

NAPSEISComment Resource

From: bredl [bredl@skybest.com]
Sent: Wednesday, March 09, 2011 6:09 PM
To: NorthAnnaCOLEIS Resource
Subject: Docket No. NRC-2008-0149
Attachments: 090320 comments draft SEIS LZ_final.pdf

March 9, 2011

Cindy Bladey, Chief
Rulemaking, Announcements, and Directives Branch
Division of Administrative Services
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
NorthAnnaCOLEIS@nrc.gov
<http://www.regulations.gov>

RE: Docket No. 52-017; NRC-2008-0149
Federal Register / Vol. 76, No. 25 / Monday, February 7, 2011
North Anna Power Station Supplemental Environmental Impact Statement

Dear Ms. Bladey:

On behalf of the Blue Ridge Environmental Defense League, the People's Alliance for Clean Energy and our other chapters and members in Virginia, I submit the attached comments on the North Anna Power Station Supplemental Environmental Impact Statement.

Respectfully,
Louis A. Zeller

Federal Register Notice: 76FR6638
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Blue Ridge Environmental Defense League

www.BREDL.org PO Box 88 Glendale Springs, North Carolina 28629 BREDL@skybest.com (336) 982-2691

March 20, 2009

Chief, Rulemaking Directives and Editing Branch
Division of Administrative Services
Office of Administration
Mail Stop TWB-05-B01M
US Nuclear Regulatory Commission
Washington, DC 20555-0001
NORTHANNA.COLAEIS@nrc.gov

Re: North Anna COL Unit 3, Draft Supplemental EIS, NUREG-1917

Federal Register Notice Vol. 74, No. 15, Monday, January 26, 2009, Page 4475

On behalf of the Blue Ridge Environmental Defense League, I write to submit the following comments on the supplemental environmental impact statement in addition to my statement dated February 3rd.

General Comments

The Nuclear Regulatory Commission suffers from major flaws in carrying out its mission. Aside from the particular problems identified during specific power plants, the Commission itself is critically flawed as a regulatory body. The Combined Operating License process merged construction and operating permits. According to the NRC, the COL process improved regulatory efficiency and added predictability. However, the actual result appears to be exemplified in the following illustration:



*"These new regulations will fundamentally
change the way we get around them."*

Reprinted from *The New Yorker*, March 9, 2009

Esse quam videre

The public's perception is that the agency lacks true independence; that the NRC's review of and approval procedures are incomplete and perfunctory; that the procedural process lacks the essential element of justice and impartiality. Public hearings are held to satisfy the National Environmental Policy Act, comments are submitted, and the paper exercise seems to be the beginning and the end of the procedure.

Specific Comments

High Level Nuclear Waste

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-3 of 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.

So-called Low Level Radioactive Waste

With the closing of the low-level radioactive waste dump in Barnwell, South Carolina to out-of-compact waste, the North Anna Unit 3 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.

Seismicity

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 Unit 1 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.

Hot Water

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. The Environmental Report states:¹

As described in the ESP-ER, the cooling system for Unit 3 will be a closed-cycle, combination dry and wet cooling tower system, with make-up water supplied from Lake Anna. Make-up water will be withdrawn from the North Anna Reservoir through a new intake structure located on a cove on the south shore of the lake, originally planned for the intake of the never-constructed Units 3 and 4. This new structure will be adjacent to the existing units’ intake structure. Cooling system discharges for the existing units and the Unit 3 wet cooling tower blowdown will be sent to the Waste Heat Treatment Facility (WHTF) via the existing discharge canal.

However, a recent court decision remanded NPDES water discharge permit for the 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 under 10 CFR 51.53. 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 the North Anna Unit 3 COLA Environmental Report, Cooling System Information

² Court Ruling of February 20, 2009, Transcript, *BREDL et al v. Commonwealth of Virginia ex rel*, Circuit Court in the City of 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 the NRC.” The draft SEIS does not address these issues.

Radioactive Air Pollution

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. Each type 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.

The BEIR VII Committee 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. & HOEL D.G. (2007) European Journal of Cancer Care 16 , 355–363, Meta-analysis of standardized incidence and mortality rates of childhood leukaemia in proximity to nuclear facilities

⁵ See Richard R. Monson (Chair) et al. Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII – Phase 2. Committee to Assess Health Risks from Exposure to Low Levels of Ionizing Radiation, Board on Radiation Effects Research, National Research Council of the National Academies. Washington, DC: National Academies Press, 2006

Based on these data, the operation of Unit 3 at 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.

Thank you for the opportunity to provide these comments.

Respectfully submitted,

A handwritten signature in black ink, reading "Louis A. Zeller", followed by a horizontal line.

Louis A. Zeller, Science Director