



Nuclear Regulatory Commission
Exhibit # - JTI000052-00-BD01
Docket # - 05200011
Identified: 03/17/2009

Admitted: 03/17/2009
Rejected:

Withdrawn:
Stricken:

JTI000052

DOMINION NUCLEAR NORTH ANNA, LLC

NORTH ANNA ESP SITE

DOCKET NO. 52-008

EARLY SITE PERMIT

Early Site Permit No. ESP-003

1. The U.S. Nuclear Regulatory Commission (the NRC or the Commission) has found the following:
 - A. The application for an early site permit (ESP) filed by Dominion Nuclear North Anna, LLC (Dominion or the permit holder) complies with the applicable requirements of the Atomic Energy Act of 1954, as amended, and the applicable rules and regulations of the Commission, and all required notifications to other agencies or bodies have been duly made.
 - B. Based on consideration of the site criteria contained in Title 10, Part 100, "Reactor Site Criteria," of the *Code of Federal Regulations* (10 CFR Part 100), a reactor, or reactors, having design characteristics that fall within the site characteristics and controlling parameters of the North Anna ESP Site can be constructed and operated without undue risk to the health and safety of the public.
 - C. There is reasonable assurance that the permit holder will comply with the regulations in 10 CFR Chapter I and the health and safety of the public will not be endangered.
 - D. Issuance of an ESP to the permit holder will not be inimical to the common defense and security or the health and safety of the public.
 - E. There is no significant impediment to the development of emergency plans, as referenced in 10 CFR 52.17(b)(1), "Contents of Applications," and 10 CFR 52.18, "Standards for Review of Applications." The descriptions of contacts and arrangements made with Federal, State, and local governmental agencies with emergency planning responsibilities, as set forth in 10 CFR 52.17(b)(3), are acceptable. Major features A, B, C, D, E, F, G, I, J, K, L, O, and P of the emergency plan are acceptable to the extent specified in NUREG-1835, "Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna ESP Site," issued September 2005.
 - F. The issuance of this ESP, subject to the Environmental Protection Plan (EPP) and the conditions for the protection of the environment set forth herein, is in accordance with the National Environmental Policy Act of 1969, as amended, and with applicable sections of 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and

Table D-1. Plant Parameter Envelope (PPE) (Table I-2 in FEIS) (cont.)

Item	Single Unit Value (Second New Unit Value)	Description and References	
<ul style="list-style-type: none"> • Blowdown Constituents and Concentrations 	<ul style="list-style-type: none"> • Free Available Chlorine <0.3 ppm • Copper <1 ppm • Iron <1 ppm • Sulfate <300 ppm • Total Dissolved Solids <3000 ppm 	<ul style="list-style-type: none"> • The maximum expected concentrations for anticipated constituents in the cooling water system blowdown to the WHTF 	
Heat Rejection Rate	$\leq 1.03 \times 10^{10}$ Btu/h	<ul style="list-style-type: none"> • The expected maximum heat rejection rate to the atmosphere during normal operation at full station load 	
Noise	<65 dBA EAB	<ul style="list-style-type: none"> • Maximum expected sound level at the EAB from operation of the cooling towers 	
<ul style="list-style-type: none"> • Unit 4 Dry Cooling Towers 	Evaporation Rate	None or negligible (on the order of 1 gpm, average)	<ul style="list-style-type: none"> • The expected rate at which water is lost by evaporation from the cooling water system
Height	≤ 180 ft	<ul style="list-style-type: none"> • The vertical height above finished grade of the cooling towers 	

Table D-1. Plant Parameter Envelope (PPE) (Table I-2 in FEIS) (cont.)

Item	Single Unit Value (Second New Unit Value)	Description and References
Makeup Flow Rate	None or negligible (on the order of 1 gpm, average)	<ul style="list-style-type: none"> The expected rate of removal of water from Lake Anna to replace evaporative water losses from the cooling water system
Noise	<60 dBA at EAB	<ul style="list-style-type: none"> Maximum expected sound level at the EAB from operation of the cooling towers
Heat Rejection Rate	$\leq 1.03 \times 10^{10}$ Btu/h	<ul style="list-style-type: none"> Waste heat rejected to the atmosphere from the cooling water system, during normal plant operation at full station load