NAPSEISComment Resource

From: PrecursorS@aol.com
Sent: Friday, March 20, 2009 7:42 PM
To: NorthAnnaCOLEIS Resource
Subject: EIS Comments
Attachments: COLA DEIS comments 032009.pdf

Please see attached. Thanks.

Peace,
Aviv Goldsmith

PS - Please note that the email info on the Open House Handout posted at http://adamswebsearch2.nrc.gov/nrcws/nrcdoccontent.aspx?Library=PU_ADAMS^PBNTAD01&LogonID=7fdad07181bdc35415cf0a1f22faa44d&DocID=090400159 is INCORRECT.

Federal Register Notice: 73FR79196
Comment Number: 164

Mail Envelope Properties (cdc.466d2c04.36f583d2)

Subject: EIS Comments
Sent Date: 3/20/2009 7:42:10 PM
Received Date: 3/20/2009 7:42:18 PM
From: PrecursorS@aol.com

Created By: PrecursorS@aol.com

Recipients:
"NorthAnnaCOLEIS Resource" <NorthAnnaCOLEIS@nrc.gov>
Tracking Status: None

Post Office: aol.com

Files	**Size**	**Date & Time**
MESSAGE	562	3/20/2009 7:42:18 PM
COLA DEIS comments 032009.pdf	32556	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Sent via email to NORTHANNA.COLEIS@nrc.gov

20 March 2009

Chief, Rulemaking and Directives Branch
Division of Administrative Services
Chief, Rules and Directives Branch, Division of Administrative Services
Mailstop TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: North Anna COL SDEIS

Thank you for the opportunity to provide the following comments on the COL SDEIS.

1. 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.

2. The public meeting for the DEIS was in the evening in Louisa in the winter. Slippery conditions limited the number of participants. Personally, I work in the evenings and it is very hard to attend a meeting in another town in the evening. I request that the public meetings be expanded so that a more representative population of effected citizens can participate in the EIS process. One meeting should be held in each of Charlotteville, Richmond, and Fredericksburg. At least one of these meetings should be during the day.

3. 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.

4. It is my understanding that Dominion has also been disposing of low level waste at a repository in South Carolina that has closed. What are the plans for disposal of low level waste from the facility?

5. The vast majority of comments that I previously submitted on the DEIS scoping were acknowledged in the DEIS to be legitimate comments but there was no substantive analysis or response that occurred. This is contrary to the goals of the EIS process and results in citizens being disenfranchised and potentially demoralized.

6. 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.

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.

7. The Alternatives section is lacking in a detailed analysis of real alternatives to a large central station nuclear generator.

8. 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.

9. The EIS is noticeably weak in analysis and providing information on the key areas of public concern which include terrorism and safety.

10. I am resubmitting comments in my prior scoping letter dated 8/11/2008 (attached). The DEIS asserts that many of these issues have been "resolved" but

they have only been mentioned or deleted from consideration. Please “resolve” them now.

Peace,

Aviv Goldsmith
6147 Hickory Ridge Road
Spotsylvania, VA 22551

Sent via email to NORTHANNA.COLAEIS@nrc.gov

11 August 2008

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

Re: North Anna COL SDEIS

Thank you for the opportunity to provide scoping comments on the COL SDEIS.

In preparing these comments, I have tried to follow the section numbers in the ESL DEIS but since many items come up in several parts of the document, the comments should be considered to apply to all such occurrences. Furthermore, I apologize if comments may be referenced in the wrong section (for example, comments on impacts are given with cites to sections on the existing environment). Unless marked as "COL", references to the DEIS and the SDEIS are to the corresponding ESL document which I understand from your July 14 letter will form the basis for a SDEIS for the COL.

MAJOR COMMENTS:

1. **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.

2. **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.

3. **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.

4. **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?

5. **Throughout the ESL process, the applicant and NRC stated that additional analyses and data would be presented in the COL process**. The public is counting on this approach being adhered to.

OTHER COMMENTS:

6. Public meetings should be held at other locations and times around the region so that interested parties are given the opportunity to be educated and voice their input in a public forum. This would facilitate public participation (which is one of the goals of the NEPA process).

7. It seems that the ESL SDEIS, like the DEIS, was not performed by an unbiased interdisciplinary team as is required by NEPA. For example, Page 1-6 states that "Dominion did not or was unable to provide information and analysis for certain issues sufficient to allow the NRC staff to complete its independent analysis". Thus the issues "are not resolved". The NRC should commission independent sources to develop the required data at this time.

8. The same limited three-year climatological data set that was used in the DEIS was used for the SDEIS (page 2-7 line 3). Is this the same data referred to in Page 5-14 line 22? This may be insufficient to accurately predict ground fog impacts from the project. Furthermore, this data sent is inconsistent with other reporting periods (see DEIS section 5-58 line 38 e.g.) used elsewhere in the document.

9. The impacts to traffic from increased fog occurrence (Page 5-14 line 23) should be addressed.

10. Does the feeding range of bald eagles or loggerhead strikes extend to the North Anna vicinity (Page 2-13 line 32)?

11. 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.

12. 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.

13. 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?

14. 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?

15. 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?

16. 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.

17. 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.

18. 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.

19. 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?

20. 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.

21. Shouldn't the operator's role in decisions to change the normal lake level (Page 5-11, 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.

22. Wouldn't the installation of new unit(s) be an opportunity to mitigate some of the existing problems with water temperature and lake level?

23. 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.

24. 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?

25. 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.

26. 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.

27. 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.

28. 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.

29. 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?

30. 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".

31. Section 5.10 should include a worst case analysis for low-probability events.

32. A common-language summary of section 5.10.2 is required.

33. 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.

34. 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.

35. 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?

36. 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.

37. 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.

38. 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. 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.

39. 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.

40. 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.

41. Table 10-1 acknowledges that increased traffic congestion is unavoidable. This is not congruous with the SMALL impact determination.

42. 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.

43. Overall, the mitigations listed in Section 10 are insufficient. Items such as "consider" plume abatement measures are just one example. Plume abatement should be implemented. 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.

44. The cooling tower will shift much of the thermal load from Lake Anna to the atmosphere. Shouldn't mitigation be required to minimize heat island and climate change impacts? Such mitigation could include tree planting and similar regional measures.

45. 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.

46. 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?

I am available to clarify any of these comments. Thank you for your consideration.

Sincerely,

Aviv Goldsmith
6147 Hickory Ridge Road
Spotsylvania, VA 22551