

Comments for NRC Hearing on April 16, 2008

Good evening. My name is Betty Black. I am speaking this evening as a representative of the Piedmont Group of the Sierra Club, which has over 1200 members residing in central Virginia.

The Sierra Club is opposed to the construction of a new reactor at the North Anna Power Station. We believe that the on-site storage of radioactive waste poses unreasonable environmental and security risks for the people of Virginia. Building new reactors will increase these risks and leave our children and grandchildren with a horrible burden.

The North Anna Power Station already threatens the water resources of this region:

- Water temperatures have reached as high as 106 degrees F in the Lake Anna cooling lagoons and 93 degrees in the main lake. There are no limits on these water temperatures.
- The human brain eating Naegleria Fowleri Amoeba was found in both the main reservoir and the cooling lagoons. This same amoeba caused 6 deaths in Florida, Texas, & Arizona last summer. It proliferates in water around 86 and thrives especially well at 95 and above.
- PCBs have been found in Lake Anna resulting in a fish consumption advisory by the State Health Commissioner.
- A major clam die-off occurred last year, but no study has been conducted by a certified malacologist to determine the health of the mussels and clams in Lake Anna.

Lake Anna is the smallest body of water in the eastern United States that provides water for cooling a nuclear power plant. The two operating reactors are putting a tremendous strain on the water resources of central Virginia, particularly during times of draught. Additional reactors will threaten the water that Virginians use for drinking, agriculture, and recreation. They will put increasing pressure on the ecosystem of the York River Watershed.

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We support the legal appeal that has been filed in state court by the Blue Ridge Environmental Defense League and the People's Alliance for Clean Energy. Permits for new reactors should not be considered until this issue has been resolved.

The NRC should take the advice of the governing bodies of the City of Charlottesville and Spotsylvania County when they passed resolutions calling for a moratorium on the construction of any new reactors.

Thank you for listening to my comments.

Betty Black  
125 Turtle Creek Rd #11  
Charlottesville VA 22901

Do not mail  
documents.

**Presentation to U.S. Nuclear Regulatory Commission  
Dominion 3<sup>rd</sup> Reactor Public Scoping Meeting  
April 16, 2008**

**Representatives of the US Nuclear Regulatory Commission; Ladies and Gentlemen,**

**1. Introduction.** I am Doug Smith. I am a resident of Louisa County and own property on the Lake Anna waterfront. I am Vice President of the Lake Anna Civic Association and Chair of their Lake Level Committee. The purpose of LACA is to preserve Lake Anna and its watershed as a safe, clean, and beautiful resource. We promote water safety, monitor water quality, and advocate the interests of residents and users of Lake Anna.

LACA supports the proposed third unit at Lake Anna. We believe it is good for the community, the State of Virginia, and the country. The new unit will bring 750 new jobs into the local area. It will bring additional tax revenues to the State and local coffers and will reduce the dependence on foreign oil by generating enough power to supply 375,000 homes.

**2. Concerns.** We applaud the NRC in its review of the environmental impacts as part of the Early Site Permit process. However, we have concerns about the impact of the construction and operation of the third unit that we would like NRC to focus on in their development of a new Environmental Impact Statement for the Combined Operating License. We also believe there is new information that has been developed that will enable NRC to refine estimates of impacts.

**a. Plans for Disposal of Treated Sewage.** In order to support the operation of a new unit and the 750 workers hired to operate and maintain it, Dominion plans to build a second waste treatment plant to locally process human and other waste. The treated effluent of that plant, like the effluent from the existing waste treatment facility, would be dumped into Lake Anna at the discharge canal. Lake Anna is not a free flowing stream. The added nutrients from the effluent will remain in the lake and accumulate over years. The buildup of nitrates can produce algae blooms that produce fish kills and encourage plant growth such as hydrilla that can choke entire bays.

An alternative system that would store the effluent and use it to water grass or wooded areas is available. It is currently in place in the town of Louisa and is planned for the golf community called Cutalong on Lake Anna. The ESP EIS listed impact on water quality as "unresolved" due to the lack of information about the impact of these other waste streams flowing into the WHTF (Sec 5.3). We ask the NRC to review the cumulative impact of dumping sewage effluent into Lake Anna. We would like for Dominion to consider an alternative method and include the existing sewage treatment facility effluent so that no effluent is dumped into the lake at all.

**b. Impact on water levels in summer months on the lake.** Low water levels on Lake Anna expose safety hazards to the thousands of recreational users of the Lake, create increased erosion along the entire shoreline, and damage wetlands and other aquatic life. Every effort to mitigate these impacts should be carefully considered. We would like the NRC to focus its attention in the COL Environmental Impact Statement on the impact of low water levels on the Lake, its users, and its ecosystems.

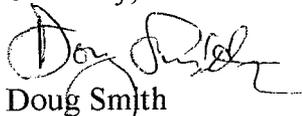
The third unit will consume 16 million gallons per day even while running in water conservation mode, resulting in the loss of up to 1.4 inches of lake level per month. If the third unit were operating this past year the lake would now be 15 inches lower. Its low point last fall would have been an additional 9 inches - about 4 feet below normal. The existing environmental impact statement assumes one drought every 20 years. We have had two official droughts and reached drought conditions of 248 feet on the lake in 5 of the last 8 years. The ESP EIS estimates that wetlands impact is small because as much wetland is created as is destroyed, but is silent about the impact of what appears to be an almost annual reduction to the 248' level. We ask the NRC to review the water level modeling done in the ESP EIS to incorporate actual data and do further analysis of deviations from averages. Annual averages do not give accurate indications of summer lake level impacts and 20 year averages have not been consistent with actual experience.

Additionally, inflow assumptions have not been field verified and should be reviewed. In dry weather conditions, the already small Lake Anna watershed is significantly reduced by the impoundments caused by Lake Louisa, Lake Orange, and the hundreds of farm ponds and small lakes that impede the transmittal of water to the Lake. Dominion has developed new data including actual surveys of a portion of the wetlands on the Lake. We ask the NRC to carefully review and use this new data to determine if it alters its earlier impact assessments. Additional steps can and should be taken to mitigate low water level impact on safety, erosion and ecosystems on the Lake.

### **3. Summary**

The lake Anna Civic Association supports the third unit, but, we have concerns that should be addressed in the Environmental Impact Statement. We are concerned about the dumping of sewage effluent into the lake and the impact of low water conditions on safety, erosion, and aquatic life. We encourage the consideration of a new alternative to preclude the dumping of effluent. We are concerned about the impact of low water levels. We believe new information is available to better estimate low water level impacts and that there are steps that can be taken to mitigate those impacts. We urge the NRC to focus its new efforts particularly on the modeling and assumptions made in the estimates on water levels, further analysis of impacts on the lake, and potential mitigation efforts.

Sincerely,



Doug Smith

Lake Anna Civic Association

PO Box 217

Mineral, VA 23117 Phone 540-894-9094

**Statement for the U. S. NRC Third North Anna Reactor Scoping Meeting  
April 16, 2008.**

**By William M. Murphey  
Lake Anna Civic Association, LACA**

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murphey2nd@AOL.com**

**I am Bill Murphey. I am a resident of Louisa County. My house is on the Lake Anna Waterfront. I am a member of the Board of the Lake Anna Civic Association, LACA. LACA has more than 850 family Members from around the Lake. I am also on the Board of the Windwood Coves Property Owners Association which has 260 members.**

**LACA supports the proposed third unit at North Anna. We believe it is good for the community, good for the state of Virginia, and good for the Nation.**

**This statement is directed towards all the many stake holders related to Lake Anna and the third unit as well as the NRC.**

**In light of the NRC concern with the environmental impact of the third unit, these requests are to reduce the environmental impact of the construction and operation of the third unit. We want to improve the conservation of the quantity and quality of water in Lake Anna.**

**The watershed of the lake is quite small compared to the uses desired.**

**A major problem for improvement of he conservation and use of Lake water is that there are so many independent entities that have power over any change.\***

**LACA is appealing to all these entities to modify their positions so all of us can benefit from improved conservation and water use.**

**We ask that all the relevant entities agree to and that the NRC actively encourage the following changes.**

**1. We ask that the “seasonally adjusted” level of the Lake to be increased to 250 feet 3 inches above MSL (mean seal level).**

**- This will conserve water for use during low water times.**

**2. We ask that Dominion Resources, Louisa County, Fluvanna County, and the James River Authority all cooperate to enlarge the James River-Zions Cross Road water pipe (to about 60 MGD) and extend the pipe through the town of Louisa to the North Anna Power Plant to permit the use of James River waster for make-up water for the third unit.**

**- Louisa will be able to meet their obvious future water needs.**

**- Dominion will save the cost of running the air cooling units.**

**- Dominion will have Louisa County and the NRC assistance to solve the permitting and right of way problems.**

**- Louisa will have Dominion assistance in the cost of the water line.**

**- Lake water will be conserved and the lake level will be maintained.**

**- Louisa County will not be tempted to think that there is sufficient lake water for County withdrawals.**

**- I also note in passing that this amount of water (60 MGD) makes the fourth Dominion unit possible. At 10% profit on a 3 billion dollar investment that is 300 million dollars profit per year. That’s an incentive.**

**3. We ask that the dam release requirement be reduced to 20 cfs at a Lake level of 250 feet 3 inches.**

**- The below dam inflow study will show that the contribution of the Lake is not essential to the downstream user needs.**

**- This change will conserve water for dry time use.**

**4. We ask that the NRC review the estimates of water inflow to the Lake in relation to the uses proposed for the third unit.**

**- This review is in light of what appears to be a climate change in the amount of rainfall. The change in rainfall is shown by the occurrence**

two 20 year droughts in the past 5 years and by the fact that the Lake release has had to be reduced to the 20cfs rate 5 times in the past 8 years.

5. We ask the NRC to actively work with the other entities to achieve improved water conservation and use. We ask specifically for NRC support to obtain third unit make-up water from the James River.

A problem with Lake water quality is caused by the discharge of sewage plant effluent into the Lake. We understand that as part of the third unit, Dominion is planning to build an additional sewage treatment plant. They plan to discharge more sewage effluent into the Lake. This is environmentally bad. There is so little inflow to the Lake and thus so little flow-through. The small flow-through means that the sewage effluent accumulated over time to unacceptable levels.

6. We request that there be no discharge of sewage effluent into the Lake. We request that Dominion follow the example of the Cutalong Project and use the sewage effluent as irrigation water or holding pond water on their own site. We request that the NRC support this reduction in environmental impact of the third unit.

We can provide more detailed arguments in support of the requests and will do so in our Lake Level Committee report due out in June 2008.

Thank you for your attention and assistance.

**\* Dominion Resources**

**Virginia DEQ**

**Virginia DGIF**

**Virginia DCR**

**Bear Island Paper Company**

**Engel Farms Inc.**

**Pamunkey Indian Tribal Government**

**James River Authority**

**Hanover County**

**Henrico County**

**Caroline County**

**Orange County**

**Fiver Lake Anna Citizens Groups**

NRC Public Meeting Re: Revisiting the EIS (Environmental Impact Statement)

April 16, 2008

Louisa County High School

6pm – 10pm

#### COMMENTS:

My name is Barbara Crawford and I live here in Louisa County, approximately 6 miles from the North Anna Nuclear Power Plant.

Based on my analysis, it is clear to me that the EIS which was prepared as part of the Early Site Permit (ESP) process needs to be re-visited because there have been significant changes and there are critical issues that were not considered or were dismissed as not relevant:

1. On-site storage of spent fuel rods

The EIS presumes that there will be a Federal Repository somewhere in this country to receive this very dangerous nuclear waste. In fact, as you all know, Yucca Mountain may well **never** open and therefore the new EIS needs to study the health and safety ramifications of what will be permanent and long-term storage at North Anna for all three reactors.

2. Mass Evacuation Plan

The EIS is silent concerning the evacuation of the public in the event of an accident or terror attack on the plant, the pools of spent fuel rods or the Lake Anna Dam, any of which could result in the release of dangerous amounts of radiation.

The citizens of Louisa County as well as all of the surrounding counties are entitled to know about and participate in the plans for a mass evacuation of this area. The plan should be evaluated as part of the new EIS.

3. Central VA and especially Louisa County is notoriously drought-prone and water-poor and Lake Anna is already struggling to sustain Reactors 1&2 and protect those who live, work and recreate on and around the lake.

Dominion based its location of the power plant on the assumption that there would be a drought every 20 years or so. In fact we have had 3 major droughts in the past 9 years! We are currently experiencing a drought that began last May and shows no signs of abating. There are predictions from the weather experts that this drought will continue through this spring and summer.

Lake Anna's lake level has dropped in excess of 2 feet in 5 of the past 8 years. This fact alone suggests that the EIS needs to be revisited. The NRC needs to stop passing the buck to the state of Virginia and ignoring the water crisis.

The previous EIS gave this issue short shrift, stating that it's Virginia's problem and that our DEQ (Dept of Environmental Quality) can simply order Dominion to shut down one or more reactors in the event of low water! Does it make sense to build yet another reactor? What are the chances that all 3 reactors will even be able to operate at the same time?

4. The proposed 3<sup>rd</sup> reactor **will** contribute to further low levels at the lake, contrary to Dominion's statements that the hybrid cooling system will not use additional water. According to Dominion's own numbers, the proposed cooling system will cause up to 24 million gallons of water to evaporate every day.

Again, given that Lake Anna is struggling to sustain 2 reactors and that the ongoing low water levels are causing a myriad of problems for the people who live and work at the lake as well as the many people of the county and beyond who use Lake Anna for boating, fishing, swimming, etc., does it really make sense to build another reactor there?

The previous EIS looked at the 3 counties bordering the lake, plus Henrico County and the City of Richmond. Considering that the water that flows over the dam goes into Hanover County and that Hanover County is dependant on that water for sewage treatment plants, private businesses such as Big Bear Paper Co. and Kings' Dominion, and the health and recreation uses of the North Anna and Pamunkey Rivers, I would argue that the new EIS should take a close and hard look at the impacts on that county. The LLCPP or Lake Level Contingency Plan is a fragile and contentious balance between Louisa County and Hanover County and reflects the competing needs for water.

5. It is important to remember that the lake was not just built for Dominion to use to cool its power plant. The enabling legislation set forth very clearly that Lake Anna was also created as a recreational lake for the public to enjoy. One use is no more important than the other. And one use, e.g. cooling the reactors, cannot be allowed to destroy the lake's recreational use.

You will hear from others tonight about the serious problems being encountered right now on the lake because of the low lake levels.

It is important to bear in mind that when Lake Anna was created, neither Dominion nor any governmental body, whether federal, state or local, in any way discouraged the public from purchasing land and building homes around the lake. I would argue that there therefore exists a responsibility to those homeowners to protect them from adverse impacts of the power station.

6. The previous EIS stated that there were no new or anticipated residential, business or commercial demands on the watershed near the plant.

This is incorrect. It was known, or should have been known based on documentation submitted to you, that there are 3 significant residential developments in the works, including Cutalong which is building a golf course that will require significant water withdrawals from Contrary Creek, one of the feeder streams for the power plant. Note that the DEQ has recommended this permit be granted.

In addition, there are at least 3 businesses, that I know of, near the plant that require significant water use: Argonaut, Martin Marietta, and a shopping center with supermarket at Cutalong, all of which require water in order to operate.

Again, the new EIS needs to look closely at these competing demands for water in an area that has very little of it. The new EIS needs to reevaluate the availability of water for a 3<sup>rd</sup> reactor.

7. The IFIM Study will be completed in June and should be studied and analyzed as a part of the new EIS.

Dominion has been directed to conduct a scientific study called the Instream Flow Incremental Methodology study. DEQ, DGIF and DCR are providing input and supervision. This study looks at both Lake Anna and the downstream rivers (North Anna and Pamunkey) and will provide much guidance and valuable information which needs to be evaluated before a COLA can be granted.

8. The previous EIS calls the impacts of building a new reactor on Louisa County's infrastructure "small". This is absurd and must be revisited as part of the new EIS.

This is not a wealthy county. Our schools will be overwhelmed and unable to serve the children of the estimated 5000 workers who would be employed for a

period of five years to build the 3<sup>rd</sup> reactor, in addition to the 850 people who work there now and the special crews that come to North Anna for the intermittent outages.

Our roads are narrow, winding, 2-lane and unable to handle the new traffic. The construction equipment and materials would be heavy and damaging. Dominion has been directed to conduct a Traffic Impact Analysis. Have they done this? The results should be made available to the public. The new EIS should evaluate the results and set forth exactly what improvements Dominion will be expected to make.

9. Last November the NRC held a public meeting here at which time you informed us that you had sent our Potassium Iodide pills to the VA Dept of Health. That apparently satisfies your obligation to protect us. BUT, you should know that we have **not** received our pills! You may want to re-evaluate your methods of delivering this important safety measure.
  
10. Last but not least, Global Warming must be considered as part of the new EIS. We are seeing evidence that the effects are taking place much more quickly than previously thought.

We have heard the scientists employed by the current administration testify before Congress that they have been muzzled by the Bush administration for the past 8 years, their reports redacted and their speaking engagements curtailed.

Today, even President Bush talked about Global Warming and reducing greenhouse gas emissions by 2012. Of course it should be noted that he is about to leave office and the burden of making up for his failure to deal seriously with this issue will fall upon the new president.

Accordingly, I urge the Nuclear Regulatory Commission to revisit the EIS that was prepared as part of the ESP process for all of the reasons that I have outlined in this statement.

Respectfully Submitted,

Barbara J. Crawford  
139 Cedar Hill Trail  
Mineral, VA 23117

## NRC 3<sup>rd</sup> Reactor Public Meeting April 16<sup>th</sup> 2008

As you are well aware Virginia has been in drought conditions. This has been true at Lake Anna where water levels have been down from 2 to 5 feet in 5 of the the past 8 years(3.5 ft this year). The majority of docks at Lake Anna only have 3 ft of water. When water levels are down 2 ft the lake becomes unusable for the majority of homeowners. Dominion is now proposing Unit 3 which per their documentation will double the drought cycle and increase its length from 21 to 40 days (of course this occurs when the lake is most used in the summer months) , (up to 24 million gallons a day will be extracted from the Lake). Dominion (Veeco) was allowed to build there reactors as long as the lakes provide recreation, their proposed design will limit that significantly. Other impacts are unsafe water conditions which occur at low water levels, boating hazards, shoreline stabilization issues, impact to wetlands and impacts to business and home values. These issues have fallen on deaf ears. The solution is simple although it may cost more it will insure Lake Anna continues to be a major state attraction. Dominion has proposed dry cooling for a potential Unit 4, If this was used for Unit 3 also then these major issues go away. This type of cooling is used in other countries why not here. We cannot control Mother Nature but we can control what we do to the lake. Your support in insuring that these issues receive due consideration before it is too late is requested.

George and Gerry Heino  
4029 Moody Town Rd  
Bumpass Va 23024

*[Final Draft]*

**RESOLUTION COMMITTING THE CITY OF CHARLOTTESVILLE TO THE PURCHASE AND PROMOTION OF CLEAN ENERGY ALTERNATIVES**

**WHEREAS**, the City of Charlottesville has demonstrated its commitment to addressing the critical challenges of climate change and increased dependence on non-renewable, polluting energy sources by, among other actions:

- Implementing an Environmental Management System since 2003 with goals of compliance, pollution prevention, environmental improvement, and sustainability;
- Pursuing and promoting energy conservation and efficiency in City operations, resulting in substantial cost savings to City government and City schools;
- Signing on to the U.S. Mayors Climate Protection Agreement in 2006; and,
- Adopting a resolution endorsing the development of renewable energy resources, including wind turbines, in Virginia in 2007; and

**WHEREAS**, the U.S. Mayors Climate Protection Agreement specifically commits signatories to:

- reduce global warming pollution;
- increase the use of clean, alternative energy;
- advocate for the development of renewable energy resources;
- make energy efficiency a priority in municipal operations; and,
- “help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution”;

**NOW, THEREFORE, BE IT RESOLVED** that the City of Charlottesville shall:

1. Express to the Virginia Energy Purchasing Governmental Association (VEPGA)/Dominion Virginia Power its interest in purchasing electricity from renewable energy sources generally, and from the Highland New Wind project specifically; and,
2. Explore creation of a municipal aggregation program to demonstrate community demand for renewable energy alternatives; and,
3. Explore creative options for development of local Renewable Energy Generation Projects (defined by Dominion Virginia Power, which seeks to partner in the development of such projects, as “energy projects derived from sunlight, wind, falling water, sustainable biomass, energy from waste, wave motions, tides, and geothermal power”); and,
4. Redouble its efforts to promote energy conservation and energy efficiency within City and School operations; and,
5. Develop and implement a high-profile campaign, similar to the “Fresh Aire” initiative in Arlington, which promotes energy conservation and energy efficiency within the community at large; and,
6. Petition the Commonwealth of Virginia to create a mandatory Renewable Portfolio Standard for public utilities and, further, to place a moratorium on new coal-fired power plants (such as proposed for Wise County) and expansion of existing nuclear power plants (such as proposed for North Anna) until there has first been a significant expansion of investment in energy conservation and energy efficiency efforts and development of renewable energy alternatives. Through these kinds of investments we can obviate (or at least substantially delay) the need to increase our reliance on non-renewable, polluting energy sources. Finally, existing coal-fired power plants should also be retrofitted using newly-developed technologies to reduce harmful emissions.

Signed and sealed this 17<sup>th</sup> day of December, 2007.

These are among the issues that should be included in the EIS. Feel free to use/expand upon these in preparing either oral or written comments:

### Alternatives

The EIS should fully consider alternatives to North Anna-3, including but not limited to:

- \*use of renewable energy to meet electricity demand
- \*use of energy efficiency to reduce electricity demand, including various and aggressive energy efficiency program scenarios
- \*use of a combination of renewable energy and energy efficiency to meet electricity demand
- \*the “no action” alternative

### Cost-Benefit Analysis

\*The EIS should examine the Cost/Benefits of North Anna-3 using a process that would account for differing construction cost estimates for the facility. Moody's Investor Services predicts construction costs for new reactors to be \$5,000-\$6,000/kw. In filings with the Florida Public Service Commission, Florida Power & Light projects costs as high as \$12 billion per reactor. Because of these uncertainties, the EIS should examine the cost/benefits at the various cost ranges.

### Radioactive Waste

The EIS should fully consider the effects of radioactive waste on Virginia and Lake Anna, including but not limited to:

#### High-Level Radioactive Waste

\*the EIS should fully address the potential consequences of permanent storage of high-level radioactive waste adjacent to Lake Anna. Because there is no permanent storage facility for high-level radioactive waste, and it appears increasingly unlikely that there will be one during the lifetime of North Annas-3, the EIS should address how and where all of the high-level radioactive waste generated by North Anna-3 will be stored.

\*the EIS should address potential consequences (on the Lake, on people, on flora and fauna in the region) of a serious accident in the irradiated fuel pool at North Anna-3, and in other potential high-level radioactive waste storage facilities.

\*the EIS should address the possible effects of North Anna-3 on the existing dry cask irradiated fuel storage units at the North Anna site, including their potential degradation over time as well as the potential impacts of a large expansion of the dry cask units to store high-level radioactive waste from North Anna-3.

\*the EIS should address possible effects of transportation of radioactive waste generated at North Anna, in the unlikely event a waste repository ever will be built. This should include road, rail and barge transportation. If barges are not used, then trucks or trains would be. The Baltimore train tunnel fire of 2001 could

used, then trucks or trains would be. The Baltimore train tunnel fire of 2001 could have killed thousands if high-level radioactive waste had been on board, and that route has been targeted by the Dept. of Energy in the past.

#### "Low-Level" Radioactive Waste

\*the EIS should address how and where all of the "low-level" radioactive waste at North Anna-3 can be expected to generate during its lifetime will be stored. Virginia's access to the Barnwell, South Carolina "low-level" radioactive waste facility will end in June 2008. There are no current plans to build a new facility to handle radioactive waste generated in Virginia. Thus the EIS should assume that all "low-level" radioactive waste generated by North Anna-3 will be stored on-site for its licensed lifetime.

\*the EIS should fully address the impact on flora and fauna in Lake Anna and surrounding tributaries caused by North Anna-3's planned release of radioactive waste into the Lake.

#### Safety

\*The EIS should describe and address the potential consequences of a beyond design basis accident at North Anna-3 and should address potential additional risks of a First-of-a-Kind reactor design.

\*The EIS should address the potential consequences of a jumbo jet assault on North Anna-3. \*The EIS should address the cumulative effects of routine radiation releases on nearby populations and on aquatic life in and around the lake.

#### Emergency Planning

\*The EIS should address the plans and current lack of plans to distribute protective Potassium Iodide pills to people living within 20 miles of North Anna. *combined operating license*

\*The EIS should describe North Anna-3's backup power systems for emergency sirens and address how the utility will ensure compliance with the requirement that it can notify members of the public in the event of an accident and concurrent loss of onsite/offsite power.

#### Water Issues

Last Oct. the VA Dept. of Environmental Quality reissued the 316A variance to Dominion which permits the utility to continue to dump water used to cool the nuclear generating units into Lake Anna without an upper temperature limit. (Last summer temperatures in the so called "cooling lagoons" reached 106 F). This is illegal according to the Clean Water Act since the waters of Lake Anna and the streams that feed into the lake are recognized as "surface waters of the U.S."

Currently People's Alliance for Clean Energy and Blue Ridge Environmental Defense League as well as three Louisa County residents are appealing this

*Submitted by Miguel An Clair-Valdez*

decision of VADEQ.

Drought conditions this past summer decreased lake levels as well as downstream flows. Another reactor would increase the amount of water needed to cool the reactors. More hot water released into the Lake would increase evaporation, and further decrease lake levels as well as downstream flows into the North Anna and Pamunkey Rivers. Our water resources need to be protected, not wasted on inefficient and consumptive new and old nuclear units.

*e/elena.day@gmail.com*

My name is Elena Day and I am with PACE. The Envi Impact Statement has failed to address the consequences of what might well be permanent storage of high level waste at Lake Anna in the irradiated fuel water pools as well as dry casks. The high level waste continues to accumulate and new nukes will be generating more waste. Yucca Mtn. has not opened and is not likely to open any time soon. And it is well know that Yucca cannot accept waste generated by US plants beyond 2010. So Dominion continues to bet that this high level waste is going to go somewhere else. It is irresponsible for Dominion as well as for the NRC to entertain construction of new nukes when the high level radioactive waste issue ( and now since Barnwell is to close in June 2008 – the low level radioactive waste issue as well) remains unresolved. How much low level waste does Dominion plan to store on Lake Anna's shores ? How many dry casks does Dominion plan to site on the shores of Lake Anna. And will it be expanding water storage capacity ? Will construction of more pools physically disturb Lake shores ? Will more waste on increase possibility of accident in the irradiated fuel pools ? If and when a repository for high level waste is licensed, how will the waste be transported safely, along what routes and is an evacuation plan included to safeguard residents in Louisa and along transportation routes in VA.

Are water pools and dry casks accumulating on the Lake targets for terrorist attacks ? Will additional storage be adequately protected ?

We are learning more and more about the hazards of tritium exposure and we also know that it is routinely released into the Lake and into the atmosphere. How will Dominion and the NRC act to limit tritium releases ? Both Dominion and the NRC must continue to study and make public the effects of tritium exposure on humans and flora and fauna who live on and in the Lake and downstream.

I want to emphasize again my outrage that Dominion continues to discharge water without an upper temperature limit into Lake Anna's "cooling lagoons." Dominion's activities are not in compliance with the federal Clean Water Act which protects surface waters of the U.S. The ill effects of high water temperatures in Lake Anna have been well documented. It is irresponsible of Dominion and the NRC to continue with the application to site new nukes on an already environmentally and hydrologically stressed watershed. Soon humans will find themselves competing with the nuclear reactors for water for their sustenance.

Finally, we are again facing the very real possibility of uranium mining and milling in VA. There are uranium deposits in Orange, Madison, Fauquier and Pittsylvania Counties. The drive by Dominion and other utilities to build new reactors has made uranium mining attractive once again after a twenty-five year ban. Mining and milling of uranium has never been attempted in a wet climate like ours. Furthermore, the history of mining and milling of uranium in our western states is one of high cancer rates and abandoned radioactive tailings left to continue to disperse their radioactivity as the wind blows. The uranium fuel cycle from start to finish leaves a huge carbon footprint – in fact it takes two coal plants just to run the facility that processes the uranium into fuel rods in Kentucky – regardless of industry claims that there building nukes to save us from

greenhouse gas emissions and global warming. Dominion's plans for new nukes will associate it with the despoliation of our pristine rural VA counties if mining is allowed in the Commonwealth. It's time Dominion stop its quest for new nukes and instead commit to programs of conservation, efficiency in conjunction with renewables as they come on line.

TESTIMONY offered by

Eugene F. Brown, PhD, PE  
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efbrown@vt.edu

I am a Professor of Mechanical Engineering at Virginia Tech and have taught courses related to energy conversion for almost 40 years. Along with my colleague, Mark Pierson, I am currently managing Virginia Tech's relationship with the nuclear industry cluster in Lynchburg. This involves nearly \$750K in nuclear engineering research supported by Virginia's Department of Housing and Community Development, and the responsibility for the development of a state-wide program in nuclear engineering education. I am a member of the American Nuclear Society and a registered Professional Engineer in the Commonwealth of Virginia.

Nuclear energy is a key ingredient in the Virginia Energy Plan\* which calls for a 20 percent increase in the in-state production of electrical energy by 2017, and a simultaneous 30% *decrease* in the level of greenhouse gas emissions by 2025. According to remarks made by Stephen Walz, Chair of Governor Kaine's Energy Policy Advisory Council, conservation and renewable energy targets will only get us half-way to this goal. Research in the use of clean burning coal- fired power plants and nuclear energy is clearly needed to make up the difference.

Virginia Tech is well positioned to be a significant contributor to this effort since we possess strength in all of the 13 energy generation, use, and policy expertise sectors identified by the 2006 Center for Innovative Technology's *Assessment of Energy-Related Research and Development in Virginia*, and because of the strong support provided by the University to energy research in its 2006-2012 Strategic Plan. Specifically, the University has committed itself to become a national leader in the fields of clean coal, fuel cell, bio-renewable fuels, solar, wind, and nuclear energy. Virginia Tech has more than 100 faculty, 10 educational programs, and 20 research centers working in energy and energy-related scholarship and research. Since 2006, under the auspices of the Dean's Task Force on Energy Security and Sustainability, we have organized an Energy Forum, an Energy Showcase, a Dean's Forum on the Environment, and have hosted the visits to Campus of more than 10 nationally known speakers on energy including Stephen Walz, Robert F. Kennedy, Jr., James R. Schlesinger, and former governor, Mark Warner.

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\*A legislatively mandated document which reflects input by all major stakeholders in the Commonwealth and has the endorsement of Governor Kaine.

Economic development is one of the five elements of the Virginia Energy Plan. As Stephen Walz said when he was on campus, "In Virginia, energy is the foundation of many parts of our economy."

Let's talk a little about the economy and, in particular, about economic development. It is no exaggeration to say that having affordable and secure sources of electrical energy is an essential ingredient of not only the health of Virginia's economy, but the economic well being of the nation as a whole. This is Dominion's goal as well as the goal of my colleagues conducting energy-related research at Virginia Tech. Nuclear energy now represents the nation's (and Dominion's) least expensive source of electrical energy. The need for increased in-state energy production along with the need to reduce green house gas emissions requires serious consideration of the installation of new nuclear power plants such as North Anna's Unit 3 which, of course, is the topic of this meeting.

Virginia is not the only state that has realized this. After 27 years in which no new nuclear power plants were built in the US, the NRC has received requests to build and license 15 new reactors in the past two years. Designing and building these facilities will require large numbers of trained professionals who are in short supply because of the aging nuclear workforce, and because of the limited number of nuclear engineers produced by the small number of nuclear engineering programs in existence today.

In fact, the decline in the number of nuclear engineering programs can be directly attributed to the decline in industry support for nuclear engineering education and research and a decline in the industry's need for nuclear engineering graduates. Times have changed, and now the nuclear industry is in a period of resurgence, resulting in part from fears of global warming and the related need for carbon free electricity production. In the words of Stephen Walz, Chair of Governor Kaine's Energy Policy Advisory Council, "Virginia's universities have cut back on nuclear programs over the past few decades. Now is the time to turn this back." Students have already sensed this opportunity. My colleagues Mark Pierson and Ken Ball have brought with us this evening, Mr. Paul Rittenhouse, the secretary of Virginia Tech's new student chapter of the American Nuclear Society who, upon graduating this May, will be working at Dominion's North Anna facility.

In 2006, Virginia Tech was given an opportunity to do exactly this with an economic development grant provided by the Department of Housing and Community Development to Region 2000. Region 2000 comprises the 2,000 square mile area incorporating Amherst, Bedford, Appomattox, and Campbell Counties; the Cities of Lynchburg and Bedford; and the Town of Altavista. Virginia Tech's master research agreement with Region 2000 funded by this grant is now in its second year and has resulted in more than \$700K of research being conducted at Virginia Tech to provide technology based economic development for the region's nuclear cluster industries such as AREVA NP, Inc, and Babcock and Wilcox. In addition, in 2007, in response to encouragement provided by AREVA, the mechanical engineering department at Virginia Tech developed a distance-learning nuclear engineering graduate certificate program. In the first year of offering courses, this program has attracted 20 graduate students and is now delivered by the Commonwealth Graduate Engineering Program throughout the state. In

addition our newly-announced undergraduate nuclear engineering certificate program has attracted 40 students.

This is only the beginning. As a result of the success of this research and educational relationship, Region 2000 will shortly submit an application to the Virginia Tobacco Commission for a Nuclear Engineering R&D Center. By providing local industries, research universities, federal laboratories, and other partners with the physical infrastructure to foster knowledge creation, facilitate technology transfer, and improve the scientific and engineering workforce, the nuclear engineering-based research and educational programs of this \$10M center are expected to return a regional and statewide economic impact of nearly quadruple that amount and produce more than 350 regional and statewide jobs.

We also have an aggressive plan to grow Virginia Tech's undergraduate and graduate nuclear engineering program. Our long term vision is to establish a School of Nuclear Science and Engineering which will encompass the nuclear sciences and medicine as well as nuclear engineering and offer M.S. and Ph.D. degrees in nuclear engineering and science in collaboration with the College of Science and our sister departments in the College of Engineering.

These are exciting times for nuclear engineering. I enthusiastically support the building of North Anna's Unit 3 and the other 14 proposed nuclear power plants in the United States for the secure and affordable source of electrical energy which they promise and the opportunity which this offers to universities like Virginia Tech to provide the workforce and the technological advancements which will make this promise a reality.

Statement for NRC COL Scoping Meeting for North Anna Unit 3.  
April 16, 2008  
Michael Stuart, Beaverdam, VA

Hello. My name is Michael Stuart. And I live inside the 10-mile EPZ for North Anna Power Station in Beaverdam.

I am here today to speak to the issue of the "Need for Power".

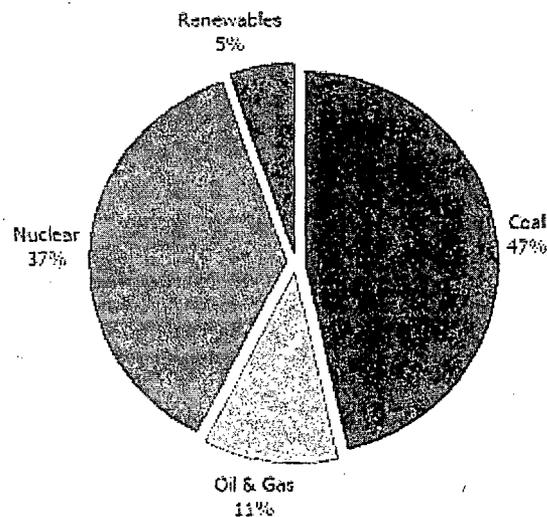
Let me start by making it clear that Virginia is the second largest importer of electricity in the United States. The only state that imports more power than Virginia is California.

Does anyone wonder where the electricity that is lighting up this room and powering this microphone is coming from?

It might help to take a look at the following graph:

**Virginia Electricity Generation - 2006**

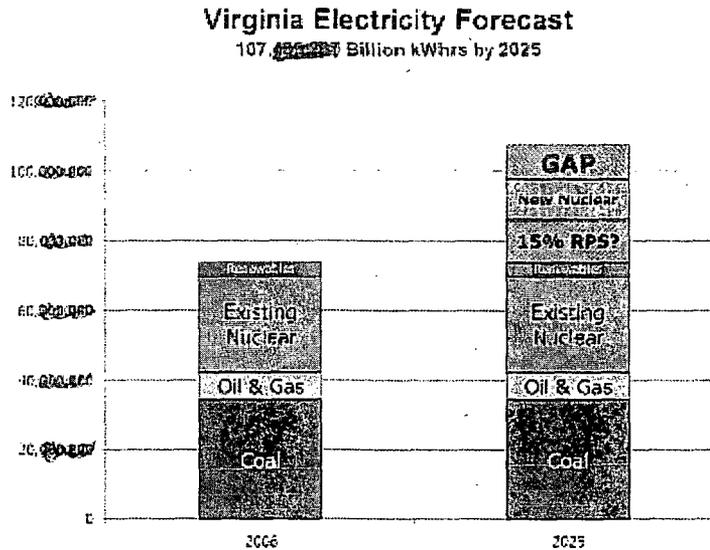
73,745,000 Billion kW-hrs



First, take a look at that number. 73 ~~Million~~ Billion Thousand Watt hours. About two thirds of that is derived from Coal, Oil, and Gas. Over one-third is from Nuclear.

How many people think that it would be great to have more renewable energy in the state? So do I. How many people think conservation is a great idea? So do I. How many people think it would be great if we could reduce our dependence on coal, oil, and gas? So do I.

I'd like to show you another graph:



As you can see, according to US DOE projections, we will need to increase our production of electricity by nearly 50% in the coming years.

This increase is necessary due to population expansion, a greater reliance on electronics, and soon, a major shift towards plug-in hybrid electric vehicles.

*hopefully*  
As you can see, even if North Anna Unit 3 is built, and by some miracle we are able to miraculously expand our renewable contribution to 15%, we still have a huge gap of needed electricity. What's even more sobering is that means we have to keep every coal, oil, gas, and nuclear station that we currently operate today. And many who are in this auditorium would like to eliminate coal, oil, gas, and nuclear.

As you can see, I think it's highly unlikely that we can meet the energy demands of a growing population, support a shift to plug-in hybrid electric vehicles, while reducing our dependence on coal and foreign oil and gas.

That's why we need North Anna Unit 3.

**Presentation to U.S. Nuclear Regulatory Commission  
Dominion 3<sup>rd</sup> Reactor Public Scoping Meeting  
April 16, 2008**

**Representatives of the US Nuclear Regulatory Commission; Ladies and Gentlemen,**

**1. Introduction.** I am Doug Smith. I am a resident of Louisa County and own property on the Lake Anna waterfront. I am Vice President of the Lake Anna Civic Association and Chair of their Lake Level Committee. The purpose of LACA is to preserve Lake Anna and its watershed as a safe, clean, and beautiful resource. We promote water safety, monitor water quality, and advocate the interests of residents and users of Lake Anna.

LACA supports the proposed third unit at Lake Anna. We believe it is good for the community, the State of Virginia, and the country. The new unit will bring 750 new jobs into the local area. It will bring additional tax revenues to the State and local coffers and will reduce the dependence on foreign oil by generating enough power to supply 375,000 homes.

**2. Concerns.** We applaud the NRC in its review of the environmental impacts as part of the Early Site Permit process. However, we have concerns about the impact of the construction and operation of the third unit that we would like NRC to focus on in their development of a new Environmental Impact Statement for the Combined Operating License. We also believe there is new information that has been developed that will enable NRC to refine estimates of impacts.

**a. Plans for Disposal of Treated Sewage.** In order to support the operation of a new unit and the 750 workers hired to operate and maintain it, Dominion plans to build a second waste treatment plant to locally process human and other waste. The treated effluent of that plant, like the effluent from the existing waste treatment facility, would be dumped into Lake Anna at the discharge canal. Lake Anna is not a free flowing stream. The added nutrients from the effluent will remain in the lake and accumulate over years. The buildup of nitrates can produce algae blooms that produce fish kills and encourage plant growth such as hydrilla that can choke entire bays.

An alternative system that would store the effluent and use it to water grass or wooded areas is available. It is currently in place in the town of Louisa and is planned for the golf community called Cutalong on Lake Anna. The ESP EIS listed impact on water quality as "unresolved" due to the lack of information about the impact of these other waste streams flowing into the WHTF (Sec 5.3). We ask the NRC to review the cumulative impact of dumping sewage effluent into Lake Anna. We would like for Dominion to consider an alternative method and include the existing sewage treatment facility effluent so that no effluent is dumped into the lake at all.

**b. Impact on water levels in summer months on the lake.** Low water levels on Lake Anna expose safety hazards to the thousands of recreational users of the Lake, create increased erosion along the entire shoreline, and damage wetlands and other aquatic life. Every effort to mitigate these impacts should be carefully considered. We would like the NRC to focus its attention in the COL Environmental Impact Statement on the impact of low water levels on the Lake, its users, and its ecosystems.

The third unit will consume 16 million gallons per day even while running in water conservation mode, resulting in the loss of up to 1.4 inches of lake level per month. If the third unit were operating this past year the lake would now be 15 inches lower. Its low point last fall would have been an additional 9 inches - about 4 feet below normal. The existing environmental impact statement assumes one drought every 20 years. We have had two official droughts and reached drought conditions of 248 feet on the lake in 5 of the last 8 years. The ESP EIS estimates that wetlands impact is small because as much wetland is created as is destroyed, but is silent about the impact of what appears to be an almost annual reduction to the 248' level. We ask the NRC to review the water level modeling done in the ESP EIS to incorporate actual data and do further analysis of deviations from averages. Annual averages do not give accurate indications of summer lake level impacts and 20 year averages have not been consistent with actual experience.

Additionally, inflow assumptions have not been field verified and should be reviewed. In dry weather conditions, the already small Lake Anna watershed is significantly reduced by the impoundments caused by Lake Louisa, Lake Orange, and the hundreds of farm ponds and small lakes that impede the transmittal of water to the Lake. Dominion has developed new data including actual surveys of a portion of the wetlands on the Lake. We ask the NRC to carefully review and use this new data to determine if it alters its earlier impact assessments. Additional steps can and should be taken to mitigate low water level impact on safety, erosion and ecosystems on the Lake.

### **3. Summary**

The lake Anna Civic Association supports the third unit, but, we have concerns that should be addressed in the Environmental Impact Statement. We are concerned about the dumping of sewage effluent into the lake and the impact of low water conditions on safety, erosion, and aquatic life. We encourage the consideration of a new alternative to preclude the dumping of effluent. We are concerned about the impact of low water levels. We believe new information is available to better estimate low water level impacts and that there are steps that can be taken to mitigate those impacts. We urge the NRC to focus its new efforts particularly on the modeling and assumptions made in the estimates on water levels, further analysis of impacts on the lake, and potential mitigation efforts.

Sincerely,



Doug Smith

Lake Anna Civic Association

PO Box 217

Mineral, VA 23117 Phone 540-894-9094

# **North Anna 3<sup>rd</sup> Reactor Combined Construction and Operation License Environmental Impact Statement (EIS)**

**Representatives of the US Nuclear Regulatory Commission;  
Ladies and Gentlemen,**

## **Significant New Information**

1. Now that the ESBWR has been selected by Dominion, the issue of cooling the 3<sup>rd</sup> reactor can be carefully reviewed. The “once pass through cooling” had been rejected in the EIS ESP. The current proposed cooling is a “combination dry and wet cooling tower” which introduces significant evaporation of water in the Lake Anna reservoir (up to 16.6MGD water in the Maximum Water Conservation Mode). DGIF, VDEQ (Division of Water Resources), DCR, and many public sources such as the Lake Level Task Force Committee have objected to this cooling method. A new fresh look at cooling technologies needs to be performed. Specifically the hybrid cooling proposed will only remove up to 1/3 of the heat of the entire system during the hot humid days. The other 2/3 will be done by the wet cooling with large evaporation (16.6MGD). In contrast dry cooling technology would consume only about 5-10% of that amount. Despite this enormous water savings, most of the cooling for new power plants primarily uses wet cooling. This is because on hot days, dry cooling can lead to increased turbine back pressure that prevents a plant from generating at its full rated capacity. The problem is compounded because hot days are precisely when the electricity demand is the highest. This hot-day performance problem with dry-cooled units can be alleviated by using small water supplemental cooling as needed. One such method recommended PIER Energy-Related Environmental Research [http://www.energy.ca.gov/reports/2004-03-09\\_500-03-109.PDF](http://www.energy.ca.gov/reports/2004-03-09_500-03-109.PDF) is to introduce a small amount of water spay into the cooling tower inlet air stream, where it evaporates and cools the air. Studies have shown that reducing inlet air temperature by even a few degrees can maintain much of the plant’s output during hot hours. This is one of many

dry cooling examples which are currently being used in the USA and worldwide. This dry cooling needs to be studied more carefully.

2. Plant #3 was considered in a stand alone condition and no consideration was made for the alternative of installing additional water conservation measures on the existing nuclear power reactors Units 1 and 2, to compensate or mitigate against the significant and adverse incremental impacts that will be caused by unit 3. Judge Karlin (ALSBP) stated that some of the once-through cooling water from unit 1 and 2 could be diverted to the cooling tower used for unit 3. While this diversion would be small, it would offset some of the impacts of unit 3. He rejected the NRC staff's position that such an offset is per se unreasonable under NEPA. He stated "There is no dispute that the NEPA alternative analysis {is the heart of the environmental impact statement}". When a company operates an existing facility that emits pollution and/or has adverse environmental impacts, it is common for a regulator to at least consider, and sometimes impose, additional environmental controls on the existing units as trade-off for obtaining approval to construct additional units. Judge Karlin stated "It seems to me that creative nuclear engineers and environmental scientist, if properly motivated, might very well propose realistic offsets or mitigation measures that could be applied to the pre-existing reactors on the same site". This is significant new information that needs to be addressed.

3. "Report on the North Anna Early Site Permit Water Budget Model (Lake WBT) for Lake Anna" by Cook ET all January 2005 is insufficient and significant new information can come from an updated water budget model. This study was performed before the change in cooling technique to wet-dry hybrid system and only looked at "once pass through" and "totally wet" cooling. This study should be redone and include a hybrid and totally dry cooling systems. Once again travel time for the water to circulate from the discharge back to the input of the plant was not available for this study. It should be collected at least in the WHTF so that accurate predictions can be made. The study does not address temperature. In response to a question by the NRC, Dominion stated "On a long term basis the average temperature of the cooling lake due to the reduced lake level from Unit 3 has been estimated to be less than 0.1 degrees F. The so called "long term" effect is

not where the problem exists. The hot summer months needs to be evaluated for temperature change. No calculations were provided by Dominion. It was only estimated. The calculations for the summer time periods should be performed by Dominion and independent calculations done by NRC. Units 1 and 2 will heat the water faster and return time for recycling will be increased during the problematic hot summer months. This temperature needs to be investigated more carefully.

4. Dominion has proposed a new Waste Treatment Facility for unit 3. This is new and significant information. The effluent would be discharged into the WHTF of Lake Anna. There current waste treatment facility for unit 1 and 2 already discharges in the lake and we would oppose a new discharge. Why can't the current treatment plant support the new unit 3? Is it up to capacity? Is the size of the proposed plant larger than needed or would it replace the unit 1 and 2 treatment plant?

Ken Remmers  
Waterside Property Owners Association  
Water Quality Chairman. LACA  
13130 Westbrook Dr.  
Fairfax, VA 22030  
Phone 703-968-2430



## COUNTY OF LOUISA

April 16, 2008

Chief, Rules and Directives Branch  
Division of Administrative Services  
Office of Administration, Mailstop T-6D59  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: Dominion Nuclear Power, LLC; North Anna Power Station Combined  
License Application  
Federal register # 73FR12760

I am writing on behalf of the Louisa County Board of Supervisors regarding the environmental scoping process for the North Anna Power Station, Unit 3 combined License application.

At its April 7, 2008 meeting, the Board wished to express their support of Unit 3 but wanted to communicate concerns about the impact Unit 3 will have on Louisa County.

In August 2006, the Board submitted items of concern to Dominion Virginia Power and the Virginia Department of Environmental Quality. These items are still of great concern for the Board and are as follows;

The first item is the number of workers and residents using Route 652, Kentucky Springs Road. It is our understanding that North Anna Power Station employs approximately 800 permanent workers and every 18 months brings in an additional 1,000 workers during its outages. If Unit 3 is approved, there would be a need for approximately 2,000 employees during the construction phase. When Unit 3 is complete and operational, North Anna Power Station would employ approximately 1,500 full time employees and still require additional workers every 18 months.

There are dozens of multi-lot subdivisions along Route 652. The Waters Subdivision is a 400 lot development within a few miles of the plant. Cutalong is a mixed use development, that at full build out, will have over 1,000 dwellings, a golf course and commercial retail space at the intersection of Route 652 and Route 208.

There will be severe traffic congestion with that many people traveling a two-lane country road. While there will be long economic benefits to the County, those effects will not be felt until construction of Unit 3 begins and well thereafter. Louisa County needs to know what Dominion Power is doing for the increase of vehicles on Route 652?

Dominion has stated that it would be willing to work cooperatively with state and county governments to facilitate planning decision to minimize transportation impacts to avoid congestion and they would develop a construction management traffic plan prior to the start of construction. If widening Route 652 to handle the massive increase in traffic is required, planning needs to begin now.

Secondly, there would be a major influx of new people into Louisa County resulting in the need for new schools. Louisa County is currently building a new elementary school that will house 700 students. Even with the addition of this school, our elementary system will still be at maximum capacity. Louisa County Public Schools is currently working on a school construction plan, but needs more information about the impact of Unit 3 for that plan.

The County understands that because of the nature of the construction industry, with a variety of employee skill sets required, many employees will be transient but Louisa County has a tremendous wealth of attractants that many employees may make Louisa their permanent home. Since energy is a national priority, with a focus on nuclear energy, then possibly school construction grants can be provided by the Federal government to assist with new school construction. Again, if we are not prepared for the impact on our community's infrastructure, the County will have to play catch up, which will cost more in the long run.

Lastly, is the impact Unit 3 will have on Lake Anna. The Lake Anna region has been designated a growth area in the County's Comprehensive Plan. In view of the annual low water level in Lake Anna and potential needs for water sources in the immediate future, Louisa County has recently begun a study to identify potential water supplies for our citizens. Lake Anna and its tributaries have been identified as potential water resources for this ever-growing population center of our County.

The Board has consistently supported Dominion's application for the construction and operation of Unit 3 at the North Anna Nuclear Power Station however the foregoing issues need to be adequately addressed. This expansion will clearly be an economic benefit to the County in the future as well as other Dominion Power customers but it will also create strain on infrastructure requirements. We simply want our concerns heard and for plans on how to best handle these issues to begin soon.

Sincerely,



C. Lee Lintecum  
County Administrator

CC: Alexander Smith, Dominion, External Affairs

Dominion Statement at NRC COL Public Meeting

Louisa, Virginia

April 16, 2008

My name is Eugene Grecheck and I am vice president-Nuclear  
*in charge of the North Anna project since its inception*  
Development for Dominion. I would like to thank the Nuclear

Regulatory Commission for holding this public comment meeting to  
discuss the environmental scoping associated with our Combined  
Construction and Operating License application for the North Anna  
Power Station site.

I would also like to thank each of you, members of the public and  
residents of this area, for having the interest in this important subject  
to take the time to be here tonight.

Dominion filed an application for a Combined Construction and  
Operating License, or COL, with the NRC in November 2007.

Our goal in applying for the COL is to continue to maintain the option  
to build a third nuclear unit to meet the skyrocketing demand for  
electricity projected for Virginia. Right now, Virginia is the second

largest importer of electricity in the nation, behind California. The state imports 30 percent of its electricity from electrical generators located in other states. Virginia also is one of the fastest-growing states in the United States.

The PJM Interconnect, the regional transmission operator for the Mid-Atlantic region, projects that by 2017 there will be a large gap between the amount of electricity that will be required for our customers and the electrical generation facilities available in Virginia to meet this demand. We are talking about a gap of 4,000 megawatts of generating capacity, of which 2,000 megawatts must be from the type that is available 24 hours a day, seven days a week.

We believe it is not in the public interest for Virginia to be subject to volatile electricity prices. Here in Virginia, Governor Kaine and the General Assembly have taken important steps to promote nuclear as a reliable, safe and economic energy source for the Commonwealth.

The Governor's 10-year Energy Plan includes nuclear power in the mix of resources that will be required to meet Virginia's future energy

needs, along with natural gas, clean coal, renewable energy sources and conservation measures.

While all types of generation must play a role in meeting Virginia's energy needs, there are only two choices that can provide round-the-clock electricity in a reliable and affordable way – nuclear energy or coal-burning technology. We believe that nuclear energy must be a significant part of this requirement.

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Dominion has chosen General Electric Hitachi's ESBWR for North Anna Unit 3, should we decide to move forward and build a new unit.

The ESBWR is a safe, next generation reactor capable of producing about 1,520 megawatts of electricity. A nuclear unit of this size would produce enough energy to power about 375,000 homes at peak demand in Virginia, with virtually no emissions to the atmosphere.

The ESBWR features gravity-based systems that dramatically improve safety and simplicity, and eliminate the need for large

numbers of pumps and other systems that are part of more traditional reactor designs.

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Last fall the NRC issued an early site permit for the North Anna site. By issuing this permit, the NRC determined that North Anna is suitable for additional nuclear generation from an environmental, safety, and emergency planning perspective. A number of environmental issues were addressed in the final Environmental Impact Statement issued by the Nuclear Regulatory Commission.

As part of that process, Dominion agreed to change its approach to cooling a new reactor from using once-through cooling from Lake Anna – the system now used by North Anna units 1 and 2 – to a closed loop hybrid cooling tower system. We changed our approach after listening to concerns raised by state agencies and the local community. From our standpoint, the early site permit licensing process was a win-win because it resulted in a compromise that addressed the concerns raised about the use of the lake water before any construction costs were incurred.

Dominion is currently conducting studies and developing information for environmental permits, and we continue to work closely with environmental agencies and the public to answer all environmental questions.

In closing, the questions and decisions that face us are not simple. There are complex issues that need to be addressed and evaluated. We are confident that after these issues are fully and fairly considered, the Combined Operating License process can continue and the nuclear option can be maintained for the energy supply decisions that will need to be made in the future.

Thank you.