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Add = A. Williamson (AEW2)

3 February 2009

To: U.S. Nuclear Regulatory Commission,
Washington D.C. (via email NORTHANNA.COLEIS@NRC.GOV)

Reference: (1) Draft Supplemental Environmental Impact Statement (SEIS) for the Combined `License (COL) for North Anna Power Station Unit 3

(2) NRC Public Hearing – 3 Feb 2009 Re Draft SEIS for the COL

Dear Nuclear Regulatory Commission & Ladies and Gentlemen,

1. Friends of Lake Anna. The Friends of Lake Anna" is a citizen group representing 2,650 persons whose mission is to protect Lake Anna (both main reservoir and cooling lagoons) and its surrounding landscape, together with any related concerns, within Louisa, Spotsylvania, and Orange Counties for the health, safety and welfare of current residents/users and for future generations. We are not anti-nuclear, nor do we have "not in my backyard" sentiments, but do support a wise and safe use of nuclear energy. Our goal is simply to protect Lake Anna for its 500,000 plus annual users and insure compliance with the law.

We are not opposed to the North Anna 3rd Unit Project. We want to insure that Dominion identifies the type of Reactor that it will use and its potential impacts prior to proceeding. We also want to ensure that the impacts of all environmental issues, primarily with the cooling method proposed for the 3rd reactor that will use up to 24 million gallons a day of Lake Anna water; will cause the water to heat faster during summer times of peak electricity demand and double the drought cycle from an average of 21 to 40 days per year are fully mitigated. Also putting new sewage effluent and chemicals into the heated lake must be fully evaluated. All of the impacts of lower water levels, hotter water and new sewage effluent to Lake Anna and surrounding infrastructure must be successfully mitigated with public participation prior to the issuance of and finalization of the COL Environmental Impact Statement.

The NRC has created a very complex process that discourages public participation and also does not require any impact studies to Lake Anna (main reservoir and cooling lagoons)and downstream shorelines, structures (docks, piers, bridges), safety to navigation, aquatics, social and economic factors, recreation, drought management and environmental study be completed prior to proceeding. How can the NRC proceed with such a project, without having any idea of the above impacts?

I will now address each of our concerns.

A. Identification of Reactor Type. How can the NRC hold public draft environmental study meetings when neither the NRC or the public has any idea of what type of 3rd reactor will be installed at the North Anna plant or its impact to Lake Anna. It simply does not make any sense. On 12 Jan 2009, Dominion announced that it will no longer use the proposed GE Hitachi Economic Simplified Boiling Water Reactor. Other U.S. utility companies also announced they were abandoning this reactor because they could not get federal loan guarantees. The public still does not know what type of reactor will be installed at Lake Anna or its potential environmental impacts.

B. Complex NRC Environmental process discourages public knowledge of exactly what is being planned. A review of the draft Supplemental document (Dec 2008) is very difficult (if not almost impossible), because it provides supplemental data only (Approximately 400 pages) and if you do not know what was in the initial Environmental Impact Statement for the ESP (Approximately 800 pages) (Dec 2006), you cannot get a complete picture of what is being proposed or what has changed. A line by line comparison of both documents must be made to determine what the final proposal is. This is next to impossible on a home computer and impossible at the local library.

Review of draft SEIS difficult and almost next to impossible (one example – water levels).

(1) WATER LEVELS – The ESP EIS – defines Maximum Evaporation rate for the Energy Conservation Mode of Unit 3 Cooling will be 16,695 gpm (or up to 24 million gallons a day) on Page 3-10

Draft SEIS – does not mention anything at all about the evaporation rate which will cause the water usage.

Draft SEIS - simply says (5.5.2) Socio economic Impacts - Based on the individual aspects of recreational activities in the vicinity of the NAPS site, if the normal operating level of Lake Anna remains at 250 ft, the staff concludes that the recreational impacts resulting from the proposed Unit 3 would be SMALL most of the time, but could be MODERATE during the infrequent periods of extreme droughts. Although significantly impacted on a temporary basis during droughts (e.g. boating safety, usability of boathouses and property values are concerns expressed by the public, based partly on experiences during droughts that occurred in 2001 to 2002 drought and in 2005). Lake Anna recreation does continue during droughts, and most of the impacts result from the lowering of lake levels by the drought itself, not by NAPS operations.

As described in Section 5.3, addition of operations at the proposed Unit 3 would change the frequency of depth of low water levels created by droughts, but not by enough to change the overall conclusion reported in the ESP ESI that adverse impacts on recreation would be temporary and MODERATE. Therefore, mitigation is not warranted.

C. Declining Water Levels in Lake Anna.

(1) Dominion has acknowledged that the wet/dry cooling method for the 3rd reactor will use up to an additional 24 million gallons of Lake Anna water each day in the Energy Conservation Mode (ECM) and up to 16.6 million gallons per day in the Maximum Water Conservation Mode (MWC). *They also acknowledge that they may operate in the ECM mode during the summer months when the lake level is below 250 MSL, if peak electricity demands. (See Safety Report), which will cause lake level declines and the existing water to heat faster dueto less volume.*

(2) The Virginia Dept of Environmental Quality (VDEQ) Dept of Water Resources and the Dept of Game & Inland Fisheries (DGIF) have previously indicated that the North Anna watershed is too small to allow large water withdrawals. These could adversely affect the beneficial users of the North Anna and Pamunkey Rivers which eventually flow into the Chesapeake Bay and the Atlantic Ocean. The DGIF & VDEQ analyses and Dominion acknowledges that the 3rd reactor would increase the drought cycle and cause decreased water flows during March, April; May; June, July, August and September (7 months) of each year. Dominion has stated that the drought cycle will double with the addition of the 3rd reactor wet/dry cooling method. The proposed cooling method will cause the average drought period to increase from 21 to over 40 days per year (most likely during the summer months). Note that lake levels have decreased below 248 MSL in five out of the last eight years. . The DSEIS should explore facts versus Dominion predictions with lake levels decreasing below 250 MSL and related impacts to the public, fish, clams/mussels, and wildlife.

(3)Both VDEQ and DGIF, in conjunction with Dominion Resources are currently conducting an In stream Flow Incremental Methodology (IFIM) study on Lake Anna and the North Anna River and Pamunkey Rivers downstream to determine the effects of the reduced water flow on recreation, wildlife, aquatic life and fish as part of the conditional certification for the 3rd reactor Early Site Permit (ESP). **This IFIM study and Reactor Type should be completed before any Draft Supplemental Environmental Impact Statement for the COL is issued by the NRC so all the results of the IFIM study and impacts of the reactor type can be reviewed and commented on by the public. Otherwise the results from this important study will cause much re-work later by the NRC, Virginia and the public and waste much time. Currently there is no public participation in the study plan or results.**

D. NRC and draft SEIS ignores May 2008 petitions and letters representing over 6,400 citizens. Although the NRC has a Mission Statement "to protect the public health and safety, promote the common defense and security, and protect the environment", the NRC recommendation is for the approval of the Construction and Operating License, without doing a Recreation Impact Study of Lake Anna and downstream. In a few words the NRC basically ignored all of our 10 May 2008 comments, together with the petitions and letters submitted representing over 6,400 citizens and in some cases put the burden on Commonwealth of Virginia and/or the local localities to simply put restrictions in permits to protect the public.

The petitions and supporting letters requested that the NRC examine the impact of declining water levels that will:

- Create many boating hazards with previously submerged items (rocks, stumps, sandbars, etc.) are exposed and create major safety hazards for recreational users when their boats hit these submerged items;
- Cause the water will get hotter faster in the summer months to unsafe water temperatures causing negative health impacts to humans, fish, wildlife, aquatic life, clams and mussels;
- Create a major fire safety hazards for lake homes/communities by making the dry fire hydrants unusable due to the lack of water at the lake intake caused by the decreasing lake water level.
- Increase shoreline stabilization problems and
- Create negative impacts on many lake businesses as people go elsewhere to recreate and live.

E. Why can't Dominion use the cooler (60 to 65 degree F) Lake Anna Water located in deep water depth's (close to the dam) to provide supplemental cooling for the Unit 3 Reactor during the summer months, as opposed to operating in the ECM Mode (Up to 24 Millions Gallons a Day) Cooling Method? . This could simply be accomplished by running an intake pipe from the deeper depths (cooler water) caused by thermo clines at the dam to the intake of the cooling towers, thereby eliminating an up to additional 8 millions gallons a day of water usage from the lake. Over the expected 60 year life of a nuclear reactor, this intake pipe at the dam running to the unit 3 cooling process would amortized many times and save much water.

F. New Sewage Treatment Facility (sewage effluent & chemicals discharged into Lake Anna). How can the NRC support sewage effluent & chemical being discharged into Lake Anna where the public swims and recreates???

The draft SEIS for the COL in 5.3.3 (Water Quality Impacts) says that "Treated effluent from the proposed new sanitary plant would be combined with Unit 3 plant discharges in the blowdown sump before discharging to the Waste Heat Treatment Facility (WHTF)- cooling lagoons.

In 3.2.4.1 the draft SEIS also says Chemicals and biocides will be employed in water treatment for various water systems at the proposed Unit 3 to include treatment of circulating water, service water, station water, and de-mineralized water. Effluent streams will also include pollutants (e.g. oil and grease, total suspended solids and iron) from corrosion and wear of plant piping and equipment. Waste effluents from these systems will be regulated by the VPDES permit and will flow into the cooling tower blowdown sump. These effluents then will flow into the discharge canal where they will mix with the circulating water from Units 1 and 2 and finally be discharged into the WHTF cooling lagoons.

In 7.3 Water Quality – the draft SEIS says the proposed Unit 3 would discharge effluents into the discharge canal that **will likely exceed water-quality criteria for copper and tributyltin**. Further dilution would occur in the warm side of the lake (WHTF) and eventually Lake Anna (main reservoir). Based on this information, the NRC concluded that the cumulative water-

quality impacts associated with the proposed Unit 3 would remain SMALL. Pollutant discharges would be regulated under a Virginia Pollutant Discharge Elimination System permit.

Note that 99% of the lake water is currently re-circulated between the power plant and the dam and only 1% runs over the dam. This water is heated by the power plant, which increases the risk to humans who swim and recreate in the water to increased biological risks from the new sewage effluent, additional chemicals and pollutants added to Lake Anna.

G. Unit 1 and 2 Offsetting Measures. Since there are significant incremental surface water impacts that will be caused by the proposed Unit 3 (cooling method using up to 24 million gallons per day**), the system design alternatives should include the alternative of imposing some form of water saving/water cooling measures on the two nuclear reactors that already exist on the site, as a form of offset to the impacts of the proposed new reactors.** These unit 1 & 2 offsets are necessary under the National Environmental Policy Act (NEPA) where the applicant and its affiliates seek to add a nuclear reactor at the same location of existing nuclear operations. The unit 1 & 2 water conservation measures should mitigate against the significant and adverse incremental impacts that will be caused by the proposed Unit 3 cooling method.

H. Summary

We believe that the North Anna project for the 3rd Reactor as currently proposed which will use up to an additional 24 million gallons per day of Lake Anna water, needs to have the items described above *(A)Identification of Reactor Type (b) Complex NRC Environmental Process (c) Declining Water Levels at Lake Anna (D) NRC ignores May 2008 Petitions/Letters representing over 6,400 persons (E) Why doesn't Dominion use 65 degree water to cool Unit 3 (F) New sewage effluence & chemicals discharged into the lake and (G) Unit 1 & 2 offsetting Measures* be fully evaluated and mitigated with public participation as part of the COL Environmental Impact Statement phase. The above referenced issues must be satisfactorily resolved prior to finalizing the Environmental Impact Statement and issuing a Construction and Operating License.

Lake Anna was originally planned for both residential development and recreation around the total 13,000 acre lake in addition to providing cooling water for reactors. The NRC, state and local governmental agencies together with the public should be working together to preserve this beautiful lake resource for future generations. Together we should be able to minimize all the decreasing water levels and negative effects as defined above, while still providing a safe environment to produce electricity for the public good. .

Thank you for your time and consideration of the above items,

Sincerely,

Harry Ruth
For the Friends of Lake Anna
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