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**Date:** 10/24/05 2:04PM  
**Subject:** Friends of Lake Anna concerns with NRC Safety & Environmental report processes

To: Nuclear Regulatory Commission  
Virginia Department of Environmental Quality  
Info: Dominion Resources

Attached are the Friends of Lake Anna concerns with the NRC Safety & Environmental report processes.

Please do not hesitate to give me a call if I can answer any questions.

Sincerely,

Harry Ruth  
for the Friends of Lake Anna  
C/O 230 Heather Dr.,  
Bumpass, Va. 23024  
Phone 540-872-3632

**CC:** "Bob Richards" <lakelovers@earthlink.net>, "George & Gerry Heino" <Gmheino@earthlink.net>, "Tony Banks (Dominion)" <TONY\_BANKS@DOM.COM>

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**Subject:** Friends of Lake Anna concerns with NRC Safety & Environmental  
report processes

**Creation Date:** 10/24/05 2:03PM

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24 October 2005

To: Mr. Andrew Kugler (Program Manager responsible for North Anna ESP application)  
Mr. Jack Cushing (Environmental Project Manager for North Anna ESP Site Application)  
Mr. Nitin Patel (Safety Evaluation Project Manager for North Anna ESP Site Application)  
Mr. Steve Monque (Ops Manager – current North Anna plant)  
U.S. Nuclear Regulatory Commission (NRC), Washington D.C. 20555  
(Via email to [AJK1@NRC.GOV](mailto:AJK1@NRC.GOV) [JXC9@NRC.GOV](mailto:JXC9@NRC.GOV) and [NXP1@NRC.GOV](mailto:NXP1@NRC.GOV) and [SRM2@NRC.GOV](mailto:SRM2@NRC.GOV))

Ms. Ellie Irons, Environmental Impact Review Program Manager  
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Subject: Request for help to resolve the inconsistencies when involving the American public in the NRC processes re the Environmental and Safety Reports for an ESP at the North Anna ESP site. Further to incorporate all Commonwealth of Virginia comments in the appropriate sections of any NRC documents

Reference (1): Friends of Lake Anna letter dated 7 Sep 05 to VDEQ & NRC forwarding petitions, emails, letters & Board of Directors Resolutions representing 1,850 people who share similar concerns

(2) Friends of Lake Anna letter, that represented 2,400 persons, dated 19 October 2005  
VDEQ & NRC subject Federal Consistency Certification

Dear Messrs Kugler, Cushing, Patel, Monque and Ms. Irons,

I am completely dismayed at the NRC processes for involving the American public and the state within which the federal permit is requested in the NRC processes for the Environmental and Safety Reports. It seems like the left hand of NRC does not coordinate with the right hand of NRC or the Commonwealth of Virginia before issuing a final report. The latest incidence is the Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna site, which does not reference any of the Commonwealth of Virginia's concerns.

In behalf, of the 2,400 persons currently represented by the Friends of Lake Anna, I am requesting that ESP permit process at the North Anna ESP site be halted until full coordination of all parties and the American public can be gained. I also want to emphasize that our group is "not anti-nuclear", nor do we have "not in my backyard sentiments". We do support a 3<sup>rd</sup> & 4<sup>th</sup> reactor at Lake Anna, but do not support a water-cooled reactor, when there is inadequate water in the small watershed; nor do we support the destroying of the 13,000-acre lake for humans, fish & wildlife with high water temperatures.

Your help in gaining this full coordination is requested, together with specific answers to the following questions re inconsistencies in the process.

**1. How can a final Safety Evaluation Report (SER) for an ESP at the North Anna site be issued by the NRC in September 2005 and received on 18 October 2005, when the Commonwealth of Virginia has a public comment period for the ESP for federal consistency certification that has been extended through October 25, 2005? Dominion Resources requested the extension.**

**2. How can the NRC safety report in Appendix E have a conclusion “the proposed site, subject to the permit conditions recommended by the NRC staff, can be used for up to two nuclear power units each of up to 4300 MW(th) without undue risk to the public health and safety”?**

Note that these additional units are projected to further increase the water temperatures an average of 7 or 8 degrees. They are also about 68% larger than each of the existing reactors. During the summer of 2005, the public experienced water temperatures greater than 104 degrees at the Aspen Hill Subdivision and over 95 degrees on the public side of the lake. Note that this is all when we believe that Dominion Resources is not currently permitted to discharge water temperatures over 89.6 degrees (32C) and they are supposedly self-monitoring this water temperature. Is this like the fox watching the chicken-coup? On September 15, 2005 Dr. Robert Strobe, Virginia State Health Commissioner wrote “persons with heart disease, parents and guardians of young children, the elderly, pregnant women and persons with spinal cord or peripheral nerve disorders should be cautious of prolonged immersion in waters that are warmer than body temperatures (i.e. 98.6 degrees

In a February 10, 2004 VDEQ Letter to Ms. Pamela F. Faggert, Vice President and Chief Environmental Officer, Dominion Virginia Power (“Feb 04 Letter”) with a copy to the NRC. On Page 2- **“Issues resolved with finality under the ESP process, including environmental issues, are not re-examined in a subsequent licensing by the NRC.”** It would seem, then, that the water supply and temperature issues must be resolved now, before ESP approval, for this action to be deemed consistent with Virginia Coastal Program (VCP).

Note (1) Dominion declined to resolve the water supply and temperature issues to-date. However the NRC Safety report was issued in Sep 05. Also in October 23, 2005 Richmond-Times Dispatch newspaper article Richard Zuercher, a Dominion spokesman is quoted “The company is a long way from making a decision “there has been no decision on the reactor design”. “Our company built that lake and we’re proud of that lake. We are not going to mess that lake up”. The lake is used by at least 500,000 people a year.

(2) If Dominion can be trusted, then why have the water supply and temperatures not been resolved prior to any final NRC report being issued??

**3. How can the NRC safety report in Appendix E so inaccurately reflect the population in the vicinity of the site? “The permanent population around the site is quite low. The nearest population center, Mineral, Virginia has a population of less than 500”.** This statement completely ignores the tremendous growth that the entire area has experienced during the past 3 years and is projected to increase dramatically during the next few years as baby-boomers retire to the Lake. Within a mile of the site, The WATERS subdivision has just sold 400 lots. Cut-A-Long subdivision a few miles away has just been approved by the planning commission for approximately 1,000 lots. Noah’s Landing also a few miles away has been approved for approximately 300 lots. The draft environmental ESP acknowledged that over 500,000 people use the Lake on an annual basis and the ESP would last for 20 years. One can only imagine the tremendous growth that will occur during the next 20 years. How can the NRC ignore this reality?

The statement in 2.1.3.3 (Technical Evaluation) "The staff concludes that the proposed ESP site meets the population center distance requirement, as defined in 10 CFR part 100. The staff has determined that no realistic likelihood exists that there will be a population center with 25,000 people within the 7.8 miles during the lifetime of any new units to throughout the year 2065". In 2.1.3.4. "The applicant has provided an acceptable description of current and projected population densities in and around the site"

*Note: This NRC and Dominion statements do not take the above current growth and surely does not take into account the growth that will occur during the next 60 years through 2065.*

**4. The NRC safety report appears to ignore all the recent emergency evacuation lessons learned from the Hurricanes Katrina & Rita in New Orleans, Missouri, Texas, & Florida. A similar emergency evacuation situation could occur if a nuclear disaster occurred at North Anna. It does however in Section 13.3.2 identify that there are some preexisting nuclear facility state and local emergency plans. It does not identify how these plans have been updated as a result of recent hurricane experiences.**

The small curvy 2 lane roads surrounding Lake Anna would immediately become a major traffic jam. The normal population (over 2,000 homesites in close proximity to the plant, plus the expected new population, coupled with the projected 5,000 construction workers and their families, plus 25,000 plus people who visit on weekends would immediately create a panic situation in the immediate vicinity of the plant. In addition, nearby growth areas (Fredericksburg, Charlottesville, Culpepper, and Richmond) would also experience a related panic situation. How can a Safety Report ignore these realities?

**5. The NRC Safety Report in 2.4.1.3 (Hydrology Technical Evaluation) indicates that "The low water surface shutdown elevation for operations of the NAPS Units 1 and 2, and of proposed Unit 3, is now 242 ft MSL". The applicant stated that, since the low water surface shutdown elevations in Lake Anna for normal operation of proposed unit 3 (242 ft MSL) is less than the minimum water surface elevation determined by applicant's water budget analysis (242.6ft MSL) the normal operation of proposed Unit 3 would not be impacted, even during extended period of low inflow of Lake Anna".**

**Note (1) The above totally ignores the Commonwealth of Virginia's VDEQ's comments in a letter on March 3, 2005 to Mr. Michael Lesar, Chief Rules and Directives Branch of the NRC in reference to the draft environmental ESP. VDEQ indicated there was inadequate water in the small watershed to support a 3<sup>rd</sup> water cooled reactor. The Va. Dept of Water Resources (DWR) in many previous memo's indicated that if the 3<sup>rd</sup> water-cooled reactor was implemented " (1) it would increase the drought cycle from 8.6 years to 2.5 years (2) it would increase water conflicts with the downstream counties over the 20 year life-span of the ESP (3) It would decrease the lake level on the cold side an extra 2.6 feet for an additional 26 days per year. (4) If the 3<sup>rd</sup> water-cooled reactor was coupled with an additional water-cooling tower, the decrease in lake level would be a total of 4.6 feet, making many boat ramps and other facilities un-useable (5) the issuance of a permit for an additional (3<sup>rd</sup> water-cooled) unit of the size envisioned would constitute the approval of the single largest consumptive withdrawal ever considered in the history of the Virginia Water Protection Permit Program" (6) Comparing non-tidal reactor facilities on the east coast "the North Anna location has the least abundant water supply, based on the average flow of a small 342 sq mile watershed", DWR disagrees with the NRC conclusion that the pre and post project flow alterations and their impacts can be described as small or moderate. Instead DWR, would characterize these types of alterations as LARGE". DWR believes that the Surry site is "superior" to the North Anna site. The NRC staff cited aesthetics and the fact that the plant might be visible from Jamestown as why Surry was not proposed, however the draft EIS did not indicate there are any problems with aesthetics at Surry.**

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Note (2) On Feb 8, 2005, the Spotsylvania Board of Supervisors approved Resolution No. 2005-01 where it expressed its concern to the NRC about the taking of any additional water from the North Anna river and the impact it would have to a rapidly expanding Spotsylvania County and anticipated water budget conflicts with the three downstream counties which are located in one of the fastest growing regions of Virginia.

Note (3) there does not appear to be one mention in the Safety Evaluation report of the above concerns that have been expressed by the Commonwealth of Virginia and also citizens of Virginia. How can the federal government (Nuclear Regulatory Commission) completely ignore in a final report major water budget concerns that have been expressed by Virginia and its citizens?

**6. The Safety Evaluation Report also does not appear to address the possible Lake Anna safety impacts of the additional water-flow of 1.2 MPG if a 3<sup>rd</sup> water cooled reactor is used. The additional water flow could flood docks and erode shoreland, plus also increase the water evaporation rate, which would further exasperate the lake level decrease. All of which would create many safety hazards to the humans who live and use Lake Anna.**

**7. The Safety Evaluation Report also does not appear to address the possible Lake Anna safety impacts for humans that would occur on roadways, if the water temperatures throughout the circulation process were heated an additional 7 to 8 degrees as proposed. This would cause increased icing on the adjoining 2 lane curvy roads around the lake during the winter months, plus create additional fog-like driving conditions around the lake. Who will be responsible for protecting the safety of the drivers around Lake Anna?**

**8. The Safety Evaluation Report also does not appear to address all the safety implications of Terrorist Prevention Activities. The North Anna power plant is within 50 miles of major metropolitan areas, including Richmond, Charlottesville, Washington D.C., Northern Virginia, Fredericksburg, Culpepper and others. One can only imagine how the panic would set in (similar to the Maryland, Virginia & Washington D.C. sniper attack) when the total region was held hostage for over a 3 week time period. How are the Safety experts addressing the condition and who will pay for the necessary safety prevention activities. It would be unreasonable for the local residents to have to pay for this additional expense.**

**9. The Safety Evaluation Report does not appear to address all the safety implications of on-site storage of spent nuclear fuel and when the spent nuclear fuel will be moved to another location to reduce the potential safety threat. How is the on-site transportation of storage containers being facilitated? How is the NRC planning on storing spent fuel in the dry storage containers and how is the public being kept up to date with these procedures?**

**10. The Safety Evaluation Report in 13.3.1.2. (Regulatory Evaluation) indicates" the applicant stated that the road network surrounding the NAPS site, which includes the ESP site, can adequately accommodate anticipated vehicular traffic". Please see paragraph 3 above re current growth of 3 subdivisions of approximately 1,700 lots x 4 persons a lot =(6,800) persons within close proximity of the NAPS, plus 5,000 construction workers, plus 720 NAPS plant workers, plus approximately 25,000 Lake Anna recreational users on summer weekends will surely create major traffic jams on the existing two-lane road capacity. Who is going to pay for maintaining the public's safety and develop new roads as a result of a proposed 3<sup>rd</sup> and 4<sup>th</sup> nuclear reactor? Who is going to pay for the public safety infrastructure (fire and rescue, hospitals, etc.) as a result of constructing the 3<sup>rd</sup> and 4<sup>th</sup> reactors?**

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*Note: During the next 60 years that the new reactors are planned to be in existence, one can only guess at the tremendous growth that will occur. Where do the Commonwealth of Virginia and its citizens get to evaluate the safety items and conclusions identified by the NRC staff??*

### **11. Reliance by local politicians to trust the Nuclear Regulatory Commission (NRC) and the Virginia Department of Environmental Quality (VDEQ) to look out for the local interests.**

At a September 19 and October 17, 2005 meeting, the Louisa County Board of Supervisors took no action on The Friends of Lake Anna's, representing 2,400 persons, request to pass a Board Resolution requesting that the 3<sup>rd</sup> nuclear reactor be non-water cooled, similar to the 4<sup>th</sup> reactor because they had complete confidence in the NRC and VDEQ. They believe that both the Federal and State Agencies can be relied on to "protect an ant hill in Africa", and that "this was a federal and state issue, not a local one; Let them resolve it". Please explain how the NRC is protecting the local citizens, when in the draft environmental report, almost all items affecting local citizens were identified as SMALL impact, which does not reflect the actual circumstances of the local population.

### **12. Confusing and Conflicting Information**

Many residents are confused by conflicting statements/information by Dominion officials, where Dominion officials trivialized many of the concerns and information provided that was provided by the NRC in public documents. For example:

(a) During a 30 July 05 presentation to the Lake Anna Civic Association, Dr. Jud White indicated that Lake Anna temperatures have never exceed 96 degrees. This was during the same week that persons in Aspen Hill subdivision were experiencing over 104 degrees in water temperatures, others midway in the cooling cycle were experiencing over 98 degrees and others living on the cool side were experiencing over 96 degrees. As a result, many residents believe that Dominion's self-monitoring data cannot be relied upon

(b) During the same presentation, Dr. White indicated that the water was checked at Dike 3 prior to re-entering the main lake. However further checks with VDEQ indicated that no public checking has occurred since Sep 1986 when Dominion applied for a variance, so they could become self-monitoring. Our understanding is that Water Quality Standards for water re-entering Class III nontidal waters are 32 C or 89.6F. It is difficult to see how Dominion can be trusted with other data contained in the Safety Report, when those who live on the lake have known the water temperature to be at least 98 degrees at Dike 3 and 95/96 on the cool side. What would happen to the health & safety of humans, wildlife and fish if the temperatures were to increase an additional 7 or 8 degrees as proposed?

(c) In a Sept 19, 2005 presentation to the Louisa Board of Supervisors, Dr. Judson White (Dominion) said that the ESP was at the first stage of a very long process and that the public and the Board of Supervisors would have many opportunities to voice their concerns before any decision on the type of reactors would be made.

Dr. White failed to notify anyone that if the ESP was granted for a water cooled reactor in 2005, that Dominion could immediately begin site preparation activities to include (clearing grading, construction of access roads, install warehouses, shop facilities, concrete mixing plants, excavate for facility structures, construct cooling towers, etc and most importantly that the overall design parameters for the 3<sup>rd</sup> nuclear reactor would be established. The engineers could immediately begin designing a 3<sup>rd</sup> water-cooled reactor using Lake Anna water. Unless there are any major environmental changes in the future, that the ESP design parameters for 113 degree water temperatures, lake level decreased of 2.5 feet, and a 3<sup>rd</sup> reactor with a water-cooled (using Lake Anna waters) etc. would be carried forward.



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.. (d) In the October 1, 2005 Lake Anna Observer newspaper article, Dominion's Environmental Policy Manager, Dr. Jud White stated "there are things on the table that we need to pursue further and can in the future to maybe reduce the water temperature or water availability. But right now it not ripe. It not a ripe issue until we get further down the road".

It us very hard for the average citizen to understand why these issues are not fundamental to a Draft EIS and why they are not now being examined in the most comprehensive of methods by Dominion, the NRC and VDEQ. Further, why precise actions are not being taken now -NOT "down the road" when it will become a "ripe issue"?

(e) In an October 2, 2005 Associated Press article, Dominion spokesman Richard Zuercher stated that Dominion can control the lake's level using stop logs, "We can make the lake the same level it currently is, and it's not going to be an issue" (Note – assuming this applies to the warm side of the lake, it would appear that it will just exacerbate the problem on the cool side, where the lake level will further decrease 2.6 feet an additional 26 days a year, plus an additional 2 feet for a total of 4.6 feet if a water cooling tower is also used?

. (f) In an October 23, 2005 Richmond Times Dispatch press article – Dominion spokesman Richard Zuercher said "Our Company built that lake and we're proud of that lake. We are not going to mess that lake up. The company is a long way from making a decision on the reactor design

**13. Conclusion:** I would like to thank all of the Nuclear Regulatory Commission and Virginia's environmental and safety officials for the thousands of hours they have spent on both the Draft Environmental Impact Statement Report and also the Safety Report. It is the result of their work that the Friends of Lake Anna, representing 2,400 persons, are confident that the cooling methods for proposed Units three needs to be changed by NRC or/and Dominion to mitigate all the negative environmental and safety impacts identified above. We will look forward to a specific response to each of the issues raised.

*I would like to re-emphasize that the Friends of Lake Anna are not anti-nuclear. We also do not have "not in my backyard sentiments". We believe that the U.S. should become self-reliant for energy sources and not depend on foreign oil. We would support a 3<sup>rd</sup> and 4<sup>th</sup> dry-cooled reactor or some other technology that does not destroy Lake Anna for humans, fish and wildlife.*

*Some of the safety concerns related above are new, as we not previously seen any draft safety documents. As a result, our previous correspondence since the Lake Anna Friends group was formed on Aug 22, 2005 did not address these issues.*

*We are baffled on how the NRC and Dominion environmental and safety officials can ignore the inadequate water in the watershed and the water temperature & related health concerns expressed by the Commonwealth of Virginia officials and data provided to you by Virginia citizens. You continue to press on, as Virginia has not said anything. If the NRC or Dominion has more knowledge then Virginia, then please disclose all you know and why you dispute Virginia's concerns and why your analysis is superior than Virginia and its citizens. If Virginia has the final say on inadequate water to support a 3<sup>rd</sup> water cooled reactor, then please accept their findings and stop the ESP process for a 3<sup>rd</sup> water cooled reactor.*

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*We are hopeful that as a result of the above analysis that resulted in lack of information in some cases, and misinformation or confusing information presented by Dominion's representatives, that the NRC will coordinate with all federal and state environmental and safety departments before issuing any final reports in the future. All reports should provide full disclosure of all concerns, with rationale of why the concern is not valid and a specific solution has been selected that is agreed upon by the authority for that particular item.*

*Further that the NRC reports will then reflect all the comments provided by the state agencies and public's comments in there final documents and the NRC will not ignore overwhelming evidence of population growth, safety problems, water shortages, water temperature health/safety issues to humans, wildlife and fish and simply list their impact as SMALL.*

*Also all final reports should reflect whether the state has provided a Federal Consistency Certification in accordance with the Coastal Zone Management Act, together with any comments that the state may have made. If they have not provided the Federal Consistency Certification - why not? Dominion has repeatedly stated in public forums that a decision on the reactor design has not been made; as a result it would then be inappropriate for the NRC or any other federal agency to publish a final report, as though a decision has been made and lead the public to believe that the decisions have been made. It requested that the Safety Report for the North Anna site be re-evaluated in light of the above and after a fully coordinated effort with all parties, that it be re-issued and also that the Environmental Report undergo the same coordinated efforts before it is finalized.*

*Please do not hesitate to call if you have any questions in relationship to the above.*

Sincerely yours,

Harry Ruth  
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