PMNorthAnna3COLPEmails Resource

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To: Sandusky, William F III
Cc: NorthAnna3COL Resource
Subject: NAPS comments
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Bill

Attached is the last of the North Anna comments with my responses. Im thinking we may need a conference call to go over my comments in the various technical areas where I provide "special" responses. Also, we need to have the tech editors there to probably discuss some grammatical differences.

Any questions, let me know.

Thanx

Alicia

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Draft Response Report for Site Document NAPS-COL3-DR

This document (7-23-09) includes comments and responses for all sections not reviewed by NRC as of 7-20-2009, which is 2.8 Hydrology –Surface Water through 2.44 Editorial Comments. Sections 2.1 Process—ESP-COL through 2.6 Meteorology-Air Quality were previously reviewed by NRC and are not repeated here. Sections 2.10 and 2.11 (Ecology-Aquatic and Terrestrial) were previously reviewed by NRC, but are included here to show new responses added since earlier review, as well as comments incorporated into existing responses. Sections reviewed by NRC between 7-20 and 7-23 and documented elsewhere can be ignored in this document.

(2.7 Geology—No comments)

2.8 Comments Concerning Hydrology - Surface Water

Comment: With respect to water related impacts, in Section 5.3 of the DSEIS, the NRC has devoted a whopping one and a half pages to this most important issue. (**0073-40** [Remmers, Ken])

Comment: Related to comments provided by Dominion for the ESP DEIS on ER Section 5.3.1, 5.3.2, 5.4.1.4 and Appendix K as provided in Dominion Letter dated Sept. 12, 2006 (Accession No. ML062990422) and as summarized below: The FEIS for the ESP used an acceptable, but less precise method of confirming the evaluation performed by Dominion in order to assess the impact of Unit 3. The analysis used the long term average evaporation rate that Dominion stated in the ESP Application, which included a large portion of time when the lake was at or above 250 ft. msl and there was enough water to support the evaporative cooling process. When applied to the time periods when the lake is below 250 ft. msl, this method over estimates the evaporative loss caused by wet cooling and does not adequately credit the use of dry (i.e., no evaporation) cooling. The FEIS for the ESP concluded that the water use impact of Unit 3 was SMALL during normal periods and MODERATE during drought periods using the conservatively high value for evaporation, so further analysis using a more precise method was not required. Dominion's analysis used a more precise evaluation including daily evaporation estimates as a function of ambient environmental conditions and cooling system modes of operation (EC or MWC) depending on the projected lake level. The FEIS for the ESP reflects the NRC confirmatory analysis, and while the results do not exactly match those stated in the ESP-ER, the conclusion of SMALL IMPACT is unaffected. (**0084-26** [Grechek, Eugene])

Response: *The issue of water-related impacts was resolved, with the exception of a question about the water treatment impacts, in the ESP FEIS (NUREG-1811) and no new and signficant information was identified in the COL environmental review. Therefore, no changes were made to the SEIS based on this comment. (NAPS-COL3-DR0180R)*

Comment [a1]: I do not see anything in comments about water treatment impacts. Maybe we should delete this part.

Comment: A third reactor would also jeopardize the water resources of the area. (**0067-2** [Suter, Emanuel])

Comment: Downstream water, something that hasn't been considered. The State Fair is moving on to the North Anna river. They are planning on using the water from the North Anna

as part of the State Fair. And this is going to be right at the height of the drought, late August, September, not included in there. **(0082-13** [Rosenthal, Jerry])

Response: *Water use impacts were considered and resolved in the ESP EIS (NUREG-1811), which stated that "potential conflict over [downstream] water use, which exists regardless of whether Unit 3 is constructed, falls within the regulatory authority of the Commonwealth of Virginia." No new and significant information was identified during the COL review that changed the water-use impact level. The IFIM study that was conducted as a condition of the ESP for the North Anna site, addressed impacts on lake levels and downstream flows under different reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. Mitigation of impacts includes a proposal to increase Lake Anna reservoir storage capacity by raising the normal pool elevation 0.25 ft to 250.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Section XXX~~Chapter 5~~ of the ~~Final~~ this SEIS, along with proposed measures to mitigate habitat and recreational impacts. Reservoir management, water use, and downstream instream flow requirements remain within the authority of the Commonwealth of Virginia. (NAPS-COL3-DR0181R)*

Comment: It appears that there are major discrepancies in the water sections. In numerous places the SDEIS asserted that data was lacking or simplified methodologies were used. (See for example Page 1-6 which states inter alia insufficient information was available "to allow the NRC staff to complete its independent analysis" and "these issues are not resolved for the North Anna ESP site"). As evidenced from the recent public hearing, water use and impacts on lake level and downstream flow are major areas of concern. The SDEIS (see Table 10-3 e.g.) that the impacts of water use and quality are "unresolved" is not sufficient to make a determination of the project's acceptability. Perhaps a solution is to commission a truly unbiased third party water study to provide better methodology and data for impact assessments. This study could be incorporated into a new DEIS. (**0023-11** [Goldsmith, Aviv])

Comment: Chapter 3 mentions blowdown and other discharges. Will the applicant stipulate to a 100 degree thermal discharge limit as an operating permit condition as requested by the Waterside Property Owners Association? Will the applicant stipulate to a 104 degree limit at the end of the discharge canal as requested by Friends of Lake Anna? (**0023-24** [Goldsmith, Aviv])

Comment: The SDEIS continues to be very troubling regarding water analysis. It states that the assessments "are based on a simplified representation of the conservation of mass for the lake". This excludes water temperature stratifications and the flow contributions from a many of the tributaries. How then, can the impact forecasts of SMALL be reliable? How can "no mitigation" be a reasonable solution? (**0023-29** [Goldsmith, Aviv])

Comment: Along the lines of the prior comment, SDEIS page 5-7 line 26 concluded that "relatively small errors in the pool elevation measurements using this model can result in significant errors in the precipitation, groundwater, and tributary inflow estimate". How then, can the impact forecasts of SMALL be reliable? How can "no mitigation" be a reasonable solution? Perhaps an independent comprehensive water study would provide more robust impact assessments. (**0023-30** [Goldsmith, Aviv])

Comment: Shouldn't the operator's role in decisions to change the normal lake level (Page 511, line 28 et. seq.) be one of conditions of the COL? Just because "modifications to the water release regime from the Lake Anna Dam to mitigate impacts would be under the jurisdiction of

VDEQ" (Page 5-33 line 14), does not absolve the operator or the NRC from adopting reasonable mitigation measures which could be subject to VDEQ approval. (**0023-31** [Goldsmith, Aviv])

Comment: Wouldn't the installation of new unit(s) be an opportunity to mitigate some of the existing problems with water temperature and lake level? (**0023-32** [Goldsmith, Aviv])

Comment: The determination in Table 10-3 and elsewhere that the impacts on water use and quality is "likely to be SMALL" is unsubstantiated. As was clear from the last public hearing, the public's perception is that the impacts are LARGE. (**0023-56** [Goldsmith, Aviv])

Response: *These comments refer to the North Anna Draft Early Site Permit (ESP) EIS that was superseded by the North Anna final ESP EIS (NUREG-1811) published by NRC in December 2006. NUREG-1811 was revised to incorporate numerous public comments and an independent water budget analysis (NUREG-1811, Appendix K). In November 2007, Dominion was issued an ESP (ESP-003) for two units at the North Anna Power Station site under the specifications of that permit. In its environmental review of the COL application for the proposed Unit 3, the NRC staff reviewed new and significant information pertaining to the water-related impacts of construction and operation of the proposed Unit 3. Those impacts, as well as potential mitigation measures, are addressed in Chapters 4, 5, and 7 of this SEIS. No change was made to the SEIS as a result of these comments. (NAPS-COL3-DR0182R)*

Comment: 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 I 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 that99% 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 n the water to increased biological risks from the new sewage effluent, additional chemicals and pollutants added to Lake Anna. **(0017-14** [Ruth, Harry])

Comment [a2]: The font changes here, is it due to commenter just an error in cutting and pasting.

Comment: 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. Of special concern is the discharge of untreated sewage into Lake Anna during periods when the waste treatment plant is not operational. This is a common problem with all sewage treatment plants as no plant can operate without ever experiencing failures of some type. Lake Anna is not a free flowing stream but is basically an impoundment as much more water flows into the lake than is ever discharged at the dam. 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. (**0019-4** [Smith, Doug])

Comment: We have another concern, and that is about the sewage treatment facility that will be a part of the third unit. We would like Dominion to implement a system similar to what a new development here, Cutalong, is implementing in which the effluent would not be put back into the lake. **(0073-57** [Smith, Doug])

Comment: Now, the NRC has, in the Draft SEIS you have a whole section on long-term impacts, but you fail to look at the long-term impact of putting the effluent into the lake and the accumulation of nitrates in the water, over time.

We ask that you take another look at that, and include something in the Final SEIS on that subject. (**0073-58** [Smith, Doug])

Response: *Dominion will be required to operate the proposed sanitary treatment plant, or any other form of sanitary treatment, in compliance with the Sewage Collection and Treatment Regulations of the State Water Control Board (9 VAC 25-790), and to discharge effluent under the conditions of a Virginia Pollutant Discharge Elimination System (VPDES) permit. Dominion estimated the maximum discharge rate from the sanitary plant to be 105 gallons per minute (gpm), approximately 2% of the cooling water system blowdown with the proposed Unit 3 in normal operation. The effluent discharge associated with the proposed Unit 3 would be an insignificant portion (less than 0.3%) of the total effluent discharge from Units 1, 2, and 3 combined. No change was made to the SEIS as a result of these comments. (NAPS-COL3-DR0183R)*

Comment: Numerous requests have been made to the NRC, the Commonwealth of Virginia, the Department of Environmental Quality (DEQ), the Department of Game and Inland Fisheries (DGIF), the Department of Conservation and Recreation (DCR) and Dominion itself to study all of the impacts on Lake Anna that will be brought on by the 3rd reactor.

It is imperative that we know how the lake will be affected. The increasing drought cycles have aggravated the low water levels on the lake. Many thousands of people live on or near the lake and many more use it on a daily basis. The Lake Anna State Park is a treasured resource where families gather to recreate.
The normal pool level is 250 feet, but the lake is rarely full, whether from drought, summer heat, Dominion's failure to monitor the flow over the dam, and, of course, from the operation of Units 1 and 2. We need to know to what extent the addition of a 3rd reactor will aggravate what is already a serious situation.

When the lake falls below the 250 feet normal pool level, which is most of the time, the following problems occur:
1. Homeowners have mudflats in front of their homes instead of lakefront;
2. Homeowners are therefore unable to put their boats in the water, thus depriving them of one of the main reasons for purchasing lakefront land;
3. Boulders, stumps, and sandbars which were previously submerged, become exposed or just below the surface, causing serious hazards to boating on the lake;
4. The shoreline becomes destabilized;
5. The 35 dry fire hydrants on the Louisa County side of the lake become unusable, making it difficult for firefighters to put out fires;
6. Water temperatures which are already seriously elevated rise to levels that pose health hazards to the public; and
7. The many businesses which depend on a healthy and thriving environment at the lake are threatened with economic disaster, as the public goes elsewhere to recreate. **(0003-4** [Crawford, Barbara])

Comment:

D. DROUGHT CYCLES ARE INCREASING IN CENTRAL VIRGINIA AND THROUGHOUT THE SOUTHEAST

Whether from Climate Change or Global Warming, drought cycles are increasing rapidly in our area and throughout all of the Southeast. Dominion, when it selected this area for the construction of a nuclear power plant, estimated that there would be a drought approximately every 20 years. In reality, we have experienced serious droughts in 6 of the past 10 years. The water level in the lake has fallen below 248 feet in 5 of the past 8 years.

In 2002, after a 3 year drought, the water level fell to 245 feet and Dominion was faced with having to close down both Units 1 and 2. After that, Dominion extended its intake pipes which solved its problems but did nothing for all of the people who lived on and around the lake or who traveled there to recreate.

Faced with yet another reactor at the lake, the question must be asked: is there truly enough water to sustain 3 reactors without destroying the lake for all of the people who live there?

E. DOMINION HAS ACKNOWLEDGED THAT THE PROPOSED 3RD REACTOR WILL DOUBLE THE DROUGHT CYCLES AT LAKE ANNA

For all of the reasons listed above, this could be a disaster for Lake Anna. It is important to remember that Lake Anna is not Dominion's possession, to do with as it sees fit. When Dominion was given permission to build a nuclear power plant here in Louisa County and to construct a dam and create Lake Anna as a means to cool its nuclear reactors, it was made clear that the lake would have 2 purposes: 1. to cool the reactors and 2. to create a recreational lake for the citizens of Virginia and the many others who would travel here to enjoy it. Soon after, the Commonwealth of Virginia decided to build a State Park here.

It would be tragic if one use for the lake were permitted to destroy the other. It is for this reason that a comprehensive study of the impacts of the proposed 3rd reactor on Lake Anna must be undertaken. Just as the NRC mandated that the IFIM study be accomplished by Dominion prior

to the issuance of the Combined Operating License, it is now appropriate that the NRC require Dominion to conduct a comprehensive study of the impacts on the Lake itself. (**0003-5** [Crawford, Barbara]

Comment:
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

(**0017-12** [Ruth, Harry])

Comment: 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 3 rd 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 3 rd 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. (**0017-8** [Ruth, Harry])

Comment: EPA continues to have concerns regarding the thermal discharge from the proposed Unit 3 consistent with those expressed in our August 28, 2006 comments on the Supplemental Environmental Impact Statement for the Early Site Permit (**0072-1** [Lapp, Jeffrey])

Comment: Flows into the cooling lagoon, millpond, and the reservoir, at this time are not even gauged to know what the input flows are, such as the North Anna River, the Pamunkey Creek, Terry's Run, and Contrary Creek. (**0073-36** [Remmers, Ken])

Comment: Flows over the dam, water level changes, any introduced wetlands, and FERC requirements for any increased normal pool level, need to be addressed by the NRC and the DSEIS for the COL. (**0073-37** [Remmers, Ken])

Comment: Two, low lake levels create increased erosion along the shoreline, and damage wetlands and other aquatic life. How many acres of wetlands do you think will be affected by the water consumption of the third reactor? Answer, nobody knows. **(0073-50** [Smith, Doug])

Comment: Water levels, reduced water levels cause erosion around existing bulkheads, and existing shoreline protection. How many bulkheads and other structures are affected by this increased water consumption? Answer, nobody knows. (**0073-53** [Smith, Doug])

Comment: I feel that the issue of overheated water in Lake Anna, its impacts on the lake ecosystems, its impact on recreation on or near the lake, its impacts downstream in the North Anna, Pamunkey, and York River watershed has still not been addressed in the Environmental Impact Statement. **(0073-59** [Day, Elena])

Comment: Another nuke constructed on the shores of Lake Anna will only increase water temperature, and decrease availability of water in the lake, and downstream, especially in times of drought. **(0073-60** [Day, Elena])

Comment: We do not believe that Lake Anna's water supply can support cooling for an additional reactor without decreasing the amount of water released into the North Anna river.

This will be particularly serious during periods of drought, or near drought. (**0078-3** [Cruickshank, John])

Comment: We also have concerns about lake levels. Some other people have discussed this. Altering the intake structures for units 1 and 2, and lowering the allowable minimum lake level would permit incrementally greater effective storage at the expense of greater impacts on recreation and fish populations. (**0078-7** [Cruickshank, John])

Response: *These comments reiterate concerns about the impacts of the proposed Unit 3 on the temperature and water level of Lake Anna, downstream impacts, and possible worsening of drought conditions. Thermal impacts were resolved at ESP stage and no new and significant information was identified during the COL review; the increase in temperature in Lake Anna related to proposed Unit 3 operation would be insignificant. As a condition of the ESP for the North Anna site, Dominion was required to conduct an IFIM study to address impacts on lake levels and downstream flows under different reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. The IFIM study was the basis for proposed changes to reservoir operation rules that would increase the normal pool level by 0.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Section XXX~~Chapter 5~~ of ~~the Final~~this SEIS, along with proposed measures to mitigate habitat and recreational impacts. (NAPS-COL3-DR0184R)*

Comment: 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. (**0017-13** [Ruth, Harry])

Comment: 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. (**0017-6** [Ruth, Harry])

Comment: Changes in the cooling system for unit number 3 to utilize a combination of wet and dry cooling towers, increases the maximum water consumption rate, even further, during the energy conservation mode.

During the maximum water conservation mode, it will still consume more water than with the previous once-through cooling system. (**0078-4** [Cruickshank, John])

Response: *Water consumption by the proposed Unit 3, including evaporative losses, are addressed in Section 5.3.2 of the SEIS. Dominion proposed a hybrid wet-dry cooling system to ~~r~~ essentially eliminate thermal impacts while limiting the consumptive water use during summer months. The typical Energy Conservation operating mode of the proposed Unit 3 draws an estimated 22, 260 gpm, while the Maximum Water Conservation mode employs wet-dry cooling that draws an estimated 15,376 gpm, reducing consumptive water use by almost 7,000 gpm. In comparison to the original once-through cooling system design, the current hybrid wet-dry system does not consume more water. The NRC staff evaluated alternative intake structure designs in Chapter 9 of the draft SEIS, and concluded that the proposed intake structure location and design was preferable to either an inlet at another location or a submerged offshore intake design, because those alternatives were likely to have greater environmental impacts associated with construction. No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0185R)*

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Comment: The North Anna Power Station is not currently in full compliance with the federal Clean Water Act and a third reactor will add to the problems already occurring with warm lake temperatures and downstream flow . **(0004-1** [Abbott, Diana])

Comment: Judge Spencer's ruling on the DEQ water permit proves that Dominion has not been in compliance with the U.S. Clean Water Act (**0005-1** [Cruickshank, John])

Comment: The North Anna Power Station is not currently in full compliance with the federal Clean Water Act and a third reactor will add to the problems already occurring with warm lake temperatures and downstream flow. (**0006-3** [Neale, Lara])

Comment: The North Anna Power Station is not currently in full compliance with the Federal Clean Water Act and a third reactor will add to the problems already occurring with warm lake temperatures and downstream flow. (**0010-1** [Day, Elena])

Comment: Please note the ruling about the illegality of the 316A Variance issued to Dominion by the State of Virginia in late February. The 316A Variance has allowed Dominion to dump water without an upper temperature limit into Lake Anna since it began operations. This is not allowed by the Clean Water Act. A third reactor cannot be licensed to be built without first bringing the two operating reactors inot compliance and then studying what the effects of a third operating reactor would have on water temperatures, especially in times of drought. (**0010-4** [Day, Elena])

Comment: The North Anna Power Station is not currently in full compliance with the federal Clean Water Act and a third reactor will add to the problems already occurring with warm lake temperatures and downstream flow (**0011-2** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele] [Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: Several important issues have come up which involve significant changes since the Draft EIS...Circuit Court ruling on compliance with Clean Water Act. (**0012-2** [Rosenthal, Jerry])

Comment: Shouldn't the WHTF be subject to Clean Water Act and DEQ standards? It is fed by eight public streams and should be treated as public waters. (**0023-33** [Goldsmith, Aviv])

Comment: However, a recent court decision remanded NPDES water discharge permit forthe North Anna plant (Units 1 and 2) to the State Water Control Board. 2 The judge stated:

> The federal definition excludes cooling ponds from that exemption...the Court will rule that the exemption does not apply here because Lake Anna's hot and cold side would be a cooling lake.

The SEIS does not address this issue. Unit 3, if licensed, would become part of the North Anna Power Station. This modification of the plant appears to require environmental reporting under10CFR51.53. Relevant sections require Clean Water Act 316 (a) and 316 (b) determinations. For example:

(D) If the applicant's plant is located at an inland site and utilizes cooling ponds, an assessment of the impact of the proposed action on groundwater quality must be provided.

Further, 40 CFR 125.94 requires the US EPA to determine the best technology available

1 Section 1.1.4 of theNorthAnna Unit 3 COLA Environmental Report, Cooling System Information 2 Court Ruling of February20, 2009, Transcript, BREDL et al v. Commonwealthof Virginia ex rel, Circuit Court inthe Cityof Richmond, Case No.CL070006083-00

for Phase II electric generating plants, allowing demonstrations of compliance to be done for safety requirements at nuclear facilities "based on consultation with theNRC." The draft SEIS does not address these issues. **(0024-6** [Zeller, Lou])

Comment: I believe we all have a stake in safeguarding our waters. Lake Anna is recognized as surface waters of the United States. And it is, therefore, to be protected by the Clean Water Act. It has not been protected as Dominion regards portions of the lake to be its private waste heat treatment facility.

And, of course, the State of Virginia to date remains in non-compliance with the Federal Clean Water Act, when it awards Dominion the 316 variance, which allows it to dump water without an upper temperature limit, into Lake Anna. **(0073-61** [Day, Elena])

Comment: North Anna Power Station is not currently in full compliance with the Federal Clean Water Act. And a third reactor will add to the problems already occurring with lake temperatures, and downstream flow. **(0078-2** [Cruickshank, John])

Response: *The NRC staff is aware that the determination of the status of the WHTF has been remanded back to the Commonwealth's VDEQ. However, given the small amount of discharge and heat load to the WHTF from the proposed Unit 3, this is primarily an issue for Units 1 and 2, for which once-through cooling systems rely on the WHTF to dissipate heat before the water is returned to Lake Anna. Therefore, no changes were made to the Unit 3 COL SEIS based on this comment. (NAPS-COL3-DR0186R)*

Comment [a3]: It is okay to something like "If the designation of the WHTF is changed from its current status, the NRC would make any appropriate revisions at that time.

Comment: The complete proposed plan of development with a depiction of all work that is subject to regulation under Section 404 of the Clean Water Act (i.e. intake and outfalls structures within jurisdictional waters and/or wetlands). (**0009-2** [Bronson, Regena])

Comment: Evidence that discharges of dredged or fill material into waters of the United States are avoided or minimized to the maximum extent practicable at the project site. (**0009-4** [Bronson, Regena])

Comment: A compensatory mitigation plan that addresses the loss of wetlands and streams impacts by the proposed project. (**0009-5** [Bronson, Regena])

Response: *These comments refer to information requested of the applicant by the U.S. Army Corps of Engineers to facilitate the Corps' public interest review under Section 404 of the Clean Water Act. No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0187R)*

Comment: We recommend conducting any in-stream activities during low or no-flow conditions, using non-erodible cofferdams to isolate the construction area, blocking no more than 50% of the streamflow at any given time, stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures. Due to future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, we prefer stream crossings to be constructed via clear-span bridges. (**0070-6** [Ewing, Amy])

Response: *This comment is a specific recommendation by the Virginia Department of Game and Inland Fisheries. Mitigation measures relevant to the impacts of construction and operation of the proposed Unit 3 are addressed in Chapters 4, 5, and 10 of the ~~final~~ SEIS. (NAPS-COL3-DR0188R)*

Comment: DGIF. Upon review of the Early Site Permit and associated federal consistency certification for the proposed addition of a third reactor at North Anna Power Station, DGIF expressed concerns about the operation of the third reactor and the reservoir as they relate to maintenance of downstream flows in the North Anna and Pamunkey rivers. To address agency concerns, DGIF and other state resource agencies recommended that Dominion perform an Instream Flow Incremental Methodology study in the North Anna River below the Lake Anna dam and in downstream waters of the Pamunkey River. DGIF worked closely with Dominion and the permitting agencies on the design of the study and the analysis of the results. As stated in the SEIS, the primary goal of the IFIM is to determine whether possible changes in dam releases resulting from the operation of the third reactor are likely to adversely impact aquatic resources below the dam.
The IFIM is complete and DGIF is currently working with Dominion, the permitting agencies, and other natural resource agencies to finalize the results and develop operating rules for the proposed third reactor (including reservoir management procedures) that reduce the frequency of dam releases below 40 cubic feet per second (cfs), thereby protecting downstream aquatic resources.
(0069-16 [Irons, Ellie])

Response: *This comment is a statement of intent by the Virginia Department of Game and Inland Fisheries regarding development of operating rules for the proposed Unit 3. Chapter 5 of the SEIS was modified to include discussion of the IFIM study results and proposed Unit 3 operating rules. (NAPS-COL3-DR0189R)*

Comment: According to the DEQ Office of Surface and Ground Water Supply Planning (OSGSP), DEQ, DGIF, DCR and Dominion have been working on the IFIM study that was required as result of the state's conditional Coastal Zone Management Act (CZMA) certification for the Early Site Permit. Based on the study, Dominion proposed a set of rules for operating the reservoir and the cooling system of Unit 3 that would mitigate the impact of the new unit on water resources. In summary, the proposal involves:

- raising the normal level of the lake by three inches;

- releasing a minimum flow of 40 cubic feet per second (cfs) whenever the lake is above 248 feet;
- releasing a minimum flow of 20 cfs whenever the lake is less than 248 feet;
- operating in maximum water conservation mode whenever the lake is below 250 feet; and
- making a targeted recreation release of 177 cfs in June and July if the lake is above 250 feet.

(**0069-17** [Irons, Ellie])

Comment: Fisheries
The North Anna River is a highly altered system with the minimum release of 40 cfs becoming the typical flow for most of the summer and fall. The historic minimum flow of 40 cfs and the lack of turbidity in the release produced a fairly good sports fishery in the river below the dam. The weighted useable area graphs produced by the instream flow study were very important in forming preliminary recommendations for operating the project. These curves show sharply falling habitat as flow declines below 100 cfs for several important species. The state agencies do not support an increased frequency or duration of flows below 40 cfs, if avoidable, because of the precipitous decline in habitat that occurs as flow falls below these levels.

With the three inch rise, and the early activation of dry cooling, the additional occurrences of releases of below 40 cfs will be limited. Dominion presented information to the agencies on December 15, 2008 that estimated that the amount of time that flows would be less than 40 cfs would be 5.5% of the time, an increase from 5.2% of the time with the present two units. OSGSP believes that this is a small change.

Dominion's preliminary proposal for minimum releases is nearly identical with the proposal analyzed by NRC in the ESP EIS (i.e. 40 or 20 CFS depending on whether the lake was above or below 248 feet). The NRC concludes, in the SEIS and in the previous EIS for the ESP, that Unit 3 would have small or moderate impacts on lake levels and downstream flows.

3(b) Findings. The draft SEIS does not factor in the effect of a potential three inch rise in normal lake storage. This mitigating measure will further reduce the impacts of Unit 3 on lake levels and downstream flow. (**0069-20** [Irons, Ellie])

Response: *These comments are statements by the Virginia Department of Environmental Quality regarding development of operating rules for the proposed Unit 3. The results of the IFIM study and proposed Unit 3 operating rules are discussed in Chapter 5 of the SEIS, but no other changes to the SEIS were made as a result of these comments. (NAPS-COL3-DR0190R)*

Comment: As part of the Early Site Permit, Dominion was required to conduct an Instream Flow Incremental Methodology (IFIM) study to determine the impacts of the proposed 3rd reactor on the North Anna River below the Lake Anna Dam. Dominion has not yet finished that study and, by its own admission, the NRC will have to study the results of that study and analyze those impacts prior to releasing a final Supplemental Impact Study.
It makes no sense that the NRC released this draft now rather than waiting for the IFIM study which is expected very soon. This Draft will have to be amended and a new public hearing scheduled. This compounds the waste of taxpayers' money. **(0003-3** [Crawford, Barbara])

Comment: 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 3 reactor Early Site Permit (ESP) (**0017-9** [Ruth, Harry])

Comment: The NRC needs to weigh in on the results of the IFIM study and any modification of the VPDES permit before any COL is issued. Flows into the cooling lagoons (Elk Creek and Mill Pond) and reservoir are not gauged even at the four major inputs on the reservoir (North Anna River, Pamunkey Creek, Terrys Run, and Contrary Creek). Flows over the dam, water level changes, any introduced wetlands and FERC requirements for any increased normal pool level need to be addressed by the NRC in the SEIS for the COL. (**0018-3** [Remmers, Ken])

Comment:

1. State input to the NRC Process will be in the form of 13 listed permits required before Unit 3 can be constructed as outlined in Appendix L of the DSEIS. NRC has deferred to the State on these items. Except the NRC has included a Conditional Consistency determination in the Coastal Zone Management Act for the completion of an IFIM study to be performed and results implemented in State permitting before any COL is issued. To date the public has not seen the results of this study nor have they been involved in the process. VDEQ has promised such public participation and a Stakeholders meeting to discuss the IFIM study and its implementation on Lake Anna as well as the discharges for downstream users. We are putting VDEQ on notice that the LACA Water Quality committee strongly requests with the full support of the Combined Lake Level Task Force that any VPDES and WPP include mitigation effects for Unit 3. These mitigations include:

    a. Seasonal increase in the normal pool level of the lake by 3 inches.

    b. Variation in the graduated discharge at the dam during severe droughts.

    c. Better flow management of dam releases to adhere to defined discharge rates including electronic lake gage height readings which are put on the web similar to the discharge canal temperature readings.

    d. An assessment repot of the recreational, aquatic, and baseline environmental data, and the impacts of any proposed change to the lake and downstream. Public comments shall be obtained and a public meeting held: (1) prior to the determination of the scope of the assessment and (2) prior to the finalization of the assessment. The assessment shall be considered by the Board in its determination of conditions on the issue of any permit.

(**0018-7** [Remmers, Ken])

Comment: Reviewers indicated that the draft SEIS did not address the Instream Flow Incremental Methodology study conduced by Dominion in cooperation with state natural resource agencies, including a discussion of the proposed operating rules developed from the study, particularly with respect to the effect of the potential three inch rise in normal lake storage. (**0069-1** [Irons, Ellie])

Comment: Next the IFIM and VPDES permit. The NRC needs to weigh in on the results of the IFIM study, and any modifications to the VPDES permit, such a discharge permit, before any COL is issued. (**0073-35** [Remmers, Ken])

Comment: These actions [proposed changes Unit 3 operating rules] will increase the availability of water for everyone during times of low rainfall. The mitigation actions are: One, increase the standard level of the pool from 250 feet, to 250 feet three inches. That doesn't sound like much, but that means there will be an additional 140 million cubic feet of water available when there is low rainfall.

Second, reduce the fall of the lake from 40 cubic feet per second, to 20 cubic feet per second, as soon as it falls below 250 feet. This will conserve the water in the lake, without seriously affecting downstream users.

They have already experienced the lower level of outflow, and this way they will all have more water to use. (**0080-8** [Murphy, Bill])

Response: *The Draft SEIS addressed the IFIM study but did not include the IFIM study results because the study was not completed at the time of Draft SEIS publication. The IFIM study results and proposed Unit 3 operating rules are addressed in Chapter 5 of th~~e~~is ~~Final~~ SEIS. The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. Mitigation of impacts includes a proposal to increase Lake Anna reservoir storage capacity by raising the normal pool elevation 0.25 ft to 250.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Chapter 5 of the ~~Final~~ SEIS, along with proposed measures to mitigate habitat and recreational impacts. Reservoir management, water use, and downstream instream flow requirements fall within the regulatory authority of the Commonwealth of Virginia. (NAPS-COL3-DR0191R)*

Comment: I have been told the hybrid cooling tower will include both wet and dry cooling features, designed to minimize impact on the level of the lake. Dominion, I know, plans to utilize one of two wet or dry modes to cool the stream used in the production of electricity from unit 3.

The energy conservation mode will be implemented when the elevation of the lake is full, or that is about 250 feet above sea level. And this cooling mode would also be used up to seven days after the lake level declines below 250 feet. **(0073-18** [Mullen, Dale])

Comment: Dominion responded to initial concerns expressed about lake effect on Lake Anna, and has pioneered plans to use a hybrid wet and dry cooling tower for the new reactor.

It is my belief, based on my conversations with Dominion staff, that this will mitigate water level, and water temperature concerns. (**0073-19** [Mullen, Dale])

Comment: Dominion has agreed to build a hybrid wet-dry cooling tower, instead of using the once-through cooling from Lake Anna.

And this change will ensure no additional heat level will be placed on Lake Anna. (**0075-25** [Beament, Pete])

Comment: The hybrid cooling tower is a state of the art design that allows it to operate differently depending on whether the greatest need is to conserve energy, or to conserve water. If the lake level is below 250 feet above sea level, for more than seven days, the unit would switch to maximum water conservation mode. During a normal hot Virginia summer that would mean lake level would drop maybe an inch every 21 days.

During a typical drought, when lake level is below 240 feet, and unit 3 is operating, the lake would be expected to drop less than an additional six inches.
And temperature-wise unit 3 will have such a small impact that we, as users of the lake, won't notice it. Under normal conditions the increase in temperature would be about one-tenth of one degree fahrenheit. And during extended droughts the impact would be a maximum of three-tenths of a degree. (**0075-42** [Stiles, Lisa])

Comment: Normally Dominion is required, by law, to maintain a flow of 40 cubic feet per second. In times of prolonged drought, when the lake level drops below 248 feet, they must maintain 20 cubic feet per second.

With the hybrid cooling system, if we were to experience prolonged dry weather, such as the rare 80 year drought, the third unit might cause the amount of time that flow would be reduced, to 20 cubic feet per second, to increase by about 2 percent. (**0075-44** [Stiles, Lisa])

Response: *These comments describe aspects of the proposed Unit 3 that were designed to reduce environmental impacts. They do not include any new and significant information. Therefore, ~~A~~no changes were made to the ~~Final~~ SEIS as a result of these comments. (NAPS-COL3-DR0192R)*

Comment: I have also heard concerns about downstream flow.
Before Dominion built the dam to support four units, the North Anna River, as my colleague Mike Stewart once put it very well, was a nearly dry creek bed virtually devoid of life.

Downstream flows were erratic. Either the area was flooded, or it was completely dry. Since nuclear came to Louisa County, downstream flow has vastly improved, and the average flow over the dam is about 270 cubic feet per second. **(0075-43** [Stiles, Lisa])

Response: *This comment expresses general support for the operation of the existing units at NAPS. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0193R)*

Comment: 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. **(0017-7** [Ruth, Harry])

Comment: Concerns. Section 5.3.2 , Water Use Impacts, of the SEIS concludes that the NRC staff did not identify information that was both new and significant to operation related impacts and concludes that water use impacts would remain SMALL in normal years and MODERATE in drought years. Hence no mitigation of low water impacts are required.

LACA is extremely disappointed in this finding and disagrees with the recommendation. 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. Anything that causes significant lowering of water levels during the perennially dry summer months which are also peak recreation months is not a small thing. (**0019-1** [Smith, Doug])

Comment: Recommendation. The report on the LACA survey was completed in December of 2008. The report and supporting data in summary form are submitted with this statement. LACA believes this is new and significant data that reveals real information about the impact of low water levels on Lake Anna. We ask that the NRC review the data and reconsider their finding that mitigation of impact of low water levels should not be required before placing the third reactor in operation. Mitigation efforts are readily available. Actions such as a seasonal increase in standard pool level of the lake and improved management of flows over the dam can fully mitigate the water level impact of the third reactor and should be implemented before placing the reactor into operation. (**0019-3** [Smith, Doug])

Comment: These mitigation include: Seasonal increase in the normal pool level of the lake, which we have talked about for a long time; variation of the graduated discharge at the dam during severe draughts; better flow management of the dam releases to adhere with the fine discharges rates including an electronic lake gauge height readings, which would be put on the web, similar to the discharge canal temperature readings.

An assessment, report of the recreational, aquatic, and baseline environmental data, and the impacts of any proposed changes to the lake and downstream. (**0073-45** [Remmers, Ken])

Comment: First is the consumption, by evaporation, of millions of gallons of water per day, in the critical summer months. We know the third unit will drop levels 3, 6, 9 inches, depending on the weather in that year.

Section 5.3.2 of the SEIS' water use impacts, concludes that water use impacts would remain small in normal years, and moderate in drought years, hence no mitigation of low water impacts is required.

LACA is extremely disappointed in this finding. (**0073-48** [Smith, Doug])

Comment: And yet in the absence of any data, at all, on the impact of lowered water levels, the NRC has concluded that impact is small, except in a drought, and then it is moderate. **(0073-54** [Smith, Doug])

Comment: Actions such as seasonal increase in the standard pool of the lake, and improved management of water flows over the dam, could fully mitigate the impact of the third unit.

We believe that the NRC's review of the environmental impact should have concluded that some mitigation is desirable, if not required. (**0073-56** [Smith, Doug])

Comment: My concern is about the lake level, and my concern is that the impact statement doesn't include certain mitigation activities that could be taken which were, really, quite reasonable. (**0080-6** [Murphy, Bill])

Comment: We believe, I believe that the water management actions should be implemented to conserve the amount of water flowing into the lake, for responsible use, and to conserve the lake as a water resource. (**0080-7** [Murphy, Bill])

Response: *While Section 5.3.2 of the Draft SEIS does conclude that water-use impacts would remain SMALL in normal years and MODERATE in drought years, it does not conclude that mitigation is not required. As a condition of the ESP for the North Anna site, Dominion was required to conduct an IFIM study to address impacts on lake levels and downstream flows under different reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. Mitigation of impacts includes a proposal to increase Lake Anna reservoir storage capacity by raising the normal pool elevation 0.25 ft to 250.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Chapter 5 of the Final SEIS, along with other proposed measures to mitigate habitat and recreational impacts. Reservoir management, water use, and downstream instream flow requirements fall within the regulatory authority of the Commonwealth of Virginia. (NAPS-COL3-DR0194R)*

Comment: Section 5.3 mentions that water level changes will be heightened during the period July-September. Since this coincides with increased summer recreational use of the lake, even minor changes could have MODERATE or HIGH impacts. (**0023-28** [Goldsmith, Aviv])

Comment: The SDEIS concluded on page 5-31, line 18 that "consumptive water losses may noticeably impact lake levels and downstream flows". This is a major area of local concern and should be more thoroughly analyzed and documented. It is hard to understand how an impact assessment of SMALL is derived from the discussion. It seems like the impacts are at least MODERATE and potentially LARGE. (**0023-36** [Goldsmith, Aviv])

Response: *These comments appear to be related to a document other than the Draft SEIS. In NUREG-1811 (ESP EIS), NRC staff concluded that water use impacts would be SMALL in most years but could be MODERATE in drought years. As a condition of the ESP for the North Anna site, Dominion was required to conduct an IFIM study to address impacts on lake levels and downstream flows under different reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. The results of the IFIM study were not available at the time the draft SEIS was published, but they are included in Chapter 5 of the Final SEIS, along with proposed measures to mitigate habitat and recreational impacts. (NAPS-COL3-DR0195R)*

Comment [a4]: I think Aviv is referring to the ESP EIS. If so lets just say that….vs. saying a document other than the SEIS.

Comment: Coordinate with DEQ-NRO regarding the Virginia Pollutant Discharge Elimination System permit that will be required for the proposed discharges to Lake Anna. **(0069-12** [Irons, Ellie])

Comment: 2(b) Agency Comments. VMRC did not respond to our request for comments on the SEIS. However, in previous responses to the ESP EIS (DEQ #06-125F) and federal consistency certification (DEQ #05-079F) VMRC asserted that the agency's permit jurisdiction would extend to the portions of the project which result in direct impacts and encroachment to the historic stream channel of the North Anna River (Ellis/Madden, 8/31/06). (**0069-15** [Irons, Ellie])

Comment: Erosion and Sediment Control and Stormwater Management. According to the SEIS (page 4-25. 4.10), measures and controls to limit adverse impacts during construction, including erosion and sediment control, were addressed in Section 4.10 of the ESP EIS (NRC 2006). These measures and controls have been incorporated into the Environmental Protection Plan (EPP) for the site that is included as Appendix 1A of the COL ER (Dominion 2007a). Similarly, stormwater management is incorporated in the EPP. (**0069-32** [Irons, Ellie])

Comment: [Virginia Pollutant Discharge Elimination System]
DEQ agrees with the technical discussions in the SEIS and has no technical or regulatory reasons to suggest that a modification could not proceed. (**0069-7** [Irons, Ellie])

Response: *These comments are statements of fact by the Virginia Department of Environmental Quality. No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0196R)*

Comment: Existing wetlands, streams, and woodlands on the site, as well as downstream, may beadversely affected by the construction and operation of a new reactor. (**0004-3** [Abbott, Diana])

Comment: Existing wetlands, streams, and woodlands on the site and downstream may be adversely affected by the construction and operation of a new reactor. (**0010-2** [Day, Elena])

Response: *The impacts of construction and operation of the proposed Unit 3 on aquatic and terrestrial resources, including measures to mitigate adverse impacts, are addressed in Chapters 4, 5, and 7 of the SEIS. No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0197R)*

Comment: Lake Anna has been a benefit to the region for surface water storage, recreation, conservation and wildlife (**0020-2** [Aylor, Joseph])

Response: *This comment is a statement about the benefits of Lake Anna, but it raises no issue with the conclusions of the SEIS. No change was made to the SEIS as a result of this comment. (NAPS-COL3-DR0198R)*

Comment: I'm very concerned about clean drinking water, and I don't want anything built that might jeopardize water (**0041-1** [Bailey, Marcia])

Comment: If a license or okay is granted, let's make sure water quality is not compromised. (**0061-2** [Ahgrim, Larry])

Comment: Water quality issues are also a concern.

The revised cooling system for unit 3 includes a wet cooling tower, from which blow-down would be discharged into Lake Anna. The SDEIS states that makeup water for that tower would be treated with biocides anti-scalons, and dispersions. **(0078-5** [Cruickshank, John])

Response: *Pursuant to the Clean Water Act, the U.S. EPA is responsible for protecting the nation's water quality. In Virginia, the U.S. EPA has delegated this responsibility to the Virginia Department of Environmental Quality (VDEQ). Prior to operation, the proposed Unit 3 would be*

Comment [a5]: I think we should add sentence or two on how the NRC's evaluation of water quality relating to operation. This issue was unresolved in ESP. This should include the cooling tower blowdown.

required to have a NPDES permit from VDEQ that would include water quality parameter limits. Water quality limits are presumed to be protective of human health and the environment. No change was made to the SEIS as a result of these comments. (NAPS-COL3-DR0199R)

Comment: 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. **(0017-10** [Ruth, Harry])

Response: *This comment refers to several aspects of the NRC's COL environmental review process. The NRC staff completed their environmental review because Dominion had not withdrawn the present COL application for one ESBWR unit at the NAPS site, nor had Dominion submitted a revision of reactor type that would delay the review. The results of the IFIM study were not available at the time the draft SEIS was published, but they are included in Chapter 5 of ~~the final~~this SEIS, along with proposed Unit 3 operating rules and other measures to mitigate habitat and recreational impacts. Lake stakeholder concerns regarding public participation in the IFIM study were directed to and appear to be acted upon by the parties involved in conducting the study (ADAMS accession number ML091000099). This comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0200R)*

Comment: DSEIS [Sec 3.2.2] implies that MWC mode will be initiated when the lake level drops below 250 ft. msl for a period of seven or more days. The period of seven days was utilized for analysis, but no commitment to use this period as the basis for switching from EC to MWC mode has been made in the COLA-ER. The operating parameters for switching from EC to MWC mode will be established in coordination with State agencies at the time of permitting. **(0084-18** [Grechek, Eugene])

Comment: The DSEIS [Sec 3.2.2.2] statement as written misstates the operation and capability of the dry towers. The first sentence suggests that the dry tower will always be in operation. The third sentence as stated is not entirely accurate because at design ambient conditions the dry towers have the capacity to remove one-third of the heat load. A "majority" of dry cooling wouldn't be reached until the dry bulb temperature (DBT) reaches a certain level. Dominion suggests that the statement be reworded to state, "Dry tower operation depends on the availability of water from Lake Anna. If lake level is at or above 250 ft. msl, Unit 3 would be cooled entirely using the wet towers. During a dry weather period when lake level is below 250 ft. msl for a specified time, a minimum of one third of the Unit 3 waste heat would be dissipated by the dry towers, increasing with decreasing DBT." **(0084-19** [Grechek, Eugene])

Comment: The DSEIS [Secs 3.2.2.2, 4.3.1, 4.4.2, and 5.4.2.1] implies that the intake design has been finalized, but Dominion's response to RAI ER 3.4-1 was intended to provide NRC staff a conceptual layout of the Unit 3 intake. The final dimensions of the intake as well as the box culverts are subject to change to accommodate actual equipment size as indicated in the response to RAI ER 3.4-1. An equivalent flow area would be maintained. **(0084-20** [Grechek, Eugene])

Response: *The comments were noted; appropriate sections of the ~~Final~~ SEIS were revised to reflect these comments. (NAPS-COL3-DR0201R)*

Comment: We also want to ensure that the impacts of all environmental issues, primarily with the cooling method proposed for the 3 rd 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. (**0017-2** [Ruth, Harry])

Response: *Water consumption by the proposed Unit 3, including evaporative losses, are addressed in Section 5.3.2 of the SEIS. Dominion proposed a hybrid wet-dry cooling system to essentially eliminate thermal impacts while limiting the consumptive water use during summer months. Unit 3 discharges as well as sanitary treatment plant effluent will be ~~regulaged~~regulated by VDEQ under the conditions of a VPDES permit. As a condition of the ESP for the North Anna site, Dominion was required to conduct an IFIM study to address impacts on lake levels and downstream flows under different reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. Mitigation of impacts includes a proposal to increase Lake Anna reservoir storage capacity by raising the normal pool elevation 0.25 ft to 250.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Chapter 5 of the Final SEIS, along with other proposed measures to mitigate habitat and recreational impacts. Reservoir management, water use, water quality, and downstream instream flow requirements fall within the regulatory authority of the Commonwealth of Virginia. (NAPS-COL3-DR0202R)*

2.9 Comments Concerning Hydrology - Groundwater

Comment: VDH-ODW states that there are four groundwater wells within one mile of the project site. The North Anna Power Plant operates wells 4, 6, 7 and the Information Center well. Impact to these wells may occur as a result of construction. There are no surface water intakes within a five-mile radius of the site.
11(c) Recommendation. VDH-ODW recommends that the NAPS waterworks system operator be notified prior to any ground disturbance or changes in discharge patterns at the facility. Contact Barry Matthews, VDH at (804) 864-7515 for additional information. (**0069-47** [Irons, Ellie])

Response: *This comment is a specific recommendation to the applicant by the Virginia Department of Health --Office of Drinking Water. No change was made to the ~~final~~ SEIS as a result of this comment. (NAPS-COL3-DR0179R)*

2.10 Comments Concerning Ecology - Terrestrial

Comment: Existing wetlands, streams, and woodlands on the site may be adversely affected by the construction and operation of a new reactor (**0011-3** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele] [Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: Wetlands are another area of concern. Existing wetlands, streams, and woodlands, on the North Anna Power Station site, may be adversely affected by construction activities for unit number 3, and possibly by potential increases in the maximum lake level, and decreases in the minimum lake level. (**0078-10** [Cruickshank, John])

Response: *Wetlands, streams, and woodlands on the NAPS site are described in Section 2.7 of the SEIS. Construction impacts to these resources are discussed in Section 4.4.1 of the SEIS. Operational impacts to wetlands, including potential changes in the lake level are discussed in Section 5.4.1 of the SEIS. The comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0041R)*

Comment: Does the feeding range of bald eagles or loggerhead strikes extend to the North Anna vicinity (Page 2-13 line 32)? (**0023-20** [Goldsmith, Aviv])

Response: *The distribution of the bald eagle and loggerhead shrike in the vicinity of the NAPS site was addressed in Section 2.7.1 of the ~~Draft~~ SEIS. The NAPS site is within the feeding range of these two species. Because the comment does not provide specific new information, no changes were made to the SEIS. (NAPS-COL3-DR0042R)*

Comment: Does the feeding range of bald eagles or loggerhead strikes extend to the North Anna vicinity (Page 2-13 line 32)? (**0023-20** [Goldsmith, Aviv])

Response: *The distribution of the bald eagle and loggerhead shrike in the vicinity of the NAPS site was addressed in Section 2.7.1 of the ~~Draft~~ SEIS. The NAPS site is within the feeding range of these two species. Because the comment does not provide specific new information, no changes were made to the SEIS. (NAPS-COL3-DR0043R)*

Comment [a6]: Repeat of comment above.

Comment: According to DGIF records, listed wildlife resources under DGIF's jurisdiction are not documented from the site proposed for placement of the third reactor. Therefore, impacts upon listed wildlife resources are not likely to result from site preparation or construction of the third reactor. (**0069-24** [Irons, Ellie])

Comment: DGIF reviewed the proposed corridor for the additional 500kV line required to carry the output of the existing Lake Anna units and the proposed third unit. DGIF does not currently document any listed wildlife or resources under its jurisdiction from the project area. Therefore, impacts upon such species and resources are not likely to result from the construction of this line. In addition, as this new line will be co-located within an existing power line corridor, it does not appear that significant wildlife habitat alterations will occur. **(0069-25** [Irons, Ellie])

Comment: DCR-DNH searched its Biotics Data System for occurrences of natural heritage resources from the project site. Biotics historically documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, DCR-DNH does not anticipate that this project will adversely impact these natural heritage resources. (**0069-28** [Irons, Ellie])

Comment: DCR files do not indicate the presence of any State Natural Area Preserves under the agency's jurisdiction in the project vicinity. (**0069-30** [Irons, Ellie])

Comment: We have reviewed the proposed corridor for the additional 500kV line required to carry the output of the existing Lake Anna units and the proposed third unit. We do not currently document any listed wildlife or resources under our jurisdiction from the project area. Therefore, impacts upon such species and resources are not likely to result from the construction of this line. In addition, as this new line will be co-located within an existing power line corridor, it does not appear that significant wildlife habitat alterations will occur. (**0070-4** [Ewing, Amy])

Response: *These comments provide natural resource information that supports the NRC staff's independent analysis. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0044R)*

Comment:

In general, DEQ recommends that stream and wetland impacts be avoided to the maximum extent practicable. To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:

*

Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable. " Preserve the top 12 inches of

trench material removed from wetlands for use as wetland seed and root-stock in the excavated area.

*

Erosion and sedimentation controls should be designed in accordance with the most current edition of the Virginia ~~ErosionandErosion~~ and Sediment ~~ControlHandbook~~Control Handbook. These controls should be in place prior to clearing and grading, and maintained in good working order to minimize impacts to state waters. The controls should remain in place until the area is stabilized. " Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil disturbance, to the maximum extent practicable.

*

Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub, or forested). The applicant should take all appropriate measures to promote revegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.

*

Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats, geotextile fabric in order to prevent entry in State waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state. " All non-impacted surface waters within the project or r'ight-of-way limits that are within 50 feet of any clearing, grading, or filling activities should be clearly flagged or marked for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.

*

Measures should be employed to prevent spills of fuels or lubricants into state waters.
(**0069-13** [Irons, Ellie])

Comment: DGIF offers the following recommendations for the protection of wildlife resources during project construction:
Adhere to erosion and sediment controls for all land-disturbing activities.

- Conduct any in-stream activities during low or no-flow conditions.
- Use non-erodible cofferdams to isolate the construction area.
- Block no more than 50% of the streamflow at any given time.
- Stockpile excavated material in a manner that prevents reentry into the stream.
- Restore original streambed and streambank contours. Revegetate barren areas with native vegetation. Construct stream crossings via clear-span bridges when applicable due to future maintenance costs associated with culverts and the loss of riparian and aquatic habitat.

(**0069-26** [Irons, Ellie])

Response: *These comments provide lists of recommended procedures, best management practices, and mitigation measures to limit adverse impacts of construction to wetlands, streams, and other ecological resources. At the discretion of the appropriate State agencies,*

these recommendations might be attached as conditions to permits issued by the Commonwealth of Virginia. These recommendations are similar to the list of measures and controls proposed by Dominion in its environmental report (ER) and summarized in Section 4.10 of the SEIS. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0046R)

Comment: The SEIS does not include a discussion of natural heritage resources. However, the document (page 2-17, section 2.7.1.4) states that the NRC expects Dominion to work with the Commonwealth, including the Department of Conservation and Recreation's Natural Heritage Program, on development and implementation of any required monitoring programs. (**0069-27** [Irons, Ellie])

Comment [a7]: Is there anything more we can say on this? Are there any sensitive species in the area that we should have included in our writes maybe?

Response: *The comment is noted, but it does not provide specific new information and will not be evaluated further. No change was made to the SEIS as a result of the comment. (NAPS-COL3-DR0047R)*

Comment: A survey and/or report for the federally listed threatened species; swamp pink (Helonias bullata), small whorled pogonia (Isotria medeoloides), and sensitive joint vetch (Aeschynomene virginica. (**0009-3** [Bronson, Regena])

Comment: Other omissions that should be adequately addressed in the final SEIS include a discussion of the small whorled pogonia as it occurs on upland sites (**0069-2** [Irons, Ellie])

Comment: VDACS notes that the SEIS lists several federal-and state-listed endangered and threatened species within the scope of the project area. The small whorled pogonia is not generally found in wetland habitat at described in the SEIS (page 5-13, section 5.4.3.1). The species occurs on upland sites in mixed deciduous or mixed deciduous and coniferous forests that are generally in second-or third-growth successional stages (**0069-29** [Irons, Ellie])

Comment:

DCR-DNH and VDACS offer the following recommendations for this proposal:

- Contact DCR-DNH, Rene Hypes at (804) 371-2708 for an update on natural heritage information if a significant amount of time passes before the project is initiated since new and updated information is continually added to Biotics.
- The final SEIS should include a discussion of the small whorled pogonia as it occurs on upland sites.

(**0069-31** [Irons, Ellie])

Response: *The discussion of the small whorled pogonia and other Federally listed plant species has been modified in Sections 2.7.1 and 5.4.3 of the SEIS to reflect the correct ecological requirements for these species. (NAPS-COL3-DR0048R)*

Comment: The Department of Forestry finds that proposed clearing of 125 acres of timberland for the Unit 3 footprint, and the 80 acre proposed clearing due to construction will have a significant impact on the forest resources of the Commonwealth. (**0069-44** [Irons, Ellie])

Comment: VDOF recommends that the proposed clearing due to construction be mitigated. Potential opportunities for mitigation include but are not limited to:
* Plant open company lands within Virginia to create forested stands.
* Work with VDOF to develop a cost share program to assist private landowners statewide, to reforest harvested timberlands or plant open lands with pine or hardwood seedlings. This mitigation program would be funded by Dominion.
* Work with VDOF, or other Virginia conservation agency or group, to create a forest land conservation fund to be used for the purchase of conservation easements or property acquisitions of forested lands. These purchases could be statewide and would ensure that the forested lands are managed and retained as working forest lands.
* Mitigation should achieve a ratio in excess of 1 to 1, more than one acre of land reforested or protected to every one acre cleared, for power-line right-of-way. Therefore, Dominion would assist landowners in the conservation, reforestation or purchase of at least 200+ acres within the county area or statewide. (**0069-45** [Irons, Ellie])

Response: *Section 4.4.1 of the SEIS indicates that Dominion estimates that 50.6 ha (125 ac) of forested habitat will be cleared to construct Unit 3; this area is greater than the estimate of 32.4 ha (80 ac) provided in the ESP Final EIS (NUREG-1811). Once construction was complete, a portion of the disturbed forest area would be available for reforestation or other use. No forest clearing will be required for construction of the new North Anna to Ladysmith transmission line. 50.6 ha (125 ac) of forest represents approximately 0.06 percent of the forest area in Louisa County (Virginia Department of Forestry 2009a) and approximately 0.2 percent of the estimated 27,114 ha (67,000 ac) of forest converted to other uses every year in Virginia (Virginia Department of Forestry 2009b). The NRC staff has determined that the loss of 50.6 ha (125 ac) of forest habitat would neither destabilize nor noticeably alter the forest resources in the vicinity of the COL site, and that the impact is therefore SMALL. The commenter has also recommended several potential mitigation measures that would help to counteract the small impact of the construction related forest habitat loss; these measures do not appear to be State requirements. While Dominion is encouraged to work with the Commonwealth of Virginia to implement forest resource conservation measures, the staff does not consider these mitigation measures to be necessary in light of the SMALL construction impact. These comments provide no new and significant information. Therefore, no changes were made to the SEIS.*
(NAPS-COL3-DR0049R)

Comment: DEQ-OSGSP offers the following recommendations:

> Dominion should continue to coordinate with DEQ regarding the evaluation of potential impact the three-inch rise may have on wetlands.
> Should the size or scope of the project change, additional review by DEQ may be necessary.

* Dominion should strictly adhere to erosion and sediment controls and stormwater management practices, and monitor construction activities to ensure that erosion and stormwater management practices are adequately preventing sediment and pollutant migration into surface waters, including wetlands.

(**0069-21** [Irons, Ellie])

Comment: The SEIS recognizes the need for permitting of potential impacts to wetlands resulting from the construction and/or operation of Unit 3. According to the DEQ Office of Wetlands and Water Protection (OWWP), the report states that Dominion Virginia Power has conducted a wetland delineation to determine the location, extent, and type of surface waters present, and that approximately 6.68 acres of wetland, 5,500 linear feet of stream and 2.49 acres of open water have been identified within the proposed construction footprint. The report also states that permanent disturbance may be limited to less than 0.5 acre of non-tidal wetland and less than 800 linear feet of stream within the site footprint. State-and federal-listed threatened and endangered species were identified as potentially occurring on the site (**0069-5** [Irons, Ellie])

Comment: [Virginia WaterProtectionPermit]
Based on a review of the location map provided with the SEIS, DEQ is unable to determine the exact quantity of wetland and stream impacts. However, because impacts are proposed to wetlands and streams, this project will likely require a Virginia Water Protection Permit. DEQ-NRO agrees with the technical and regulatory discussion in the SEIS and finds no reason to suggest a VWPP could not be obtained. The DEQ-NRO VWPP program will make the final permit decision regarding potential impacts to state waters. **(0069-6** [Irons, Ellie])

Comment: The wetland delineation should be confirmed by the U.S. Army Corps of Engineers (Corps). In addition to contacting the Corps for the wetland confirmation, Dominion must contact the DEQ Virginia Water Protection Permit program to determine the necessity of the VWPP(s). Coordination of this project should be conducted with the Virginia Marine Resources Commission, the Corps and DEQ through the Joint Permit Application (JPA) process. The JPA must include documentation of all avoidance and minimization efforts and a conceptual plan for appropriate compensatory mitigation. Avoidance and minimization of wetland and stream impacts should occur to the maximum extent practicable. (**0069-8** [Irons, Ellie])

Comment:
- Coordinate closely with DEQ regarding mitigation options as they are considered and developed.
- Examine onsite mitigation options to compensate for unavoidable permanent wetland impacts and conversions or purchase of credits at a mitigation bank within the watershed of the proposed impacts.
- Consider mitigating impacts to forested or converted wetlands by establishing new forested wetlands within the impacted watershed. (**0069-9** [Irons, Ellie])

Response: *As described in Section 2.7.1 of the Draft SEIS, Dominion has delineated the onsite wetlands, and the Army Corps of Engineers (Corps) has verified the Dominion's delineation. Subsequent to publication of the Draft SEIS, Dominion also delineated wetlands within the transmission line right-of-way, and the Corps also verified that delineation. Dominion has committed to obtaining and complying with all applicable permits regarding wetlands, and has committed to working with the Commonwealth of Virginia and the USACE to develop and implement appropriate mitigation actions to compensate for any wetland losses. Sections 2.7.1, 4.4.1, and 5.4.1 of the SEIS have been updated to include the transmission line right-of-way wetland delineation information. (NAPS-COL3-DR0050R)*

Comment: Section 4.4.3 line 35 acknowledges that bald eagles nest as close as 2.5 miles to the site. What effect will the project have on fish that the eagles may use as a food source? (**0023-25** [Goldsmith, Aviv])

Comment: Please mitigate the damage you cause with wetlands preservation elsewhere. (**0050-2** [Gignac, David])

Comment: As part of the IFIM study, Dominion is evaluating the potential impacts to shoreline and wetland vegetation, not monitoring as part of a program. Dominion suggests the following wording, "Dominion is evaluating the potential impacts of lake level changes on shoreline and wetland vegetation as part of its Instream Flow Incremental Methodology (IFIM) study, and regulatory permitting activities." (**0084-25** [Grechek, Eugene])

Comment: [DSEIS Sec 2.7.1.2, text re "wildlife surveys ....and wetlands have not been delineated....along the Ladysmith right-of-way"] A wetlands delineation had not been performed at the time of submittal of COLA-ER Rev. 0. A wetlands delineation along the NAPS-to-Ladysmith transmission corridor was performed in August 2008 and is described in the COLA-ER Rev. 1, Section 4.3.1.1, submitted in December 2008. A jurisdictional determination from the US Army Corps of Engineers was also received in September 2008. (**0084-35** [Grechek, Eugene])

Response: *A response has not been written. (UDR-11)*

2.11 Comments Concerning Ecology - Aquatic

Comment: Page 5-24 states that "larval abundance is not known" and that a 1978 model was used for the estimation. How good is the estimation? Couldn't representative sampling give an estimate of larval abundance? (**0023-34** [Goldsmith, Aviv])

Comment [a8]: We might need to do a sweep of all of Aviv's comments b/c he seems to be talking about the ESP. This should be noted in the responses, if possible.

Response: *~~A~~The statement on larval abundance appears in the ESP EIS (NUREG-1811), not the COL SEIS (NUREG-1917). As stated in Section 5.4.2.3 of the ESP EIS (NUREG-1811), the fish populations in Lake Anna most susceptible to entrainment represent a balanced community and have remained relatively stable, in part because of the fishery management actions employed by the Commonwealth of Virginia. Thus, the NRC staff believes the use of the entrainment model used to support the 316(b) determination is an appropriate way to evaluate additional entrainment losses associated with the operation of Unit 3, and that further synoptic sampling of larval communities in the lake is not warranted. ~~This statement does not appear in the North Anna Unit 3 combined license Draft SEIS (NUREG-1917).~~ This comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0076R)*

Comment: Page 5-27 discusses cold shock and says that it will be less of a problem with a multiple unit plant. This is only true if the entire station does not shut down. If the remaining unit or units shut down, the cold shock will be much more severe due to the loss of a huge thermal load. (**0023-35** [Goldsmith, Aviv])

Response: *This statement on cold shock appears on Page 5-26 of the ESP EIS (NUREG-1811), not the COL SEIS (NUREG-1917). In its independent assessment, the NRC staff determined the impact to be SMALL. ~~This statement does not appear in the North Anna Unit 3 combined license Draft SEIS (NUREG-1917).~~ This comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0077R)*

Comment: Coordinate with the Virginia Department of Game and Inland Fisheries and/or the U.S. Fish and Wildlife Service regarding presence of endangered or threatened species and/or habitat, prior to seeking a permit from the Virginia Water Protection Permit Program. (**0069-11** [Irons, Ellie])

Response: *As described in Section 2.7.2.2 of the COL Draft SEIS, no Federally or State-listed fish species have been observed in Lake Anna or the North Anna River, and none are believed to occur in counties adjacent to Lake Anna or the North Anna River (i.e., Caroline, Hanover, Louisa, Orange, and Spotsylvania Counties). Three listed species-- the dwarf wedgemussel (Alasmidonta heterodon), the James spinymussel (Pleurobema collina), and the Atlantic pigtoe (Fusconaia masoni)-- could occur in counties adjacent to or downstream of the Lake Anna reservoir. Two additional species-- the green floater (mussel) (Lasmigona subviridis) and the Virginia Piedmont waterboatman (aquatic insect) (Sigara depressa)-- were identified as occurring in the upper Pamunkey River watershed. None of the species identified above have been observed or collected in Lake Anna or the North Anna Rive during pre-impoundment surveys or in more recent routine monitoring surveys. This information will be included in the SEIS, Sections XXX and XXX have been modified. (NAPS-COL3-DR0078R)*

Comment: DGIF will continue to work with Dominion, the permitting agencies, and other natural resource agencies to develop operating rules that avoid adverse impacts upon downstream resources, including recreational uses, or to mitigate unavoidable impacts. Possible impacts upon protected species and the waters that support them will be considered in DGIF's final comments and recommendations resulting from review of the IFIM results. (**0069-22** [Irons, Ellie])

Response: *This comment is a statement of intent by the Virginia Department of Game and Inland Fisheries regarding development of operating rules for the proposed Unit 3. Chapter 5 of the SEIS was modified to include discussion of the IFIM study results and proposed Unit 3 operating rules. (NAPS-COL3-DR0079R)*

Comment: According to DGIF data and those from the Department of Conservation and Recreation (DCR), downstream waters have been known to support:

* dwarf wedgemussel (federally-listed endangered);
* James spinymussel (federally-listed endangered);
* Atlantic pigtoe (state-listed endangered); and
* green floater (state-listed threatened).

(**0069-23** [Irons, Ellie])

Response: *These species could occur in counties adjacent to or downstream of the Lake Anna reservoir, but have not been observed or collected in Lake Anna or the North Anna River during pre-impoundment surveys or in more recent routine monitoring surveys. Section 2.7.2 of the SEIS has been modified to include this information. (NAPS-COL3-DR0080R)*

Comment: Upon review of the Early Site Permit and associated Coastal Consistency for the proposed addition of a third reactor at North Anna Power Station (NAPS), we expressed concerns about the operation of the third reactor and the reservoir as they relate to maintenance

of downstream flows in the North Anna and Pamunkey rivers. To address our concerns, we and other state resource agencies recommend that Dominion perform an Instream Flow Incremental Methodology (IFIM) study in the North Anna River below the Lake Anna dam and in downstream waters of the Pamunkey River. We worked closely with Dominion and the permitting agencies on the design of the study and the analysis of the results. As stated in the SEIS, the primary goal of the IFIM is to determine whether possible changes in dam releases resulting from the operation of the third reactor are likely to adversely impact aquatic resources below the dam. **(0070-1** [Ewing, Amy])

Response: *Chapter 5 of the SEIS was modified to include discussion of the IFIM study results and proposed Unit 3 operating rules. (NAPS-COL3-DR0081R)*

Comment: According to our records, we do not currently document listed wildlife resources under our jurisdiction from the site proposed for placement of the third reactor. Therefore, impacts upon such resources are not likely to result from site preparation or construction of the third reactor. According to our data and those from VDCR, downstream waters have been known to support federal Endangered dwarf wedgemussel, federal Endangered James spinymussel, state Endangered Atlantic pigtoe, and state Threatened green floater. Possible impacts upon these species and the waters that support them will be considered in our final comments and recommendations resulting from review of the IFIM results. (**0070-3** [Ewing, Amy])

Response: *As described in Section 2.7.2, species listed in this comment could occur in counties adjacent to or downstream of the Lake Anna reservoir, but have not been observed or collected in Lake Anna or the North Anna River during pre-impoundment surveys or in more recent routine monitoring surveys. Chapter 5 of the SEIS was modified to include discussion of the IFIM study results and proposed Unit 3 operating rules. (NAPS-COL3-DR0082R)*

Comment: But we know, from eight years of hard work, on mitigation with Newport News, that it was a good thing we did, and we got Newport News to agree to a lot of commitments, some financial commitments, and resources that will ensure that the shad population of the Pamunkey river will survive. (**0073-14** [Brown, Kevin])

Comment [a9]: This comment maybe out of scope. Lets discuss.

Response: *Comment noted. (NAPS-COL3-DR0083R)*

Comment: The SDEIS does not appear to contain an adequate discussion of the treatment of the blow-down, or the potential effects of the blow-down on Lake Anna, and downstream ecological resources. **(0078-6** [Cruickshank, John])

Response: *This comment appears to be related to the ESP EIS (NUREG-1811), which stated that some water quality impacts associated with blowdown water discharges were unresolved because a specific water quality treatment design was unavailable. Since that time, Dominion has provided additional information on the ambient water quality of Lake Anna, a description of plant water treatment methods and chemical additives, blowdown flow rates, and expected chemical concentrations in the plant discharge. This information and an analysis of impact to aquatic resources are presented in Section 5.3.3 of the SEIS. (NAPS-COL3-DR0084R)*

Comment: Missing the qualifier among. Redbreast sunfish (Lepomis auritus) have consistently been among the most abundant species in the North Anna River since 1981. Reference - Accession No. ML081960653, page 28, “Environmental Study of Lake Anna and the Lower North Anna River --Annual Report for 2007”. (**0084-10** [Grechek, Eugene])

Comment: [DSEIS Section 2.7.2.1] Should say four stations, not six. Reference - Accession No. ML081960653, page 35, "Environmental Study of Lake Anna and the Lower North Anna River--Annual Report for 2007". "The locations of the following four (4) electrofishing stations are shown in Figure 4.1-1: NAR-1 (Route 601 Louisa Bridge), NAR-2 (Route 658 Bridge), NAR-4 (Route 601 Hanover Bridge) and NAR-6 (U.S. Route 1 Bridge)." (**0084-11** [Grechek, Eugene])

Comment: Editorial: [Sec 2.7.2.1, "Recent Dominion surveys....."] Revise "Dominion" to "VDGIF." **(0084-12** [Grechek, Eugene])

Comment: Dominion suggests the following: Add "The IFIM study focused on how changes in flow resulted in changes in aquatic habitat in the North Anna and Pamunkey Rivers." Modify "The IFIM study….to reach conclusions." Insert "Though the study did not address explicitly the well documented effect of diluting acid mine drainage in the North Anna River…..," Continue with "…the staff believes… in the North Anna and Pamunkey Rivers." **(0084-13** [Grechek, Eugene])

Comment: Dominion suggests deleting the word "Reservoir" from the title of Table 2-4 to be consistent with other references to Lake Anna in the DSEIS. **(0084-14** [Grechek, Eugene])

Comment: [in DSEIS Section 2.7.2.3 Aquatic Ecology Monitoring] Dominion suggests that the reference to "mussels" be deleted. Mussels were not included as part of the approved river study. Reference - Accession No. ML081960659, "A Monitoring Plan for Lake Anna, the Waste Heat Treatment Facility and the North Anna River", February 2008 - "Biological monitoring shall include fish population surveys." (**0084-15** [Grechek, Eugene])

Comment: [DSEIS Sec 5.4.2.4] NRC references 250.3 ft. msl correctly as stated in the original study plan. The actual study and draft final report, however, are aimed at a target lake elevation of 250.25 ft. msl. **(0084-27** [Grechek, Eugene])

Comment: The VDGIF reference presented a fishing preference with largemouth bass ahead of striped bass [ref SDEIS Section 2.7.2.1]. (**0084-7** [Grechek, Eugene])

Comment: Change "2008" to "2002." [in sentence about discharges increasing from December 19 to 22, ___] (**0084-8** [Grechek, Eugene])

Comment: The America eel (Anguilla rostrata), should also be included [in list of abundant fish species in Sec 2.7.2.1]. Reference - Accession No. ML081960653, page 28, "Environmental Study of Lake Anna and the Lower North Anna River ??? Annual Report for 2007". "The numerically dominant species collected in 2007 were, in descending order, American eel, redbreast sunfish, rosefin shiner, margined madtom and satinfin shiner, fallfish Semotilus corporalis, and tessellated darter Etheostoma olmstedi (Table 4.2-3)." (**0084-9** [Grechek, Eugene])

Response: *These suggested clarifications or corrections to the Draft SEIS have been incorporated as appropriate into the Final SEIS. (NAPS-COL3-DR0177R)*

Comment: As you know, the existing Units 1 and 2 have a thermal variance under Virginia's Pollution Discharge Elimination System (VPDES) permit. While the VPDES permit is protective of water quality, thermal discharges may decrease the level ~~of~~~~dissolved~~of dissolved oxygen in the water adding stress to the aquatic community. EPA has ecological concerns with the cumulative impacts to the lake due to the~~rm~~~~nn~~al discharge from the existing units, the proposed

Unit 3 and the low dissolved oxygen levels from several lake tributaries. As a result, EPA believes that Dominion Nuclear North Anna LLC should consider additional mitigative measures to offset the potential thermal ~~thennal~~ discharge impacts. (**0072-2** [Lapp, Jeffrey])

Response: *The comment is noted. Cumulative impacts are discussed in Chapter 7 of the SEIS; mitigation of operating impacts is discussed in Chapters 5 and 10. Plant effluent discharges will continue to be regulated by the Commonwealth of Virginia. No change was made to the SEIS as a result of this comment. (NAPS-COL3-DR0178R)*

2.12 Comments Concerning Socioeconomics

Comment: The impact of the third reactor to social, economic, safety, health, environmental (i.e. shorelines, wet areas, etc.) and drought conditions on property owners, businesses, and usability of the lake are essentially unknown despite 5 years of permit approval process by State and Federal Authorities. Therefore, this past Fall, LACA conducted a survey of its members to measure impact of some aspects of recreational use of the lake. We asked our members to estimate the number of lost recreation days they experienced in 2007 low water conditions (not a major drought). The 151 respondents, primarily homeowners around the lake, reported a staggering 4,239 lost days. If extrapolated lake-wide this is the equivalent to nearly 20,000 lost days. That does not include the day users and users of the State Park. Furthermore, new data from the survey reveals that facilities become unusable and days are lost even before the lake reaches two feet low. (**0019-2** [Smith, Doug])

Comment: Recreation
The recreation release would begin on Friday afternoon or evening and last for about 18 hours. This pulse of water is designed to be present in the most
popular recreational boating reach during the daylight hours on Saturday. These mitigation measures were designed to protect lake levels, protect
aquatic life and enhance river recreation if water storage was in good condition. An additional benefit of the pulse is that it would temporarily
improve fish habitat and restore some of the natural variability to river's summer hydrologic regime. (**0069-18** [Irons, Ellie])

Comment: Wetlands
Dominion also studied the impact of the three-inch rise in normal lake levels on docks and on fringe wetlands around the lake. Preliminary indications are the three-inch rise will have small impacts on docks and wetlands. (**0069-19** [Irons, Ellie])

Comment: One area of environmental concern, to the Louisa County staff and the residents, who work and live near the North Anna Power Station, and those who use the lake for recreation, is that of lake level.

I have been told that most of the time the lake level will be at full pond with a third reactor operating. And that residents will be able to enjoy the lake the same as they do now. (**0073-17** [Mullen, Dale])

Comment: One, low water levels expose safety hazards to thousands of recreational users of the lake. How many new hazards are created by the water consumption of the third reactor? Answer, nobody knows. (**0073-49** [Smith, Doug])

Comment: Three, low water levels discourage use of the lake. How many additional people will be denied use of the lake? Nobody knows. **(0073-51** [Smith, Doug])

Comment: Reduced use of the lake affects businesses that depend on lake, and taxes that are collected. What is that impact? Nobody knows. (**0073-52** [Smith, Doug])

Comment: Since no impact data really exists, LACA, this past fall, decided to conduct a survey and at least ask its members what they believe the impact was in the year 2007.

Now, we had dry year in 2007 and we at least asked them what the impact was. The answer was very interesting. And if extrapolated to all of the owners around the lake, it would mean 20,000 lost days of recreation for folks who live around the lake.

That is the smaller portion of the total users of the lake, if you look at the park, and the day users that come in on public ramps, you would get a number much larger than that.

LACA believes this is new and significant data, it reveals real information about the impact of low water levels on Lake Anna, and we ask the NRC to review the data, and reconsider their finding that mitigation of impact of low water levels is not required. (**0073-55** [Smith, Doug])

Comment: If you consider the owners and operators, and family members of our [Lake Anna Business Partnership] membership, a rough estimate is that we represent probably about 500 people who have an interest in maintaining the pristine nature of the resources provided to us by Lake Anna. (**0075-6** [Bishop, Wayman])

Comment: I have to say that my recreational experience is not represented in the report of the findings of the survey conducted by the Lake Anna Civic Association. Now, when I read those findings I asked myself, do I live on the same lake? Perhaps I'm very fortunate, but I have to tell you that none of my recreational activities, since 1983, which include fishing, swimming, boating, and skiing, have never been negatively impacted by the water level at Lake Anna.

Some days I step into my boat, some days I jump down into my boat. But I'm still able to operate my boat. My personal view is that your inability to use your boat Lake Anna is more a feature of short-sighted design and placement of your boat lift, than it is the level of the water at Lake Anna. (**0075-7** [Bishop, Wayman])

Response: *NRC staff ~~will~~ evaluate<u>d</u> new information relating to inputs to the water budget model and any resulting changes to impacts of plant operation on Lake Anna reservoir lake level and discharge to the North Anna River. Inputs to the water budget model include plant water use, plant discharges, meteorology (precipitation), and streamflow information. Lake level and thermal impacts were ~~already~~ addressed in the ESP FEIS (NUREG-1811); therefore, the COL SEIS analysis focuses on new and significant information that might change the original impact level. The results of the lake-level elevation and discharge evaluation are also be used to evaluate socioeconomic (including recreational) impacts, which are addressed in Section 5.8, of the ~~COL~~ SEIS. <u>As a condition of the ESP for the North Anna site, Dominion was required to conduct an IFIM study to address impacts on lake levels and downstream flows under different</u>*

reservoir operating scenarios during proposed Unit 3 operations, compared to the existing (Unit 1 and 2) reservoir operating condition. ~~The comments will be considered in the Staff's review of new and significant information related to water use and water availability of the Lake Anna Reservoir. Water resource management incorporates the uncertainty of projections of the future supply and demand for water resulting from natural climate variability (e.g., droughts) and man-made demands. The Commonwealth of Virginia (VDEQ), the U.S. Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (ACE) have jurisdiction for regulating water use and water quality through Federal and State laws. Staff will evaluate new and significant information relating to impacts of plant operation on Lake Anna reservoir lake level and discharge to the North Anna River below the dam, including any information available from the IFIM study. The IFIM study has concluded that ..~~ The IFIM study components included downstream habitat for fish and other organisms, recreation on the North Anna and Pamunkey Rivers, wetlands around the shore of Lake Anna, and Lake Anna boat ramps and docks. Mitigation of impacts includes a proposal to increase Lake Anna reservoir storage capacity by raising the normal pool elevation 0.25 ft to 250.25 ft. The results of the IFIM study were not available at the time the Draft SEIS was published, but they are included in Chapter 5 of the Final SEIS, along with other proposed measures to mitigate habitat and recreational impacts. Reservoir management, water use, water quality, and downstream instream flow requirements fall within the regulatory authority of the Commonwealth of Virginia.~~. ~~.~~ (NAPS-COL3-DR0143R)

Comment: Because this project is of great economic importance to the county, and its residents, and because the environmentally responsible development of reactor 3 is also paramount, I and my staff have sought to learn the facts concerning the plans for reactor 3 as part of our professional review of the development of this important industry in your county. **(0073-16** [Mullen, Dale])

Comment: They employ, currently, 950 people. And approximately a third, or over 300 live in Louisa County. They are the county's largest employer. Their annual payroll is approximately 70 million dollars, and the average salary is over 74,000 dollars.

The third reactor will add an additional 750 new jobs. And if you use the same ratio, that is approximately 250 new jobs for Louisa citizens, with an average salary of 74,000 dollars.

Now, this doesn't include the 3,000 new jobs that will be created during construction. And with an unemployment rate of 6.1 percent and growing (**0073-22** [Gibson, Bob])

Comment: Dominion North Anna is Louisa's largest single taxpayer. Since its inception it has paid over 236 million dollars to Louisa County. The new reactor will provide additional millions of new tax revenue for Louisa County. (**0073-23** [Gibson, Bob])

Comment: But if you want a visual of what it means to Louisa County, just drive and look at our schools, and the quality of our schools, and the new school that is being built, and you will see really what this reactor means to the county. (**0073-24** [Gibson, Bob])

Comment: But on a broader scale, economic scale, reliable and affordable electricity is a foundation for attracting and maintaining industry. Dominion North Anna produces Dominion's lowest cost source of baseload electricity in their system, and generates 17 percent of all the electricity used by their customers. **(0073-25** [Gibson, Bob])

Comment: I might also say, from an economic perspective, it is our belief that the only real recovery, and when I say real I'm not talking about artificial recovery, economically, I'm talking about real recovery to our economy, the best hope for this region is in building and operating reactor number 3.

Because this is a rural area our response to any efforts to stimulate the economy will lag in the national economy by 18 to 24 months. So we think that the best hope for real economic recovery, in this area, is in reactor number 3.

Thank you very much. **(0075-11** [Bishop, Wayman])

Comment: We further acknowledge and appreciate the fact that at a time when the national unemployment rate is rising rapidly, and potential future unemployment keeps people up at night, that 314 citizens in the greater Fredericksburg area receive a paycheck from Dominion Virginia Power's North Anna facility.

The ripple effect, through the economy, of increased salaries and wages, puts food on the table, parks a newer vehicle in the garage, puts our children through school, helps pay for health and dental care, and helps support thousands of businesses in the region. (**0075-17** [Bailey, Gene])

Comment: It is a win-win, for both Louisa, for the State, for Dominion customers. You get 3,000 new construction jobs, you get a permanent employment of 750 people, it provides energy, increased taxes, and good payroll for the area. **(0075-21** [Farmer, John])

Comment: But, as an addendum to all the technical aspects of this facility, the immediate impact will be on the economic picture in the state and local environs, at a time when we are facing a bleak outlook.

Jobs will be created at a time when they are needed most, and the ripple effect will be incalculable. (**0075-27** [Beament, Pete])

Comment: Times have become very hard recently, for myself, and a lot of people like my family. This third reactor would be a huge boost for myself, my family, and hundreds of other families in this area. **(0075-31** [Carroll, John])

Comment: I was going to talk about economic financial impacts, but a couple of people already have, 750 permanent jobs. (**0075-45** [Stiles, Lisa])

Comment: As far as jobs go, this county, we talk about the recession, and the economy of Louisa County. Yes, our jobless rate is low, in the 6 or 7 percent for Louisa County.

However, I can tell you that my husband has been laid off here for a year and a half. And the jobs that are in this county are low paying jobs.
So this type of employment that will bring to this county will be a great help. And an analysis that was done for Comanche Peak, which is another unit that is proposing to have a new nuclear facility built, they actually had their economic stimulus.

And what they had determined was that just the construction alone, let's not take out the construction cost, is 22 billion dollars in economic development and 104.7000 person years of employment, just for the construction.

Can you imagine what that can do to the economy of a depressed area like Virginia? And, in fact, if we are building these all over the country, how good that would be for the government. **(0082-23** [Harte, Vicky])

Comment: This country needs all sources of domestic energy we can get. To offset -- and in addition, to offset the financial crisis we, as a nation, are experiencing.

The best thing we can do is develop sources of domestic energy, and prevent the excess of 700 billion dollars that goes outside of our country every year, just to purchase energy. **(0082-3** [Reynolds, Norm])

Response: *These comments are statements of support for constructing NAPS Unit 3, based in part on creation of construction jobs, subsequent operations jobs, or other economic benefits and does not provide new information that would lead to a different level of impact than the MODERATE to LARGE beneficial level calculated for the economy in Sections 4.4 and 5.4 of the SEIS. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0144R)*

Comment: The transportation section is totally deficient. There is currently insufficient infrastructure to support the construction workforce or handle an evacuation.

Assuming that the roads will be there when required (Page 5-37, line 16) is not science, it is superstition. The SDEIS stated "No new transportation routes... are currently planned in the vicinity of NAPS." (Page 2-4 line 37) There is little to no funding for road expansions in Virginia. The DEIS acknowledged that the I-95/606 interchange is congested at "LOS D or worse" and that SR208 from Blockhouse Road to Lake Anna (about 12.5 miles) is a minor two-lane road. Increased construction usage will have major impacts on these roads. If an evacuation is required during the construction interval when additional personnel are on site, the impact would be staggering. (**0023-13** [Goldsmith, Aviv])

Comment:

- Table 10-1 acknowledges that increased traffic congestion is unavoidable. This is not congruous with the SMALL impact determination.
- Table 10-2 should include an assessment of traffic similar to Table 10-1. Presently, this would also conclude that increased traffic congestion is unavoidable. (**0023-52** [Goldsmith, Aviv])

Comment: Major contributions to construction of a reliable road network are required. Financial contributions to neighboring counties to alleviate the housing, school, and health care burdens of the project should be implemented. (**0023-54** [Goldsmith, Aviv])

Comment: a discussion of the expected traffic distribution (for construction-related traffic and for operations) and the effects upon the state highways and intersections (**0069-3** [Irons, Ellie])

Comment: HanoverCounty
Despite the conclusion in the SEIS (page 5-19, section 5.5.4.1) that the transportation impacts may be small, it is not possible to determine the impact of the project on Hanover County until more detailed information on the distribution of traffic is provided. This development is in a rural area where the impacts on these low-volume roads may be relatively higher than in an urban area. Note that VDOT does not normally make temporary improvements for construction-related traffic as the SEIS (page 5-19, section 5.5.4.1) appears to suggest. (**0069-49** [Irons, Ellie])

Comment: Spotsylvania County
Based on the information provided, it was also difficult to determine transportation impacts in Spotsylvania County. Availability of the traffic management plan, and VDOT's role, referenced in the document would assist in further evaluation. VDOT anticipates that the road network should be able to handle the addition of 500 employees. However, overweight loads due to construction traffic, may cause excessive impacts to the surrounding road system and road improvements or road repair may be required. A funding source for this work has not been addressed in the SEIS. Note that some of the planned road improvements that would serve this site no longer have public funds allocated, delaying the proposed work. **(0069-50** [Irons, Ellie])

Comment: VDOT recommends that the final SEIS should include a discussion and analysis of the following:

- The expected traffic distribution (for construction-related traffic and for operations) and the effects upon the state highways and intersections..
- Where construction workers and additional employees will be housed, routes traveled to work, and the number of work shifts.

(**0069-51** [Irons, Ellie])

Response: *NRC staff have made several efforts to engage VDOT regional and local transportation planners to provide better estimates of traffic impacts, but VDOT has taken the position that the applicant should take this responsibility and essentially no new information has become available since the Early Site Permit concerning the current level of traffic, road capacities of potential commuter routes, congestion ratings that might occur during construction of Unit 3, or impacts that did occur during the construction period for Units 1 and 2. Some plans remain to upgrade several of the roads in the area, but the plans remain unfunded. It is not clear to the NRC staff that traffic would follow any particular route to reach the plant site or that any data base exists that would yield a different estimate of impact than the level already discussed in the EIS for the Early Site Permit. (NAPS-COL3-DR0145R)*

Comment: Today the importance of nuclear power is geopolitical as well as economic, reducing dependency on imported oil and gas. I do have an article that was just released yesterday, and I'm just going to read a couple of words for you.

But it is from OPEC. And this is from the Leaders of Opec. And this is what they reported. We are not happy with even 50 dollars a barrel worth of oil. We don't want a repeat of the 1980s where we, this is OPEC countries, had to lay off highly skilled people and didn't invest.

So their goal is to get oil back up to 60 to 80 dollars a barrel. This was at their meeting held on March 15th. So while the view from the oil producers is that current oil prices are low enough to stimulate the economy, the price from OPEC is going to go against us, and it is going to raise the oil back up to prices to make it drive our gas back up, away from the prices that we so enjoy now. **(0082-20** [Harte, Vicky])

Response: *The comment is generally a supporting statement for the nuclear power based on the view that it can displace power generated by combusting oil and gas. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0146R)*

Comment: The section on socioeconomics is lacking. For example, there is no data on the impact that the project will have on local house values. The impacts on the human environment must be fleshed out in an EIS and this should be addressed as part of Section 5.5.3.1 or 5.5.3.5. The potential impacts to the DC area are not addressed at all in the document and should be included. The document does not address the life cycle costs of power and the amount of government subsidy involved. (**0023-12** [Goldsmith, Aviv])

Response: *At the Early Site Permit stage, using FDIC sales data on the Census tracts nearest Lake Anna, the NRC staff conducted a study of sales prices of housing that occurred during the 2001-2002 drought and searched for the potential impacts of decline in Lake Anna water levels on housing prices. The study was repeated for the 2005-2007 period for this COL SEIS. While these data are not specific enough to determine the impacts on individual ~~propoerties~~properties, no adverse impact on either sales volume or housing prices ~~attriubtable~~attributable to low water levels was detected during the two drought periods. These analyses were described in Section 5.5 of the ESP EIS and in Section 5.5 of the SEIS. The ESP EIS and the COL SEIS both indicate in their sections 4.5 that there could be upward ~~pressur~~pressure on local housing prices if construction workers decide to move to the local area. No impact assessment was performed for the Washington D.C. metropolitan area housing prices because the scale of the North Anna project is not likely to be large enough relative to other economic trends in the Washington area to produce a noticeable impact. (NAPS-COL3-DR0147R)*

Comment: The lack of full-time hospitals and fire/rescue facilities in the immediate Lake Anna area creates a high potential for serious impacts from an accident at the project. (**0023-21** [Goldsmith, Aviv])

Response: *The impact of lack of full-time hospitals and fire/rescue facilities in the immediate Lake Anna area in the event of an accident at the NAPS site depends upon what arrangements the site operator has made with the medical and eme~~ge~~rgency system surrounding the plant should be approximately the same as with the current two operating plants. This impact is discussed in Sections 4.5 and 5.5. (NAPS-COL3-DR0150R)*

Comment [a10]: This needs to massaged a bit. Maybe we should just say we evaluated the availability of hospital services and itsSMALL. Then go on to say in the event of an accident/emergency situation, the regulations require applicants to have plans in place to address this issue.

Comment: Given that Louisa County had a population of about 25,000 in 2000 (Page 2-1 line 42), the SDEIS conclusion that a construction work force of 5,000 would have a SMALL impact (Section 4.5) is unsubstantiated and suspect. (**0023-26** [Goldsmith, Aviv])

Response: *~~T~~Sections XXX and XXX of the SEIS evaluated the socioeconomic impacts of the additional construction workers at the proposed Unit 3 site and surrounding community. This comment provides no new and significant information. Therefore, no changes were made to the SEIS.~~he basis of the conclusion is provided in Sections 4.5 of the EIS.~~ (NAPS-COL3-DR0151R)*

Comment: At the ESL public hearing that I was able to attend, Lake Anna residents expressed concern about the aesthetics of the cooling towers. A visual simulation should be included as part of section 4.5.1.4 to address this concern. (**0023-27** [Goldsmith, Aviv])

Response: *~~T~~The impacts of the proposed Unit 3 were addressed in Section 4.5.1.4, Aesthetics and Recreation, of the SEIS. The staff concluded the impacts~~ is described in Section 4.5.1.4 as to be~~ MODERATE because the site is already an industrial site and the view of the site would be largely unchanged. Dominion provided visual simulation pictures of the site in Section 5.8.2*

of its environmental report. Section XXX of the SEIS has also been modified to include the artists rendering. ~~ER~~. (NAPS-COL3-DR0152R)

Comment: The SEIS (page 2-36, section 2.8.2.6) includes a review of major public water supply systems in the region. **(0069-46** [Irons, Ellie])

Response: *The comment is a statement of fact and does not require any additional analysis. Therefore, no changes were made to the SEIS.*

(NAPS-COL3-DR0154R)

Comment: We will continue to work with Dominion, the permitting agencies, and other natural resource agencies to develop operating rules that avoid adverse impacts upon downstream resources, including recreational uses, or to mitigate unavoidable impacts. (**0070-2** [Ewing, Amy])

Response: *This comment is a statement of intent by the VDGIF, and does not recommend any analysis. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0155R)*

Comment: It is also my understanding that the hybrid cooling tower system is beneficial, more beneficial, than the previous plan, because it is a low profile cooling tower that will minimize the profile of the North Anna Power Station on the lake, when viewed from the lake, and also from the land. (**0073-20** [Mullen, Dale])

Response: *This is a statement regarding visual aesthetics of the proposed Unit 3 facilities and does not recommend any additional analysis. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0156R)*

Comment: One thing else that we need to look at here, is the impacts on the school system during construction. During units 1 and 2, and 3 and 4 were canceled, we had a significant impact here in Louisa County in which the 25 percent increase in the school system.

Our school board has already brought this issue up, and they are still calling this a small impact, 25 percent increase in students, without an increase in revenue.
How are we going to pay for this? Our Board of Supervisors, unfortunately, has not been forward looking, and we are not prepared for what -- we can't even get the next school built. So we've got problems right here. (**0082-12** [Rosenthal, Jerry])

Response: *This comment is a statement apparently disputing the impact level assigned to education. The commenter asserts that Louisa public schools had a 25 percent increase in enrollment during construction of Units 1 and 2. This statement will be examined and a determination will be made whether it is new and significant information in light of estimates previously made of the potential impact of construction of the proposed NAPS Unit 3 on education.*
(NAPS-COL3-DR0157R)

Comment: DSEIS Sections 4.5.1.3 and 5.5.4.1 cite an estimated construction workforce of 25003000. This is inconsistent with the COLA-ER new and significant evaluation as well as other sections of the DSEIS (Section 4.5 and 4.5.3), which cite an estimated construction workforce of 2500-3500. Dominion suggests the construction workforce be characterized as 2500-3500. (**0084-21** [Grechek, Eugene])

Comment [a11]: We need to be sure and include this picture….if we can.

Comment [a12]: Im thinking about deleting this comment and response.

Comment [a13]: This has to be revised to say whether or not we made changes to the SEIS. Remember this is not a scoping summary report.

Comment: [DSEIS Section] 4.5.4.5 Education: Editorial. Change “construction” to “construct”. (**0084-22** [Grechek, Eugene])

Comment: The correct nearest population center with more than 25,000 residents is Charlottesville (Fredericksburg's population is less than 25,000). The US Census Bureau website lists the population of the city of Fredericksburg, VA as 22,410 for 2007 (access date 1/12/09). (**0084-4** [Grechek, Eugene])

Response: *A response has not been written. (UDR-38)*

2.13 Comments Concerning Historic and Cultural Resources

Comment: In addition, our review of the Virginia Department of Historical Resources Data Sharing System (VDHR DSS) indicates that the proposed work may affect cultural resources. These resources may eligible for listing on the National Register of Historic Places (enclosed maps) and may be subject to compliance with Section 106 ofthe National Historic Preservation Act of 1966.

According to 36 CFR 800.2(a) (2):

"... If more than one Federal agency is involved in an undertaking, some or all [oj] the agencies may designate a lead Federal agency, which shall identify the appropriate official to serve as the agency official who shall act on their behalf, fulfilling their collective responsibilities under section 106. Those Federal agencies that do not designate a lead Federal agency remain individually responsible for their compliance with this part."

Pursuant to the above provision, the United States Nuclear Regulatory Commission (USNRC) is hereby designated as the lead federal agency to fulfill the collective Federal responsibilities under Section 106 for the. North Anna Power Station Unit 3, if the USNRC detennines an adverse effect on historic
resources:

The Corps authorizes the USNRC to conduct Section 106 coordination on its behalf. If a Memorandum of Agreement is required by USNRC, under 36 CFR 800.6, the following clause should be included in the introductory text:

"WHEREAS, pursuant to Section 404 ~~ofthe~~of the Clean Water Act, a Department ~~ofthe~~of the Army permit will likely be ~~requiredfrom~~required from the Corps ~~ofEngineers~~of Engineers for this project, and the Corps has designated USNRC as the ~~leadfederal~~lead federal agency to ~~fulfillfederal~~fulfill federal responsibilities under Section 106; and

Any work in these areas may require authorization by state and local agencies. Thank you for providing us the opportunity to provide early comment on the project. (**0009-6** [Bronson, Regena])

Response: *As outlined in 36 CFR 800.8, “Coordination with the National Environmental Policy Act of 1969,” the NRC coordinated compliance with Section 106 of the NHPA in meeting the requirements of NEPA. Specific historic and cultural information is provided in Chapters 4 and 5*

of the SEIS. The comment provides no new information. No change was made to the SEIS as a result of this comment. (NAPS-COL3-DR0163R)

Comment: We find that the DSEIS accurately reflects consultation to date and adequately addresses our concerns. We strongly support commitments made by Dominion Virginia Power in Section 4.6 of the DSEIS which will provide for the continued consideration and protection of historic properties. If the NRC and Dominion are unable or unwilling to abide by these commitments, additional consultation on the impacts of the COL on historic properties will be necessary. Provided the ~~comimitments~~commitments are met, we find that a determination of no adverse effect to historic properties is appropriate. (**0014-1** [Kirchen, Roger])

Comment: DHR finds that the SEIS accurately reflects consultation to date and adequately addresses agency concerns. DHR strongly supports Dominion's commitments in the SEIS (section 4.6) which will provide for the continued
consideration and protection of historic properties.
13(c) Requirement. If the NRC and Dominion are unable or unwilling to abide by the commitments, additional consultation on the impacts of the COL on historic properties will be necessary pursuant to Section 106.
13(d) Conclusion. Provided the commitments are met, DHR finds that a determination (**0069-48** [Irons, Ellie])

Comment: We have received from the Nuclear Regulatorv Commission (NRC) the daft Supplemental Environmental Impact Statement (DSEIS) referenced above.
We find that the DSEIS accurately reflects consultation to date and adequately addresses our concerns. We strongly support the commitments made by Dominion Virginia Power in Section 4.6 of the DSEIS which will provide for the continued consideration and protection of historic properties. If the NRC and
Dominion are unable or unwilling to abide by these commitments, additional consultation on the impacts of the COL on historic properties will be necessary. Provided the commitments are met. we find that a determination of no adverse effect to historic properties is appropriate. (**0071-1** [Kirchen, Roger])

Response: *These comments provide information that supports the NRC staff's independent analysis. These comments provide no new and significant information. Therefore, no changes were made to the SEIS~~These comments provide no new and significant information. Therefore, no changes were made to the SEIS~~. (NAPS-COL3-DR0164R)*

Comment: The Tuscarora Nation is listed twice in Section 2.9.3. The Tuscarora Nation is listed as consulted in association with the COL and is listed under "additional six groups added to this list." Appendix B (Organizations Contacted) lists the Tuscarora Nation and the Tuscarora Indian Tribe; however the Tuscarora Indian Tribe is not listed in Section 2.9.3. Dominion suggests the NRC clarify its listing between both the Nation and Tribe. (**0084-16** [Grechek, Eugene])

Response: *Appendix B was modified to reflect the consultation with the Tuscacora Nation that was described in Section 2.9.3 of the SEIS. (NAPS-COL3-DR0168R)*

Comment [a14]: Need to double check the letters sent out against the list.

Comment: [In DSEIS Section 4.10 on discovery of potential historic or cultural resources] Dominion suggests changing the word "Natural" to "Historic" to revise the reference to the Virginia Department of Historic Resources. **(0084-24** [Grechek, Eugene])

Response: *Section 4.10 of the SEIS was modified as suggested. (NAPS-COL3-DR0212R)*

Comment: In briefly looking over the report, we disagree with the findings that no significant historical or archaeological resources will be impacted (**0013-2** [Brown, Kevin])

Comment: Anything that effects those [North and South Anna] rivers has a direct impact on our lives and our culture. (**0013-3** [Brown, Kevin])

Comment: An in-depth TCP mitigation is warranted, and we are asking to be a consultant party in that mitigation. (**0013-4** [Brown, Kevin])

Comment: In briefly looking over the report, I would strongly disagree with the findings that no significant historical or archaeological resources will be impacted. (**0073-12** [Brown, Kevin])

Comment: We the Pamunkey Indians have lived, fished and hunted on the shores of the Pamunkey River for thousands of years. The headwaters of our river are the North and South Anna.

Anything that affects those rivers has a direct impact on our lives, and our culture. An in-depth traditional culture and property mitigation is warranted, and we are asking to be a consultant party in that mitigation. (**0073-13** [Brown, Kevin])

Response: *to be decided at a later time (NAPS-COL3-DR0213R)*

Comment [NK15]: Need NRC guidance. SME Doug McFarland in touch w/Rich Emch.

2.14 Comments Concerning Environmental Justice

Comment: We need to design a truly permanent systems that efficiently replenish themselves, and build --sorry, it is -- it is kind of hard to talk about environmental justice with so much money in my pockets.

So I'm just going to have to leave it at that, sorry. You guys deal with it yourselves. (**0081-2** [Oyok, Louis])

Response: *The comment is noted. Environmental Justice refers to a Federal policy under which each Federal agency identifies and addresses, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. The SEIS discusses impacts on low-income or minority populations in Sections 4.6 and 5.6, respectively. The comment does not address Environmental Justice issues and findings, and does not recommend further analysis. The comment provides no new and significant information; therefore, no changes were made to the SEIS. (NAPS-COL3-DR0136R)*

Comment: [DSEIS Sec 1.10, 4.7, 5.7] NRC added a different data parameter in the DSEIS for the COL (minority and low-income populations in counties). The FEIS and ER for the ESP presented data on minority and low-income populations in Census Bureau Census Year 2000 block groups in accordance with NRC guidance (NUREG-1555 and LIC-203). The county-based data cannot be accurately called new data because it has no relevance to minority and low-income populations as defined in the ESP SEIS; the county-level amalgamation would mask

any change at a block-group level. The two data sets, the county-based and census block-based, are not comparable because multiple block groups make up counties and not all block groups contain minority or low-income populations. Dominion suggests NRC consider indicating that the ESP outreach revealed no discrepancy between minority and low-income information at that time, 2006, and that information gathered since that time does not indicate a substantial change. **(0084-17** [Grechek, Eugene])

Response: *A response has not been written. (UDR-13)*

2.15 Comments Concerning Health - Non - Radiological

Comment: The health and safety of those who recreate on and near Lake Anna need to be addressed due to possible contaminates. Lake Anna has been shown to have Naegleria fowleri traces on both the hot and cold side of the lake. This new finding has not been discussed in the DSEIS. The DSEIS discusses the Clean Air Act Section 169A and 40 CFR Part 51, Subpart P as effect on local air quality levels as negligible. This did not include Legion Ella bacteria some of which are immune to biocides. The potential for airborne and waterborne contaminates needs to be sorted out by the NRC and VDEQ. (**0018-4** [Remmers, Ken])

Response: *Public health associated with the use of Lake Anna and the potential for microorganisms to affect the health and safety of the public was evaluated in Section 5.8.1 of the SEIS. A recent study was in the process of being published at the same time the Draft SEIS was published, but the authors of the study shared their findings with the NRC staff for inclusion in the Draft SEIS (see the reference for Jamerson et al. 2008). While no specific federal regulations address disease-causing organisms in cooling towers or thermal effluents, 40 CFR 141.70 regulates maximum contaminant levels of various microorganisms, including Legionella in public drinking water systems (NUREG-1555, NRC 2000). However, standard practices for operating cooling towers include adding biocides to the water to limit growth of microorganisms inside the towers and providing appropriate protective equipment for workers who enter the cooling towers for maintenance operations. Biocides in the water sources for the cooling towers would limit microbial growth at the source, and minimize the potential for any aerosol releases. The use of biocides in various water systems for Unit 3 is discussed in Section 3.2.4.1 of the SEIS. (NAPS-COL3-DR0141R)*

Comment [a16]: Do we need to say something about legionella specifically? Even if we say its not likely it can cause problems as an airborne…..

Comment: The health and safety of those who recreate on or near Lake Anna need to be addressed due to possible contaminants. Lake Anna has been shown to have NF [Naegleria fowleri] traces on both the hot and cold side of the lake. (**0073-38** [Remmers, Ken])

Response: *Public health associated with the use of Lake Anna and the potential for microorganisms to affect the health and safety of the public was evaluated in Section 5.8.1 of the ~~Draft~~ SEIS. A recent study was in the process of being published at the same time the Draft SEIS was published, but the authors of the study shared their findings with the NRC staff for inclusion in the SEIS (see the reference for Jamerson et al. 2008). (NAPS-COL3-DR0142R)*

Comment: We MUST put health first--the health of all of us living in Central Virginia now and in the future, the health of all the wildlife that would be affected by this decision, and the health of the natural world that we live in and want to preserve for future generations. It would be irresponsible to move forward with this third reactor. (**0055-2** [Shamaiengar, Beth])

Response: *Health impacts to the public and workers, as well as to the terrestrial and aquatic environments, associated with the construction and operation of the proposed Unit 3 was evaluated in the ESP EIS, and new and significant information was reviewed and evaluated in the COL ~~Draft~~ SEIS. NRC staff found through the NEPA process that the procedures and plans for compliance with Federal and State regulations associated with protection of human health and the environment were disclosed and potential impacts would be SMALL. This determination means that "environmental effects are not detectable are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource". (NAPS-COL3-DR0158R)*

Comment: Any structures being demolished, renovated, or removed, should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, state regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed. **(0069-41** [Irons, Ellie])

Response: *There are no plans to demolish, renovate, or remove any existing structures to construct the proposed Unit 3. There are no plans to use hazardous materials such as asbestos in the construction of Unit 3 (see Section 10.5 of the SEIS). As stated in Section 1.5 of the SEIS, prior to construction and operation of the new unit, Dominion will be required to hold certain Federal, State, and local environmental permits, as well as meet applicable statutory and regulatory requirements. (NAPS-COL3-DR0159R)*

Comment:

The DEQ Waste Division recommends the following:

- Access the following website to locate additional information on hazardous waste and solid waste sites using their identification numbers: http://www.epa..ov/superfund/sites/cursites/index.htm or.
- Implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

8(f) Requirement. If the construction of this project will include the use of portable fuel AST(s) with a capacity of greater than 660 gallons, the tank(s) must be registered with DEQ using AST RegistrationForm 7540-AST.

(**0069-42** [Irons, Ellie])

Response: *Plans for the use of hazardous and solid waste associated with the proposed Unit 3 are addressed in Section 3.2.4 of the SEIS. Dominion has committed to comply with appropriate State and Federal regulations on ~~S~~specific plans for construction and operations associated with fuel and waste. ~~will comply with appropriate State and Federal regulations~~. (NAPS-COL3-DR0160R)*

Comment [a17]: Make sure this statement is true ☺

Comment: DEQ recommends that the use of herbicides or pesticides for construction or landscape maintenance should be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used. Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information. (**0069-43** [Irons, Ellie])

Response: *Dominion has committed to comply with appropriate State and Federal regulations on specific plans ~~Specific plans~~ for the use of herbicides or pesticides associated with construction and operation of the proposed Unit 3. ~~will comply with appropriate State and Federal regulations.~~ (NAPS-COL3-DR0161R)*

Comment: [DSEIS Section] 4.8.2 Noise: Editorial: Change dBz to dBA. Note the 65 dBA limit applies to plant operation, not construction activities. (**0084-23** [Grechek, Eugene])

Response: *A response has not been written. (UDR-15)*

2.16 Comments Concerning Health - Radiological

Comment: The goal of the radionuclide emission standard is to limit the lifetime risk of induced fatal cancer to a maximally exposed individual. The implementing regulations translate this into a maximum individual exposure of 10 millirem/year for airborne emissions that result in exposure through any environmental pathway.3

A recent meta-analysis of leukemia found that the majority of these studies detected higher rates of cancer in children living around nuclear facilities.4 The analysis concluded:

The meta-analysis combined and statistically analysed studies of childhood leukaemia and nuclear facilities. Focus was on studies that calculated standardized rates for individual facilities. Due to variability between study designs, eight separate analyses were performed stratified by age and zone. One hundred and thirty-six sites were used in at least one analysis. Unadjusted, fixed effects and random effects models were used. Metarates greater than one were found in all models at all stratification levels often achieving statistical significance. Caution must be used when interpreting these results. The meta-analysis was able to show an increase in childhood leukaemia near nuclear facilities, but does not support a hypothesis to explain the excess. Eac htype of model utilized has limitations. Fixed effects models give greater weight to larger studies; however, population density may be a risk factor. Random effects models give greater weight to smaller studies that may be more likely to be affected by publication bias. A limitation of the overall study design is that standardized rates must be available for individual sites which led to exclusion of studies that only calculated rates for multiple sites and those that presented other statistical methods. Further, dose-response studies do not support excess rates found near nuclear facilities. However, it cannot be ignored that the majority of studies have found elevated rates, although not usually statistically significant. (**0024-7** [Zeller, Lou])

Comment: My final comments will be based on Professor Chris Busbee at the University of Liverpool, commenting on the waste, the high levels of radioactivity dumped into the Irish sea from Sellafield, which is the largest nuclear reprocessing plant in the world.

The tidal mudflats in Kirkibright Bay in Scotland, discovered Celsium isotopes in the soil that were twice the levels of expected radiation, and pointed to the presence of plutonium.

Near Sellafield childhood cancer in North Wales was ten times in excess of childhood leukemia and non-hodgkin's lymphoma in children birth to four years living near the plant.

These studies were confirmed by independent epidemiological analyses. Nevertheless the authorities continued to refuse to accept that there is a causality. (**0080-5** [Young, Emerald])

Response: *This comment presents a summary of a recent study of incidences of childhood leukemia near nuclear installations (Baker and Hoeld 2007). The referenced study has been reviewed by the NRC staff and it does not provide conclusive evidence of increased incidences of cancer at low dose rates. That is, the study reports an increased rate of cancer near particular nuclear facilities, but cannot and does not demonstrate a causal relationship between nuclear facilities and elevated incidences of cancer. A position statement entitled "Radiation*

Risk in Perspective" by the Health Physics Society (revised August 2004) made the following points regarding radiological health effects:

1. Radiological health effects (primarily cancer) have been demonstrated in humans through epidemiological studies only at doses exceeding 5 to 10 rem delivered at high dose rates. Below this dose, estimation of adverse effect remains speculative.

2. Epidemiological studies have not demonstrated adverse health effects in individuals exposed to small doses (less than 10 rem delivered in a period of many years).

These comments provide no new and significant information. Therefore, no changes were made to the SEIS.~~No change was made to the EIS as a result of these comments.~~
(NAPS-COL3-DR0101R)

Comment: The BEIR VIICommittee published morbidity and mortality data in 2006 which show that children have a significantly higher risk of developing cancer from radiation than adults do and women have a higher risk of radiation-induced cancer than men do. BEIR VII found that a lifetime dose of one million person-rem results in a cancer incidence rate of 900 for men and 1370 for women; mortality rates for the same dose are 480 and 660 for men and women, respectively.5

3 10 CFR 50 Appx. I 4 BAKER P.J. &HOELD.G. (2007) European Journal of Cancer Care 16 , 355-363, Meta-analysis of standardized incidence and
mortality rates of childhood leukaemia in proximityto nuclear facilities 5 See Richard R. Monson (Chair) et al. Health Risks from Exposureto Low Levels of Ionizing Radiation: BEIR VII Phase 2. Committee to Assess Health Risks from Exposureto Low Levels of Ionizing Radiation, Board on Radiation Effects Research, National Research Council of theNational Academies. Washington, DC: National Academies Press,2006 (**0024-8** [Zeller, Lou])

Response: *The Biological Effects of Ionizing Radiation (BEIR) VII report (National Research Council 2005) estimated that a group of 100,000 men exposed to 10 rads would results in 900 men developing solid cancers or leukemia during their lifetime with 480 fatalities. A group of 10,000 women exposed to 10 rads would result in 1370 women developing solid cancers or leukemia during their lifetime with 660 fatalities. The total lifetime collective dose for the 100,000 men or women would be 1 million person-rem. This comment reflects a statement of fact, but does not provide new information about the proposed project and will not be evaluated further. Accordingly, no changes were made to the SEIS as a result of the comment.*
(NAPS-COL3-DR0102R)

Comment: Based on these data, the operation of Unit 3at NAPS could place additional numbers of children at risk from airborne radiation exposure. The draft SEIS does not adequately assess airborne radionuclide impacts around the North Anna Power Station. (**0024-9** [Zeller, Lou])

Response: *The ~~Draft~~ SEIS for the North Anna ~~COL~~ COL does address airborne radionuclide impacts from the proposed Unit 3 in Sections 5.9.2.2 and 5.9.3.2. Table 5-5 provides dose estimates to the maximally-exposed individual including the child and infant at the following locations: nearest site boundary, nearest garden, nearest residences, and nearest meat cow. The doses to the maximally exposed individual were less than the 10 CFR Part 50 Appendix I design objectives. Population doses were discussed in Section 5.9.3.2 and include*

dose contribution from children within an 80-km (50-mi) radius of the plant. The population dose from the proposed Unit 3 was bounded by the estimated population dose for the proposed ESP units. The ~~Final~~ ESP EIS (NUREG-1811) for the NAPS site concluded less than 0.02 fatal cancers, non-fatal cancers, and severe hereditary effects for a single ESP unit compared to an estimated 672 fatal cancers, non-fatal cancers, and severe hereditary effects from natural background radiation exposure annually. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0103R)

Comment: Illinois has more nuclear reactors than any other state, it has 11 active. And there were a panel of experts who commented on emissions. I will read some of the comments. This is from Paul Gunther, who is the Director, or was the Director at that time, of Reactor Watchdog, a project of Nuclear Information Resource Services.

Radioactive releases into the air and water routinely occur with nuclear power station operations. They occur as continuous emissions, and batch releases. A large portion of these radioactive releases are radioactive for intervals of seconds, minutes, days.

Other radioactive isotopes can deliver harmful exposures for months, years, or even millions of years. As released radioactive gases decay, some form particulate matter, and join other persistent radioactive isotopes as fallout deposited on land and water.

These long-lived isotopes persist and accumulate in the environment, and then biomagnify up the food chain. With no known safe threshold for radiation exposure, the prohibition of radiation releases is not unreasonable to demand, particularly considering that the developing fetus and children are the most vulnerable to radiation exposures. (**0080-1** [Young, Emerald])

Response: *As discussed in Sections 2.5 and 5.9.6 of the ~~Draft~~ SEIS, Dominion has an established a Radiological Environmental Monitoring Program (REMP) for Units 1 and 2. The NRC staff determined that this program would be adequate to establish the radiological impacts to the environment related to the construction and operation of the proposed Unit 3 at the NAPS site. As part of the REMP, Dominion will sample, measure, analyze, and monitor the radiological impact of reactor operations on the following pathways: direct radiation, atmospheric, aquatic, and terrestrial. Results of the REMP are summarized each year in an Annual Environmental Radiological Operating Report. Effluent releases are summarized annually in an Annual Radioactive Effluent Release Report. In addition, as discussed in Section 2.5 of the ~~Draft~~ SEIS, the Virginia Department of Health has a radiological environmental monitoring program in the vicinity of the NAPS site. The State program samples airborne particulates, fish, milk, shellfish, silt, surface water, and vegetation. The purpose of the environmental monitoring programs undertaken by Dominion and the Commonwealth of Virginia is to detect any gradual buildup of radioactive materials from plant operations. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0104R)*

Comment: Tritium has not been discussed. **(0082-15** [Rosenthal, Jerry])

Response: *Tritium was discussed in detail in the ESP EIS. As discussed in Section 5.9.1 of the COL ~~Draft~~ SEIS, the estimated annual gaseous and liquid effluent releases from the ESBWR design proposed for Unit 3 is significantly less than the tritium releases evaluated in the ESP EIS using the plant parameter envelope approach. The tritium liquid and gaseous effluent source terms for the ESBWR proposed for Unit 3 are 14 Ci/yr and 76 Ci/yr, respectively. This is*

compared to the ESP liquid and gaseous effluent source term per ESP unit of 850 Ci/yr and 3500 Ci/yr. The ESP evaluation for tritium bounded the COL evaluation. The staff did calculate doses to the maximally exposed individual and the population dose with the revised liquid and gaseous tritium source term in Section 5.9.2 of the ~~Draft~~ SEIS. Sections 2.5 and 5.9.6 of the ~~Draft~~ SEIS discuss the additional tritium groundwater monitoring being performed around Units 1 and 2 and proposed groundwater monitoring for Unit 3 in response to the tritium groundwater protection initiative. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0105R)

Comment: Here at North Anna, my children grew up here, and I just wanted -- we have never, I have not known anybody that has ever achieved any cancer rate, or any other type that was outside the norm for a population of this size.

I also am a medical technologist, so I know a lot about that type of demographics. And there really is no increase when you look at the overall between the population expansion and the diseases. (**0082-25** [Harte, Vicky])

Response: *This comment reflects views and opinions, but does not provide new information about the proposed project and will not be evaluated further. No changes were made to this SEIS as a result of this comment. (NAPS-COL3-DR0106R)*

2.18 Comments Concerning Accidents - Severe

Comment: Section 5.10 should include a worst case analysis for low-probability events. (**0023-41** [Goldsmith, Aviv])

Response: *Consistent with the general NEPA philosophy that environmental reviews contain realistic estimates of impacts, the Commission in its safety goals policy statement (51 FR 30028) has adopted the use of mean estimates rather than worst-case estimates of accident risks. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0203R)*

Comment [a18]: Need a sentence or two on how we have a whole chapter dedicated to Accidents in the SEIS and safety evaluates this in the SER.

Comment: The statement on page 5-69 line 40 that "alternatives to mitigate severe accidents are not resolved" is incongruous with the SMALL impact determination. Since the ESP is designed to address site-specific issues, these must be resolved now, not at the COL stage as is suggested by page 5-70 line 2. (**0023-43** [Goldsmith, Aviv])

Response: *The submitted comment refers to NUREG-1811, Supplement 1, Draft Environmental Impact Statement for an Early Site Permit (ESP) at the North Anna ESP Site published July 2006 and is a request that specific analyses be conducted during the ESP stage. The ESP stage is completed; however, the requested analyses for severe accident mitigation ~~alternatives~~alternatives were completed for the COL ~~stage~~ and are described in Section 5.10.3 and Appendix M of the SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0204R)*

Comment: A common-language summary of section 5.10.2 is required. (**0023-42** [Goldsmith, Aviv])

Response: *The submitted comment refers to NUREG-1811, Supplement 1, Draft Environmental Impact Statement for an Early Site Permit (ESP) at the North Anna ESP Site, published in July 2006 (NRC 2006b). The ESP stage is completed; however, the summary of Section 5.10.2 has changed ~~from~~ since completion of the ~~the Draft~~ ESP EIS. ~~to the COL SEIS.~~ Sections/Chapter XXX of the COL SEIS evaluated the impacts of "postulated accidents." This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0205R)*

Comment [a19]: Please make sure this is the correct technical area talked about in this comment.

Comment: The concern is that that is going to exponentionally increase the risks of accidents. And we only have to look at the most recent disaster in Tennessee, regarding ash coal, to see that there are projects which simply aren't based on sound science. (**0081-4** [Au Clair Valdez, Miguel])

Response: *Section 5.10 and Appendix M of the SEIS discuss the postulated accidents that the NRC staff evaluated and the mitigation alternatives considered. The accident risks are reported on an annual basis assuming a 40-year reactor lifetime. Aging aspects of the reactor would be specifically addressed in the safety review of any license renewal application submitted for operation beyond the first 20 years and is outside the scope of the environmental review. The comment provided no new and significant information; therefore, no changes were made to the SEIS. (NAPS-COL3-DR0206R)*

Comment: Section 5.10 is hard to understand the possible radiation impacts from an emergency. Given that "radiation experts conservatively assume that any amount of radiation exposure may pose some risk of causing cancer or a severe hereditary effect", a common language summary is required that clearly sets out expected radiation impacts in the study area. (**0023-38** [Goldsmith, Aviv])

Comment: Please clarify the statements in page SDEIS 5-57 line 35 et. seq. Does the SDEIS say that the project would create "730 fatal cancers, nonfatal cancers, and severe hereditary effects per 10,000 person"s? (**0023-39** [Goldsmith, Aviv])

Response: *A response has not been written. (UDR-2)*

2.19 Comments Concerning the Uranium Fuel Cycle

Comment: No new plants should be licensed until the issue of waste disposal, both ~~highlevel~~high level and low level, is resolved . (**0004-5** [Abbott, Diana])

Response: *These comments express general opposition to nuclear power. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0002R)*

Comment [a20]: This is opposition, but we need to add something about how low and high level waste is evaluated for the SEIS. Specifically the low-level waste and for the high level, insert the Commissions policy statement.

Comment: The semi-permanent storage of radioactive waste at the North Anna site ~~presentshealth~~presents health and safety threats to the people of central Virginia . In 1984 the NRC had expressed "confidence" that the problem of high level waste ~~disposalwould~~disposal would be resolved in 30 years. This has not happened ---Yucca Mt. is unlikely to ever open. (**0004-4** [Abbott, Diana])

Comment: I remember when the Nuclear Power Plant was constructed at Lake Anna, and many of us had concerns about long term disposal of spent fuel cartridges. There is still no satisfactory long term solution to the this problem. Yucca Mountain is not going to work out. Sending fuel cartridges into Space is not going to work out. (**0006-1** [Neale, Lara])

Comment: The semi-permanent storage of radioactive waste at the North Anna site presents health and safety threats to the thousands of people of central Virginia. (**0010-3** [Day, Elena])

Comment: The semi-permanent storage of radioactive waste at the North Anna site presents health and safety threats to the thousands of people of central Virginia. (**0011-4** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele] [Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: This is to make a request and comment on the third nuclear reactor at the North Anna Power Station in Lousia County, Virginia. It is requested that the permit and license for the proposed Unit III reactor include making the existing and expanded site a declared and dedicated permanent site for spent nuclear fuel storage that is produced in Virginia. That the spent fuel from the existing two units at North Anna and other units in Virginia is being stored on site is an established fact. The fact of the spent fuel from the proposed third unit is to be stored on site [couldn't read handwritten text] been started. It is well known and accepted from the beginning of the nuclear power [couldn't read handwritten text] that this magic power source was started to be so cheap that the only cost would be the cost of distribution and metering. The Nuclear Regulatory Commission (NRC) and the nuclear electric power industry have continued to view the spent fuel as a no cost problem that the U.S. Congress will dispose of. It is suggested that the good people of Lousia County and Virginia are the immediate beneficiaries of this cheap nuclear power and it is only fair that these good people be provided with the employment from operating the permanent storage site for the hundreds of generations into the

future. The inclusion of making the North Anna site a permanent storage site should be written into the permit. (**0021-1** [Jones, Dale])

Comment: Given the current administration's statements that the Yucca Mountain waste repository will not be developed, it is imprudent to approve a COL or consider an EIS without a waste solution as part of the project to be reviewed. This is especially so given that there are limits to onsite waste storage and storage is not disposal. If this waste is going to stay on site then is should be dealt with in detail in the EIS. (**0023-3** [Goldsmith, Aviv])

Comment: The EIS must fully address the potential consequences of permanent storage of highlevel radioactive waste onsite (and so close to the national's capitol). There is no currently no permanent storage facility for high-level radioactive waste. Even if the proposed Yucca Mountain site opens during the operating lifetime of the proposed facility, this reactor will, by law, not be eligible to have its high-level waste stored there. Thus, the EIS must assume that there will be no available high-level radioactive waste repository for the full operating lifetime (plus possible license extension) of this unit, and the EIS must fully address how and where all of the high-level radioactive waste generated will be stored on-site, and what measures will be taken to ensure that the radioactivity from this waste remains permanently isolated from the environment. (**0023-8** [Goldsmith, Aviv])

Comment: The Nuclear Waste Policy Act of 1982, as amended, specifies that high-level nuclear waste "including irradiated fuel rods from nuclear reactors" will be disposed of in a deep geologic repository at Yucca Mountain, Nevada. However, the draft SEIS provides an inadequate analysis of the disposition of irradiated fuel from Dominion-Virginia Power's proposed North Anna Unit 3 during the operating life of the reactor.

The Nuclear Regulatory Commission has ignored both its own rules and the intractable problem of storage of irradiated fuel rods either at nuclear plant sites or at a proposed waste dump at Yucca Mountain in Nevada. Recently, the Obama Administration's proposed 2010 budget zeroed out funding for development of the Yucca Mountain repository project. Also, North Anna's irradiated fuel storage pools are vulnerable to fires caused by accidents or intentional attacks. The NRC has not even attempted to comply with the basic requirements for its waste decisions, such as preparing an environmental assessment that addresses the purpose of and need for the proposed action and evaluates alternatives. With no solution to radioactive waste, no new reactors should be licensed.

Further, the NRC's Proposed Waste Confidence Rule and the Proposed Temporary Storage Rule do not satisfy the requirements of NEPA for a generic licensing decision for new nuclear power plants. Under the National Environmental Policy Act, the NRC is required to apply generic decisions to individual licenses; otherwise the regulations become a hash of exceptions and half measures. In other words, environmental impacts must be assessed consistently in both the general case and the specific proceeding. In the particular case of North Anna, unless and until the NRC remedies the deficiencies in the Waste Confidence Rule, Table S-3of 10 C.F.R. § 51.51, and the Proposed Spent Fuel Storage Rule, the agency has no basis for issuing an operating license for Unit 3. (**0024-2** [Zeller, Lou])

Comment: Personally, I believe no more nuclear power plants should be built until a satisfactory method of disposing of the fuel rods is found (**0037-1** [Witting, Marjorie])

Comment: Furthermore, there is no known safe disposal for spent nuclear fuel rods and other contaminated material generated by a nuclear plant. The spent fuel remains radioactive and dangerous for hundreds of thousands of years. (**0056-1** [Cook, Joe])

Comment: The NRC expressed confidence, in 1984, that the problem of disposal of high level radioactive waste, generated by nukes, would be resolved in 30 years.

Now, because Yucca Mountain is unlikely to ever, ever open, as a permanent nuke waste repository, the NRC is extending that confidence to 60 years. (**0073-62** [Day, Elena])

Comment: I would be more confident if the NRC suspended generation of waste from any new sources. In other words, would suspend licensing new nukes, new mines, new processing facilities and, instead, searched for a means to dispose of the waste already generated as safely as technologically possible. (**0073-65** [Day, Elena])

Comment: In view of the problems with the Yucca Mountain repository, there is no guarantee if or when another permanent repository will be available. Lake Anna will become a semi-permanent, if not a permanent high level waste repository. (**0078-9** [Cruickshank, John])

Comment: And then I will read the comments of Kevin Camp, who is an expert, he is also a staff member, or was in 2004, of NIRS.

Looking at Nuclear Waste Storage: Irradiated fuel leaves reactors a million times more radioactive than when the fuel goes in, and can deliver lethal doses of radiation in just a few minutes, even after decades of decay in cooling.

To date the accumulated nuclear waste from 62 years of experimentation and power generation remains. For example, the nuclear waste from the early university of Chicago experiments Enrico Fermi, is stored on campus.

High level radiation or radioactive waste is placed almost entirely in so-called interim temporary facilities at the reactors where they are generated. (**0080-3** [Young, Emerald])

Comment: The Charlottesville Center for Peace and Justice is very concerned with the NRC's revisiting the waste competence decision, extending it from 30 to 60 years is basically just opening it up forever.

The fact is I look at most of us in this crowd, I wonder how many of us will be alive in 60 years? So it really is a totally open direction. **(0081-3** [Au Clair Valdez, Miguel])

Comment: The CCPJ is urging nuclear waste realism. The NRC should suspend all generation of atomic waste, from new sources, unless and until a truly permanent program that is scientifically sound, and rooted in a just and equitable siting decision process, is instituted. **(0081-5** [Au Clair Valdez, Miguel])

Response: *The safety and environmental effects of long-term storage of spent fuel onsite have been assessed by the NRC, and as set forth in the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the license operating life, which may*

include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addressed the impacts of both license renewal and potential new reactors. Therefore, the current rule can be used in the NRC staff's review of COL application. In its December 6, 1999, review of the Waste Confidence Rule (64 FR 68005), the Commission reaffirmed the findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the Commission states in the rule that there is reasonable assurance that at least one geologic repository will be available within the first quarter of the 21st century, and sufficient repository capacity for the spent fuel will be available within 30 years beyond the licensed life for operation of any reactor. The Commission issued a proposed update of the Waste Confidence Decision in the Federal Register (73 FR 59551) for comment on October 9, 2008. This update provided the basis for extending the time for sufficient repository capacity for spent fuel to be available from within 30 years beyond the licensed life for operation of any reactor to within 50 to 60 years. The proposed update also provides reasonable assurance that spent fuel can be stored without significant environmental impacts for at least 60 years beyond the licensed life for reactor operation assuming storage of spent fuel in either a spent fuel storage basis or onsite or offsite independent spent fuel storage installation. The updated 10 CFR 51.23 with revised Waste Confidence Decision is scheduled for issuance in the summer of 2009. No changes were made to the SEIS as a result of these comments.
(NAPS-COL3-DR0107R)

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Comment [a21]: We need to change this statement, the time period will already pass.

Comment: The semi-permanent storage of radioactive waste at the North Anna site presents health and safety threats to the people of central Virginia. In 1984 the NRC had expressed confidence that the problem of high level waste disposal would be resolved in 30 years. This has not happened Yucca Mt. is unlikely to ever open. No new plants should be licensed until the issue of waste disposal, both high level and low level, is resolved. (**0006-6** [Neale, Lara])

Response: *The safety and environmental effects of long-term storage of spent fuel onsite have been assessed by the NRC, and, as set forth in the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the license operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addressed the impacts of both license renewal and potential new reactors. Therefore, the current rule can be used in the staff's review of a combined license (COL) application. In its December 6, 1999, review of the Waste Confidence Rule (64 FR 68005), the Commission reaffirmed the findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the Commission states in the rule that there is reasonable assurance that at least one geologic repository will be available within the first quarter of the 21st century, and sufficient repository capacity for the spent fuel will be available within 30 years beyond the licensed life for operation of any reactor. The Commission issued a proposed update of the Waste Confidence Decision in the Federal Register (73 FR 59551) for comment on October 9, 2008. This update provided the basis for extending the time for sufficient repository capacity for spent fuel to be available from within 30 years beyond the licensed life for operation of any reactor to within 50 to 60 years. The proposed update also provides reasonable assurance that spent fuel can be stored without significant environmental impacts for at least 60 years beyond the licensed life for reactor operation assuming storage of spent fuel in either a spent fuel storage basis or onsite or offsite independent spent fuel storage installation. The updated 10 CFR 51.23 with revised Waste*

Confidence Decision is scheduled for issuance in the summer of 2009. Dominion has revised its environmental report (ER) to evaluate the impact of storing up to 10 years of Class B and C low-level onsite in its radwaste building. Section 6.1 of the SEIS was revised to include the environmental impacts of storing this waste onsite for up to 10 years. (NAPS-COL3-DR0110R)

Comment [a22]: Update as indicated in comment above.

Comment: The reactors will create approximately 20 MT/year of nuclear waste. Detailed plans for safe waste management, transport, and disposal should be presented and analyzed in the COL SDEIS. (**0023-44** [Goldsmith, Aviv])

Comment: With the closing of the low-level radioactive waste dump in Barnwell, South Carolina to out-of-compact waste, the North Anna Unit3 nuclear power reactor has no place to send Class B, C or Greater-Than-C radioactive waste. Since there is no offsite licensed disposal available, extended on site storage becomes *de facto* onsite disposal. This could significantly increase the safety and security risks of the North Anna site. Absent any known disposal means, the draft SEIS should at least analyze the impacts of all the possible alternatives for its waste disposal. (**0024-3** [Zeller, Lou])

Comment: CCPJ also supports the National Environmental Policy Act analysis of issues associated with waste generated at every step of the fuel chain prior to any federal action, including issuing the permit requested here tonight. (**0081-6** [Au Clair Valdez, Miguel])

Response: *The staff discussed impacts from nuclear waste in Section 6.1 of the SEIS. This discussion noted that waste management impacts for proposed Unit 3 would be bounded by those evaluated in Section 6.1 of the North Anna ESP EIS (NUREG-1811). New information noted in Section 6.1 of the ~~COL Draft~~ SEIS was the inability to currently dispose of Class B and C low-level waste offsite. Revision 2 to the applicant's ER will include the capability of storing up to 10 years of Class B and Class C in the radwaste building. The NRC staff's evaluation of the impact of storing this low-level waste onsite will be in Section 6.1 of the SEIS. (NAPS-COL3-DR0117R)*

Comment [a23]: These sentences need to be revised based on the fact the Rev 2 will be reviewed by that time.

Comment: Nuclear is a technology of the past, and you still don't even know what to do with the waste! (**0039-1** [Hess, David])

Comment: I believe we have come to the time where we need only sustainable energy sources. Nuclear energy is not sustainable because of the very dangerous waste produced during the process. (**0048-3** [Butcher, Ava])

Comment: The unsolved problem of its toxic waste is a legacy I do not want to pass on to my children. (**0051-3** [Harpole, Thane])

Response: *These comments reflect general opposition to nuclear power~~opinions~~, but they do not provide new and significant information about the proposed project. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0119R)*

Comment:

DEQ's Waste Division staff determined that both solid and hazardous waste issues were addressed in the report. A geographic information system (GIS) database search did not reveal any waste sites within a half mile radius that would impact or be impacted by construction activities at the project site.

The Waste Division performed a cursory review of DEQ data files and determined that there are several hazardous waste and solid waste sites located in the same zip code. These are as follows.

Hazardous Waste Site

- North Anna Power Station (VAD065376279), a treatment, storage and disposal facility (TSDF)

Solid Waste Sites

- Louisa County Sanitary Landfill, solid waste permit (SWP) 134, a closed sanitary landfill
- Louisa County Sanitary Landfill, SWP 194, a sanitary landfill
- Louisa County Sanitary Landfill, SWP 567, a sanitary landfill

(**0069-39** [Irons, Ellie])

Response: *This comment is a statement of fact, but it does not provide new and significant information about the proposed project. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0120R)*

Comment: It ranges from several years ago, in fact, quite a few years ago we had the issue of spent fuel, if you will, being stored on-site, outside the spent fuel pool. (**0073-7** [Harper, Willie])

Comment: A lot of the cask problems that you heard about, were primarily DOE type events, with different types of technology that have nothing to do with the way spent fuel is stored now at nuclear sites. (**0082-21** [Harte, Vicky])

Response: *These comments express support for the proposed Unit 3. They do not provide new and significant information about the proposed project. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0122R)*

Comment: In the meantime they are moving ahead to license new reactors, without revisiting the impact of generation of more, and more high level and low level waste at every stage of the nuclear fuel cycle, mining, milling, enrichment, fuel fabrication, and new plant operations. **(0073-63** [Day, Elena])

Response: *The impact of waste generation was evaluated in Section 6.1 of the ESP EIS (NUREG-1811) for the NAPS site. For the COL ~~Draft~~ SEIS, the staff reviewed fuel cycle and waste management operations at the proposed Unit 3 for new and significant information. The staff determined impacts from the ESP to bound those of the ESBWR unit proposed in Dominion's COL application. Revision 2 to the applicant's ER will include the capability of storing up to 10 years of Class B and Class C in the radwaste building. The NRC staff's evaluation of the impact of storing this low-level waste onsite will be in Section 6.1 of the SEIS. (NAPS-COL3-DR0123R)*

Comment [a24]: I think sentences are not applicable to comment. Maybe a more general statement about fuel cycle is appropriate here…

Comment: They are ignoring that storage in pools and casks at nuclear facilities increases the possibility of leakage, contamination and, of course, heightened security risks. (**0073-64** [Day, Elena])

Comment: Waste management is another concern. The SEIS fails to evaluate the environmental impacts and security threat of indefinitely storing the additional irradiated fuel that will be generated by the proposed reactor on-site. (**0078-8** [Cruickshank, John])

Comment: There are problems with transportation of the waste, also storage in dry cask is problematic, because of defective welds, and defective valves. Despite promises to unload casks if problems develop the Palisades Plant in Michigan left irradiated fuel in a defective cask for ten years.

An explosion occurred inside a cask at Point Beach, Wisconsin, in 1966. In Surry, Virginia, the first place in the country to use dry casks, the inner seals failed. **(0080-4** [Young, Emerald])

Response: *In its proposed revision to the Waste Confidence Rule (73 FR 59551), the staff has discussed issues related to leakage from spent fuel storage pools and independent spent fuel storage installations and security risks from those facilities. Finding 3 of the proposed Waste Confidence Rule states that the Commission finds reasonable assurance that high-level waste and spent fuel will be managed in a safe manner until sufficient repository capacity is available. The Commission cited its success in regulating spent fuel from six decommissioned reactors under the 10 CFR Part 72 regulations. Inspections on the independent spent fuel storage installations (ISFSI) at these locations have identified few issues once a loaded storage cask is placed on the storage pad. In addition, in accordance with 10 CFR50.54(bb), the licensee is required to include in their license information about how they will provide funding to management its spent fuel between the time the reactor stops operating and time the spent fuel is disposed of in a repository. Finding 4 of the proposed Waste Confidence Rule states that the Commission finds reasonable assurance that spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operations. This finding was based on review of the following issues: (1) long-term integrity of spent fuel under water pool storage conditions, (2) the structure and components safety for extended facility operation for storage of spent fuel in waste pools, (3) safety of dry storage, and (4) the potential risks of accidents and acts of sabotage at ISFSI. No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0126R)*

Comment: Any soil that is suspected of contamination or wastes that are generated during construction-related activities must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations. **(0069-40** [Irons, Ellie])

Response: *Section 3.2.4.3 of the ~~Draft~~ SEIS states that non-radioactive solid wastes (e.g., construction wastes) would be handled in compliance with appropriate State and Federal regulations. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0127R)*

2.20 Comments Concerning Transportation

Comment: The impacts to traffic from increased fog occurrence (Page 5-14 line 23) should be addressed. (**0023-19** [Goldsmith, Aviv])

Comment [a25]: This person is referring to information in the ESP EIS. Lets reduce this response to say…this person is referencing the ESP EIS. The issue was addressed in Section XXX of the SEIS. and the staff's conclusion remains as SMALL. If you want to leave in some of the information that's fine but just a couple of sentences.

Response: *The commenter is referring to 70 additional hours of fogging conditions predicted to occur as a result of vapor plumes produced by the cooling systems for Units 3 and 4. The environmental report~~ER~~ stated that natural heavy fog conditions (visibility less than 0.25 miles) are infrequent, occurring 27.2 days per year. The 70 additional hours of fog formation was stated in the ER to be negligible (Section 2.3.2.3). Studies on the frequency and severity of traffic accidents that occur during foggy conditions are not conclusive. A review of the literature shows that most accidents occur during normal weather conditions. The relationship between weather conditions and traffic accident frequency and severity is complex, and often behaves unpredictably. For example, one would expect that reduced visibility caused by fog would cause traffic accident risks to increase. However, driver behavior is also influenced by fog, causing motorists to slow down, thus reducing the likelihood and consequences of traffic accidents. In addition, motorists in areas affected by frequent fogging incidents may choose alternate routes that are less affected by fog. As a result, there is no definitive means of predicting the impacts to traffic from increased fogging due to operation of the North Anna Units 3 and 4. Because the increase in fogging due to operation of the new units is negligible, the NRC staff concluded the increase in traffic impacts would also be negligible. No changes were made to theS EIS as a result of this comment. (NAPS-COL3-DR0176R)*

2.21 Comments Concerning Decommissioning

Comment: Section 6.3 of the SDIES mentioned that decommissioning would eventually be required and "reduction of residual radioactivity to a level that permits termination of the NRC license". Has this been successfully done anywhere in the US? What financial security does the operator post to assure successful decommissioning? (**0023-45** [Goldsmith, Aviv])

Response: *Ten nuclear power plants in the United States have completed the decommissioning process and have had their operating licenses terminated (NRC 2008). As discussed in Section 6.3 of the ~~Draft~~ SEIS, Dominion has committed to establishing an external sinking funds account to accumulate funds for decommissioning. As defined in 10 CFR 50.75(e)(1)(ii), an external sinking fund is established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the administrative control of the licensee in which the total amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected. At least every two years, the licensee must report to the NRC on the status of decommission funding for each reactor it owns. Examples of information that must be in the report include (1) amount of decommissioning funds estimated to be required, (2) amount accumulated to date, (3) schedule of the annual amounts remaining to be collected, (4) assumptions used regarding escalation in decommissioning costs, and (5) rates of earning on decommissioning funds. (NAPS-COL3-DR0045R)*

2.22 Comments Concerning Site Redress

Comment: Restore temporary impact areas to their original contours and revegetate with the same or similar species. **(0069-10** [Irons, Ellie])

Response: *The ESP for the NAPS site (ESP-003) contains a site redress plan (Appendix E) that would be implemented if site preparation activities were performed but the ESP expired before being referenced in a COL application. Redress activities also apply to those areas not fully developed for the intended purpose of new nuclear power generation. Those areas would be returned to an environmentally stable and aesthetically acceptable condition that is consistent with local zoning laws. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0124R)*

2.23 Comments Concerning Cumulative Impacts

Comment: 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. **(0017-15** [Ruth, Harry])

Response: *Information regarding the cumulative impacts on water use from the operation of the existing Units 1 and 2 and the proposed Unit 3 are provided in Section 7.3 of the SEIS. This comment ~~did~~ does not provide ~~specific~~ new and significant information ~~that would alter the information in Section 7.3~~. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0115R)*

Comment: The NRC made no consideration for mitigation of Unit 1 and 2 for the operation of Unit 3 as requested. It is as if a box is drawn around Units 1and 2 and no consideration is made as to the total environmental impact of all three units. (**0018-2** [Remmers, Ken])

Response: *The cumulative impacts resulting from operating Units 1, 2, and 3 are discussed in Chapter 7 of the SEIS. This comment provides no new and significant information.~~Because no specific comments were received regarding the information contained in Chapter 7, this comment was considered out-of-scope~~. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0116R)*

Comment: Our first concern, the NRC in my previous comments, I requested the NRC to look at mitigation of plants 1 and 2 in way of unit 3. The NRC made no consideration for the mitigation of unit 1 and 2 as requested.

It is as if a box was drawn around unit 1 and 2, and no consideration is made for the total environmental impact of all three units. (**0073-34** [Remmers, Ken])

Response: *The cumulative impacts resulting from the operation of the existing Units 1 and 2 along with the proposed Unit 3 are covered in Chapter 7 of the SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0125R)*

2.25 Comments Concerning the Need for Power

Comment: Furthermore, in light of what we all now know about the condition of the Earth we can only expect that leaders in the energy field such as Va. Power should put a REAL effort into energy conservation first and foremost. With a true energy conservation program in place we would have no need at all for this proposed third nuclear plant. (**0062-1** [Fiscella, Glenn])

Response: *Decisions regarding which generation sources and alternatives to deploy are made by the applicant and regulatory bodies such as State energy planning agencies and public utility commissions. NRC requires~~T~~ the alternatives must be technically viable, feasible, and competitive. Chapter 8 reviews the impacts of energy efficiency and demand-side management on the need for power and load forecasts, and the need for power exists, even allowing for success of ambitious energy conservation in the Dominion Zone service area. This comment provides no new and significant information. Therefore, no changes were made to the SEIS> (NAPS-COL3-DR0132R)*

Comment: Several important issues have come up which involve significant changes since the Draft EIS...Economic recession: will significantly change economic assumptions including demand for electricity. (**0012-1** [Rosenthal, Jerry])

Comment: Our need for electricity has increased due to population growth and additional electrically generated technologies. (**0020-4** [Aylor, Joseph])

Comment: Money, expertise, personnel, and equipment can be imported from overseas, but I'm not aware of any way that they have ever found to import electricity from overseas. (**0073-2** [Wright, Jack])

Comment: Virginia is one of the fastest growing states in the country. And we import approximately 30 percent of our electricity needs from electrical generators located in other states. (**0073-27** [Faggert, Pam])

Comment: The PJM interconnect, which is the Regional Transmission Operator for the Mid-Atlantic Region, projects that by 2017 there will be a 4,000 megawatt gap between the amount of electricity needed for customers, and the electrical generation facilities available here in Virginia to meet the demand.

Of that amount 2,000 megawatts must be baseload generation, or the kind of electricity that is generated 24 hours, 7 days a week, by facilities such as a nuclear reactor. (**0073-28** [Faggert, Pam])

Comment: Dominion is working on several fronts to preempt such a gap in 2017, including promoting improvements in energy efficiency, increasing conservation efforts, and developing renewable energy facilities. (**0073-29** [Faggert, Pam])

Comment: Everything I have read and heard during the past several years, has stressed the need for a safe continuing source of dependable and affordable power.
Unit 3 will help meet this need (**0073-3** [Wright, Jack])

Comment: We've heard a lot about deficits, recently. And Virginia has one. It is a major importer of electricity power.

In fact it is the largest importer of electricity, other than California. And that is one of the needs of this plant. Nuclear energy provides an ideal mix, it is mixed with coal, gas, and hydro. (**0075-20** [Farmer, John])

Comment: This project will help close a conservatively estimated 4,000 megawatt energy gap in Virginia, by 2017.

It will provide 1,500 megawatts, or 37 percent of this need. And that is a key thought, maybe. If you are only going to provide 37 percent of what we are going to need by 2017. But it will do this with 24-7 reliability, and minimal impact on the environment. (**0075-23** [Beament, Pete])

Comment: We want cheap electricity, delivered to our doorstep, but we don't want to see any generating facilities. **(0075-29** [Carroll, John])

Comment: I believe the new unit is an essential addition to Virginia's electric energy portfolio. There is a significant need for investment in a diverse mix of generation within the state.

Virginia faces, as we have heard tonight, considerable shortfall for electricity within the more than 4,000 megawatts over the next decade. The additional unit at North Anna will generate approximately, as we also have heard tonight, 1,500 megawatts. Enough energy to power the equivalent of 375,000 homes (**0075-47** [Girvin, Larry])

Comment: As you know our electricity demand will increase 25 percent by 2030. Here in Virginia nuclear power provides almost 35 percent of the state's energy needs.

That is only expected to grow.

Virginia has experienced growth of 2.8 percent per year over the past five years. To keep Virginia's economy growing the state will need new sources of power, power that is good for the environment, and good for the economy. **(0077-12** [Lamboley, Genevieve])

Comment: We all know that our nation heavily relies on electricity. In fact, the Department of Energy estimates that our electricity demand will increase 25 percent by 2030.

Technological advances have increased our reliance on the many gadgets that power our lives more efficiently, and that is only made the need for more clean sources of power even greater. (**0077-7** [Nelson, Deborah])

Comment: The reality is that we will require more power from a variety of sources in the years ahead. **(0077-9** [Nelson, Deborah])

Response: *The determination for the need for power within a given area is not under the NRC's regulatory purview. When another agency has the regulatory authority over an issue, NRC defers to that agency's decision. The NRC staff reviews the need for power analysis to determine if it is (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. If the need for power evaluation is found to be*

acceptable, no additional independent review by the NRC is needed. States or regions may prepare a need for power evaluation and assessment of the regional power system for planning or regulatory purposes. A need for power analysis also may be prepared by a regulated utility and submitted to a regulatory authority such as a State public utility commission. The need for power analysis that Dominion provided in Chapter 8 of its ~~ER~~ environmental report for the COL was based largely on an electric power analysis by PJM, Inc., the Regional Transmission Operator for the multi-state region of which Virginia is a part. In its analysis of the need for power, Dominion specifically estimated the need for base-load generation and tested the consequences of alternative methods of satisfying base-load demand, including importing additional power and conservation and demand-side management. In Chapter 8 of the SEIS, the NRC staff reviewed the need-for-power analysis submitted by Dominion, including the findings of PJM and by Dominion based on the PJM analysis, tested some of the critical assumptions and determined that and determined that the need for power analysis submitted ~~i~~was ~~s~~ (1) systematic, (2) comprehensive, (3) subject to confirmation, and (4) responsive to forecasting uncertainty. Since, ~~If~~ the need for power evaluation ~~is~~ was found to be acceptable, no additional independent review by the NRC ~~is~~ was needed. (NAPS-COL3-DR0133R)

Comment: The NRC denotes, in its Draft Supplemental EIS that Dominion's need for power analysis gives full credit for reduction in load growth embodied in Virginia's goals and still finds a need for power exists. (**0073-31** [Faggert, Pam])

Response: *~~T~~The analysis of need for power discussed in Chapter 8 of the SEIS reflects the applicants ongoing efforts to promote energy efficiency, conservation mandates, and updated demand forecasts by PJM, Inc., and tests the consequences of aggressive conservation programs. This comments provides no new and signficiant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0134R)*

Comment: Dominion has been consistently wrong, over time, on their projections of the energy that they were going to do.

Unit 3 originally was canceled, and the ratepayers ended up paying 600 million dollars back to Virginia Power in the early '80s. And this was due, at the time, to the same thing that they said, they had projected the energy wrong.

Dominion and PJM, this needs to be looked at. With the recession that is coming on, we are going to see a significant difference in energy use. And that is crucial. **(0082-11** [Rosenthal, Jerry])

Response: *The NRC staff examined the PJM forecast and the Dominion estimate of the need for base load power in the Dominion Zone derived from the PJM forecast. The NRC staff also tested the forecast against the possibilities that demand for power would be significantly lower than projected because of conservation or because of lower overall growth of electricity demand in the Dominion Zone. The NRC staff determined that there was a plausible need for power in both cases. The staff notes that while demand for electric power may be reduced in the short term due to the current ~~recession,~~ recession; there is nothing to suggest that demand will not recover by the time NAPS Unit 3 would be completed. (NAPS-COL3-DR0135R)*

Comment: The current global business climate sharply reinforces the need for lower cost reliable energy, at a time when many businesses face reduced sales, lower profits, and increased pressure to pay bills, and make a payroll.

Likewise, lower energy costs are a significant advantage in trying to attract new businesses to our region, and grow the companies we already have.

Given the current need for a major economic stimulus package, and the circumstances surrounding the present economy, this project will be appreciated now, more than any time since the economic challenges of the 1930s.

It also represents a stable source of domestic energy, in an otherwise highly volatile and politically unstable global marketplace. (**0075-16** [Bailey, Gene])

Response: *This comment is largely a supporting statement for nuclear power on the basis of stable prices and specifically for NAPS Unit 3 as an economic stimulus for the region. There is no additional analysis suggested, and the comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0149R)*

Comment: [SDEIS Sec. 8.4.3.3 Need for reserve margin]: Editorial. The statement should read "This is a conservative assumption because it does not account for the probability that they might not all be built." (**0084-28** [Grechek, Eugene])

Response: *A response has not been written. (UDR-23)*

2.27 Comments Concerning Alternatives - Energy

Comment: The alternative section of the needs to assess other alternatives beyond siting such as renewables, demand side management, repowering of Units #1 and #2, etc. (**0023-47** [Goldsmith, Aviv])

Response: *Energy alternatives ~~were~~ are discussed in Section 9.2 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0015R)*

Comment: However, I am FOR a third reactor if it prevents the destruction of the 194 miles of destroyed mountain top ridges required for a wind mill farm. This is what it would take to provide the equivalant power of your 1 additional reactor. (**0026-1** [Burt, William])

Response: *The wind power alternative ~~was~~ is discussed in Section 9.2.3.2 of the ~~Draft~~ SEIS. This comment expresses support for the COL application. No changes were made to the SEIS. (NAPS-COL3-DR0017R)*

Comment: Say NO and Yes to a greener VA...by investing in wind power! (**0027-1** [Hanger, Jane])

Response: *Wind power ~~was~~ is discussed in Section 9.2.3.2 of the ~~Draft~~ SEIS. T~~-~~his comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0018R)*

Comment: There are far better alternatives: wind, solar & natural gas (**0028-1** [Artemis, Diana])

Response: *The wind, solar, and natural gas energy alternatives ~~were~~ is discussed in Section 9.2 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0019R)*

Comment: Lets spend the money on solar, wind and tidal generators. These three sources of energy are totally sustainable. (**0048-4** [Butcher, Ava])

Response: *Energy alternatives, including renewable energy sources such as solar and wind, ~~were~~ are discussed in Section 9.2 of the ~~Draft~~ SEIS. T~~-~~idal power is an emerging technology that currently does not provide a reasonable alternative to a nuclear generating unit producing base-load power. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0022R)*

Comment: We need to be working on alternative energy sources such as solar to meet our needs along with implementing incentives to reduce consumption. **(0031-1** [Lufkin, Heather])

Comment: There is no reason why renewable energy like solar and wind power combined with energy saving methods conot be used instead of another new nuclear power plant. (**0038-1** [Heim, Anka])

Comment: Energy conservation and solar, wind energy projects are the rational choice for Virginia and the United States energy needs. (**0049-1** [Ebert, Paul])

Comment: The time is ripe now for massive investments in clean, safe renewable energy, such as solar and wind. (**0051-1** [Harpole, Thane])

Comment: For the cost of building a new reactor at North Anna, we could make significant strides in advancing clean alternative energy implementation within Virginia. For instance, instead of nuclear, we could install solar arrays on every flat-roofed office building, school, warehouse, and factory in the state, supplying tons of energy directly where it's needed, with no additional infrastructure. We could also recoup through energy effficiency programs a huge percentage of the power that is currently just wasted. These are the steps we should be taking. (**0051-4** [Harpole, Thane])

Comment: Increasingly, the green movement is becoming a way of life (much overdue) and people around the country and around the world are seeing the damaging impact that human decisions have had and are having upon the Earth. It is absolutely time for bold thinking and unconventional approaches, time to re-examine our priorities. (**0055-1** [Shamaiengar, Beth])

Comment: I have lived in Virginia all my life and wish to continue to, in good health. I sincerly hope there can be a better way to provide us with electricity, without more damage to the environment. (**0058-1** [Hartwig, Kristina])

Comment: I believe that the development of efficient, affordable renewable energy technology is possible and is a much safer, smarter alternative. (**0063-1** [Tanner-Sutton, Linda])

Comment: Indeed we need to explore alternative energy sources (**0065-1** [Liske, Patricia])

Comment: Make a stand, and send a message, about protecting human life, as well as the environment. There ARE indeed alternatives. Though you may have to jump through more

hoops, and it may be more costly, these alternatives ultimately better the situation for everyone and everything. (**0066-1** [Cummings, Russell])

Comment: My comments today are actually linked not so much to the character of this power plant, it happens to be a nuclear power plant, but I'd be saying the same thing today if this were a coal powered, or a gas powered plant.
And it has to do, I'm stimulated in my comments by some recent studies, one by the Electric Power Research Institute, it is a large industry-supported organization in Palo Alto, California.

And they just released this new report, the Assessment of Achievable Potential Energy Efficiency and Demand Response Programs in the U.S. 2010-2030.
The other report is by the American Physical Society, it is the largest organization of physicists in the United States, some 46,000 physicists, in universities, industry and government laboratories.

And they just released this report last fall, and it is titled: How America Can Look Within to Achieve Energy Security and Reduce Global Warming.
The third item, of course, is this recent cover from Time magazine, June 11th, 2009, which says Why we Need to see the Light About Energy Efficiency.
These two reports, the one by EPRI and the one by the American Physical Society, basically come to the same conclusion. The American Physical Society report deals globally with the entire energy program in the United States, including transportation, while the EPRI report deals only with electrical consumption and inefficiency.

The EPRI report predicts that between 200 and 300 gigawatt electric peak demand can be offset by electrical energy efficiency and demand management in the United States.

Now, if we just simply scale that number by population, Virginia's percentage of the United States population, that means between 4 and 6 gigawatts electricity peak demand, can bee eliminated in Virginia, through demand management and energy efficiency techniques. Meaning we don't have to build this plant, we don't have to build some other plant. This is a one gigawatt plant. **(0075-3** [Day, Donal])

Comment: The APS study says, and they cover both the transportation sector, and the industrial sector as well, simply by looking at the replacement of incandescent light bulbs, by CFLs, would use one-fourth of the electricity. Over the United States one would save 240 terrawatt hours of electricity annually. (**0075-4** [Day, Donal])

Comment: Again, if one just scales that by population to Virginia, that means that we would save five terrawatt hours in Virginia, every year, simply by switching our light bulbs.

This plant, running 24 hours a day, seven days a week, 365 days a year, will produce about nine terrawatt hours in a year. So simply by swapping light bulbs we can eliminate half the production need that this plant can produce.

So I asked my question earlier, of course, what studies were done by the NRC in looking at alternatives? Well, here are two reports that I would like to, at least, provide to the Staff. (**0075-5** [Day, Donal])

Comment: Dominion Virginia Power has not been making any serious effort to pursue renewable energy alternatives, nor to promote effective measures to conserve electricity, or increase efficiency of use.

I want to emphasize the word serious. They made no serious effort. (**0078-12** [Cruickshank, John])

Comment: The projected cost of a new reactor are much higher than alternative sources. In particular, energy efficiency resources have been estimated to be at less than three cents per kilowatt hour.

This is the cheapest energy we can get, is through efficiency. And a report from the ACEEE has said that we could, in Virginia, we could be reducing our energy electric consumption by 19 percent through efficiency. **(0078-13** [Cruickshank, John])

Response: *Energy alternatives, including conservation and renewable energy sources such as solar and wind, ~~were~~ is discussed in Section 9.2 of the ~~Draft~~ SEIS. C~~-~~onservation also was discussed in Section 8.4.1 of the ~~Draft~~ SEIS. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0023R)*

Comment: Dominion Power should be considering offshore wind power units instead. The strongest wind currents in the US are along the New ENgland coast down through Virginia. Wind power is SO MUCH SAFER THAN NUCLEAR POWER. WHy put residents at risk needlessly??? Please do what you know to be morally right and responsible. (**0053-1** [Phillips, Donna])

Response: *Wind power, including offshore wind power, ~~was~~ is discussed in Section 9.2.3.2 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0032R)*

Comment: Get on the progressive bandwagon and use solar, geothermal, etc., etc. (**0059-3** [Dickon, Elisa])

Response: *Energy alternatives, including solar and geothermal, ~~were~~ is discussed in Section 9.2 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0033R)*

Comment: The existing problems need to be fixed, and then more environmentally sensitive power generation should be considered rather than storing unstable radioactive waste. (**0064-1** [Farnham, Ross])

Response: *Energy alternatives, including renewable energy sources such as solar and wind, ~~were~~ are discussed in Section 9.2 of the ~~Draft~~ SEIS. The NRC's waste confidence rule (10 CFR 51.23) states that the Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the 21st century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-*

level waste and spent fuel originating in such reactor and generated up to that time. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0034R)

Comment: How about thinking outside the box - wind off shore, solar, conservation, improved efficiency. Let's work on trying to get the 2 we already have at higher efficiency and with a firmer approach to dealing with waste before we embark on another reactor. (**0042-1** [Hoehlein, Jill])

Response: *Energy alternatives, including conservation and renewable energy sources such as solar and wind, ~~were~~ are discussed in Section 9.2 of the ~~Draft~~ SEIS. Conservation also was discussed in Section 8.4.1 of the ~~Draft~~ SEIS. The average annual capacity factor for North Anna Units 1 and 2 was 90.8 percent between 2005 and 2007 (NEI 2008). The average capacity factor for a nuclear power plant in the United States in 2008 was 91.5 percent (NEI 2009). Thus, Units 1 and 2 are already operating efficiently, and there is little room for improvement. Any improvements in operating efficiency for Units 1 and 2 would not be sufficient to supply the need for power identified in Chapter 8 of the SEIS.*

The NRC's waste confidence rule (10 CFR 51.23) states that the Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the 21st century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time. No change was made to the SEIS as a result of these comments. (NAPS-COL3-DR0039R)

Comment: Another defect of the SDEIS, is inadequate discussion of alternatives to the proposed project. Including the use of dry cooling for unit number 3, and energy efficiency programs. **(0078-11** [Cruickshank, John])

Response: *Dry cooling is discussed in Section 8.2.3 of the ESP EIS (NUREG-1811), which was published in 2006. Energy alternatives, including conservation and renewable energy sources such as solar, ~~are~~ are discussed in Section 9.2 of the ~~Draft~~ SEIS. Conservation is also discussed in Section 8.4.1 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0128R)*

Comment: When they say no alternatives are environmentally preferable to a nuclear plant, but they are not including the waste issue. It is incomprehensible. (**0082-14** [Rosenthal, Jerry])

Response: *The safety and environmental effects of long-term storage of spent fuel onsite have been assessed by the NRC, and as set forth in the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the license operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be removed to a permanent repository. In its Statement of Consideration for the 1990 update of the Waste Confidence Rule (55 FR 38472), the Commission addressed the impacts of both*

license renewal and potential new reactors. Therefore, the current rule can be used in the staff's review of a COL application. In its December 6, 1999, review of the Waste Confidence Rule (64 FR 68005), the Commission reaffirmed the findings in the rule. In addition to the conclusion regarding safe onsite storage of spent fuel, the Commission states in the rule that there is reasonable assurance that at least one geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity for the spent fuel will be available within 30 years beyond the licensed life for operation of any reactor. The Commission issued a proposed update of the Waste Confidence Decision in the Federal Register (73 FR 59551) for comment on October 9, 2008. This update provided the basis for extending the time for sufficient repository capacity for spent fuel to be available from within 30 years beyond the licensed life for operation of any reactor to within 50 to 60 years. The proposed update also provides reasonable assurance that spent fuel can be stored without significant environmental impacts for at least 60 years beyond the licensed life for reactor operation, assuming storage of spent fuel in either a spent fuel storage basis or onsite or offsite independent spent fuel storage installation. No changes were made to the SEIS as a result of the comment. (NAPS-COL3-DR0130R)

Comment: I took the time to come here to share a little bit about the alternatives to nuclear power.

A lot of people talk about the fact that there lots of way to boil water and, sure, humans have been doing that for a long time. We figured out we could burn wood, we could burn natural gas, we can burn oil, we can burn coal.

Many of the people that sell coal, oil, and natural gas, really don't like nuclear power very much, at all, because nuclear power takes market share from them. The young man who has left already, quoted E.F. Shumaker, a man who wrote Small is Beautiful.

What he didn't know was that E.F. Shumaker, when he wrote that book, had been spending 20 years on the National Coal Board of Great Britain. His job was to sell and market coal.

He liked Small is Beautiful because in Great Britain, before they moved the power plants outside the city, they burnt coal in the chimneys. How many people have seen Mary Poppins, and seen the chim chimney, chim chimney and the black smoke?

If you ever traveled to Great Britain, at the time of E.F. Shumaker, when he was writing, people would burn coal inside their own houses, and whole towns were covered with soot. **(0083-1** [Adams, Rod])

Response: *Energy alternatives, including coal, oil, natural gas, and wood, are discussed in Section 9.2 of the ~~D~~SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0131R)*

Comment: NRC indicates that generation options in Virginia are an indicator of feasible technology choices then summarizes national projections from the EIA Annual Energy Outlook regarding new capacity additions. No description of the power generation mix within Virginia is provided.
Dominion suggests that the statement regarding the current mix of base-load power generation options in Virginia be deleted from the text. (**0084-32** [Grechek, Eugene])

Response: *Information about the current electric power generation mix in Virginia ~~will be~~is included in the SEIS, Section XXX have been modified in response to this comment. (NAPS-COL3-DR0170R)*

Comment: The statement in Section 9.2.2 of the DSEIS indicates that the analysis should be limited to discrete power generation sources. However, NRC evaluated a combination of alternatives in Section 9.2.4, and Dominion evaluated combinations of alternatives in Section 9.2.2.4 of the ER. Dominion suggests that the limitation to discrete power generation sources be eliminated from the text in Section 9.2.2. **(0084-31** [Grechek, Eugene])

Response: *Section 9.2.2 of the ~~F~~SEIS was revised to reflect that Section 8.3 of NUREG-1437 does discuss a combination of energy sources. (NAPS-COL3-DR0171R)*

Comment [a26]: Be sure this includes the newest GEIS published in 2009.

Comment: [SDEIS Sec 9.2.1, statement "If the purchased-power alternative .....particularly if new transmission line rights-of-way were needed."] Text preceding this statement clearly indicates that new transmission lines would be required. Dominion suggests that the text should state: "If the purchased-power alternative were to be implemented, a major environmental unknown would be whether new transmission line rights-of-way would be required. "" **(0084-30** [Grechek, Eugene])

Response: *Section 9.2.1 of the SEIS was revised to reflect this comment. (NAPS-COL3-DR0172R)*

Comment: [In DSEIS Section 9.2.2.1] NRC provided a single estimate for SO2, NOx, CO and VOC emissions (based on the 600 MW unit) and provided a range for PM10, PM2.5, and Hg emissions. Dominion suggests that all emissions estimates be presented as a range. (**0084-33** [Grechek, Eugene])

Response: *Section 9.2.2.1 of the SEIS was revised to reflect information included in Revision 1 of the ER (Dominion 2008) and the NRC staff's assumption (noted in the first paragraph of Section 9.2.2.1) of construction of three supercritical pulverized coal-fired units each with a capacity of 507 MW(e). (NAPS-COL3-DR0173R)*

2.28 Comments Concerning Alternatives - System Design

Comment: An alternative system that would store the effluent and use it to water grass or wooded areas is available. The EIS failed to adequately consider this long term impact. Despite including an entire section on long term impacts, the Supplement also does not consider this impact. 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. We ask that NRC address this cumulative impact in the supplement. (**0019-5** [Smith, Doug])

Comment: Section 3.2.1.2 mentions water treatment effluent. Shouldn't Chapter 8 include an assessment of a zero discharge option as is used in many other power plants? (**0023-23** [Goldsmith, Aviv])

Response: *In the ESP EIS, the staff determined that the impact of plant operation on water quality would be SMALL. In the COL~~A~~ review, the staff did not identify any new and significant*

information that would alter this finding. Water reuse is a potential alternative to discharge of effluents from the sewage treatment plant. Pursuant to the Clean Water Act, the EPA has responsibility for establishing water quality standards for effluent discharges. In Virginia, EPA delegates this responsibility to VDEQ. The depth of consideration of alternative water treatment systems is determined by the impact level prescribed. In this case, the impact level was SMALL and the staff review is limited to alternatives that would be environmentally preferable. Given the relatively small volume of the sanitary effluent and the large assimilative capacity of the WHTF, the staff considered it unnecessary to evaluate alternatives that would increase costs with no detectable change in water quality. No changes were made to the ~~final~~ SEIS as a result of these comments. (NAPS-COL3-DR0174R)

Comment: Section 3 introduces the hybrid cooling tower. Is there an operating nuclear plant in the U. S. that has demonstrated this hybrid cooling tower technology is appropriate and safe for such a large thermal load? If not, the technology risks should be assessed and discussed herein. (**0023-22** [Goldsmith, Aviv])

Response: *There are no nuclear plants in the United States that use the proposed hybrid cooling tower design. The hybrid cooling system only provides cooling for normal operation. The hybrid cooling tower design is called the "normal heat sink." The safe operation and shutdown of the ESBWR is not determined by this normal heat sink but by the passive cooling design to ensure safe shutdown during design basis accidents and severe accidents (see Section 5.10 of SEIS). No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0175R)*

2.29 Comments Concerning Alternatives - Sites

Comment: The Alternatives section is lacking in a detailed analysis of real alternatives to a large central station nuclear generator. (**0023-7** [Goldsmith, Aviv])

Response: *Energy ~~alternatives~~alternatives to the proposed Unit 3 ~~were~~ is discussed in Section 9.2 of the ~~Draft~~ SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0015R)*

Comment: ESL SDEIS Page 1-5 stated that an EIS must include an evaluation of alternative sites to determine whether there are any obvious superior alternatives. Although Chapter 9 determines that there are none, it also does not show that the Lake Anna site is clearly superior to many of the alternatives. Further discussion is required. (**0023-51** [Goldsmith, Aviv])

Response: *Alternative sites ~~were~~ were evaluated in Chapter 8 of the ESP EIS (NRC 2006a). No additional discussion of this topic is required in a supplement to an ESP EIS that is prepared ~~in conjunction with an application~~ for a COL [10 CFR 51.92(e)(3)]. Hence, no discussion of alternatives sites is included in this SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS (NAPS-COL3-DR0016R)*

Comment: And, two, the NRC has failed to correct the problems identified by us, and others, in the Draft EIS related to alternative site selection. (**0078-17** [Nguyen, Vanthi])

Response: *As required by 10 CFR 51.92(e)(3), the COL SEIS must contain no separate discussion of alternative sites. The issue is considered closed. Accordingly, the ~~COL~~ SEIS ~~will~~ does not revisit the analysis of alternative sites. (NAPS-COL3-DR0129R)*

2.30 Comments Concerning Benefit - Cost Balance

Comment: I'd like, for a moment, just to address the 800 pound gorilla that is in this room, and that is money, and lots of it. My question is, when did we all decide that this is an either or proposition? That it is either nuclear or we all end up in dark caves rubbing sticks together, trying to make fire? **(0075-14** [Farris, Rebecca])

Response: *In context, the comment appears to suggest that methods other than nuclear power are appropriate and preferable, and are less expensive for generating base-load electricity (or in the case of conservation, using less of it), but does not suggest any further analysis. The SEIS does discuss alternative energy sources, and describes potential impacts from these sources in comparison with the proposed action discussed in Chapter 9 of the SEIS. The NRC does not have authority under the law to ensure that the proposed plant is the least costly alternative to provide energy services under any particular set of assumptions concerning future circumstances. This authority and responsibility is most often the role of State regulatory authorities such as public service commissions, or in the case of merchant plants, the competitive marketplace. The benefit-cost balance for the project described in the SEIS relies on the best available estimate of project timing and duration, with uncertainties noted. Section 10.6 of the SEIS discusses the estimated overall costs and environmental impacts of the proposed project. (NAPS-COL3-DR0137R)*

Comment: Nuclear energy does not meet these requirements and is enormously costly to build and operate (**0051-2** [Harpole, Thane])

Response: *The comment, in context, generally relates to cost and environmental impacts of nuclear power versus other alternatives. It does not provide new and significant information concerning the proposed Unit 3. In Chapter 9 of the SEIS, the potential for alternative non-nuclear technologies to provide the electricity, and the environmental impacts of these alternatives, is discussed. Section 10.6 of the SEIS discusses the estimated overall costs and environmental impacts of the proposed project. (NAPS-COL3-DR0138R)*

Comment: An EIS done properly, with full consideration of all factors and all alternatives, and with complete transparency of both conclusions and documentation of how those conclusions were reached, is a valuable document that can well serve the public. An EIS done without sufficient consideration of relevant factors, or without full transparency, instead undermines public trust in both the applicant and the regulatory agency. In such a case, the lack of public trust and confidence often can result in a final outcome counter to the applicant's desire even if a temporary victory, i.e. granting of an initial license, is gained. In this case, the EIS lacks credibility and appears more intended at deflecting and deterring public involvement in the EIS than contributing to careful and transparent analysis. Specifically, the lack of financial information, including basic estimates of construction cost, are to remain proprietary makes any discussion of cost/benefit analysis impossible, and thus irrelevant, and leaves the EIS unable to fulfill one of its most basic obligations. Absent fundamental information on the cost of this

project, no cost/benefit analysis can be prepare or reviewed and the document presented is not an EIS prepared in compliance with NEPA. (**0023-6** [Goldsmith, Aviv])

Response: *Dominion is entitled by 10 CFR 2.390 to have trade secrets and commercial and financial information held by NRC as privileged or confidential, subject to certain procedural controls. The Commission also determines whether the right of the public to be fully apprised as to whether the bases for and effects of the proposed action outweighs the demonstrated concern for protection of a competitive position, and whether the information should be withheld from public disclosure. The NRC has determined that the requested financial information shall be held as confidential. The comparison of alternatives in the SEIS is an environmental comparison, not a financial one. (NAPS-COL3-DR0139R)*

Comment: If the perceived benefits of a proposed project outweigh the potential damage and costs the project would reasonably be foreseen to cause, then the project is likely to obtain approval from regulatory authorities, and gain general public support as well. On the other hand, if the project's costs are perceived as greater than any foreseeable benefits, then the project likely will be rejected by both the public and regulatory agencies. To have credibility with the public and state and local governments and legislatures, this cost/benefit analysis must be as complete and transparent as possible. A primary purpose of an Environmental Impact Statement (EIS) is to provide this clear, reasoned, transparent cost/benefit analysis of a proposed project. (**0023-5** [Goldsmith, Aviv])

Response: *The purpose of the SEIS is to disclose potential environmental impacts of building and operating of the proposed Unit 3 at the NAPS site. The disclosure of the costs of the proposed action relies on the best available estimate of financial costs with uncertainties noted. Associated costs that cannot be reliably quantified are discussed. Section 10.6 of the SEIS discusses the estimated overall internal and external benefits, costs, and associated environmental impacts of the proposed project. (NAPS-COL3-DR0140R)*

Comment: Several important issues have come up which involve significant changes since the Draft EIS...Financial credit crisis will significantly affect availability of credit, costs, etc. (**0012-5** [Rosenthal, Jerry])

Comment: Factors in the analysis such as capital and operating costs and operating efficiencies should be detailed. The conclusion on page 8-5 line 23 is not supported. (**0023-49** [Goldsmith, Aviv])

Comment: And deciding how Dominion balances their energy use. Dominion is going to spend more money just on applying to get this plant, than they are going to spend on all renewables, conservation, and energy efficiency.

And that is not going to give us one kilowatt, we are just going to pay lawyers, lobbyists, and for paperwork. And get nothing. Where is the balance? (**0082-16** [Rosenthal, Jerry])

Comment: Cost? Let's get realistic. Every analysis shows this is the highest cost that you can get. You don't have to go anywhere, MIT, Rocky Mountain Institute, IEER, everyone is going to show the exact same thing. This is the highest cost.

And how is Dominion going to pay for it? Are they going to pay for it upfront? No. They want loan guarantees from the government. They want, and they use their lobbyists in power.

They want the state of Virginia to bill you in advance, before we get any power. No other source do we do it that way. If it is safe why do they need subsidized insurance? If it is cheap, why stick their hands at every possible opportunity, into the taxpayer and the ratepayers' pocket? (**0082-17** [Rosenthal, Jerry])

Response: *The economic factors listed in these comments will be examined in Section 11.6 of the SEIS to determine if they are significant. (NAPS-COL3-DR0148R)*

Comment [a27]: We need to specify whether or not they have bee n considered and if the sections have been modified. This response has to be re-worded to reflect this information.

Comment: Today the importance of nuclear power, the operation of -- this is operational cost, and this is from 2006, and this is nationwide, is 1.666 cents per kilowatt hour. Which is lower than coal, and much lower than gas.

I don't know if you know it, but as of just two years ago, gas-fired electricity is costing you ten cents per kilowatt hour. And it has gone up from that point. (**0082-22** [Harte, Vicky])

Response: *This comment is largely a supporting statement for nuclear power on the basis of stable prices and specifically for NAPS Unit 3 as an economic stimulus for the region. There is no additional analysis suggested, and the comment provides no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0149R)*

Comment: If environmental reasons do not convince you, please consider the cost. Think of the wind or solar farms that could built for the same amount. Also, there is the cost of transporting and storing dangerous radioactive waste somewhere. There is the liability of accidentally releasing radiation either from the plant or in the process of transportation and storage. Rate payers do not want to pay for this enormously expensive project. Why continue generating electricity by this dangerous and environmentally destructive method? (**0025-1** [Cowles, Virginia])

Response: *The costs and benefits of construction and operations of the proposed Unit 3 are addressed in Section 11.6 of the SEIS. The NRC does not have authority or responsibility by law or regulation to ensure that the proposed plant is the least costly alternative to provide energy services under any particular set of assumptions concerning future circumstances. This authority and responsibility is most often the role of State regulatory authorities such as public service commissions, or in the case of merchant plants, the competitive marketplace. The potential for alternative non-nuclear technologies to provide the electricity that could be generated by the proposed plant, and their environmental impacts, are considered in Chapter 9 of the SEIS. (NAPS-COL3-DR0153R)*

Comment: In Chapters 8 and 10 of its COLA-ER, Dominion notes that one benefit of the proposed action is the avoidance of air pollutants that would be emitted if the need for power was met by constructing and operating alternative coal- or gas-fired plants. This benefit is increasingly significant with regard to emissions of carbon dioxide, which is a greenhouse gas. The DSEIS acknowledges this in Chapter 9 but does not bring it forward to the benefit/cost discussion. Dominion suggests the NRC revise the DSEIS section 10.6.1 discussion of benefits by adding avoidance of emissions in general and greenhouse gas emissions in particular. (**0084-34** [Grechek, Eugene])

Response: *A response has not been written. (UDR-7)*

2.31 General Comments in Support of the Licensing Action

Comment: LACA's Water Quality Committee also supports the proposed third unit at Lake Anna with certain reservations. (**0018-1** [Remmers, Ken])

Comment: I am very supportive of nuclear energy and for the NRC to issue a combined license for the North Anna Power Station, Unit 3, based upon the draft SEIS. This country made a decision to use nuclear power some 30 years ago and we have only seen positive upgrades to existing systems. Now we have an opportunity to finally invest in an additional reactor. **(0020-1** [Aylor, Joseph])

Comment: And we think that, in fact we have great confidence in the fact that these examples of Dominion working with the community, and working with the county government, give us the confidence to, again, support the issuance of the license, and the construction of unit 3 (**0073-10** [Harper, Willie])

Comment: The North Anna Power Station is a vital part of our local economy, and the economy of this region. Just for an example, in 2007, the taxes that North Anna Power Station generated for Louisa County, was about 20.76 percent, or 10,720,000 dollars of Louisa County local revenue for the general fund. **(0073-15** [Mullen, Dale])

Comment: Reactor 3 brings important and unique economic, employment, and environmental opportunities for Louisa County. There are also environmental impacts that I'm eager to see examined, and explained.

For these reasons I'm committed, on behalf of Louisa County, to continue our work with Dominion, and our continued support of our friends and neighbors at Dominion and the North Anna Power Station. (**0073-21** [Mullen, Dale])

Comment: If Louisa and Virginia are to remain a competitive location we must have reliable, affordable source of energy. Unit 3, at Dominion North Anna, is a part of that solution, along with coal, wind, solar, and other sources. (**0073-26** [Gibson, Bob])

Comment: While all types of generation must play a role in meeting Virginia's energy needs, Dominion believes clean, and safe nuclear energy must play a large role. **(0073-30** [Faggert, Pam])

Comment: In closing, we are very encouraged by the NRC staff's preliminary recommendation that the COL be issued as proposed. (**0073-32** [Faggert, Pam])

Comment: LACA Water Quality Committee also supports the proposed third unit at Lake Anna, with certain reservations. (**0073-33** [Remmers, Ken])

Comment: But unit 3 can generate a significant amount of electricity without releasing any gases that are linked to the global climate change (**0073-4** [Harper, Willie])

Comment: In fact, the NRC has determined, early on, that unit 3 could be built without any significant impact to the environment at the North Anna site. And, at least to my knowledge, there has been no additional significant impacts identified. (**0073-5** [Harper, Willie])

Comment: Louisa County has gone on record, in several instances, as endorsing this project, and we want to continue with that effort. We base that a lot on the track record that we have had with Dominion through the years. (**0073-6** [Harper, Willie])

Comment: And we do this endorsement knowing full well that we have some citizens that do have concerns about the environmental impacts that may occur here with this project. (**0073-8** [Harper, Willie])

Comment: But Dominion's decision to go with the wet-dry cooling system, cooling tower if you will, is an indication I believe, and the Board believes, of their willingness to work with people to resolve the differences. (**0073-9** [Harper, Willie])

Comment: And so we are in support of the current plans by Dominion to construct and operate reactor number 3. (**0075-10** [Bishop, Wayman])

Comment: In summary, the impact of job creation, and higher disposable incomes from this project, along with providing energy for a rapidly expanding population, will be a major economic stimulus to the region's economy, and be nothing short of a phenomenon, a stimulus package created by the private sector. **(0075-18** [Bailey, Gene])

Comment: and urge that the Commission move forward with a timely review of this application. **(0075-19** [Farmer, John])

Comment: I'd like to comment in support of the Combined Operating License for the new unit. Virginia, and for that matter the entire nation, badly needs a balanced energy strategy to meet our growing energy demands.

The third unit at North Anna will be a key component in this program. (**0075-22** [Beament, Pete])

Comment: And I think he is typical, they are the lifeblood of this community, of this county. Dominion and their employees have been a great neighbor. I sincerely hope that they are allowed to build reactor 3. **(0075-34** [Carroll, John])

Comment: So I support Dominion's Combined License Application for North Anna unit 3, and conclusions contained in the NRC's Draft Supplemental Environmental Impact Statement. **(0075-39** [Stiles, Lisa])

Comment: North Anna Unit 3 will benefit local communities, the Commonwealth, and the nation, by providing safe, reliable electricity, with technology that has a small overall environmental footprint, by providing good jobs that can't be outsourced, and providing large tax revenues. (**0075-40** [Stiles, Lisa])

Comment: I'm here tonight to support the Draft Supplemental Environmental Impact Statement for the third reactor at North Anna. **(0075-46** [Girvin, Larry])

Comment: Not only will a third reactor at North Anna provide affordable baseload power, but it will do so in a safe and environmentally conscious way. **(0075-48** [Girvin, Larry])

Comment: And our informed opinion is that there is no compelling evidence, that has been made known to us, through these reports, and through our association with Dominion, that would suggest that the approval of the recommendations, findings, and conclusions of the Draft Supplemental Environmental Impact Statement should be dismissed.

We concur with them, and would highly recommend that the Combined Operating License for reactor number 3 be issued. **(0075-8** [Bishop, Wayman])

Comment: Virginia needs a balanced strategy moving forward to meet our increasing energy needs. While at the same time being mindful of the environment. The third nuclear unit at North Anna is a key component of this responsible and balanced energy strategy. (**0077-3** [Girvin, Larry])

Comment: I speak today on behalf of the Clean and Safe Energy Coalition, CASE Energy, and we support the construction of new reactors like the one proposed here at North Anna. (**0077-5** [Nelson, Deborah])

Comment: I appreciate the work that the Commission has done. I appreciate the wide range of things that you have looked at. I was offended for you when someone tried to insinuate that money would influence your decisions.

Keep up the good work and I hope that barring new information, that your final recommendation will be to continue to -- that the recommendation be to issue the COL. (**0078-23** [Smith, Jay])

Comment: And I'm here tonight to support North Anna 3, and the nuclear industry in general. (**0081-9** [Mosser, Dave])

Comment: I support this combined operating license. (**0082-2** [Reynolds, Norm])

Comment: And it is very encouraging to see that we do have a process like this going forward. (**0082-7** [Mastilovic, Nick])

Comment: The only disappointment that I really do have here is that this EIS is just for one reactor, and not more. And I do hope that Danville Utilities will one day consider Dan River 1, 2, and 3. (**0082-9** [Mastilovic, Nick])

Response: *These comments provide general information in support of Dominion's COL application. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0008R)*

Comment: LACA continues to support the proposed third unit, and we do have some lingering concerns that I would like to discuss this evening. (**0073-47** [Smith, Doug])

Response: *These comments provide general information in support of the NRC's COL process. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0040R)*

2.32 General Comments in Support of the Licensing Process

Comment: Furthermore they have also confirmed this new reactor can be safely sited, and operated, in a way that will have a minimal impact on the environment. (**0075-26** [Beament, Pete])

Comment: The NRC is not in love with Dominion, or any other utility. The Women in Nuclear is grateful for their regulatory oversight. And if you don't believe that, all you need to do is look on their website, and look at all the enforcement actions, and initiatives that they have taken against utilities for not being in compliance with something. **(0082-19** [Harte, Vicky])

Comment: I wish to thank you for giving me this opportunity to comment in support of the Combined Operating License tonight. (**0077-4** [Girvin, Larry])

Response: *These comments provide general information in support of the NRC's COL process. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0040R)*

2.33 General Comments of Support of Nuclear Power

Comment: Also, businesses and residential properties will continue to improve and benefit the county and state for generations into the future (**0020-3** [Aylor, Joseph])

Comment: I am a conservationist but am also a realist. until we get alt enr online we need nuke energy. (**0050-1** [Gignac, David])

Comment: I support nuclear power over coal, as long as it does not negatively impact the environment. (**0061-1** [Ahgrim, Larry])

Comment: The emphasis is on reliability. When you turn on the switch the power comes on immediately. You can't rely on all the alternative energy, or so-called green energy, to do this in a consistent manner.

And this really closes a big gap, it provides an enormous baseload capability. (**0075-24** [Beament, Pete])

Comment: Driving my participation in these groups is the knowledge that nuclear power is safe, clean, and reliable and an important part of a balanced energy mix.
Balanced energy mix includes conservation and efficiency, nuclear and cleaner coal for baseload power, and a mix of natural gas and renewables, like wind, solar, and biomass. (**0075-35** [Stiles, Lisa])

Comment: In a national energy portfolio that ensures our security and our economic growth, and that properly balances our need for reliable power, with our need to preserve the environment, nuclear must play a role. (**0075-38** [Stiles, Lisa])

Comment: And wise energy policy recognizes the virtue of diversity. And in that diverse plan nuclear energy is a critical component. We all have a shared stake in America's energy future, and now is the time for our country to support nuclear energy as a means to generate electricity with a clean, safe, and dependable source of power. (**0077-10** [Nelson, Deborah])

Comment: I speak today on behalf of the Clean and Safe Energy Coalition. We are a national grassroots organization of more than 1,800 individuals, and organizations, who come together to support nuclear power as a vital part of our country's energy portfolio. (**0077-11** [Lamboley, Genevieve])

Comment: Nuclear energy is clean. The environmental impact at nuclear plants is far lower than at many other types of power generating plants.
Nuclear energy is safe.

In fact, the U.S. Bureau of Labor Statistics has shown that it is safer to work in a nuclear power plant than it is in the manufacturing sector, and even in the real estate and financial industries.

Subsequently a nuclear plant makes a good neighbor. It supports high paying jobs, directly at the plant, generates additional jobs in the community where it is located, and contributes by helping build good schools and roads.

As our job report prints out, which you can access on our website, cleansafeenergy.org, if U.S. companies were to complete the more than 30 reactors now under construction, 12,000 to 21,000 new jobs would be added to the market. (**0077-13** [Lamboley, Genevieve])

Comment: Already the nuclear energy industry has created 15,000 new jobs, and added four billion dollars to the economy, to prepare for building new state of the art reactors. In these economic times there is no stronger argument in support of expanding nuclear power. (**0077-14** [Lamboley, Genevieve])

Comment: Nuclear power is safe, and effective, and it provides reliable energy. North Anna Power Station was built with safety in mind, and safe work practices are reinforced through training, and continuous improvement measures. **(0077-2** [Girvin, Larry])

Comment: And we are actively engaged in generating a public dialogue to educate others about the economic and environmental benefits of new nuclear power. (**0077-6** [Nelson, Deborah])

Comment: And nuclear energy is clean. It is the only large scale emissions-free source of electricity that we can readily expand to meet our growing energy demand.

It already accounts for 70 percent of all clean energy produced in the U.S., and supplies 20 percent of all U.S. power. (**0077-8** [Nelson, Deborah])

Comment: I support energy conservation, energy efficiency. And it is easy to say that that would solve our need for new energy.

But those are just words. If we all drove hybrid cars, or electricity cars, we wouldn't need gas. But until then we don't stop building gas stations.

Those seeking for guarantees in a project like this, or an energy source that has zero impact,

need to know that there is no such thing. But what we can take comfort in is knowing that this is a highly regulated industry.

This facility is highly regulated. In fact, they introduced two people who are there every day, making sure that it is abiding by the regulations. They are there to manage the risks, protect the environment and ensure the health of area residents. We need cleaner energy, and we need it now. Nuclear energy is a way to achieve that, and reduce our country's dependence on other energy, from other countries. (**0078-21** [Smith, Jay])

Comment: There is no energy source that does not have an impact; an impact on the communities that it is in; an impact on the environment that it is placed within.

I challenge anyone to venture forth a design for 1,500 megawatts electric baseload energy supply with a more benign environmental footprint than the one that is being evaluated by the NRC in this Environmental Impact Statement.

Particularly one that can continue to produce power so reliably even during summer drought months. You would be hard-pressed to find 1,500 megawatts that can produce 24 hours a day, seven days a week, even during a drought. **(0079-1** [Taylor, Kelly])

Comment: And I can tell you, my first-hand experience, that no one in the industry puts so high a value on public safety and industrial safety, as nuclear power.

In addition to that no other industry that I have worked in puts so high of a value on environmental stewardship. I have witnessed these things first-hand from the inside of these industries. So I can tell you that it is true, and it happens. **(0081-7** [Mosser, Dave])

Comment: The second thing I would like to talk about tonight, and I hadn't initially thought about this, but in listening to a lot of folks tonight talk about conserving energy, and how that is going to save us into prosperity, I would like to say that is a little bit naive.

And to illustrate that point, I would like you all to think about, if you were alive 30 years ago, I bet none of you had a personal computer. Twenty years ago none of you had a cell phone, ten years ago none of you had a wide screen TV, and five years ago none of you had a hybrid car.

A lot of you have all of those things, or some of those things now. As an electrical engineer I can, I am positive, I am confident that electric-driven cars are our future.

If you don't believe it, if you don't believe that there is a viable technology for electric cars, google Tesslen Motor Company, and look, there is a car that can go faster than a Ferrari, and can go 300 mile range, and it is available today.

Now, the only drawback is that it is too expensive. But the technology is proven, it is coming, and it is going to be here. And I know that six months ago all of you were just like me, and were screaming at paying five dollars a gallon for gasoline.

And it is going to happen again, because oil producing countries are going to take advantage when they can. Building safe and reliable energy, that is base loaded, that we can charge our electric cars at night is a good plan. (**0081-8** [Mosser, Dave])

Comment: I strongly support nuclear energy (**0082-1** [Reynolds, Norm])

Comment: And I would like to say that I am a Member of Women in Nuclear, which is an organization that promotes the peaceful use of nuclear energy in all forms, business, medical, agricultural, and power wise.

I've listened to a lot of what some of the people have said today, and from some -- one of the things, the nuclear industry in the past, if you go back, there has been a lot of talk of accidents that have happened in the past.

And, overall, since the 1970s, the U.S. nuclear industry has dramatically improved its safety and operational performance. And now, by the start of this decade, we are among the world leaders with a capacity factor of over 90 percent.
(0082-18 [Harte, Vicky])

Comment: One thing that we do do, is we do do a lot of polling. And I just want to show you how public opinion has changed.

In May 2005 70 percent favored the continued use of nuclear energy. In March 2006, 68 percent of people favored the use of nuclear energy. And in 2007 a survey of individuals living within 16 kilometers of nuclear power plants, but without any personal involvement, showed very strong support for new nuclear plants.

Ninety percent thought that nuclear energy was important for the supply, 82 percent favored it now, and 70 percent said they would accept a new plant. And this included plants that have on-site spent fuel storage.

In August 2007 opposition started growing towards any type of thermal powered plant, in local communities, with 65 percent against nuclear, but 60 percent also against fossil. So if you are against fossil and nuclear your opportunities are slightly diminished.

In April of 2008 nuclear power support was back up to 82 percent, and in September 2008, 74 percent are in favor of nuclear energy, with 69 percent favored definitely building new plants in the future, and 75 percent believing that having them built close to where they live is acceptable. (**0082-24** [Harte, Vicky])

Comment: I spent quite a bit of time in Charlottesville, myself, at UVA. It is heartbreaking to see the nuclear program basically disappear there, see Observatory Hill disappear. (**0082-5** [Mastilovic, Nick])

Comment: My experience with nuclear power is that I used to live within 200 feet of a reactor for three months at a time. I was sealed up inside a small vessel with 150 of my closest friends.

We could breathe the air inside this vessel. It made all the water we needed, all the heat we needed, all the electricity we needed, and it pushed us around the ocean at a pretty fast clip at times. Now, that is a power plant operated for 14 years without new fuel. At the end of that operational time, the waste from that fuel would have fit in a podium just about twice the size of this one, okay? Imagine that, 9,000 ton ship with the waste inside a podium the size of this.

Somebody quoted about the Asheville. We are talking about five million gallons of coal ash slurry from operating a power plant for 50 years. If you operated a nuclear power plant for 50

years, you would fit the waste product inside the first couple of rows in this auditorium.

That is all it would. Waste is the best news issue about nuclear power. Waste is so tiny, so compact, that my personal waste, if all of my energy came from nuclear power, it would fit inside a coke can. (**0083-2** [Adams, Rod])

Response: *These comments provide general information in support of nuclear power. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0006R)*

2.34 General Comments in Support of the Existing Plant

Comment: Dominion Power has an excellent safety record. I spent 43 years in a property and casualty business, and I understand the importance of safety.
And I know, from experience, that it has to come from the top down. And I have found that Dominion has a strong commitment to safety, and I have been in their shop, I have seen some of their programs, when they have been recognized for their safety records, and I commend them for that. **(0073-1** [Wright, Jack])

Comment: Dominion has many programs to try to save, to promote energy savings. (**0075-28** [Carroll, John])

Comment: Dominion has been a great neighbor. Since 2004 we, as a community, have tried to raise money to put lights on the girl's ball field, right next door, here at the high school. It was very expensive, it was difficult. Two weeks ago Dominion shows up and installed those lights, at their own cost. Dominion has been a great neighbor. (**0075-32** [Carroll, John])

Comment: I'm not sure of the exact time line, but when Harry Ruth and the Friends of Lake Anna pressed for a cooling tower, Dominion immediately stepped up and at a huge cost agreed to implement the tower in their design. Dominion has been a great neighbor. (**0075-33** [Carroll, John])

Comment: Dominion is investing in all of these [renewables], including conservation and efficiency. (**0075-36** [Stiles, Lisa])

Comment: Currently nuclear provides about one-fifth of our nation's electricity and about one-third of Virginia's. In Virginia the power output of the Surry and North Anna plants represent about seven million tons of carbon dioxide emissions avoided each year. **(0075-37** [Stiles, Lisa])

Comment: I would be against anything that threatened my enjoyment of the lake. But Dominion has taken extensive steps to ensure minimal impact on it. (**0075-41** [Stiles, Lisa])

Comment: We need to remember that the power plant gave us the lake, and it has been a good neighbor, and I believe that it will continue to be a good neighbor. (**0078-22** [Smith, Jay])

Comment: And it is very heartening to see a company like Dominion take the lead, as they are right now, in bringing new technology to this state. It is embarrassing to see other countries

taking the lead, and potentially getting ahead of us, in things like power generation, and so forth. **(0082-6** [Mastilovic, Nick])

Response: *These comments express support for the existing operating units at the NAPS site. They provide no new and significant information; therefore, no changes were made to the SEIS. (NAPS-COL3-DR0011R)*

Comment: Summary The lake Anna Civic Association supports the third unit, but we are concerned that Lake use impacts have not been considered. (**0019-6** [Smith, Doug])

Response: *This comment expresses support of Unit 3 at the NAPS site, but is concerned that impacts to Lake Anna have been considered. Because the nature of the impacts was not specifically provided in the comment, no changes were made to the SEIS. (NAPS-COL3-DR0067R)*

2.35 General Comments in Opposition of the Licensing Action

Comment: The NRC has no business approving a third reactor at North Anna (**0005-2** [Cruickshank, John])

Comment: I do not understand why the NRC would even consider construction of a 3rd reactor. I oppose construction of a new reactor at the North Anna Power Station . (**0006-2** [Neale, Lara])

Comment: Please do not allow a third nuclear reactor at the North Anna site in Louisa County, VA, about 30 miles east of Charlottesville (**0011-1** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele]

[Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: A third reactor should not be built at North Anna . It will put unreasonable stress on water resources and jeopardize the health and safety of Virginia citizens (**0011-5** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele] [Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: As Chief of the Pamunkey Indian Tribe of Virginia, I am writing this letter to ask that a permit NOT be given to Dominion Power for construction of a new nuclear reactor at the North Anna site. (**0013-1** [Brown, Kevin])

Comment: Say no to a new nuclear reactor at North Anna. **(0025-2** [Cowles, Virginia])

Comment: Please say no to a new nuclear reactor at North Anna Power Station until the currents reactors comply with environmental considerations. These stations affect the health of all the waterways that run by. Just please, for the sake of our children and grandchildren, just please say no! **(0029-1** [Meredith, Betty])

Comment: Say no to a new nuclear reactor at North Anna (**0037-2** [Witting, Marjorie])

Comment: Thank you for saying no to a new nuclear reactor at North Anna as currently requested by Dominion (**0040-3** [Whitfield, Doris])

Comment: I have seen no justification for a new reactor. The environmental and health hazard impacts of this proposal make it undesirable and objectionable. do not continue plans for an additional reactor at Lake Anna! (**0044-1** [Traub, Charles])

Comment: There is a lot to be studied here and a third reactor should not be built at N. Anna. It will put unreasonable stress on water resources and jeopardize the health and safety of Virginia Citizens. We suggest a totally new environmental assessment be made before setting up a new reactor. (**0046-1** [Galindo, Ted and Carolyn])

Comment: Say no to a new nuclear reactor at North Anna. (**0048-2** [Butcher, Ava])

Comment: More reactors at North Anna is an expense, and a risk, that I'm not willing to accept. (**0051-5** [Harpole, Thane])

Comment: It is the best interest of the Earth and your constituents that you oppose the building of the third nuclear reactor at North Anna. (**0052-1** [Stone, Eric])

Comment: NO to North Anna nuclear reactor. (**0053-2** [Phillips, Donna])

Comment: Please re-examine what is truly needed at North Anna and what the environmental impact could be, and develop a safer, smarter solution. (**0055-3** [Shamaiengar, Beth])

Comment: Please disallow a third reactor, we are moving in a new direction in this country, and this issue is exactly what will be shunned if we continue down the nuclear path. (**0066-2** [Cummings, Russell])

Comment: Dear Chief, Rules and Directives Branch: I urge you not allow a third nuclear reactor at the North Anna site in Louisa County, VA as it would potentially represent an environmental and safety threat to that area and to central Virdinia. (**0067-1** [Suter, Emanuel])

Comment: As Chief of the Pamunkey Indian Tribe of Virginia, I'm writing this letter to ask that a permit not be given to Dominion Power for construction of a new nuclear reactor at the North Anna Site (**0073-11** [Brown, Kevin])

Comment: Renewables and energy efficiency are on everyone's radar screen these days, except for our own electricity utility company. Dominion is seeking to build another nuke, and I think it is what, 1,500 megawatts? It is highly inefficient, and an incredibly expensive project.

It is well known that every 1,000 megawatt nuke is really a 3,000 megawatt system, giving off 2,000 megawatts in waste heat, to coolant waters and the surrounding air. (**0073-66** [Day, Elena])

Comment: I am speaking as a representative of the Virginia Chapter of the Sierra Club, which has just about 17,000 members in the Old Dominion.

The Sierra Club is opposed to the construction of the third reactor at the North Anna Power Station. We believe that this reactor will put an unreasonable strain on water resources, and jeopardize the health and safety of people living in Central Virginia. **(0078-1** [Cruickshank, John])

Comment: The Sierra Club continues to oppose this project, and asks that the NRC reject Dominion's application for a Combined Operating License.

The SDEIS does not adequately evaluate the impacts of this new reactor will have on water resources, on our natural habitats, and on the public health and safety. (**0078-14** [Cruickshank, John])

Comment: As a young UVA students who will be facing the future consequences of our current exploitative mode of sustaining a society, I feel that if there is something, those who care about the permanence of not only you as communities, but communities around the world, me being hispanic, should do is focus our methods on community building that don't exploit mineral resources, harm fragile aquatic ecosystems, or sow fear of radioactive disaster into the minds of the public. (**0081-1** [Oyok, Louis])

Response: *These comments express opposition to Dominion's COL or to construction and operation of a new nuclear unit at the site. They provide no new and significant information; therefore, no changes were made to the SEIS. (NAPS-COL3-DR0003R)*

2.37 General Comments in Opposition of Nuclear Power

Comment: You don't know how to store, reprocess or neutralize the waste. This has been going on since the 1970's when you promised you would figure it out later. Lawsuits have been the result, unresolved and even more tax payer money wasted by the federal government. It is reprehensible that this some how doesn't get discussed. Nuclear power besides being extremely toxic and a terrorist target is the biggest waste of taxpayer money ever and the stupidest way mankind has ever come up with to boil water. Invest this money in solar thermal and get your act together. **(0030-1** [DiMarco, Paul])

Comment: Please remember the Three Mile Island disaster. The public deserves cleaner and much safer forms of renewable energy. Proponents of nuclear energy say it's clean energy, but nuclear waste is a very hazardous byproduct of its production. (**0032-1** [Payne, Andrew])

Comment: There is still no viable solution to the problem of nuclear waste, and the opportunity is NOW for achieving green, safer new technologies. Investments should be made on these fronts instead of jeoparding people and the environment further. **(0033-1** [Rollins, Megan])

Comment: It's not a safe or viable especially when there are so many people willing and able to reduce their consumption and use an alternative. People in this area are smart and involved in theire communities. Please do not further damage the area where we live, work and play. Thank you for your time. **(0034-1** [Figg, Landon])

Comment: There is to much danger and risks and the problems it will cause far out weigh any benefits . We do not want it . (**0043-1** [Frantz, Norma])

Comment: Please take reasonable steps to meet energy needs without the need for an additional nuclear reactor. Reduce coal use. Nuclear is simply a false choice (**0045-1** [Kunkel, Christopher])

Comment: I realize all power options must be considered as part of a plan for ending out dependence on oil and reducing our carbon footprint. However, nuclear power carries many risks. These must be carefully assessed before any action is taken that could further degrade the environment.

Virginia is a beautiful state with many options for outdoor recreation. It is important to preserve these options for our children. (**0047-1** [Robbins, Patricia])

Comment: Please think of the future for our children and grandchildren. Do what is right and LEAD US IN A NEW DIRECTION. It is past time for our leaders to make decisions based on what is right for the long run! (**0057-1** [Currie, Susan])

Comment: How can we be any more short-sighted than to think that more nuclear anything is a good thing? (**0059-1** [Dickon, Elisa])

Comment: How can we do any more damage to our wetlands, and woodlands, to our water, to our air? (**0059-2** [Dickon, Elisa])

Comment:
What are you planning on leaving to your children and grandchildren? I know what I am leaving mine and that is knowing that I fought for them to have decent air to breath and water to drink and a safe place to live.
Please think about this in some other way than monetary---think beyiond the imediate picture and look ahead at the consequences. Ask science what is the real danger.
(**0059-4** [Dickon, Elisa])

Comment: So it sickens me that Dominion and other utilities, highly invested in nukes, are lobbying so hard, right now today, for 50 billion in loan guarantees, to be invested in case they need this -- they do need this for their construction loans because, obviously, Wall Street won't lend it to them. But this is money that belongs to the taxpayer. This is what they are asking for in the stimulus bill that is now being reviewed in the Senate.

And this is money that belongs to the taxpayer, it shouldn't be for nukes, because nukes are unsustainable, they are polluting, they are expensive, and rather than to demand our money for these, I think that this money should be earmarked for increases in energy efficiency in homes, in offices, and for investments in renewable technologies. **(0073-68** [Day, Elena])

Comment: I'd like you to ask them just one question. Ask these scientists, these America's brightest and best, is it possible to boil water, to use the steam, to turn the turbines, to generate the electricity, without making us more of a terrorist target, without poisoning the air, and the soil, and the water; without radiation? **(0075-12** [Farris, Rebecca])

Comment: If they tell you no, that is not possible, there is no other way to boil the water, to turn the turbines, to generate the electricity, than nuclear. Then I urge you not to trust their wisdom, and do not take their advice. **(0075-13** [Farris, Rebecca])

Comment: It is my prayer, tonight, that each of us look into our hearts, and reconnect with our love of life, and turn away from this suicidal madness that is nuclear. **(0075-15** [Farris, Rebecca])

Comment: So it sickens me that Dominion and other utilities, highly invested in nukes, are lobbying so hard, right now today, for 50 billion in loan guarantees, to be invested in case they need this -- they do need this for their construction loans because, obviously, Wall Street won't lend it to them. But this is money that belongs to the taxpayer. This is what they are asking for in the stimulus bill that is now being reviewed in the Senate.

And this is money that belongs to the taxpayer, it shouldn't be for nukes, because nukes are unsustainable, they are polluting, they are expensive, and rather than to demand our money for these, I think that this money should be earmarked for increases in energy efficiency in homes, in offices, and for investments in renewable technologies. (**0075-2** [Day, Elena])

Comment: And I'm not going to take up your time with too many words, I'm just going to provide a brief demonstration, an illustration of the functional observable relationship that I see between the NRC and Dominion Power.

I need an audience volunteer. You.

[Speaker and volunteer perform demonstration] (**0079-3** [Connor, Jennifer])

Comment: Now, if we continue building these kinds of projects, then we may not have a chance for this kind of thing at all. So I invite all of you to join in with me, in appreciation of your neighbor, right now.

So share some affection with the person sitting next to you, because if we continue to poison our environment, we are not going to have too much more time. (**0079-4** [Taylor, Kelly])

Comment: Yes, you are all falling sleep, you are all like zombified out there. And I hope that the NRC doesn't get like this, because that is how we get into our zombie future, where we just like walk like this into a nuclearized future.
And it is, you know, we can't do that. We have to really consider this. So, yes, wake up all of us, take all this to your heart, that is all. **(0079-5** [Taylor, Kelly])

Comment: So I'm angry about that. Then I go to sadness, that we human beings can think that we are more important than anything else, the bees, the fish, the birds.
Yes, I go to sadness. And I just ask what is the real cost of the economic security, or the safety that I've heard people talk about tonight, and jobs, and money, and future, and what is the real cost of that? (**0080-10** [Pickering, Andrew])

Comment: It is more practical and economic to shut down reactors. (**0080-2** [Young, Emerald])

Comment: So I wanted to speak on those who don't have a voice, and that would be my three children, my 60,000 bees, and I don't know how many fish are in Lake Anna, but several thousand.

And I want to talk about how I feel about what I've heard tonight in the Supplemental EIS. I guess that I'm angry that the basic assumption is that human life, and human needs, is more important than anything else. (**0080-9** [Pickering, Andrew])

Comment: This premise that as a society we have accept increased electrical consumption in the future, I'm not sure we need to accept that, or we should. Cell phones, laptops, cars, these things are choices that we can make.

I'm not convinced that they've done much for personal happiness, or -- it is a decision that people have to make, and it is not already made for us. (**0081-10** [Caristo, Vince])

Comment: After that I would like to read a poem by E.F. Shumaker from a book in 1972 called Small is Beautiful. No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make safe, and which remain an incalculable danger to the whole of creation, for historical, or even geological ages.

To do such a thing is a transgression against life itself. A transgression infinitely more serious than any crime perpetrated by man. The idea that a civilization could sustain itself, on such a transgression, is an ethical, spiritual, and metaphysical monstrosity.

It means conducting the economic affairs of man as if people did not matter at all. (**0081-11** [Caristo, Vince])

Response: *These comments express general opposition to nuclear power. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0002R)*

2.38 General Comments in Opposition of the Existing Plant

Comment: There is already an issue caused by the plant and another reactor will only exacerbate the problems. Please reconsider this plan. (**0054-1** [Gaige, Eve])

Comment: The Commonwealth of Virginia has a bad enough record on environmental issues without pretending that there is no harm in permitting yet another reactor in the same area where the managing entities remain unable or unwilling to bring the existing site into compliance with existing regulations.

Please do not sell us down the river yet again! (**0060-1** [Lloveras, Lang])

Comment: however, we should solve the current problems with the North Anna Power station before expanding it's capacity, as well as it's current problems. (**0065-2** [Liske, Patricia])

Response: *These comment express opposition to the existing operating units at the NAPS site. They provide no new and significant information; therefore, no changes were made to the EIS. (NAPS-COL3-DR0007R)*

2.39 Comments Concerning Issues Outside Scope - Emergency Preparedness

Comment: and the discussion of an updated evacuation plan that addresses the area of impact in the event of an emergency (**0069-4** [Irons, Ellie])

Comment: An updated evacuation plan that addresses the area of impact in the event of an emergency is desired based on the proposed improvements described in the SEIS. (**0069-52** [Irons, Ellie])

Response: *These comments on emergency preparedness are outside the scope of the environmental review of the COL, and are not addressed in the SEIS. An evaluation of emergency preparedness issues is part of the safety review, published in a safety evaluation report (see 10 CFR 52.18). No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0010R)*

Comment [a28]: We might want to add something more specific to this b/c its VDEQ. Something like the safety folks are covering this and expect this information to be available by XYZ date.

2.40 Comments Concerning Issues Outside Scope - Miscellaneous

Comment: The U. S. Department of the Interior (Department) has no comment on the Draft Supplemental Environmental Impact Statement, NUREG-1917, for the Combined License for the North Anna Power Station Unit 3 in Louisa County, Virginia. (**0001-1** [Chezik, Michael T.])

Response: *This comment is a summary of comments from a reviewing Federal agency. Because the comment did not provide any new and significant information, no changes were made to the SEIS. (NAPS-COL3-DR0060R)*

Comment: We are not opposed to the North Anna 3rd Unit Project. We also want to insure that Dominion identifies the type of Reactor that it will use and its potential impacts prior to proceeding (**0017-1** [Ruth, Harry])

Response: *Dominion has not withdrawn the present COL application for one ESBWR unit at the NAPS site, nor has Dominion submitted a revision of reactor type that could delay the environmental review.~~This comment is a request for information about the type of reactor that will be constructed at the NAPS Unit 3 site and the associated impacts of that reactor type.~~ The NRC's environmental review of one ESBWR unit at the NAPS site is contained in this SEIS. If a change does occur, the licensing process will consider the change ~~The information is contained in Chapters 3, 4, and 5 of the Draft SEIS.~~ This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0061R)*

Comment: Dominion has announced that it cannot utilize the reactor that it had selected for the 3rd reactor at NAPS (North Anna Nuclear Power Plant). Dominion has mounted a search for a different reactor. The problem is that the COL (Combined Operating License) application is predicated on the reactor originally selected. It will be necessary for the NRC to open the SEIS after Dominion has picked a new reactor. The NRC will need to reevaluate the Impact Statement based on this new information and then amend the Draft and hold yet another public meeting. This is a gross waste of taxpayers' money. The NRC should have waited to finalize this Draft until such time as the reactor is selected. (**0003-2** [Crawford, Barbara])

Comment: Since Dominion Power is choosing a new reactor model, application for the COL ~~shouldbe~~should be put on hold. Once a new reactor model is chosen, then a new environmental ~~assessmentshould~~assessment should be initiated. **(0004-2** [Abbott, Diana])

Comment: Since Dominion Power is choosing a new reactor model, application for the COL should be put on hold. Once a new reactor model is chosen, then a new environmental assessment should be initiated. (**0006-4** [Neale, Lara])

Comment: At the very least, since Dominion Power is choosing a new reactor model, a totally new environmental assessment should be conducted.
Say no to a new nuclear reactor at North Anna . **(0011-6** [Abbott, William] [Ahgrim, Larry] [Alexander, Mary] [Alexander, Mary] [Alexander, Nancy] [Allen, Connie] [Antoniewicz, Susan] [Appleby, Monica] [Apple, Joe] [Arens, Jordan] [Artemis, Diana] [Bailey, Marcia] [Baird, Heidi] [Bandita, Gypsy] [Biggs, Amy] [Bockstiegel, Dorothy] [Boissonnault, James] [Bolduc, Joan] [Brackett, Carl] [Bradshaw, Claude] [Brown, E] [Brummer, Ann] [Burtner, Caryl] [Burt, William] [Butcher, Ava] [Churray, Richard] [Clark, Diane] [Clark, Loralee] [Clark, Loralee] [Clark, Theda] [Cleary, Thomas] [Collingwood, Claudia] [Cook, Joe] [Cowles, Virginia] [Cummings, Russell] [Currie, Susan] [Dail, Michelle] [Daiss, Becky] [Davies, Beth] [De Trinis, Bonita] [Deming, Jill] [Desimone, John and Shirley] [Dickon, Elisa] [DiMarco, Paul] [D'Onofrio, Adam] [Dukovich, John] [Dunbar, Mary] [Ebert, Paul] [Farnham, Ross] [Fasceski, Jeffrey] [Feury, Patricia] [Figg, Landon] [Fiscella, Glenn] [Ford, Betty] [Franke, John] [Frank, Sarah] [Frantz, Norma] [Fritzler, Deb] [Gaige, Eve] [Galindo, Ted and Carolyn] [Gann, Sara] [Gignac, David] [Grant, Mary] [Hall-Bodie, Adrienne] [Ham, Elspeth] [Hamilton, Jim and Donna] [Hanger, Jane] [Hanks, Lou] [Harpole, Thane] [Hartwig, Kristina] [Heegaard, Flemming] [Heflin, Kerby] [Heim, Anka] [Hepburn, Chet] [Hess, David] [Hinkle, Carol] [Hodge, Mary] [Hoehlein, Jill] [Hoffman, Lilli] [Holtzback, Kaite] [Horwege, Richard] [Houston, Karin] [Hutchinson, Amber] [Jaronczyk, Ellen] [Jewell, B] [Johns, Brian] [Josaitis, Marvin] [Kalukin, Andrew] [Keyser, Liz] [Kiehl, Allison] [Kosch, Sandra] [Kroupa, Brenda] [Kunkel, Christopher] [Larsen, Anne] [Larsen, Janice] [Laverdiere, Dorothy] [LeClair, Carol] [Leon, Matea] [Light, John] [Liske, Patricia] [Lloveras, Lang] [Lufkin, Heather] [Maddox, Joshua] [Marroni, Edmond] [McDonald, Kim] [McFarland, Mary Ann] [McNeal, Ashby] [Meredith, Betty] [Meyer, Jennifer] [Miles, Linda] [Miller, Katelyn] [Miller, Lara] [Miller, Mary] [Mullinax, Franklin] [Newell, Vicky] [Payne, Andrew] [Phillips, Donna] [Pintado, Isabel] [Plaskett, Micheline] [Plata, Errol] [Presgraves, Sandra] [Presley, Diann] [Rasmussen, Angela] [Reiner, Brian] [Rigby, John] [Roadcap, Leah] [Roadcap, Leah] [Robbins, Patricia] [Rollins, Megan] [Roth, David] [Schmidt, Arthur] [Scott, Patricia] [Shamaiengar, Beth] [Shelton, Charles] [Shields, Page] [Sklar, Scott] [Smith, John] [Smith, Louise] [Squires, George] [Steegmayer, Andrea] [Stone, Eric] [Sumrall, Kamar] [Suter, Emanuel] [Tanner-Sutton, Linda] [Tarr, Suzanne] [Teeler, Sharon] [Testerman, Michael] [Traub, Charles] [Van Lingen, Gabriele] [Wells, Cathy] [Werderman, Kim] [White, Eric] [White, Phyllis] [Whitfield, Doris] [Williams, Martha] [Wilson, Brian] [Wilson, Brian] [Witting, Marjorie] [Woitte, Roger])

Comment: Several important issues have come up which involve significant changes since the Draft EIS...Dominion dropping GE/Hitachi as vendor and template for EIS. (**0012-3** [Rosenthal, Jerry])

Comment: 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. **(0017-4** [Ruth, Harry])

Comment: In section 5.3 of the DSEIS, the NRC has devoted a whopping one and a half page to this most important issue. Dominion's COL application is for construction of only one additional unit (Unit 3), using the Economic Simplified Boiling-water Reactor (ESBWR) designed by GE-Hitachi which now has been abandoned by Dominion. How can this decision not affect the NRC's staff preparation of the SEIS? Another reactor will have to be evaluated with respect to impact levels determined in the ESP and the Plant Parameter Envelope (PPE). (**0018-5** [Remmers, Ken])

Comment: Since Dominion is no longer using the ESBWR design, it is imprudent to conduct a Environmental Impact Statement or consider a COL when the design of the facility, its costs, or

schedule are not yet known. Without knowing the design it is not possible to determine its impact. It is not even clear whether a certified design will be used. Accordingly, it is requested that the DEIS process be put on hold until the design selection is finalized. (**0023-1** [Goldsmith, Aviv])

Comment: At the very least, since Dominion Power is choosing a new reactor model, a totally new environmental assessment should be conducted. (**0048-1** [Butcher, Ava])

Comment: Dominion's COL application is for the construction of only one unit, unit 3. In the report, using the ESBWR plant designed by GE Hitachi, which rumors have been running around that Dominion may be abandoning this plant.

How can this decision not affect the NRC's staff preparation of the DSEIS, another reactor will have to be evaluated with respect to impact levels determined in the ESP and plant parameter envelope concerns. (**0073-41** [Remmers, Ken])

Comment: One, the NRC's draft document is based on a false assumption, that is that Dominion Virginia Power will use the GE Hitachi nuclear energy reactor known as the economic simplified boiling water reactor, at North Anna. (**0078-16** [Zeller, Lou])

Comment: First Dominion recently announced that it will solicit bids for an alternative nuclear technology and for a new contractor to build the reactor. The license application for North Anna unit 3 is based solely on the GE Hitachi reactor design.

And the Supplemental EIS is based on this license application. Plainly Dominion has not made a final decision on its reactor design. Therefore the NRC cannot proceed with an environmental impact analysis it now knows to be incorrect.

Dominion's request for bids is new and significant information under federal law. We request that the NRC suspend the licensing of unit 3, and require a license revision.

In fact, this is what NRC has done at Entergy's Grand Gulf Plant. NRC suspended its review at Grand Gulf's license pending reevaluation of alternative reactor technologies, which like North Anna, was based on the ESBWR, and an ESP.

I will submit NRC's letter to Entergy. (**0078-18** [Nguyen, Vanthi])

Comment: And for those who would criticize the NRC for continuing the evaluation of the studies that have been presented to them, and for doing the Environmental Impact Statement, and the studies that they have been charged to do, and that they have done so responsibly, they are not held responsible for evaluating rumors.

They don't stop their job just because they heard a rumor that Dominion may be changing where they are getting their design from, since Dominion has not changed where they are getting their design from, the NRC doesn't just stop doing their job because they heard that there might be some other design that is chosen later on. (**0079-2** [Taylor, Kelly])

Response: *The comments express concern about a potential change in the reactor design for the proposed NAPS Unit 3 site. Dominion has not notified the NRC of any proposed change in the reactor design. The environmental licensing process will continue until Dominion notifies the*

NRC of any change. If a change does occur, the licensing process will consider the change. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0064R)

Comment: We would be remiss if we did not take a moment to acknowledge that next month is the 30th Anniversary of the nuclear accident at Three Mile Island, the worst nuclear accident in U.S. history.

We all hope and pray that no such event ever take place again, either here or anywhere in the world. But Three Mile Island did happen and we must not forget. **(0003-6** [Crawford, Barbara])

Response: *This comment provides general information regarding the nuclear industry. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0065R)*

Comment: Several important issues have come up which involve significant changes since the Draft EIS...Congressional action on efficiency and energy which will have significant impact on electrical demand. (**0012-4** [Rosenthal, Jerry])

Response: *This comment provides general information regarding potential Congressional action regarding energy efficiency. The comment did not provide specific ~~newand~~new and significant information or reference specific legislative action. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0066R)*

Comment: Shouldn't Appendix F or L or the socioeconomic section of the text include mention of the resolution passed by Spotsylvania County against the project and the ESP? (**0023-57** [Goldsmith, Aviv])

Response: *Appendix F provides copies of letters from Federal or State agencies in response to a Federal Register notice by the NRC regarding the proposed licensing process, whereas Appendix L listed information regarding the status of required authorizations and consultations required by regulation. Information contained in the socioeconomic section of the ~~Draft~~ SEIS deals with the affected environment regarding socioeconomic issues (Chapter 2); impacts resulting from construction and operation of the plant (Chapters 4 and 5), and resulting cumulative impacts (Chapter 7). The resolution passed by Spotsylvania County did not provide any useful information to be included in these chapters. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0093R)*

Comment [a29]: I think we still need to reword this a little more. Im not sure ..lets discuss.

Comment: Okay, if you are operating a hair dryer, and it goes in your bathtub, you are dead meat, okay? And a nuclear reactor won't even fit inside a bathtub, so I don't know what she is talking about.

And a lot of people think that nuclear power plants, they can cause some kind of nuclear explosion, or something, and that is really dangerous. Wrong, hippies. They can't cause nuclear explosions.

Okay, maybe they can explode and melt down, and maybe 1,000 megawatt plant could render an area the size of Pennsylvania uninhabitable, but there are, last time I checked, 48 other perfectly -- other inhabitable states. I'm sorry, New Jersey. (**0079-6** [Salidis, Stratton])

Comment: So, anyway, I just wanted to start operating this plant here, just to show you how much power it can make, and so safely. So, okay, here are the rods, yes, get them reacting. They are reacting.

You see? Right now the lights are on, nothing bad is happening, it is perfectly safe and it is -- oh, my God, shield your groins, it is okay. No, that was just an accident, and now it is better. Okay, thank you very much. See how harmless that was? **(0079-7** [Salidis, Stratton])

Response: *The issue raised in this comment is outside the scope of the environmental review and is not addressed in the SEIS. The safety assessment for the proposed licensing action was provided as part of Dominion's application. The NRC is in the process of developing a safety evaluation report that analyzes all aspects of reactor and operational safety. Examples of how the NRC addresses operational safety issues are discussed below.*

The NRC maintains resident inspectors at each reactor site. These inspectors monitor the day-to-day operations of the plant and perform inspections to ensure compliance with NRC requirements. In addition, the NRC has an operational experience program that ensures that the safety issues found at one plant are properly addressed at the others, as appropriate. Finally, the design of any new reactors or storage facility will have benefitted already from lessons-learned at existing reactors and will incorporate new safety features that would be impracticable to retro-fit into existing plants. The NRC will issue a license or permit only if it can conclude with reasonable assurance that (1) the activities authorized by the license or permit can be conducted without endangering the health and safety of then public, and (2) such activities will be conducted in compliance with the rules and regulations of the NRC. No changes were made to the SEIS as a result of this comment.
(NAPS-COL3-DR0094R)

Comment: We would like to put DEQ on notice that LACA Water Quality Committee strongly requests, with the full support of the Combined Lake Level Taskforce, that any VPDES permit, and WPP permit, include mitigation for the effects for unit 3. (**0073-44** [Remmers, Ken])

Comment: This deed language is typical of every waterfront parcel on Lake Anna, since the '60s. Anybody that owns waterfront land, the owner for himself, his successors, or assigns, for the above-considerations, does hereby grant, and convey to the company, being VEPCO at the time, the right to maintain and operate the electric generating facilities, dam, reservoir, dikes, cooling lagoons, electrical lines, and pipelines, including without limitation, the raising and lowering of the water of the aforesaid, and changing the condition of said waters. **(0075-30** [Carroll, John])

Comment: First I'm going to read a poem by Nanau Sazaki, it is called North America.

At Superstition Mountain, in the Sonoran Desert, a beer-bellied man is shooting at a 50 foot saguaro cactus with a rifle. A couple of minutes later the giant cactus falls to the ground and kills the man. April 1984.

April 1986, in a ravine at Big Mountain in Hopi and Navajo land, a coyote is reading the Wall Street Journal. How many mice can I steal next year from the American economy?

Off the coast of Northern California sea lions are listening to the long-term weather forecast on

the radio. They want to freeze dry the redwood forest for the coming ice age.

On a rocky ledge, somewhere in the center of nuclear power, a family of California condors is watching Wild Kingdom on TV. They ponder, how many more years homo sapiens, one of the most endangered species, can survive? (**0078-15** [Nguyen, Vanthi])

Comment: I live on the Ravannah River in Charlottesville. And I see the river and water as a sacred element. And I just challenge anyone's assumption that water that is taken out of a body of water, heated up, and thrown back in, is not changed. I just think it is not true. (**0080-11** [Pickering, Andrew])

Response: *The opinions expressed in these comments regarding various aspects of the process are considered to be outside the scope of the environmental review process. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0098R)*

Comment: The Thomas Jefferson Planning District Commission (TJPDC) reviewed the SEIS and has no comments. The George Washington Regional Commission and Rappahannock-Rapidan Planning District Commission did not respond to DEQ's request for comments on the SEIS.
Contact Rochelle Garwood, TJPDC at (434) 979-7310. **(0069-54** [Irons, Ellie])

Comment: DEQ solicited comments on the SEIS from the Counties of Louisa, Orange, Spotsylvania and Hanover, and the Town of Mineral. However, no local comments on the proposal were received by DEQ. (**0069-55** [Irons, Ellie])

Response: *These comments provide the status of comments on the ~~Draft~~ SEIS that were solicited from Louisa County, ~~neighoring~~neighboring counties, the Town of Mineral, and several regional planning districts. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0109R)*

Comment: We have several pollution prevention recommendations that may be helpful in the construction of this project and in the operation of the facility:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the Dominion is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and it recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program. " Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into the airport maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for

hazardous materials), product substitution (use of nontoxic cleaners), and source reduction (fixing leaks, energy-efficient HVAC and equipment). Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventative maintenance.

(**0069-56** [Irons, Ellie])

Response: *The issue on pollution prevention is outside the scope of the SEIS and is not addressed in the SEIS. Aspects of pollutant prevention are the subject of the overall environmental protection plan that Dominion will implement in the process of obtaining environmental-related authorizations, permits, and certifications. Those are listed in Appendix L of the SEIS. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0111R)*

Comment: Since water is a critical concern, among the major alternatives that should be considered in detail in Chapter 8 are the retrofitting of a cooling tower to Units #1 and/or #2, and the application of a dry cooler to Unit 3. (**0023-48** [Goldsmith, Aviv])

Response: *The concern regarding alternatives related to retrofitting the cooling technology for Units 1 and 2 is outside the scope of the environmental review of the Unit 3 COL and is not addressed in the SEIS. The SEIS ~~deals~~evalutes ~~only with~~ the combined license application to construct and operate the proposed Unit 3. Cooling system design alternatives were evaluated in Section 9.3 of the SEIS. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0112R)*

Comment: Dominion power needs to operate the current reactor in accord with the law and relevant rules and regulation. At that point a new environmental impact statement is necessary because we are becoming acutely aware of the encroachment on wetlands with every development application. And this is a huge development plan with serious consequences for the environment. **(0035-1** [Jewell, B])

Response: *This issue regarding operating the current reactors, which is addressed in this comment, is outside the scope of the SEIS. Resident NRC inspectors maintain a daily evaluation of the operation of the existing units. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0113R)*

Comment: North Anna Unit 3 would not meet the requirements of the US Clean Water Act. The Virginia Department of Environmental Quality has continually granted variances to Dominion's North Anna plant under Section 316 of the CWA which allow excessive amounts of thermal pollution to be discharged into waters of the United States (**0024-5** [Zeller, Lou])

Response: *This comment refers to an authorization that is granted by the Commonwealth of ~~Virgina~~Virginia to Dominion. That authorization, which is noted in Appendix L of the SEIS, will be required before the ~~plant~~Unit 3 can operate. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0114R)*

2.41 Comments Concerning Issues Outside Scope - NRC Oversight

Comment: At the very least call for the other two to be up to regulations, the environmental impact studies to be done by a third party AND FOLLOWED on all three. (**0036-1** [Clark, Theda])

Comment: I would like to thank the NRC on their usual thorough work that they do in protecting people, and the environment, and for getting things right. I have personal experience in this, in that last year I noticed a very serious error in their website, I pointed it out to them, and they corrected it immediately. (**0082-4** [Reynolds, Norm])

Comment: Also I just want to mention that I'm glad the NRC is here. You guys are definitely the gold standard. I've had a chance to work in industries, and every time I have worked in other industries I've always compared what was done when I was in the nuclear industry at the time, to what we were doing at the time then, and it was always a very high standard. And to add to that, if you look at the Simpsons, even Mr. Burns knows he can't bribe the NRC. So definitely kudos to you guys, and keep up the good work. (**0082-8** [Mastilovic, Nick])

Response: *These comments provide general information regarding the NRC oversight process. These comments provide no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0071R)*

2.42 Comments Concerning Issues Outside Scope - Safety

Comment: Dominion is at this moment engaged in a contest to see which power company will be first to get a new reactor on line. To the victor go many spoils, by way of a very large sum of money to be paid by the Federal Government. That's us, the taxpayers.

A state of the art reactor run by state of the art computers still requires some 750 humans to operate and maintain it. That's a lot of potential human error. **(0003-7** [Crawford, Barbara])

Comment: At another of these public meetings, several years ago, I met a gentleman as we exited this building. When he heard that I had grown up near Harrisburg, PA, he told me that he had spent the first 13 years of his career with the NRC "cleaning up the mess at Three Mile Island". The next time that someone tries to tell you that Three Mile Island was no big deal, remember that it took 13 years to clean up that very big deal. For years, the local papers reported, after the fact of course, when radioactive gases had been released into the air and when radioactive water had been released into the Susquehanna River.

Every effort must be made to insure that this process here at NAPS be done correctly. Everyone involved must use caution and proceed slowly and with full knowledge of what we are getting into. Each step must be taken without shortcuts and without regard for the huge carrot being dangled at the end of that stick, to make sure that we are safe and that our environment is not destroyed in the process.

To paraphrase President Obama: we will go forward with nuclear power if and when we are absolutely certain that it is safe (**0003-8** [Crawford, Barbara])

Comment: North Anna Unit 3, if constructed, would be the only nuclear plant in the nation licensed by the NRC and located on top of a geologic fault. In 1967, soon after Dominion-

Virginia Power began work on the North Anna Power Station, evidence of seismic faults were found at the site. In February 1970 the excavation wall for Reactor Unit1 collapsed. One month later, independent geologists visited the site, identified a major fault zone, took pictures and reported their finding. Dominion admits that a fault underlies the site of Unit 3 but maintains that there is "no relevance with respect to the existence of [the] unnamed fault." Nevertheless, the fault is there. The draft SEIS does not determine the magnitude of the risk at the site. (**0024-4** [Zeller, Lou])

Comment: DEQ recommends that NRC coordinate the development of the SER with DEM and DSP and provide them the opportunity to review and comment on the final document. (**0069-53** [Irons, Ellie])

Comment: It is quite obvious that if nukes were really safe, they would be sited in Richmond City, or downtown DC, where this waste heat could be utilized. (**0073-67** [Day, Elena])

Comment: And we are absolutely confident that in conjunction with the efforts of the Nuclear Regulatory Commission, and other federal, state, tribal, and local agencies, any risk to public health and public safety will be addressed and mitigated. **(0075-9** [Bishop, Wayman])

Response: *Security and terrorism are safety issues that are outside the scope of the environmental review. However, the NRC is devoting substantial time and attention to terrorism-related matters, including coordination with the U.S. Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act, the NRC staff is conducting vulnerability assessments for the domestic utilization of radioactive material. In the time since September 11, 2001, the NRC has identified the need for license holders to implement compensatory measures and has issued several orders to license holders imposing enhanced security requirements. Finally, the NRC has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public web site (www.nrc.gov). No changes were made to the SEIS as a result of these comments. (NAPS-COL3-DR0005R)*

Comment: It is quite obvious that if nukes were really safe, they would be sited in Richmond City, or downtown DC, where this waste heat could be utilized (**0075-1** [Day, Elena])

Response: *The issue raised in this comment is outside the scope of the environmental review and is not addressed in the SEIS. The safety assessment for the proposed licensing action was provided as part of Dominion's application. The NRC is in the process of developing a safety evaluation report that analyzes all aspects of reactor and operational safety. Examples of how the NRC addresses operational safety issues are discussed below.*

The NRC maintains resident inspectors at each reactor site. These inspectors monitor the day-to-day operations of the plant and perform inspections to ensure compliance with NRC requirements. In addition, the NRC has an operational experience program that ensures that the safety issues found at one plant are properly addressed at the others, as appropriate. Finally, the design of any new reactors or storage facility will have benefitted already from lessons-learned at existing reactors and will incorporate new safety features that would be

impracticable to retro-fit into existing plants. The NRC will issue a license or permit only if it can conclude with reasonable assurance that (1) the activities authorized by the license or permit can be conducted without endangering the health and safety of then public, and (2) such activities will be conducted in compliance with the rules and regulations of the NRC. No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0094R)

2.43 Comments Concerning Issues Outside Scope - Security and Terrorism

Comment: The section on emergencies and radiation impacts is not understandable by lay persons. A summary is required that clearly sets out (a) expected radiation impacts in the study area, and (b) the possible radiation impacts from an emergency. Emergency situations should include terrorist attacks. Shouldn't a worst case analysis be included for low-probability events? (**0023-14** [Goldsmith, Aviv])

Comment: The continued lack of analysis and discussion of security against terrorist threats in Section 5.10 is a major omission. This subject is clearly part of today's "human environment". I would argue that terrorism is not an "accident". Terrorist attacks are deliberate and numerous. The proximity to DC could make North Anna an attractive target. Even FBI Director Mueller stated that a terrorist attack on a nuclear facility can be "postulated". (**0023-40** [Goldsmith, Aviv])

Comment: There should be a Section 7.8.B that discusses the cumulative radiologic impacts of emergency situations (accidents and terrorism). Casual discussion in 7.8 of normal operations is insufficient treatment for this potentially devastating situation. (**0023-46** [Goldsmith, Aviv])

Comment: Since Chapter 8 should address system design alternatives (page 1-10, line 38) the COL SDEIS should include consideration in section 8.2 for locating potentially vulnerable facilities (such as fuel and waste storage) underground to mitigate against terrorist attack or aviation accident. (**0023-50** [Goldsmith, Aviv])

Comment: The EIS is noticeably weak in analysis and providing information on the key areas of public concern which include terrorism and safety. (**0023-9** [Goldsmith, Aviv])

Response: *Security and terrorism are safety issues that are outside the scope of the NRC staff's environmental review. The NRC is devoting substantial time and attention to terrorism-related matters, including coordination with the U.S. Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act, the NRC staff is conducting vulnerability assessments for the domestic utilization of radioactive material. In the time since September11, 2001, the NRC has identified the need for license holders to implement compensatory measures and has issued several orders to license holders imposing enhanced security requirements. Finally, the NRC has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on the NRC's public web site (www.nrc.gov). No changes were made to the SEIS as a result of this comment. (NAPS-COL3-DR0009R)*

2.44 General Editorial Comments

Comment: Section 5.9 is hard to understand by lay persons. A summary is required that clearly sets out expected radiation impacts in the study area. (**0023-37** [Goldsmith, Aviv])

Response: *Section 5.9 provides detailed information and supporting documentation regarding radiological impacts resulting from the various pathways during normal operation of the proposed Unit 3. A summary of the impacts from the operation of Unit 3 as well as from Units 1 and 2 is provided in Section 7.8 of the SEIS. This comment provided no new and significant information. Therefore, no changes were made to the SEIS. (NAPS-COL3-DR0097R)*

Comment: Dominion suggests that the following text, paraphrased from Section 1.1 of its environmental report (ER) be substituted: The Dominion purpose and need for the proposed action is to provide additional base load power for customers in the region served by Dominion and ODEC, maintain fuel diversity in this region, reduce dependence on imported power, leverage Dominion's and ODEC's existing nuclear facilities, and to promote the regional economy, while not contributing to carbon dioxide emissions. (**0084-1** [Grechek, Eugene])

Response: *The assumption is this comment applies to Section 1.3 of the SEIS. While the comment does provide more detail regarding the overall purpose and need for the plant, it does not indicate that any of the information contained in that section is incorrect and needs to be revised. Additionally, it is not standard practice for the NRC staff to paraphrase information from an applicant's ~~ER~~environmental report. No changes were made to the SEIS. (NAPS-COL3-DR0207R)*

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Comment [a30]: Let's discuss we might have to do a bit retooling.

Comment: The DSEIS Appendix L list of authorizations and consultations is identical to the ESP EIS Appendix L. If NRC has determined that revision of the list is unnecessary, Dominion suggests the DSEIS Appendix L could be deleted and the section 1.5 language could be revised to read as follows: Appendix L of the ESP EIS lists authorization and consultation requirements that Dominion listed in connection with the Unit 3 construction and operation. NRC has identified no need to revise this list for the COL. Should NRC revise the DSEIS Appendix L list to include only those additional authorizations and consultations that Dominion identified in its COLA-ER, section 1.5 language could be revised as follows: Appendix L of the ESP EIS lists authorization and consultation requirements that Dominion listed in connection with the Unit 3 construction and operation. (**0084-3** [Grechek, Eugene])

Response: *Appendix L was included in the SEIS because it provides additional information that supports information in Appendix B, Organizations Contacted Regarding the Proposed Action to Construct North Anna Unit 3. While it might be considered unnecessary by the applicant to include that information, the NRC staff felt it was worthwhile to repeat it for completeness in evaluation of the application. For that reason, no changes were made to the SEIS. (NAPS-COL3-DR0208R)*

Comment: Dominion suggests that the following text, paraphrased from Section 1.1 of its environmental report (ER) be substituted: The Dominion purpose and need for the proposed action is to provide additional base load power for customers in the region served by Dominion and ODEC, maintain fuel diversity in this region, reduce dependence on imported power, leverage Dominion's and ODEC's existing nuclear facilities, and to promote the regional economy, while not contributing to carbon dioxide emissions. (**0084-2** [Grechek, Eugene])

Response: *The assumption made in this comment applies to Section 1.3 of the SEIS. While the comment provides additional information regarding the need for the plant, the staff felt the most compelling reason was the expectation for Dominion under Senate Bill 1416. For that reason, no change was made to the SEIS. (NAPS-COL3-DR0210R)*

Comment: [In SEIS Sec 9.2] Dominion suggests that NRC revise the text consistent with Dominion comments on the Executive Summary and other sections of Chapter 1. (**0084-29** [Grechek, Eugene])

Response: *The NRC staff did not think it was necessary to make changes to Chapter 1 of the SEIS; therefore, no changes were made to Section 9.2. (NAPS-COL3-DR0211R)*