

**From:** "Harry Ruth" <HC.RUTH@LOUISA.NET>  
**To:** "Rani Franovich (NRC)" <RLF2@NRC.GOV>, "Jack Cushing (NRC)" <JXC9@NRC.GOV>  
**Date:** 8/18/05 4:23PM  
**Subject:** Concerns wDominion ESP request - re Lake Anna

Dear Jack Cushin and Rani Franovich,

Attached are two memo's combined re Dominion Nuclear application for the North Anna ESP permit that identify safety and health concerns and related possible impacts. I will look forward to your kindly consideration of the concerns and response. Please call me once you have received this, which is also being faxed as a courtesy. Thanks. Harry Ruth Phone 540-872-3632

**Mail Envelope Properties** (4304EE16.864 : 23 : 18532)

**Subject:** Concerns wDominion ESP request - re Lake Anna  
**Creation Date:** 8/18/05 4:22PM  
**From:** "Harry Ruth" <[HC.RUTH@LOUISA.NET](mailto:HC.RUTH@LOUISA.NET)>

**Created By:** [HC.RUTH@LOUISA.NET](mailto:HC.RUTH@LOUISA.NET)

**Recipients**

nrc.gov  
owf4\_po.OWFN\_DO  
JXC9 (Jack Cushing)  
RLF2 (Rani Franovich)

**Post Office**  
owf4\_po.OWFN\_DO

**Route**  
nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	438	08/18/05 04:22PM
TEXT.htm	1016	
Nuclear - NRC ltr w-VDEQ's 17 ltr attached - 18Aug05.doc		46080
Mime.822	66677	

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

August 18, 2005

Mr. Jack Cushing & Ms. Rani Franovich  
Environmental Project Managers for North Anna ESP Site Application  
U.S. Nuclear Regulatory Commission, Washington D.C. 20555  
(Via Fax) (301) 415-2002 & Email to [JXC9@NRC.GOV](mailto:JXC9@NRC.GOV) & [RLF2@NRC.GOV](mailto:RLF2@NRC.GOV)

Reference: Dominion Nuclear North LLC Application for the North Anna ESP Site

Dear Mr. Cushing,

We are writing to request your help in addressing several safety and health concerns we have about the proposed expansion of Dominion Resources North Anna nuclear power which affects Lake Anna. These concerns are outlined in the attached letter written to Mrs. Ellie Irons, Environmental Impact Review Program Manager for the Commonwealth of Virginia.

We realize that the public comment period has ended, however these concerns were triggered by a July 30, 2005 briefing by Dr. Judson White (Dominion's Environmental Policy Manager) to the Lake Anna Civic Association and left many questions and no firm answers. This in turn, triggered many follow-up discussions with various Dominion representatives to get specific confirmation of facts in their ESP request, including Mr. Tony Banks (Dominion's ESP Program Manager). Dominion briefed current water temperatures that are not consistent with those we experience while living on the lake, which also raised concerns about the health and safety of humans, fish, and wildlife that use the lake, together with water flow concerns.

It also triggered conferences with the following Virginia departments with primary reference to the Waste Heat Treatment Facility (WHTF), also known as the warm side or public side:

1. The Department of Game and Inland Fisheries plays two different roles (private pond and public body of water)
2. The local State Health Department officials in Louisa indicate they do not check on the water health/safety or water temperatures that may affect the people using Lake Anna.
3. The Virginia Department of Environmental Quality officials indicate they also treat the warm side as a private pond. They look at it similar to a sewage treatment facility, where what happens within the facility is Dominion's concern and they will monitor what comes out of the warm side (WHTF) at the third dike.

This then begs the question – who in the federal and state government is looking out for the interests (human, fish, wildlife) for the thousands of landowners and millions of dollars invested on the land that surrounds the 200 plus miles on the shoreland of Lake Anna?

Please call if we can be of any further assistance. We will look forward to your kindly consideration of our concerns (as stated on attached memo) as you process Dominion's ESP and your response.

Sincerely yours,

Harry Ruth for the Board of Directors  
Ruth Estates Property Owners Association  
C/O 230 Heather Drive, Bumpass, Va. 23024 – ph (540)-872-3632

Attachment: 17 Aug 05 letter to Mrs. Ellie Irons, Environmental Review Program Manager

CC: Mrs. Ellie Irons, Virginia Environmental Review Program Manager (via fax 804-698-4319)

17 August 2005

Mrs. Ellie Irons, Environmental Impact Review Program Manager  
Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, VA 23219

Dear Ms. Irons:

We request your help in addressing several concerns we have about the proposed expansion of Dominion Resources' North Anna nuclear power plant which affects Lake Anna. Lake Anna is Virginia's 3<sup>rd</sup> largest lake and a major recreational resource. Many communities (with thousands of landowners) have been built on the 200 plus mile shoreline. Our health and safety concerns are related to (1) the expected increase in the water temperature and (2) the increased water flow through the plant. Our properties are on the waste heat treatment facility (WHTF) containing approximately 3,500 acres of water (also called the warm side or private side of Lake Anna) and apply mostly to that part of the lake; however, the other part of the lake (cool side, public side) could also be adversely affected.

We have no problem with the general idea of expanding the plant; our concerns are that the current proposal would adversely affect our use of the lake and our property. In addition, the proposal would also affect the fish and wildlife that also use the lake. We believe conditions need to be added to Dominion's permit to prevent these adverse effects.

It has been stated that Dominion owns the warm side (WHTF) and should be allowed to do anything to this part of the lake it wants. We believe this statement is not valid. If Dominion wanted complete freedom to do whatever it wanted with the waste heat treatment facility, it should not have allowed anyone else to have access to this part of the lake. **Dominion long ago (30 plus years) decided to allow nearby property owners complete access to the waste heat treatment facility and should not now be allowed to take actions which will have serious adverse consequences for these property owners, fish, birds, wildlife, etc.**

**Parts of the warm side (WHTF) are currently experiencing water temperatures over 104 F. This is occurring in the Aspen Hill subdivision, which is the community nearest the power plant's discharge canal. Hot tub manufacturers warn that the water in the hot tub should not exceed 104 F because higher temperatures can place a dangerous strain on the cardiovascular system. They also warn that people with a medical history of heart disease, circulatory problems, diabetes, and high blood pressure and pregnant women should consult a physician before using a hot tub.**

We understand that Dominion has requested approval for water being discharged from the plant to reach as hot as 113 F for the 3<sup>rd</sup> reactor. Dominion also plans a 60 percent increase (approximately 1.2 million gallons per minute additional) in the volume of water being discharged. **These changes could make large parts of the lake unusable by humans for the portions of the year when most people expect to use the lake the most (during the summer months), as described below.**

**(Increase in water temperature's up to 113 F concerns)**

1. The average temperature increase for the warm side (WHTF) could be about 5 F. The water might not cool as much because it would be moving faster with the increased flow. Water above 104 F is probably not healthy for humans.
2. These high temperatures would seem more friendly to bacterial growth and associated health problems to humans, fish, wildlife..
3. Dominion measures water temperatures about 1 meter (39 inches) below the surface. Humans, birds, and other animals are mostly above this depth where the temperatures are higher. The reporting of this temperature by Dominion may not consider the public's health..
4. Additional fish could be killed. We observed over 1,000 dead fish on lagoon 1 in July 2005.
5. Harm to wildlife (birds –(bald eagle/protected species), deer, beaver, etc. who use the lake.

**(Increase in water flow rate concerns)**

6. The water level on the waste heat treatment facility could rise significantly.
  - a. Currently (with 2 reactors), the waste heat treatment facility water level lowers 7 inches when the plant's circulation pumps are shut off and rises 7 inches when they are turned on.  
All current boat houses, piers, sea walls, etc. are sized to the current level on the cooling lagoon.
  - b. It would appear that if a 60% increase in flow rate is achieved, this would increase the water level during the cooler months.
  - c. A few inches increase could result in putting many decks of boat houses, piers, and sea walls under water causing much property damage.
  - d. During the summer months, the increase temperature and flow would create much more evaporation, which could actually lower the lake level and possibly cause some areas to have no water (similar to a drought condition).

**(Additional Impacts)** All of these factors could result in a major loss of property values and the associated loss of taxes to local government. If a health warning ever had to be issued because of the factors described above, property values would plummet quickly for all of Lake Anna and the recreational use of one of Virginia's finest resources could be dramatically impacted.

We have tried, unsuccessfully, to have our concerns addressed by various Commonwealth of Virginia and federal agencies, as described below. These unsuccessful attempts have made us wonder who is looking out for our interests.

4. The Department of Game and Inland Fisheries plays two different roles. The state biologist indicates they treat the warm side as a private pond, even though there are over a thousand landowners and fisherman here. They do not monitor the fish population or fish kills, rather relying on Dominion Power to monitor this. However the Law Enforcement section patrols the lake for boating violations, fishing licenses, and water marker enforcement.
5. The local State Health Department officials in Louisa indicate they do not check on the water health/safety or water temperatures of people using Lake Anna. They focus on wells, sewage permits, major health outbreaks, etc.
6. The Virginia Department of Environmental Quality officials indicate they also treat the warm side as a private pond. They look at it similar to a sewage treatment facility, where what happens within the facility is Dominion's concern and they will monitor what comes out of the warm side (WHTF) at dike 3.
7. The Federal Nuclear Regulatory Commission is concerned mainly with the safety of the nuclear materials and associated equipment and rely's on Virginia for water usage, health &, safety issues.

Dominion has been a good steward of the lake during the past 30 years, but we want to make sure that water temperature and water flow rate concerns, together with the related impacts, are addressed by our Virginia government representatives. We want to insure that our lives and property are not damaged by a possible Dominion profit motivated design decision that could affect the warm side (WHTF) landowners, with a cascading affect to all Lake Anna property owners and their capital investments of millions of dollars. These millions of dollars of capital investments were sanctioned by Dominion throughout the past 30 years, so it would appear they may have some major responsibility if the health, safety, and property of Virginia citizens are adversely affected by a new nuclear reactor.

As proposed, adding the third reactor could have a cascading effect on the main lake. Although not discussed in this letter, parts of the public side of Lake Anna could also experience significantly increased water temperatures because much of the water exiting the waste heat treatment facility at dike 3 travels back up lake to the plant intake during the water cooling circulation process. Thus, the part of the main lake between dike 3 and the plant could also see significant water temperature increases of 5 plus degrees due to the increased flow rate. Also, problems associated with the warm side (WHTF) may not be distinguishable by the general public which many do not appear to understand the difference between the public side and the private side.

We are not opposed to a new 3<sup>rd</sup> and 4<sup>th</sup> nuclear reactor, if the water temperature of the warm side (WHTF) is not increased past its current levels and water levels remain the same. However, we do need some written guarantees to protect our interests as the permit process moves ahead.

Thank you in advance for your help in this matter. We apologize for this late submittal, but the concerns in this letter were triggered by a July 30, 2005 briefing by Dr. Judson White (Dominion's Environmental policy manager) to the Lake Anna Civic Association and left many questions and no firm answers. This in turn, triggered many follow-up discussions with various Dominion representatives to get specific confirmation of facts in their ESP, including Mr. Tony Banks (Dominion's ESP Program Manager). It also triggered conferences with the Virginia agencies and the Nuclear Regulatory Commission referenced in this letter. .

We understand that your comments must be sent to Dominion by September 22, 2005 with a copy to the Nuclear Regulatory Commission. Our understanding is also that your comments indicate whether the Commonwealth of Virginia is in agreement that Dominion's ESP request is compliant/consistent with the Federal Coastal Zone Management Act. Further, that the NRC cannot issue a ESP permit until Dominion becomes compliant with the Coastal Zone Management Act.

Please call if we can be of any further assistance. We will look forward to your response.

Sincerely yours,

Harry Ruth for the  
Board of Directors  
Ruth Estates Property Owners Association

Phone (540) 872-3632