.

Respectfully submitted,



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Enclosures:

- **Expert Testimony of Arnie Gundersen**
- **Testimony of TMI-Alert.**