

April 6, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
)
DOMINION VIRGINIA POWER) Docket No. 052-017-COL
)
(North Anna Nuclear Power Station, Unit 3))

NRC STAFF RESPONSES TO POST-HEARING QUESTIONS

Pursuant to the Commission's Order (Transmitting Post-Hearing Questions) of March 30, 2017, the Staff of the U.S. Nuclear Regulatory Commission hereby responds to the questions posed in that Order. The response to Question 2 is in Attachment A to this filing, and the revised draft combined license requested in Question 1 is in Attachment B. A revised Staff exhibit list that includes this filing as Exhibit NRC-013 is being submitted separately.

/Signed (electronically) by/
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Dated at Rockville, Maryland
This 6th day of April 2017

ATTACHMENT A

NRC Staff Responses to Post-Hearing Questions

NRC STAFF RESPONSES TO COMMISSION POST-HEARING QUESTIONS

1. **The Staff referenced several revisions to the draft combined license for North Anna Power Station, Unit 3, both at the mandatory hearing and in its responses to pre-hearing question 8, regarding License Conditions 2.B.(1)(a) and (b), and prehearing question 10, regarding License Condition 2.D.(12)(f)2. See, e.g., Ex. NRC-004, *NRC Staff Responses to Commission Pre-Hearing Questions* (Mar. 2, 2016), at 6-7. Please provide a revised draft license with all proposed changes identified in redline-strikeout text.**

Staff Response: The staff proposed revisions to the draft combined license based on the Pre-Hearing questions for North Anna 3, as shown in Attachment B. In addition, the staff has proposed additional administrative changes based on comments from Dominion.

2. **At the hearing, the Staff committed to providing a written response regarding the history behind License Condition 2.D.(11) with respect to the requirement that the schedule for implementation of the operational programs listed in FSAR Table 13.4-201, "Operational Programs Required by NRC Regulations," include site-specific Severe Accident Management Guidelines. Additionally, Dominion's response to pre-hearing question 7 references the design certification document procedures involving the development of an accident management program and severe accident guidelines. Ex. DVP-003, *Dominion Virginia Power's Responses to Pre-Hearing Questions* (Mar. 2, 2017), at 11-12. Please provide the history of the requirement, including a discussion of any requirements contained in the certified design and how they relate to the license condition.**

Staff Response: When discussing implementation of severe accident management guidelines (SAMGs) for new reactors, it is important to review the history of how the severe accident issue has been resolved for new reactors. Resolution of the severe accident issue for new reactors began with the Commission's Severe Accident Policy Statement issued in 1985 (50 FR 32128, "Severe Reactor Accidents Regarding Future Designs and Existing Plants," *Federal Register*, Volume 50, No. 153, pp. 32138-32150, August 8, 1985) and continued with issuance of the Commission's policy statement on regulation of advanced reactors (59 FR 35461, "Regulation of Advanced Nuclear Power Plants: Statement of Policy," *Federal Register*, Volume 59, No. 132, pp. 35461-35462, July 12, 1994) issued in 1994. A fundamentally different approach was used to address the severe accident issue for new reactors compared to operating reactors.

In the 1990s, the NRC established specific policies on severe accidents related to new reactors that included requiring design-specific plant features to prevent severe accidents (e.g., anticipated transients without scram, station blackout, intersystem loss of coolant accident, fire) and mitigate severe accident conditions (e.g., hydrogen combustion, core concrete interaction, high pressure melt ejection, steam explosions and containment bypass). The staff submitted the policy positions to the Commission (e.g., U.S. Nuclear Regulatory Commission, SECY-90-016, "Evolutionary Light-Water Reactor (LWR) Certification Issues and their Relationship to Current Regulatory Requirements," January 12, 1990 (ADAMS Accession No. ML003707849), U.S. Nuclear Regulatory Commission, SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor Designs," April 2, 1993 (ADAMS Accession No. ML003708021)) and requested Commission approval to require new reactors (e.g., Advanced Boiling Water Reactor, Westinghouse RESAR SP-90, System 80+, AP600) to add specific design features to resolve severe accidents. The Commission agreed through a series of Staff Requirements Memoranda (U.S. Nuclear Regulatory Commission, SRM-SECY-

90-016, "Evolutionary Light-Water Reactor (LWR) Certification Issues and their Relationship to Current Regulatory Requirements," June 26, 1990. (ADAMS Accession No. ML003707885), U.S. Nuclear Regulatory Commission, SRM-SECY-93-087, "Policy, Technical, and Licensing Issues Pertaining to Evolutionary and Advanced Light-Water Reactor Designs", July 21, 1993. (ADAMS Accession No. ML003708056)). The NRC staff used the Commission-approved positions to require new reactor applicants to address and resolve severe accidents through the design-specific probabilistic risk assessments (PRAs), severe accident design features, and severe accident analysis. These requirements were incorporated into 10 CFR 52.47(a)(23) and (27) in 2007. This regulation does not include a specific requirement for implementation of SAMGs. However, the staff expects as a logical outgrowth of these provisions that some type of accident management guidance would be necessary if manual operation of severe accident features is needed for the purpose of mitigating a severe accident, and for the plant's response and risk profile as modeled in the PRA to be realized. For example, guidelines and procedures are needed to operate severe accident design features in the various new reactor designs, such as those related to containment venting and containment flooding for the Economic Simplified Boiling Water Reactor (ESBWR) design. For this reason, the staff engaged with new reactor applicants (both design certification and combined license) during the licensing review on their plans for development of SAMGs, while at the same time being cognizant of the fact that no explicit regulatory requirement existed that required the use of SAMGs. These engagements ultimately led to an AP1000 Design Certification Document combined license item and the Vogtle combined license applicant proposing (and the staff approving) a license condition for the Vogtle and subsequent sites as discussed in Section V.a. "Severe Accident Management Guidelines" of SECY-16-0076, "Staff Statement in Support of Uncontested Hearing for Issuance of Combined Licenses for the Levy Nuclear Plant Units 1 and 2 (Docket Nos. 52-029 and 52-030)." The staff notes that the SAMG license condition is a "scheduler" license condition (i.e., when to develop and implement SAMGs), and does not itself impose substantive SAMG requirements. Specifically, the license condition requires that the licensee provide, and update as necessary, a schedule for implementation of site specific Severe Accident Management Guidance.

SAMG Commitments for ESBWR Licensees

The vendor of the ESBWR design did not develop severe accident management guidance, but rather developed a plan for developing such guidance as described in NEDO-33274, Revision 2, "ESBWR Human Factors Engineering Procedures Development Implementation Plan," issued March 2007 (ADAMS Accession Nos. ML070810993, ML070811048). This document presents the processes and methodologies to be used in the development of plant procedures, including ESBWR severe accident guidelines and the ESBWR SAMGs derived from them. Consequently, the ESBWR Design Certification Document did not include a combined license (COL) action item for a combined license holder referencing the design to implement severe accident management guidance on a site-specific basis. However, in light of the license conditions related to SAMGs incorporated by the AP1000 COL holders, the COL applicant for Fermi, Unit 3, which references the ESBWR, proposed a license condition that required a schedule for implementing site-specific severe accident management guidance, as well as periodic schedule updates. For consistency within the ESBWR design center, the COL applicant for North Anna, Unit 3 proposed a similar condition in its application.

Industry Initiative to Maintain SAMGs

By letter dated October 26, 2015 (ADAMS Accession No. ML15335A442), the Nuclear Energy Institute (NEI) informed the NRC of an industry initiative to maintain SAMGs and to expect

individual, written commitments from each licensee confirming their plans to follow the approach to maintaining SAMGs described by NEI. This industry commitment was not specific as to whether it applied only to operating reactors, or to both operating and new reactors. In its response to the NEI letter (Letter from William M. Dean (NRC) to Anthony R. Pietrangelo (NEI), dated February 23, 2016 (ADAMS Accession No.ML16032A029)), the staff acknowledged that it had received commitment letters for operating reactors, and outlined its approach for addressing these commitments through implementation of the Commission's directive (Staff Requirements Memorandum, "Staff Requirements-SECY-15-0065 – Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events," August 27, 2015, (ADAMS Accession No. ML15239A767)) to update the Reactor Oversight Process to explicitly provide periodic oversight of industry's implementation of the SAMGs. The staff notes that letters similar to those received from operating reactor licensees have not been received from COL licensees. Until such time as a written commitment is received from each COL licensee confirming its plans to follow the approach to maintaining SAMGs described by NEI, the SAMG license condition or commitment approach, as described above for the COL holders referencing the certified ESBWR design, provides a regulatory mechanism to transition between construction and operation of new reactors.

ATTACHMENT B

Revised Draft
Combined License

COMBINED LICENSE

NORTH ANNA UNIT 3

VIRGINIA ELECTRIC AND POWER COMPANY~~DOMINION VIRGINIA POWER~~
(doing business as Dominion Virginia Power)

Docket No. 52-017

License No. NPF-[XXX]

1. The U.S. Nuclear Regulatory Commission (NRC, or the Commission) has found that:
 - A. The application for a combined license (COL) for North Anna Unit 3 at the North Anna Power Station (NAPS) site filed by Virginia Electric and Power Company, doing business as Dominion Virginia Power (Dominion, or the licensee), acting on behalf of itself, herein referred to as “the North Anna owner,” which incorporates by reference Appendix E, “Design Certification Rule for the ESBWR Design,” to Title 10 of the *Code of Federal Regulations* (10 ~~CFR~~~~FCR~~) Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants,” and Early Site Permit (ESP) No. ESP-003, complies with the applicable standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. There is reasonable assurance that the facility will be constructed and will operate in conformity with the application, as amended, the provisions of the Act, and the Commission regulations set forth in 10 CFR Chapter I, except as exempted from compliance in Section 2.F below;
 - C. There is reasonable assurance ~~that~~ (1) that the activities authorized by this COL can be conducted without endangering the health and safety of the public and (2) that such activities will be conducted in compliance with the Commission regulations set forth in 10 CFR Chapter I, except as exempted from compliance in Section 2.F below;
 - D. Dominion is technically qualified to engage in the activities authorized by this license in accordance with the Commission regulations set forth in 10 CFR Chapter I. The North Anna owner is financially qualified to engage in the activities authorized by this COL in accordance with the Commission regulations set forth in 10 CFR Chapter I;
 - E. The North Anna owner has satisfied the applicable provisions of 10 CFR Part 140, “Financial Protection Requirements and Indemnity Agreements.”⁷ ₁
 - F. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - G. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering reasonable available

alternatives, the issuance of this license subject to the conditions for protection of the environment set forth herein is in accordance with Subpart A, "National Environmental Policy Act-Regulations Implementing Section 102(2)," of 10 CFR Part 51 "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," and all applicable requirements have been satisfied; and

H. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by this license will be in accordance with the applicable regulations in 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"; 10 CFR Part 40, "Domestic Licensing of Source Material"; and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material."

2. On the basis of the foregoing findings regarding this facility, COL No. NPF-[XXX] is hereby issued to Dominion (the licensee), to read as follows:

A. This COL applies to North Anna Unit 3, a light-water nuclear reactor and associated equipment (the facility), owned by Dominion. The facility would be located on the existing NAPS site; adjacent to and generally west of the existing Units 1 and 2. The NAPS site is located in Louisa County, Virginia, approximately 40 miles north northwest of Richmond, Virginia.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

(1) ~~(a)~~ Dominion, pursuant to Sections 103 and 185b. of the Act and 10 CFR Part 52, to construct, possess, use, and operate the facility at the designated location in accordance with the procedures and limitations set forth in this license;

~~(b) Dominion, pursuant to the Act and 10 CFR Part 52, to possess but not operate the facility at the designated location in Louisa County, Virginia, in accordance with the procedures and limitations set forth in this license;~~

(2) (a) Dominion, pursuant to the Act and 10 CFR Part 70, to receive and possess at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and in amounts necessary for reactor operation, described in the final safety analysis report (FSAR), as supplemented and amended; and

(b) Dominion, pursuant to the Act and 10 CFR Part 70, to use special nuclear material as reactor fuel, after a Commission finding under 10 CFR 52.103(g) has been made, in accordance with the limitations for storage and in amounts necessary for reactor operation, described in the FSAR, as supplemented and amended;

(3) (a) Dominion, pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, and use, at any time before a Commission finding under 10 CFR 52.103(g), such byproduct and special nuclear material as sealed neutron sources for reactor startup,

sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as necessary; ~~and~~

(b) Dominion, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, after a Commission finding under 10 CFR 52.103(g), any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as necessary; ~~;~~

(4) (a) Dominion, pursuant to the Act and 10 CFR Parts 30 and 70, to receive, possess, and use, before a Commission finding under 10 CFR 52.103(g), in amounts not exceeding those specified in 10 CFR 30.35(d) and 10 CFR 70.25(d) required for establishing decommissioning financial assurance, any byproduct or special nuclear material that is (1) in unsealed form; (2) on foils or plated surfaces, or (3) sealed in glass, for sample analysis or instrument calibration or other activity associated with radioactive apparatus or components; ~~and~~

(b) Dominion, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, after a Commission finding under 10 CFR 52.103(g), in amounts as necessary, any byproduct, source, or special nuclear material without restriction as to chemical or physical form, for sample analysis or instrument calibration or other activity associated with radioactive apparatus or components but not uranium hexafluoride; ~~and~~

(5) Dominion, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. The license is subject to, and the licensee shall comply with, all applicable provisions of the Act and the rules, regulations, and orders of the Commission, including the conditions set forth in 10 CFR Chapter I, now or hereafter in effect.

D. The license is subject to, and Dominion shall comply with, the conditions specified and incorporated below:

(1) Changes during Construction

(a) Dominion may request use of a preliminary acceptability review (PAR) process, for license amendments, at any time before a Commission finding under 10 CFR 52.103(g). To use the PAR process, Dominion shall submit a written request to the Office of New Reactors (NRO) in accordance with COL-ISG-025, "Changes during Construction under Part 52."

(b) Before NRO's issuance of a written PAR notification, Dominion shall submit the license amendment request (LAR). Thereafter, NRO will issue a written PAR notification, setting forth whether Dominion may proceed in accordance with the PAR, LAR, and COL-ISG-025. If Dominion elects to proceed and the LAR is

subsequently denied, Dominion shall return the facility to its current licensing basis.

(2) Startup Administration Manual (SAM), Preoperational and Startup Test Procedures

- (a) Prior to initiating the plant's initial test program (ITP), a site-specific SAM (procedures), which includes administrative procedures and requirements that govern the activities associated with the plant ITP, is to be provided to on-site NRC inspectors 60 days prior to beginning of the ~~preparation~~-preoperational test phase.
- (b) Dominion will make available to on-site NRC inspectors preoperational test procedures 60 days prior to their intended use and startup test procedures 60 days prior to fuel load.
- (c) Dominion will make available to on-site NRC inspectors site-specific preoperational test procedures 60 days prior to their intended use and startup test procedures 60 days prior to fuel load.

(3) Nuclear Fuel Loading and Pre-Critical Testing

- (a) [RESERVED]
- (b) Upon a Commission finding in accordance with 10 CFR 52.103(g) that all the acceptance criteria in the inspections, tests, analyses, and acceptance criteria (ITAAC) in Appendix C to this license are met, Dominion is authorized to perform pre-critical tests in accordance with the conditions specified herein;
- (c) Dominion shall perform the pre-critical tests identified in ESBWR DCD, Revision 10, Sections 14.2.6 "Initial Fuel Loading and Initial Criticality," and 14.2.8.2 "General Discussion of Startup Tests-";
- (d) Dominion shall review and evaluate the results of the tests identified in Condition 2.D.(3)(c) of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with ESBWR DCD, Revision 10, Section 14.2.8.2; and
- (e) Dominion shall notify the Director of NRO, or the Director's designee, in writing, upon successful completion of the pre-critical tests identified in Condition 2.D.(3)(c) of this license.

(4) Initial Criticality and Low-Power Testing

(a) Upon submission of the notification required by Condition 2.D.(3)(e) of this license, Dominion is authorized to operate the facility at reactor steady-state core power levels not to exceed 5-percent thermal power in accordance with the conditions specified herein;

(b) Dominion shall perform the following:

1. the initial criticality and low-power tests identified in ESBWR DCD, Revision 10, Sections 14.2.6, "Initial Fuel Loading and Initial Criticality," 14.2.7, "Test Program Schedule and Sequence," ~~and tests and~~
2. the Reactor Pre Critical Heatup with Reactor Water Cleanup/Shutdown Cooling (RWCU/SDC) Natural Core Circulation Test (first of a kind test as identified in ESBWR DCD, Revision 10, Section 14.2.8.2.35.1, "Reactor Pre Critical Heatup With RWCU/SDC,") and the Isolation Condenser Performance Test and Heatup and Steady State Operation Test (first of a kind test) as identified in ESBWR DCD, Revision 10, Sections 14.2.8.2.34, "Isolation Condenser Performance Test," and 14.2.8.2.35.2, "Isolation Condenser System Heatup and Steady State Operation."

(c) Dominion shall review and evaluate the results of the tests identified in:

1. Condition 2.D.(4)(b)1. of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with ESBWR DCD, Revision 10, Section 14.2.6, 14.2.7, ~~and~~, 14.2.8.2; and
2. Condition 2.D.(4)(b)2. of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with ESBWR DCD, Revision 10, Section 14.2.8.2, ~~and~~

(d) Dominion shall notify the Director of NRO, or the Director's designee, in writing, upon successful completion of initial criticality and low-power tests identified in Condition 2.D.(4)(b) of this license, including the design-specific tests identified therein.

(5) Power Ascension Testing

(a) Upon submission of the notification required by Condition 2.D.(4)(d) of this license, Dominion is authorized to operate the facility at reactor steady-state core power levels not to exceed 100-percent thermal power in accordance with the

conditions specified herein, but only for the purpose of performing power ascension testing.

(b) Dominion shall perform:

1. the power ascension tests identified in the ESBWR DCD, Revision 10, Section 14.2.8.2 and Table 14.2-1, "Power Ascension Test Matrix"; and
2. the design-specific startup tests identified below:
 - (i) Core Performance Test (first of a kind test as identified in ESBWR Design Control Document (DCD), Revision 10, Section 14.2.8.2.7);
 - (ii) Power Maneuvering in the Feedwater (FW) Temperature Operation Domain Test (first of a kind test as identified in ESBWR DCD, Revision 10, Section 14.2.8.2.35.3, "Power Maneuvering In the FW Temperature Operating Domain");
 - (iii) Load Maneuvering Capability Test (first of a kind test as identified in ESBWR DCD, Revision 10, Section 14.2.8.2.35.4, "Load Maneuvering Capability"); and
 - (iv) Defense-In-Depth Stability Solution Evaluation Test (first of a kind plant test as identified in ESBWR DCD, Revision 10, Section 14.2.8.2.35.5, "Defense-In-Depth Stability Solution Evaluation Test").

(c) Dominion shall review and evaluate the results of the tests identified in:

1. Condition 2.D.(5)(b)1. of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with ESBWR DCD, Revision 10, Section 14.2.8.2; and
2. Condition 2.D.(5)(b)2. of this license and confirm that these test results are within the range of acceptable values predicted or otherwise confirm that the tested systems perform their specified functions in accordance with ESBWR DCD, Revision 10, Section 14.2.8.2; and

(d) Dominion shall notify the Director of NRO, or the Director's designee, in writing, upon successful completion of power ascension tests identified in Condition 2.D.(5)(b) of this license, including the design-specific tests identified therein.

(6) Maximum Power Level

Upon submission of the notification required by Condition 2.D.(5)(d) of this license, Dominion is authorized to operate the facility at steady state reactor core power levels not to exceed 4500 megawatts thermal (100-percent thermal power), as described in the FSAR, in accordance with the conditions specified herein.

(7) Reporting Requirements

(a) Within 30 days of a change to the initial test program described in FSAR Section 14, "Initial Test Program," made in accordance with 10 CFR 50.59, "Changes, Tests and Experiments," or in accordance with 10 CFR Part 52, Appendix E, Section VIII, "Processes for Changes and Departures," Dominion shall report the change to the Director of NRO, or the Director's designee, in accordance with 10 CFR 50.59(d); ~~and-~~

(b) Dominion shall report any violation of a requirement in Conditions 2.D.(3), 2.D.(4), 2.D.(5), and 2.D.(6) of this license within 24 hours. Initial notification shall be made to the NRC Operations Center in accordance with 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," with written follow up in accordance with 10 CFR 50.73, "License Event Report System.:-

(8) Incorporation

The Technical Specifications, Environmental Protection Plan, and ITAAC in Appendices A, B, and C, respectively, of this license are hereby incorporated into this license.

(9) Technical Specifications

The technical specifications in Appendix A to this license become effective upon a Commission finding that the ITAAC are met in accordance with 10 CFR 52.103(g).

(10) Operational Program Implementation

Dominion shall implement the following:

(a) the Environmental Qualification Program implemented before initial fuel load;

(b) the Flow-Accelerated Corrosion Program implemented prior to commercial service;

(c) the Reactor Vessel Material Surveillance Program implemented before initial fuel load;

- (d) the Preservice Testing Program implemented prior to initial fuel load;
- (e) the Containment Leakage Rate Testing Program implemented before initial fuel load;
- (f) the Fire Protection Program (for elements necessary to support receipt and storage of fuel) prior to initial receipt of fuel:
 - 1. The fire protection measures in accordance with Regulatory Guide (RG) 1.189, "Fire Protection for Nuclear Power Plants," for designated storage building areas (including adjacent fire areas that could affect the storage area) implemented before initial receipt of byproduct or special nuclear materials that are not fuel (excluding exempt quantities as described in 10 CFR 30.18, "Exempt Quantities");
 - 2. The fire protection measures in accordance with RG 1.189 for new fuel storage area (including adjacent fire areas that could affect the new fuel storage area) implemented before receipt of fuel onsite;
 - 3. Before receipt of fuel on site, a formal letter of agreement shall be in place with the local fire department specifying the arrangements in support of the Fire Protection Program; and
 - 4. All fire protection program features implemented before initial fuel load;
- (g) the Standard Radiological Effluent Controls implemented before initial fuel load;
- (h) the Offsite Dose Calculation Manual implemented before initial fuel load;
- (i) the Radiological Environmental Monitoring Program implemented before initial fuel load;
- (j) the Process Control Program implemented before initial fuel load;
- (k) the Lifecycle Minimization of Contamination Program implemented before initial fuel load;
- (l) the Radiation Protection Program (RPP) (including ALARA principle) or applicable portions thereof as identified in FSAR Section 12.5, "Operational Radiation Protection Program":
 - 1. RPP features applicable to receipt of by-product, source, or special nuclear materials (excluding exempt quantities as described in 10 CFR 30.18) implemented before initial receipt of such materials;

2. RPP features (including the ALARA principle) applicable to new fuel implemented before receipt of initial fuel on site;
3. All other RPP features (including the ALARA principle) except for those applicable to control radioactive waste shipment implemented before initial fuel load; and
4. RPP features (including the ALARA principle) applicable to radioactive waste shipment implemented before first shipment of radioactive waste;

(m) the Initial Test Program:

1. Preoperational Test Program implemented 60 days before the first preoperational test;
2. Startup Test Program implemented 60 days before initial fuel load;

(n) the Special Nuclear Material Control and Accounting Program implemented before initial receipt of special nuclear material;

(o) the Special Nuclear Material Physical Protection Plan for special nuclear material of low strategic significance implemented before transport of special nuclear material of low strategic significance or initial receipt of special nuclear material of low strategic significance on site; and

(p) the Reactor Operator Training Program implemented no later than 18 months before scheduled fuel load.

(11) Operational Program Implementation Schedule

No later than 12 months after issuance of the COL, Dominion shall submit to the Director of NRO, or the Director's designee, a schedule for implementation of the operational programs listed in FSAR Table 13.4-201, "Operational Programs Required by NRC Regulations," including the associated estimated date for initial loading of fuel. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until all the operational programs listed in FSAR Table 13.4-201 have been fully implemented. This schedule shall also address:

- (a) The implementation of site specific Severe Accident Management Guidelines;²⁵ and
- (b) The spent fuel rack coupon monitoring program implementation.

(12) Site- and Unit-specific Conditions

(a) Steam Dryer Monitoring Plan

1. Dominion shall prepare a Steam Dryer Monitoring Plan (SDMP) and submit the SDMP to the NRC no later than 90 days before the scheduled date for initial fuel loading.
2. Dominion shall provide Power Ascension Test (PAT) procedures for steam dryer monitoring to the NRC resident inspectors at least 10 days before the scheduled date for initial fuel loading. The PAT procedures must include the following:
 - (i) Level 1 and Level 2 acceptance limits, as defined in Report NEDE-33313P, "ESBWR Steam Dryer Structural Evaluation," (Revision 5, December 2013), for on-dryer strain gage and on-dryer accelerometer measurements to be used up to 100 percent power;
 - (ii) The power levels at which the steam dryer will be monitored (subject to Conditions 2.D.(12)(a)3. and 2.D.(12)(a)4. of this license) during power ascension, and the duration of monitoring at each power level;
 - (iii) A description of activities to be accomplished during monitoring at each power level;
 - (iv) Plant parameters to be monitored;
 - (v) A description of the actions to be taken if acceptance criteria are not satisfied; and
 - (vi) A description of the process for verification of the completion of commitments and planned actions specified in the PAT procedures.
3. Dominion shall complete the actions specified in Item 2 of the model license condition specified in paragraph (c) of Section 10.2, "Comprehensive Vibration Program Elements for a COL Applicant," in NEDE-33313P, (Revision 5) between 65 and 75 percent thermal power.
4. Dominion shall measure, record, and evaluate pressures, strains, and accelerations from the steam dryer instrumentation at power levels approximately 5 percent higher than the previous power level at which Dominion measured, recorded, and evaluated such parameters until 100 percent thermal power is reached. Dominion shall generate data trending and a projection of strain levels for each successive power level, including full power. Dominion shall use data trending analysis to assess whether the Level 1 or Level 2 acceptance limits would be exceeded at the

next higher power level for which the PAT specifies monitoring. Dominion shall provide the data trending results and revised limit curves to the NRC project manager by facsimile or electronic transmission.

5. At each power level for which Conditions 2.D.(12)(a)3. and 2.D.(12)(a)4. of this license require steam dryer monitoring, Dominion shall measure and record pressure, strain, and acceleration responses over a range of plant conditions sufficient to confirm that loading and fatigue effects from normal variations in plant conditions at power levels up to and including 100 percent thermal power will not adversely affect the life of the dryer. Dominion shall include its evaluation of steam dryer performance during such variations in plant conditions, including during Power Maneuvering in the Feedwater Temperature Operating Domain testing, in the dryer structural response as part of the full stress analysis report described in Condition 2.D.(12)(a)9. of this license.
6. If a flow-induced resonance is identified at any power level at which Conditions 2.D.(12)(a)3 and 2.D.(12)(a)4. of this license require steam dryer monitoring, and the strains or vibrations exceed the pre-determined Level 1 or Level 2 limit curve, Dominion shall cease power ascension until completing the actions specified in Item 5 of the model license condition specified in paragraph (c) of Section 10.2 in NEDE-33313P, (Revision 5) and the following:
 - (i) If a Level 1 limit curve is exceeded, Dominion shall reduce power to the last power level at which Dominion performed steam dryer monitoring pursuant to Conditions 2.D.(12)(a)3. and 2.D.(12)(a)4. of this license and at which the Level 1 limit curve was not exceeded. Dominion shall perform a stress analysis to develop a new Level 1 limit curve before increasing power to the next level at which Condition 2.D.(12)(a)4. of this license requires steam dryer monitoring; ~~and-~~
 - (ii) If a Level 2 limit curve is exceeded, or if data trending indicates that a Level 1 limit curve may be challenged before the next power level at which Condition 2.D.(12)(a)4. of this license requires steam dryer monitoring is reached, Dominion shall evaluate the Level 1 and Level 2 limit curves and perform a stress analysis that demonstrates that the stress acceptance limits are satisfied at the higher power level before power is increased.
7. Dominion shall determine end-to-end bias and uncertainties by comparing the predicted and measured strain or acceleration on the steam dryer at each power level at which Dominion performs steam dryer monitoring pursuant to Conditions 2.D.(12)(a)3. and 2.D.(12)(a)4. of this license and confirm the conservatism of the predicted dryer stress field. At each such power level,

Dominion shall adjust the predicted strain and acceleration responses using the frequency-dependent end-to-end bias errors and uncertainty values. If any of the measured sensor data at that power level exceeds the adjusted predictions, Dominion shall either (a) modify the bias errors and uncertainty values and limit curves and ensure measured sensor responses do not exceed the adjusted predictions, or (b) quantitatively evaluate the effect on fatigue life.

8. At the initial power level at which Condition 2.D.(12)(a)3. of this license requires steam dryer monitoring and at approximately 85 and 95 percent power, Dominion shall provide the steam dryer data analysis and results to the NRC project manager by facsimile or electronic transmission; and shall not exceed the power level at which it performed the steam dryer monitoring for at least 72 hours after the NRC project manager has confirmed receipt of the transmission.
9. Dominion shall provide data collected from the steam dryer monitoring required by Condition 2.D.(12)(a)4. of this license at 100 percent power to the NRC project manager by facsimile or electronic transmission within 72 hours of completing the collection of that data, with receipt confirmation from the NRC project manager. Dominion shall submit a full stress analysis report and evaluation to the NRC document control desk in accordance with 10 CFR 52.3 within 90 days of first reaching 100 percent thermal power. The report must include the minimum stress ratio and the final dryer load definition using steam dryer data, and associated bias errors and uncertainties, and must demonstrate that the steam dryer will maintain its structural integrity over its design life considering variations in plant parameters, including, but not limited to, reactor pressure and core flow rate. If the structural integrity of the steam dryer for the full plant life is not demonstrated by the stress analysis, Dominion shall describe its compensatory actions, such as future dryer replacement, in the stress analysis report.
10. Dominion shall implement a periodic steam dryer inspection program as follows:
 - (i) During the first two refueling outages after first reaching 100 percent thermal power, Dominion shall perform a visual inspection of all accessible areas and susceptible locations of the steam dryer in accordance with industry guidance on steam dryer inspections in the latest NRC staff-approved version of BWRVIP-139-A, "BWR Vessel and Internals Project, Steam Dryer Inspection and Flaw Evaluation Guidelines," with any conditions or limitations specified in the NRC staff approval. The results of these baseline inspections shall be submitted to the NRC within 60 days following startup after each outage; ~~and-~~

- (ii) At the end of the second refueling outage after reaching 100 percent thermal power, Dominion shall update the Steam Dryer Monitoring Program to include a long-term inspection plan based on plant-specific and industry operating experience, and shall submit the updated program to the NRC within 180 days following startup from the second refueling outage.
- (b) No later than one hundred eighty (180) days before the date scheduled for initial fuel load set forth in the notification submitted in accordance with 10 CFR 52.103(a), Dominion shall submit to the Director of NRO, or the Director's designee, in writing, a fully developed set of plant-specific emergency action levels (EALs), in accordance with NEI 07-01, "Methodology for Development of Emergency Action Levels – Advanced Passive Light Water Reactors," Revision 0, with no deviations. The EALs shall have been discussed and agreed upon with State and local officials.
- (c) No later than eighteen (18) months before the latest date set forth in the schedule submitted in accordance with 10 CFR 52.99(a) for completing the inspections, tests, and analyses in the ITAAC, Dominion shall have performed a detailed staffing analysis, in accordance with NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," Revision 0.

No later than one hundred eighty (180) days before the date scheduled for initial fuel load set forth in the notification submitted in accordance with 10 CFR 52.103(a), Dominion shall have revised the Emergency Plan to incorporate any changes identified in the staffing analysis that are needed to bring staffing to the required levels.

- (d) Before initial fuel load, Dominion shall:
 - 1. Implement a surveillance program for explosively actuated valves (squib valves) in the Gravity Driven Cooling System and the Automatic Depressurization System at North Anna Unit 3 that includes the following provisions in addition to the requirements specified in the American Society of Mechanical Engineers (ASME) "Code for Operation and Maintenance of Nuclear Power Plants" (OM Code) as incorporated by reference in 10 CFR 50.55a.

- (i) Preservice Testing

All explosively actuated valves shall be preservice tested by verifying the operational readiness of the actuation logic and associated electrical circuits for each explosively actuated valve with its pyrotechnic charge removed from the valve. This must include confirmation that sufficient electrical parameters (voltage, current, and resistance) are available at

the explosively actuated valve from each circuit that is relied upon to actuate the valve. In addition, a sample of at least 20 percent of the pyrotechnic charges in all explosively actuated valves shall be tested in the valve or a qualified test fixture to confirm the capability of each sampled pyrotechnic charge to provide the necessary motive force to operate the valve to perform its intended function without damage to the valve body or connected piping. The sampling must select at least one explosively actuated valve from each redundant safety train. Corrective action shall be taken to resolve any deficiencies identified in the operational readiness of the actuation logic or associated electrical circuits, or the capability of a pyrotechnic charge. If a charge fails to fire or its capability is not confirmed, all charges with the same batch number shall be removed, discarded, and replaced with charges from a different batch number that has demonstrated successful 20 percent sampling of the charges.

(ii) Operational Surveillance

Explosively actuated valves shall be subject to the following surveillance activities after commencing plant operation:

- a. At least once every 2 years, each explosively actuated valve shall undergo visual external examination and remote internal examination (including evaluation and removal of fluids or contaminants that may interfere with operation of the valve) to verify the operational readiness of the valve and its actuator. This examination shall also verify the appropriate position of the internal actuating mechanism and proper operation of remote position indicators. Corrective action shall be taken to resolve any deficiencies identified during the examination with post-maintenance testing conducted that satisfies the PST requirements.
- b. At least once every 10 years, each explosively actuated valve shall be disassembled for internal examination of the valve and actuator to verify the operational readiness of the valve assembly and the integrity of individual components and to remove any foreign material, fluid, or corrosion. The examination schedule shall provide for each valve design used for explosively actuated valves at the facility to be included among the explosively actuated valves to be disassembled and examined every 2 years. Corrective action shall be taken to resolve any deficiencies identified during the examination with post-maintenance testing conducted that satisfies the PST requirements.
- c. For explosively actuated valves selected for test sampling every 2 years in accordance with the ASME OM Code, the operational

readiness of the actuation logic and associated electrical circuits shall be verified for each sampled explosively actuated valve following removal of its charge. This must include confirmation that sufficient electrical parameters (voltage, current, resistance) are available for each valve actuation circuit. Corrective action shall be taken to resolve any deficiencies identified in the actuation logic or associated electrical circuits.

- d. For explosively actuated valves selected for test sampling every 2 years in accordance with the ASME OM Code, the sampling must select at least one explosively actuated valve from each redundant safety train. Each sampled pyrotechnic charge shall be tested in the valve or a qualified test fixture to confirm the capability of the charge to provide the necessary motive force to operate the valve to perform its intended function without damage to the valve body or connected piping. Corrective action shall be taken to resolve any deficiencies identified in the capability of a pyrotechnic charge in accordance with the PST requirements.

This license condition shall expire upon (1) incorporation of the above surveillance provisions for explosively actuated valves into the facility's in-service testing program, or (2) incorporation of in-service testing requirements for explosively actuated valves in new reactors (i.e., plants receiving a construction permit, or COL for construction and operation, after January 1, 2000) to be specified in a future edition of the ASME OM Code as incorporated by reference in 10 CFR 50.55a, including any conditions imposed by the NRC, into the facility's in-service testing program.

- (e) Dominion shall perform detailed geologic mapping of excavations for safety related structures; examine and evaluate geologic features discovered in these excavations; and shall notify the Director of NRO, or the Director's designee, in writing, no later than 30 days before any such excavations are open for NRC examination and evaluation.
- (f) Mitigation Strategies for Beyond-Design-Basis External Events
 1. Dominion shall complete development of an overall integrated plan of strategies to mitigate a beyond-design-basis external event at least 1 year before the completion of the last ITAAC on the schedule required by 10 CFR 52.99(a).
 2. The overall integrated plan required by this condition must include guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities. The overall integrated plan must include

provisions to ~~address ensure that~~ all accident mitigation procedures and guidelines (including the guidance and strategies required by this section, emergency operating procedures, abnormal operating procedures, and extensive damage management guidelines), ~~are coherent and comprehensive.~~

3. The guidance and strategies required by this condition must be capable of (i) mitigating a simultaneous loss of all alternating current (ac) power, both from the onsite and offsite power systems, and loss of normal access to the normal heat sink and (ii) providing for adequate capacity to perform the functions upon which the guidance and strategies rely for all units on the NAPS site and in all modes at each unit on the site.
4. Before initial fuel load, Dominion shall fully implement the guidance and strategies required by this condition, including:
 - (i) Procedures;
 - (ii) Training;
 - (iii) Acquisition, staging, or installation of equipment and consumables relied upon in the strategies; and
 - (iv) Configuration controls and provisions for maintenance and testing (including testing procedures and frequencies for preventative maintenance) of the equipment upon which the strategies and guidance required by this condition rely.
5. The training required by Condition 2.D.(12)(f)4.(ii) of this license must use a Systematic Approach to Training (SAT) to evaluate training for station personnel, and must be based upon plant equipment and procedures upon which the guidance and strategies required by Condition 2.D.(12)(f) of this license rely.
6. Dominion shall maintain the guidance and strategies described in the application upon issuance of the license, and the integrated plan of strategies upon its completion as required by Condition 2.D.(12)(f)1. of this license. Dominion may change the strategies and guidelines required by this Condition provided that Dominion evaluates each such change to ensure that the provisions of Conditions 2.D.(12)(f)2. and 2.D.(12)(f)3. of this license continue to be satisfied and Dominion documents the evaluation in an auditable form.

(g) Reliable Spent Fuel Pool/Buffer Pool Level Instrumentation

Prior to initial fuel load, Dominion shall address the following requirements using the guidance contained in JLD-ISG-2012-03, "Compliance with Order EA-2012-051, Reliable Spent Fuel Pool Instrumentation," Revision 0:

The spent fuel pool/buffer pool instrumentation shall be maintained available and reliable through the development and implementation of a training program. The training program shall include provisions to ensure trained personnel can route the temporary power lines from the alternate power source to the appropriate connection points, and connect the alternate power source to the safety-related level instrument channels.

(h) Emergency Planning Actions

1. Communications

- (i) No later than eighteen (18) months before the latest date set forth in the schedule submitted in accordance with 10 CFR 52.99(a) for completing the inspections, tests, and analyses in the ITAAC, Dominion shall have performed an assessment of on-site and off-site communications systems and equipment relied upon during an emergency event to ensure communications capabilities can be maintained during an extended loss of alternating current power. The communications capabilities assessment shall be performed in accordance with NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," Revision 0.
- (ii) No later than one hundred eighty (180) days before the date scheduled for initial fuel load set forth in the notification submitted in accordance with 10 CFR 52.103(a), Dominion shall have completed implementation of corrective actions identified in the communications capability assessment, including revisions to the Emergency Plan.

2. Staffing

- (i) No later than eighteen (18) months before the latest date set forth in the schedule submitted in accordance with 10 CFR 52.99(a) for completing the inspections, tests, and analyses in the ITAAC, Dominion shall have performed an assessment of the on-site and augmented staffing capability for response to a multi-unit event. The staffing assessment shall be performed in accordance with NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities," Revision 0.

- (ii) No later than one hundred eighty (180) days before the date scheduled for initial fuel load, as set forth in the notification submitted in accordance with 10 CFR 52.103(a), Dominion shall revise the Emergency Plan to include the following:
 - a. Incorporation of corrective actions identified in the staffing assessment required by this license condition; and
 - b. Identification of how the augmented staff will be notified, given degraded communications capabilities.

- (i) No later than one hundred eighty (180) days before the date scheduled for initial fuel load set forth in the notification submitted in accordance with 10 CFR 52.103(a), Dominion shall update its North Anna Units 1 and 2 Letters of Agreement with the following entities, or their successors, and revise the Unit 3 Emergency Plan to include these updated Letters of Agreement after they have been executed. These updated Letters of Agreement shall identify the specific nature of arrangements in support of emergency preparedness for the NAPS site, including North Anna Unit 3, and reflect expected assistance associated with hostile action at the NAPS site, as defined in 10 CFR Part 50, Appendix E, Section IV.A.7.
 - 1. Commonwealth of Virginia Department of Emergency Management
 - 2. Commonwealth of Virginia Department of Health
 - 3. Commonwealth of Virginia Department of State Police
 - 4. Commonwealth of Virginia Department of Game and Inland Fisheries
 - 5. Virginia Commonwealth University Medical Center
 - 6. Louisa County Administrator
 - 7. Louisa County Sheriff
 - 8. Louisa County Department of Fire and Emergency Medical Services
 - 9. Spotsylvania County Sheriff
 - 10. Spotsylvania Department of Fire, Rescue, and Emergency Management
 - 11. Orange County Administrator
 - 12. Orange County Sheriff
 - 13. Caroline County Sheriff

14. Caroline County Department of Fire, Rescue, and Emergency Management
15. Hanover County Administrator
16. Hanover County Sheriff

These Letters of Agreement shall identify the specific nature of arrangements in support of emergency preparedness for operation of North Anna Unit 3. The Emergency Plan shall be revised to include these Letters of Agreement after they have been executed.

(j) Reactor Vessel Material Surveillance Program

Dominion shall, as part of its reactor vessel material surveillance program, withdraw and test three surveillance capsules in accordance with the schedule provided in Column 1 (Predicted transition temperature shift at vessel inner surface of less than or equal to 100-~~e~~^oF) of Table 1, "Minimum Recommended Number of Surveillance Capsules and Their Withdrawal Schedule," in the 1982 Revision of ASTM Standard E185 (ASTM E185-82), "Standard Practice for Conducting Surveillance Tests of Light-Water Cooled Nuclear Power Reactor Vessels." The scheduling of capsule withdrawals to meet this condition shall be in accordance with ASTM E185-82.

- E. Dominion shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- (1) Prior to the scheduled date of initial fuel load, and within ninety (90) days after the NRC publishes the notice of intended operation in the *Federal Register*, Dominion shall provide evidence to the Director of NRO, or the Director's designee, that it would have the ability to pay into the industry self-insurance program in the event of a nuclear incident and in the amount specified in 10 CFR 140.11(a)(4) for one calendar year using one of the methods specified in 10 CFR 140.21, "Licensee Guarantees of Payment of Deferred Premiums." Thereafter, Dominion shall annually provide evidence of the guarantees of payment of deferred premiums in accordance with the provisions specified in 10 CFR 140.21 (a) through (e).
 - (2) Before the scheduled date for initial fuel load, and within ninety (90) days after the NRC publishes the notice of intended operation in the *Federal Register*, Dominion shall provide satisfactory documentary evidence to the Director of NRO, or the Director's designee, that it has obtained the appropriate amount of secondary financial protection pursuant to 10 CFR 140.11(a)(4), and the appropriate amount of financial protection pursuant to 10 CFR 50.54(w).

F. Exemptions

- (1) The following exemption from the regulations was granted in the rulemaking for the design certification rule that is referenced in the application. In accordance with 10 CFR Part 52, Appendix E, Section V, Applicable Regulations, Subsection B, and pursuant to 10 CFR 52.63(a)(5), the licensee is exempt from the regulation in Paragraph (f)(2)(iv) of 10 CFR 50.34—Plant Safety Parameter Display Console, as discussed in Section 18.8.3.2 of the ESBWR Final Safety Evaluation Report (FSER).
- (2) For the reasons set forth below, the following specific exemption which is outside the scope of the design certification rule referenced in the application is granted:

Dominion is exempt from the requirements of 10 CFR 70.22(b), 10 CFR 70.32(c), 10 CFR 74.31, “Nuclear Material Control and Accounting for Special Nuclear Material of Low Strategic Significance”; 10 CFR 74.41, “Nuclear Material Control and Accounting for Special Nuclear Material of Moderate Strategic Significance”; and 10 CFR 74.51, “Nuclear Material Control and Accounting for Strategic Nuclear Material,” because Dominion meets the requirements of 10 CFR 70.17, “Specific Exemptions,” and 74.7, “Specific Exemptions,” as discussed in Section 1.5.4 of the FSER. The exemption meets the requirements of 52.7, “Specific Exemptions,” because it is authorized by law, will not present an undue risk to the public health or safety, and is consistent with the common defense and security. Additionally, special circumstances are present in that the application of the regulations in this particular circumstance is not necessary to achieve the underlying purpose of the rule (10 CFR 50.12(a)(2)(ii)) as described in the FSAR and the staff FSER dated January 18, 2018.

- (3) For the reasons set forth below, the following exemptions associated with departures from Tier 1 of the U.S. ESBWR design certifications are granted:

The Tier 1 departures listed below meet the requirements of 10 CFR Part 52, Appendix E, Section VIII.A.4 and the regulations referenced therein because as discussed in the applicable sections of the FSER associated with this license:

- The Tier 1 departures will not significantly decrease the level of safety otherwise provided by the design;
- The Tier 1 departures are authorized by law, will not present undue risk to the public health and safety, and are consistent with the common defense and security;
- Special circumstances are present as required by 10 CFR 50.12(a)(2); specifically, as discussed in the in Section 3.7.1, Section 8.1, Section 11.2, and Section 19, Appendix 19A of the FSER for this license, the staff finds that there are special circumstances under 10 CFR 50.12(a)(2)(ii) for the following

Tier 1 exemptions because of the following reasons: application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule. In addition, the staff found that the exemptions demonstrated minimal change from the standard information provided in the ESBWR DCD and consequently, the decrease in safety due to reduced standardization would also be minimal. For this reason, the staff determined that even if other ESBWR licensees and applicants do not request similar departures, the special circumstances outweigh the potential decrease in safety due to reduced standardization of the ESBWR design, as required by 10 CFR 52.63(b)(1):

NAPS DEP 3.7-1 _____ Ground Response Spectra for Seismic Structural
_____ Loads _____ and Floor Response Spectra

NAPS DEP 8.1-1 _____ Electrical Power Distribution System

NAPS DEP 12.3-1 _____ Liquid Radwaste Effluent Discharge Piping Flow
_____ Path

NAPS DEP 19.A-1 _____ Design of Structures Housing RTNSS Equipment
_____ for _____ Hurricane Wind Generated
Missiles

- The special circumstances shown under 10 CFR 50.12(a)(2) outweigh any potential decrease in safety due that may result from the reduction in standardization of the ESBWR design caused by the exemption, as required by 10 CFR 52.63(b)(1).

G. Variances

Having applied the technically relevant criteria applicable to the application for the Early Site Permit No. ESP-003, as described in NUREG-1835, "Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna ESP Site," dated September 2005 and November 2006, the following variances ~~form from~~ the early site permit are granted:-

- (1) A variance (NAPS ESP VAR 2.0-1) from ESP Site Safety Analysis Report (SSAR) Table 2.3-16 to use the site-specific Unit 3 maximum long-term dispersion estimates (χ/Q and D/Q) values that were calculated for the ESBWR design site meteorological data and were used to determine the site-specific Unit 3 doses as provided in FSAR Table 2.3-16R.
- (2) A variance (NAPS ESP VAR 2.0-2) from ESP SSAR Table 1.9-1 to use the site-specific Unit 3 maximum hydraulic conductivity value as provided in FSAR Section ~~-~~2.4.12.1.2.

- (3) A variance (NAPS ESP VAR 2.0-3) from ESP SSAR Table 1.9-1 to use the site-specific Unit 3 hydraulic gradient value as provided in FSAR Section 2.4.12.1.2.
- (4) A variance (NAPS ESP VAR 2.0-4) from the following:
 - (a) ESP SSAR Figure 2.5-48A to use the site-specific Unit 3 horizontal and vertical spectral acceleration values for the ground motion response spectra (GMRS) values as provided in FSAR Figure 2.5.2-313;
 - (b) ESP SSAR Section 2.5 References 1, 115, 120 and 121 to use FSAR Reference ~~2.5-223~~²³³; and,
 - (c) ESP SSAR Section 2.5.2.7 information on the operating basis earthquake (OBE) is moved to FSAR Section 3.7.
- (5) A variance (NAPS ESP VAR 2.0-5) from ESP SSAR Tables 1.9-1 and 2.4-20 to use the site-specific Unit 3 distribution coefficient (K_d) values provided in FSAR Table ~~2.4-206~~.
- (6) A variance (NAPS ESP VAR 2.0-6) from the accident source terms provided in ESP SSAR Chapter 15, which referenced a range of possible reactor designs, to use the source terms provided in ESBWR DCD Chapter 15, Sections 15.3 and 15.4 for analyses of design basis accidents (DBAs).
- (7) A variance (NAPS ESP VAR 2.0-7) from the following:
 - (a) ESP-003 Appendix A Figure 1 to use the set of values provided in FSAR Figure ~~2.0-205~~ as state plane coordinates; and,
 - (b) ESP SSAR Figure 1.2-4 Note 2, which indicates that abandoned Unit 3 and 4 reactor building mat foundations are to be removed. According to the layout of the ESBWR plant at the North Anna Unit 3 site, the removal of the abandoned Unit 3 and 4 reactor building mat foundations is no longer necessary. This information is provided in FSAR Table 2.0-201.
- (8) A variance (NAPS ESP VAR 2.3-1) from ESP-003 Appendix A, ESP SSAR Section ~~2.3.1.3.2~~, and ESP SSAR Tables 1.9-1 and 2.3-1 to use the site-specific Unit ~~3~~ site characteristic values for tornadoes provided in FSAR Section 2.3.1.3.2 and Table ~~2.3-225~~.
- (9) A variance (NAPS ESP VAR 2.4-1) from ESP SSAR Section 2.4.12.1.2 to use the site specific Unit 3 values for void ratio, porosity and seepage velocity of saprolite as provided in FSAR Section 2.4.12.1.2.

- (10) A variance (NAPS ESP VAR 2.4-2) from ESP SSAR Table 2.4-17 to use corrected information for the site-specific Unit 3 values regarding the NAPS water supply wells as described in FSAR Table 2.4-17R.
 - (11) A variance (NAPS ESP VAR 2.4-3) from ESP SSAR Table 2.4-15 to use corrected information for site-specific Unit 3 information regarding observation well No. WP-3 as described in FSAR Table 2.4-15R.
 - (12) -A variance (NAPS ESP VAR 2.4-4) from ESP SSAR Sections 2.4.1.3, 2.4.2.1, 2.4.11.1, and 2.4.12.4 ~~XXXXXX~~, which described a lake level of 249.14 ft (75.93 m) North American Vertical Datum 1988 (NAVDD88) (250 ft (76.2 m) National Geodetic Vertical Datum 1929 (NGVD29)), to use the lake level of 249.39 ft (76.01 m) NAVDD88 (250.25 ft (76.28 m) NGVD29) provided in FSAR Section 2.4.1.3.
 - (13) A variance (NAPS ESP VAR 2.4-5) from ESP SSAR Section 2.4, which described the Lake Anna probable maximum flood (PMF) level of 266.53 ft (81.24 m) NAVD88 (267.39 ft (81.5 m) NGVD29), to use a revised value of 266.56 ft (81.25 m) NAVD88 (267.42 ft (81.51 m) NGVD29) in FSAR Section 2.4.
 - (14) A variance (NAPS ESP VAR 2.5-1) from ESP SSAR Section 2.5.5 information on slopes and safety of slopes to use revised site-specific Unit 3 information presented in FSAR Section 2.5.5.
 - (15) A variance (NAPS ESP VAR 12.2-1) from the ESP Application Environmental Report Table 5.4-9 to use updated site-specific Unit 3 gaseous effluent dose information in FSAR Table 12.2-18bR.
 - (16) A variance (NAPS ESP VAR 12.2-3) from ESP SSAR Section 2.3.5.1 to use the site-specific Unit 3 maximum annual liquid release values provided in FSAR Table 12.2-~~129~~bR.
 - (17) A variance (NAPS ESP VAR 12.2-4) from ESP SSAR Section 2.3.5.1 to use updated information in FSAR Table 12.2-203 for conservative dose estimates of direct radiation from the existing Units 1 & 2 and the independent spent fuel storage installation (ISFSI).
 - (18) A variance (NAPS ESP VAR 12.2-5) from ESP SSAR Section 2.3.5.1 to use updated site-specific Unit 3 maximum annual gaseous effluent release values provided in FSAR Table 12.2-17R.
- H. Dominion shall maintain the guidance and strategies developed in accordance with 10 CFR 50.54(hh)(2).

- I. This license is effective as of [*insert actual date of license issuance*] and shall expire at midnight on the date 40 years from the date that the Commission finds that the acceptance criteria in the COL are met in accordance with 10 CFR 52.103(g).

For the Nuclear Regulatory Commission

Vonna Ordaz, Acting Director
Office of New Reactors

Appendices:

Appendix A – Technical Specifications

Appendix B – Environmental Protection Plan

Appendix C – Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)

APPENDIX A

NORTH ANNA UNIT 3

TECHNICAL SPECIFICATIONS

The unit-specific technical specifications from the North Anna COL Application, Part 4, will be included in Appendix A of the North Anna Unit 3 combined license. ~~The unit-specific technical specifications from the North Anna COL application, Part 4, will be included in Appendix A of the North Anna Unit 3 combined license.~~ These technical specifications will exceed 900 pages. Therefore, for ease of handling, the technical specifications are not included in this draft combined license, but can be viewed on the NRC's website at <http://www.nrc.gov/reactors/new-reactors/col/north-anna/documents.html>

DRAFT

APPENDIX B

TO FACILITY OPERATING LICENSE NO. [NPF-XX]

NORTH ANNA UNIT 3

VIRGINIA ELECTRIC AND POWER COMPANY
(doing business as Dominion Virginia Power) DOMINION VIRGINIA POWER

DOCKET NO. 52-017

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

[DATE]

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1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) objectives are to ensure compliance with Biological Opinions issued pursuant to the Endangered Species Act of 1973, as amended (ESA), and to ensure that the Commission is kept informed of other environmental matters. The EPP is intended to be consistent with Federal, State, and local requirements for environmental protection.

2.0 Environmental Protection Issues

In the Supplemental Environmental Impact Statement for the Combined License (COL) review (hereafter, referred to as COL SEIS) dated March 2010, the staff considered the environmental impacts associated with the construction and operation of North Anna Unit No. 3. The COL SEIS is a supplement to the Final Environmental Impact Statement for the Early Site Permit (ESP FEIS). This EPP applies to the licensee's actions affecting the protected environmental resources evaluated in the COL SEIS and the licensee's actions that may affect any newly discovered protected environmental resources.

2.1 Aquatic Resources Issues

Federal agencies other than the U.S. Nuclear Regulatory Commission (NRC), such as the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers, have jurisdiction to regulate aquatic resources under the Federal Water Pollution Control Act (Clean Water Act or CWA) and the Rivers and Harbors Act of 1899 (RHA). Certain water quality environmental considerations identified in the COL SEIS, including effluent limitations, monitoring requirements, and mitigation measures, are regulated under the licensee's CWA permits, such as Virginia Pollutant Discharge Elimination System and Section 404 permits, and RHA Section 10 permit. The licensee is required to inform the NRC of events or situations concerning aquatic resources consistent with the provisions of 10 CFR 50.72(b)(2)(xi), and this EPP does not expand any reporting requirement required by that regulation.

2.2 Terrestrial Resources Issues

Several statutes govern the regulation of terrestrial resources. For example, the U.S. Fish and Wildlife Service (FWS) regulates matters involving migratory birds and their nests in accordance with the Migratory Bird Treaty Act (MBTA). Activities affecting migratory birds or their nests may require permits under the MBTA. The FWS also regulates matters involving the protection and taking of bald and golden eagles in accordance with the Bald and Golden Eagle Protection Act. The licensee shall inform NRC of any events or situations concerning terrestrial resources consistent with the provisions of 10 CFR 50.72(b)(2)(xi), and this EPP does not expand any reporting requirement required by that regulation.

2.3 Endangered Species Act of 1973

The NRC may be required to protect some aquatic resources and terrestrial resources in accordance with the ESA. If a Biological Opinion is issued to the NRC in accordance with ESA Section 7 prior to the issuance of the combined license, the licensee shall comply with the terms and conditions set forth in the Incidental Take Statement of the Biological Opinion. If any Federally listed species or critical habitat occurs in an area affected by construction or operation of the plant that was not previously identified as occurring in such areas, including species and critical habitat that were not previously Federally listed, the licensee shall inform the NRC within four hours of discovery. The time of discovery is identified as the specific time when a decision is made to notify another agency or to issue a press release. Similarly, the licensee shall inform the NRC within four hours of discovery of any take, as defined in the ESA, of a Federally listed species or destruction or adverse modification of critical habitat. The four-hour discovery notifications shall be made to the NRC Operations Center via the Emergency Notification System. The licensee shall provide any necessary information to the NRC if the NRC initiates or reinitiates consultation under the ESA.

Unusual Event - The licensee shall inform the NRC of any onsite mortality, injury, or unusual occurrence of any species protected by the ESA within four hours of discovery, followed by a written report in accordance with Section 4.1. The time of discovery is identified as the specific time when a decision is made to notify another agency or to issue a press release. Such incidents shall be reported regardless of the licensee's assessment of causal relation to plant construction or operation.

2.4 Other Environmental Issues

The licensee shall take the mitigating actions identified in Tables 1 and 2 of Dominion's proposed EPP (contained in Appendix 1A of Revision 8 of the COL Environmental Report) and will provide the NRC with prior written notification of changes to the actions listed in those tables.

In accordance with Section 106 of the National Historic Preservation Act, the licensee shall implement the Ground Disturbance Plan to minimize impacts to archaeological site 44KW0081 associated with the construction of a barge roll-off facility on the Mattaponi River for the transport of large components. In addition, the licensee shall avoid archaeological sites 44LS0221, 44LS0222, 44LS0226, 44LS0227, 44LS0233, and 44SP0618 during construction and operation of Unit 3.

3.0 Consistency Requirements

The licensee shall notify the NRC of proposed changes to permits or certifications concerning aquatic or terrestrial resources by providing the NRC with a copy of the proposed change(s) at the same time it is submitted to the permitting agency. The licensee shall provide the NRC with a copy of the application for renewal of permits or certifications at the same time the application is submitted to the permitting agency.

Changes to or renewals of such permits or certifications shall be reported to the NRC within 30 days following the later of the date the change or renewal is approved or the date the change becomes effective. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

4.0 Administrative Procedures

4.1 Plant Reporting Requirements: Non-routine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of any unusual event described in Section 2.3 ~~and 2.4~~ of this EPP. The report shall:

- (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics at the time of the event;
- (b) describe the probable cause of the event;
- (c) indicate the action taken to correct the reported event;
- (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and
- (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection, which also require reports to other Federal, State, or local agencies, shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such report at the same time it is submitted to the other agency.

4.2 Review and Audit

The licensee shall provide for review and audit of compliance with Section 2.3 and 2.4 of this EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organizational structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

4.3 Records Retention

Records required by this EPP shall be made and retained in a manner convenient for review and inspection. These records shall be made available to the NRC on request. The records, data, and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

4.4 Changes in Environmental Protection Plan

A request for a change in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

The licensee shall request a license amendment to incorporate the requirements of any Terms and Conditions set forth in the Incidental Take Statement of applicable Biological Opinions issued subsequent to the effective date of this EPP.

APPENDIX C

NORTH ANNA UNIT 3

INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC)

The ITAAC Master List is a table of unit-specific ITAAC, which are from the DCD and the North Anna COL. The consolidated set of unit-specific ITAAC will be included in Appendix C of the North Anna Unit 3 combined license. These unit-specific ITAAC details will exceed 1000 pages. Therefore, for ease of handling, the ITAAC details are not included in this draft combined license, but can be viewed on the NRC's website at the following URLs:

- COL Application Part 10, Rev. 8 – <http://www.nrc.gov/reactors/new-reactors/col/north-anna/documents.html>
- GE-Hitachi ESBWR DCD, Rev. 10 – <http://pbadupws.nrc.gov/docs/ML1410/ML14104A929.html>

Section No.	Tier 1	Source
1.	Introduction	DCD10
1.1	Definitions and General Provisions	DCD10
1.2	Figure Legend	DCD10
1.3	Table Legend	DCD10
1.4	Design Acceptance Criteria	DCD10

No.	ITAAC No.	Plant System ITAAC	Source
1	2.1.01.01	Reactor Pressure Vessel and Internals	DCD10
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3	2.1.01.03a.01		DCD10
4	2.1.01.03a.02		DCD10
5	2.1.01.03a.03		DCD10
6	2.1.01.04		DCD10
7	2.1.01.05		DCD10
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9	2.1.01.06.ii		DCD10
10	2.1.01.06.iii		DCD10
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13	2.1.01.08b		DCD10
14	2.1.01.09		DCD10
15	2.1.01.10		DCD10
16	2.1.01.11		DCD10
17	2.1.01.12		DCD10
18	2.1.01.13		DCD10
19	2.1.01.14		DCD10
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21	2.1.01.16		DCD10

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374	2.2.15.11a.02.07		DCD10
375	2.2.15.11a.03.01		DCD10
376	2.2.15.11a.03.02		DCD10
377	2.2.15.11a.03.03		DCD10
378	2.2.15.11a.03.04		DCD10
379	2.2.15.11a.03.05		DCD10
380	2.2.15.11a.03.06		DCD10
381	2.2.15.11a.03.07		DCD10
382	2.2.15.11a.04.01		DCD10
383	2.2.15.11a.04.02		DCD10
384	2.2.15.11a.05.01		DCD10
385	2.2.15.11a.05.02		DCD10
386	2.2.15.11a.06.01		DCD10
387	2.2.15.11a.06.02		DCD10
388	2.2.15.11a.07.03		DCD10
389			
390	2.2.15.11a.08.03		DCD10
391	2.2.15.11a.09.03		DCD10
392			
393	2.2.15.11a.10.04		
394	2.2.15.11a.10.05		
395	2.2.15.11a.10.06		
396	2.2.15.11a.10.07		
397	2.2.15.11a.11.04		DCD10
398	2.2.15.11a.11.05		DCD10
399	2.2.15.11a.11.06		DCD10
400	2.2.15.11a.11.07		DCD10
401	2.2.15.11a.12.01		
402	2.2.15.11a.12.02		
403	2.2.15.11a.12.03		
404	2.2.15.11a.12.04		DCD10
405	2.2.15.11a.12.05		DCD10
406	2.2.15.11a.12.06		DCD10
407	2.2.15.11a.12.07		DCD10
408	2.2.15.11b.01.01		DCD10
409	2.2.15.11b.01.02		DCD10
410	2.2.15.11b.01.03		DCD10
411	2.2.15.11b.01.04		DCD10
412	2.2.15.11b.01.05		DCD10
413	2.2.15.11b.01.06		DCD10
414	2.2.15.11b.01.07		DCD10
415	2.2.15.11b.02.01		DCD10

416	2.2.15.11b.02.02	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
417	2.2.15.11b.02.03		DCD10
418	2.2.15.11b.02.04		DCD10
419	2.2.15.11b.02.05		DCD10
420	2.2.15.11b.02.06		DCD10
421	2.2.15.11b.02.07		DCD10
422	2.2.15.11b.03.01		DCD10
423	2.2.15.11b.03.02		DCD10
424	2.2.15.11b.03.03		DCD10
425	2.2.15.11b.03.04		DCD10
426	2.2.15.11b.03.05		DCD10
427	2.2.15.11b.03.06		DCD10
428	2.2.15.11b.03.07		DCD10
429	2.2.15.11b.04.01		DCD10
430	2.2.15.11b.04.02		DCD10
431	2.2.15.11b.05.01		DCD10
432	2.2.15.11b.05.02		DCD10
433	2.2.15.11b.06.01		DCD10
434	2.2.15.11b.06.02		DCD10
435	2.2.15.11b.07.03		DCD10
436	2.2.15.11b.08.03		DCD10
437	2.2.15.11b.09.03	DCD10	
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439	2.2.15.11b.10.04		
440	2.2.15.11b.10.05		
441	2.2.15.11b.10.06		
442	2.2.15.11b.10.07		
443	2.2.15.11b.11.04	DCD10	
444	2.2.15.11b.11.05	DCD10	
445	2.2.15.11b.11.06	DCD10	
446	2.2.15.11b.11.07	DCD10	
	2.2.15.11b.12.01		
	2.2.15.11b.12.02		
	2.2.15.11b.12.03		
447	2.2.15.11b.12.04	DCD10	
448	2.2.15.11b.12.05	DCD10	
449	2.2.15.11b.12.06	DCD10	
450	2.2.15.11b.12.07	DCD10	
451	2.2.15.12a.01	DCD10	
452	2.2.15.12a.02	DCD10	
453	2.2.15.12a.03	DCD10	
454	2.2.15.12a.04	DCD10	
455	2.2.15.12a.05	DCD10	
456	2.2.15.12a.06	DCD10	
457	2.2.15.12a.07	DCD10	
458	2.2.15.12b.01.01	DCD10	
459	2.2.15.12b.01.02	DCD10	
460	2.2.15.12b.01.03	DCD10	
461	2.2.15.12b.01.04	DCD10	

462	2.2.15.12b.01.05		DCD10
463	2.2.15.12b.01.06		DCD10
464	2.2.15.12b.01.07		DCD10
465	2.2.15.12b.02.01		DCD10
466	2.2.15.12b.02.02		DCD10
467	2.2.15.12b.02.03		DCD10
468	2.2.15.12b.02.04		DCD10
469	2.2.15.12b.02.05		DCD10
470	2.2.15.12b.02.06		DCD10
471	2.2.15.12b.02.07		DCD10
472	2.2.15.13a.01		DCD10
473	2.2.15.13a.02		DCD10
474	2.2.15.13a.03		DCD10
475	2.2.15.13a.04		DCD10
476	2.2.15.13a.05	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
477	2.2.15.13a.06		DCD10
478	2.2.15.13a.07		DCD10
479	2.2.15.13b.01		DCD10
480	2.2.15.13b.02		DCD10
481	2.2.15.13b.03		DCD10
482	2.2.15.13b.04		DCD10
483	2.2.15.13b.05		DCD10
484	2.2.15.13b.06		DCD10
485	2.2.15.13b.07		DCD10
486	2.2.15.14a.01		DCD10
487	2.2.15.14a.02		DCD10
488	2.2.15.14a.03		DCD10
489	2.2.15.14a.04		DCD10
490	2.2.15.14a.05		DCD10
491	2.2.15.14a.06		DCD10
492	2.2.15.14a.07		DCD10
493	2.2.15.14b.01		DCD10
494	2.2.15.14b.02		DCD10
495	2.2.15.14b.03		DCD10
496	2.2.15.14b.04		DCD10
497	2.2.15.14b.05		DCD10
498	2.2.15.14b.06		DCD10
499	2.2.15.14b.07		DCD10
500	2.2.15.15a.01		DCD10
501	2.2.15.15a.02		DCD10
502	2.2.15.15a.03		DCD10
503	2.2.15.15a.04		DCD10
504	2.2.15.15a.05		DCD10
505	2.2.15.15a.06		DCD10
506	2.2.15.15a.07		DCD10
507	2.2.15.15b.01		DCD10
508	2.2.15.15b.02		DCD10
509	2.2.15.15b.03		DCD10
510	2.2.15.15b.04		DCD10

511	2.2.15.15b.05		DCD10
512	2.2.15.15b.06		DCD10
513	2.2.15.15b.07		DCD10
514	2.2.15.16a.01		DCD10
515	2.2.15.16a.02		DCD10
516	2.2.15.16a.03		DCD10
517	2.2.15.16a.04		DCD10
518	2.2.15.16a.05		DCD10
519	2.2.15.16a.06		DCD10
520	2.2.15.16a.07		DCD10
521	2.2.15.16b.01		DCD10
522	2.2.15.16b.02		DCD10
523	2.2.15.16b.03		DCD10
524	2.2.15.16b.04		DCD10
525	2.2.15.16b.05	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
526	2.2.15.16b.06		DCD10
527	2.2.15.16b.07		DCD10
528	2.2.15.17a.01.01		DCD10
529	2.2.15.17a.01.02		DCD10
530	2.2.15.17a.01.03		DCD10
531	2.2.15.17a.01.04		DCD10
532	2.2.15.17a.01.05		DCD10
533	2.2.15.17a.01.06		DCD10
534	2.2.15.17a.01.07		DCD10
535	2.2.15.17a.02.01		DCD10
536	2.2.15.17a.02.02		DCD10
537	2.2.15.17a.02.03		DCD10
538	2.2.15.17a.02.04		DCD10
539	2.2.15.17a.02.05		DCD10
540	2.2.15.17a.02.06		DCD10
541	2.2.15.17a.02.07		DCD10
542	2.2.15.17b.01.01		DCD10
543	2.2.15.17b.01.02		DCD10
544	2.2.15.17b.01.03		DCD10
545	2.2.15.17b.01.04		DCD10
546	2.2.15.17b.01.05		DCD10
547	2.2.15.17b.01.06		DCD10
548	2.2.15.17b.01.07		DCD10
549	2.2.15.17b.02.01		DCD10
550	2.2.15.17b.02.02		DCD10
551	2.2.15.17b.02.03		DCD10
552	2.2.15.17b.02.04		DCD10
553	2.2.15.17b.02.05		DCD10
554	2.2.15.17b.02.06		DCD10
555	2.2.15.17b.02.07		DCD10
556	2.2.15.18a.01		DCD10
557	2.2.15.18a.02		DCD10
558	2.2.15.18a.03		DCD10
559	2.2.15.18a.04		DCD10

560	2.2.15.18a.05		DCD10
561	2.2.15.18a.06		DCD10
562	2.2.15.18a.07		DCD10
563	2.2.15.18b.01		DCD10
564	2.2.15.18b.02		DCD10
565	2.2.15.18b.03		DCD10
566	2.2.15.18b.04		DCD10
567	2.2.15.18b.05		DCD10
568	2.2.15.18b.06		DCD10
569	2.2.15.18b.07		DCD10
570	2.2.15.19a.01		DCD10
571	2.2.15.19a.02		DCD10
572	2.2.15.19a.03		DCD10
573	2.2.15.19a.04		DCD10
574	2.2.15.19a.05	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
575	2.2.15.19a.06		DCD10
576	2.2.15.19a.07		DCD10
577	2.2.15.19b.01		DCD10
578	2.2.15.19b.02		DCD10
579	2.2.15.19b.03		DCD10
580	2.2.15.19b.04		DCD10
581	2.2.15.19b.05		DCD10
582	2.2.15.19b.06		DCD10
583	2.2.15.19b.07		DCD10
584	2.2.15.20a.01.01		DCD10
585	2.2.15.20a.01.02		DCD10
586	2.2.15.20a.01.03		DCD10
587	2.2.15.20a.01.04		DCD10
588	2.2.15.20a.01.05		DCD10
589	2.2.15.20a.01.06		DCD10
590	2.2.15.20a.01.07		DCD10
591	2.2.15.20a.02.01		DCD10
592	2.2.15.20a.02.02		DCD10
593	2.2.15.20a.02.03		DCD10
594	2.2.15.20a.02.04		DCD10
595	2.2.15.20a.02.05		DCD10
596	2.2.15.20a.02.06		DCD10
597	2.2.15.20a.02.07		DCD10
598	2.2.15.20b.01.01		DCD10
599	2.2.15.20b.01.02		DCD10
600	2.2.15.20b.01.03		DCD10
601	2.2.15.20b.01.04		DCD10
602	2.2.15.20b.01.05		DCD10
603	2.2.15.20b.01.06		DCD10
604	2.2.15.20b.01.07		DCD10
605	2.2.15.20b.02.01		DCD10
606	2.2.15.20b.02.02		DCD10
607	2.2.15.20b.02.03		DCD10
608	2.2.15.20b.02.04		DCD10

609	2.2.15.20b.02.05		DCD10
610	2.2.15.20b.02.06		DCD10
611	2.2.15.20b.02.07		DCD10
612	2.2.15.21a.01		DCD10
613	2.2.15.21a.02		DCD10
614	2.2.15.21a.03		DCD10
615	2.2.15.21a.04		DCD10
616	2.2.15.21a.05		DCD10
617	2.2.15.21a.06		DCD10
618	2.2.15.21a.07		DCD10
619	2.2.15.21b.01.01		DCD10
620	2.2.15.21b.01.02		DCD10
621	2.2.15.21b.01.03		DCD10
622	2.2.15.21b.01.04		DCD10
623	2.2.15.21b.01.05	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
624	2.2.15.21b.01.06		DCD10
625	2.2.15.21b.01.07		DCD10
626	2.2.15.21b.02.01		DCD10
627	2.2.15.21b.02.02		DCD10
628	2.2.15.21b.02.03		DCD10
629	2.2.15.21b.02.04		DCD10
630	2.2.15.21b.02.05		DCD10
631	2.2.15.21b.02.06		DCD10
632	2.2.15.21b.02.07		DCD10
633	2.2.15.22a.01		DCD10
634	2.2.15.22a.02		DCD10
635	2.2.15.22a.03		DCD10
636	2.2.15.22a.04		DCD10
637	2.2.15.22a.05		DCD10
638	2.2.15.22a.06		DCD10
639	2.2.15.22a.07		DCD10
640	2.2.15.22b.01		DCD10
641	2.2.15.22b.02		DCD10
642	2.2.15.22b.03		DCD10
643	2.2.15.22b.04		DCD10
644	2.2.15.22b.05		DCD10
645	2.2.15.22b.06		DCD10
646	2.2.15.22b.07		DCD10
647	2.2.15.23a.01		DCD10
648	2.2.15.23a.02		DCD10
649	2.2.15.23a.03		DCD10
650	2.2.15.23a.04		DCD10
651	2.2.15.23a.05		DCD10
652	2.2.15.23a.06		DCD10
653	2.2.15.23a.07		DCD10
654	2.2.15.23b.01		DCD10
655	2.2.15.23b.02		DCD10
656	2.2.15.23b.03		DCD10
657	2.2.15.23b.04		DCD10

658	2.2.15.23b.05	Instrumentation and Controls Compliance With IEEE Std. 603 (cont'd.)	DCD10
659	2.2.15.23b.06		DCD10
660	2.2.15.23b.07		DCD10
661	2.2.15.24a.01		DCD10
662	2.2.15.24a.02		DCD10
663	2.2.15.24a.03		DCD10
664	2.2.15.24a.04		DCD10
665	2.2.15.24a.05		DCD10
666	2.2.15.24a.06		DCD10
667	2.2.15.24a.07		DCD10
668	2.2.15.24b.01		DCD10
669	2.2.15.24b.02		DCD10
670	2.2.15.24b.03		DCD10
671	2.2.15.24b.04		DCD10
672	2.2.15.24b.05	DCD10	
673	2.2.15.24b.06	DCD10	
674	2.2.15.24b.07	DCD10	
675	2.2.16.01	High Pressure Control Rod Drive Isolation Bypass Function Independent Control Platform	DCD10
676	2.2.16.02		DCD10
677	2.2.16.03		DCD10
678	2.2.16.04		DCD10
679	2.2.16.05		DCD10
680	2.3.01.01	Process Radiation Monitoring System	DCD10
681	2.3.01.02a	Process Radiation Monitoring System (cont'd.)	DCD10
682	2.3.01.02b		DCD10
683	2.3.01.3.i		DCD10
684	2.3.01.3.ii		DCD10
685	2.3.01.3.iii		DCD10
686	2.3.01.04		DCD10
687	2.3.01.05		DCD10
688	2.3.01.06		DCD10
689	2.3.01.07		DCD10
690	2.3.02.01	Area Radiation Monitoring System	DCD10
691	2.3.02.02		DCD10
692	2.3.02.03		DCD10
693	2.4.01.01	Isolation Condenser System	DCD10
694	2.4.01.02a.02		DCD10
695	2.4.01.02a.03		DCD10
696	2.4.01.02b.01		DCD10
697	2.4.01.02b.02		DCD10
698	2.4.01.02b.03		DCD10
699	2.4.01.03a		DCD10
700	2.4.01.03b		DCD10
701	2.4.01.04a		DCD10
702	2.4.01.04b		DCD10
703	2.4.01.05.i		DCD10
704	2.4.01.05.ii		DCD10
705	2.4.01.05.iii		DCD10

706	2.4.01.06a		DCD10
707	2.4.01.06b.i		DCD10
708	2.4.01.06b.ii		DCD10
709	2.4.01.07a		DCD10
710	2.4.01.07b		DCD10
711	2.4.01.09		DCD10
712	2.4.01.10		DCD10
713	2.4.01.13		DCD10
714	2.4.01.14		DCD10
715	2.4.01.15		DCD10
716	2.4.01.16		DCD10
717	2.4.01.17		DCD10
718	2.4.01.18a		DCD10
719	2.4.01.18b		DCD10
720	2.4.01.20	Isolation Condenser System (cont'd.)	DCD10
721	2.4.01.21		DCD10
722	2.4.01.22		DCD10
723	2.4.01.23		DCD10
724	2.4.01.24.i		DCD10
725	2.4.01.24.ii		DCD10
726	2.4.01.24.iii		DCD10
727	2.4.01.25		DCD10
728	2.4.01.26		DCD10
729	2.4.01.29a		DCD10
730	2.4.01.29b		DCD10
731	2.4.01.30		DCD10
732	2.4.02.01	Emergency Core Cooling System – Gravity Driven Cooling System	DCD10
733	2.4.02.02a.02		DCD10
734	2.4.02.02a.03		DCD10
735	2.4.02.02b.01		DCD10
736	2.4.02.02b.02		DCD10
737	2.4.02.02b.03		DCD10
738	2.4.02.03a		DCD10
739	2.4.02.03b		DCD10
740	2.4.02.04a		DCD10
741	2.4.02.04b		DCD10
742	2.4.02.05.i		DCD10
743	2.4.02.05.ii		DCD10
744	2.4.02.05.iii		DCD10
745	2.4.02.08a		DCD10
746	2.4.02.08b		DCD10
747	2.4.02.09		DCD10
748	2.4.02.10a		DCD10
749	2.4.02.10b		DCD10
750	2.4.02.12		DCD10
751	2.4.02.13		DCD10
752	2.4.02.14		DCD10
753	2.4.02.15		DCD10
754	2.4.02.16		DCD10

755	2.4.02.17		DCD10
756	2.4.02.18		DCD10
757	2.4.02.19		DCD10
758	2.4.02.20		DCD10
759	2.4.02.21		DCD10
760	2.4.02.22		DCD10
761	2.4.02.24		DCD10
762	2.4.02.25		DCD10
763	2.4.02.26.i		DCD10
764	2.4.02.26.ii		DCD10
765	2.4.02.27		DCD10
766	2.4.02.28a		DCD10
767	2.4.02.28b		DCD10
768	2.4.02.29b		DCD10
769	2.4.02.29c	Emergency Core Cooling System – Gravity Driven Cooling System (cont'd.)	DCD10
770	2.4.02.29d		DCD10
771	2.4.02.29e		DCD10
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776	C.2.4.22.01.02		COL8
777	2.5.05.01	Refueling Equipment	DCD10
778	2.5.05.02		DCD10
779	2.5.05.03		DCD10
780	2.5.05.04		DCD10
781	2.5.05.05		DCD10
782	2.5.05.06		DCD10
783	2.5.05.07		DCD10
784	2.5.05.08		DCD10
785	2.5.05.09.i		DCD10
786	2.5.05.09.ii		DCD10
787	2.5.05.09.iii		DCD10
788	2.5.05.09.iv		DCD10
789	2.5.05.09.v		DCD10
790	2.5.05.09.vi		DCD10
791	2.5.05.10.i		DCD10
792	2.5.05.10.ii		DCD10
793	2.5.05.10.iii		DCD10
794	2.5.05.10.iv		DCD10
795	2.5.05.10.v		DCD10
796	2.5.05.10.vi		DCD10
797	2.5.05.11		DCD10
798	2.5.05.12		DCD10
799	2.5.06.01	Fuel Storage Facility	DCD10
800	2.5.06.02		DCD10
801	2.5.06.05		DCD10
802	2.5.06.06		DCD10
803	2.5.06.07.i		DCD10

804	2.5.06.07.ii		DCD10
805	2.5.06.07.iii		DCD10
806	2.5.06.08.i		DCD10
807	2.5.06.08.ii		DCD10
808	2.5.10.01	Fuel Transfer System	DCD10
809	2.5.10.02.i		DCD10
810	2.5.10.02.ii		DCD10
811	2.5.10.03		DCD10
812	2.5.10.04		DCD10
813	2.5.10.05		DCD10
814	2.5.10.06.i		DCD10
815	2.5.10.06.ii		DCD10
816	2.6.01.01	Reactor Water Cleanup/Shutdown Cooling System	DCD10
817	2.6.01.03a		DCD10
818	2.6.01.03b		DCD10
819	2.6.01.05		DCD10
820	2.6.01.06		DCD10
821	2.6.01.07.i		DCD10
822	2.6.01.07.ii		DCD10
823	2.6.01.07.iii		DCD10
824	2.6.01.08a.02		DCD10
825	2.6.01.08a.03		DCD10
826	2.6.01.08b.01		DCD10
827	2.6.01.08b.02		DCD10
828	2.6.01.08b.03		DCD10
829	2.6.01.09a		DCD10
830	2.6.01.09b		DCD10
831	2.6.01.10a		DCD10
832	2.6.01.10b		DCD10
833	2.6.02.01	Fuel and Auxiliary Pools Cooling System	DCD10
834	2.6.02.02a.02		DCD10
835	2.6.02.02a.03		DCD10
836	2.6.02.02b.01		DCD10
837	2.6.02.02b.02		DCD10
838	2.6.02.02b.03		DCD10
839	2.6.02.03a		DCD10
840	2.6.02.03b		DCD10
841	2.6.02.04a		DCD10
842	2.6.02.04b		DCD10
843	2.6.02.05.i		DCD10
844	2.6.02.05.ii		DCD10
845	2.6.02.05.iii		DCD10
846	2.6.02.07a.i		DCD10
847	2.6.02.07a.ii		DCD10
848	2.6.02.07a.iii		DCD10
849	2.6.02.07b		DCD10
850	2.6.02.07c		DCD10
851	2.6.02.09		DCD10
852	2.6.02.11		DCD10
853	2.6.02.12		DCD10

854	2.6.02.13a		DCD10
855	2.6.02.13b		DCD10
856	2.6.02.14		DCD10
857	2.6.02.15		DCD10
858	2.6.02.16		DCD10
859	2.6.02.17		DCD10
860	2.6.02.18a		DCD10
861	2.6.02.18b		DCD10
862	2.10.01.01	Liquid Waste Management System	DCD10
863	2.10.01.02		DCD10
864	2.10.01.03		DCD10
865	2.10.01.04		DCD10
866	2.10.02.01	Solid Waste Management System	DCD10
867	2.10.02.02		DCD10
868	2.10.03.01	Gaseous Waste Management System	DCD10
869	2.10.03.02		DCD10
870	2.10.03.03		DCD10
871	2.10.03.04.i		DCD10
872	2.10.03.04.ii		DCD10
873	2.10.03.04.iii		DCD10
874	2.10.03.05		DCD10
875	2.11.01.01	Turbine Main Steam System	DCD10
876	2.11.01.02a.02		DCD10
877	2.11.01.02a.03		DCD10
878	2.11.01.02b.01		DCD10
879	2.11.01.02b.02		DCD10
880	2.11.01.03		DCD10
881	2.11.01.04		DCD10
882	2.11.01.05		DCD10
883	2.11.01.06		DCD10
884	2.11.01.07		DCD10
885	2.11.01.08		DCD10
886	2.11.01.09a		DCD10
887	2.11.01.09b		DCD10
888	2.11.01.09c		DCD10
889	2.11.01.10a		DCD10
890	2.11.01.10b		DCD10
891	2.11.01.11a		DCD10
892	2.11.01.11b		DCD10
893	2.11.01.12		DCD10
894	2.11.02.01	Condensate and Feedwater System	DCD10
895	2.11.02.02		DCD10
896	2.11.02.03		DCD10
897	2.11.02.04		DCD10
898	2.11.02.05		DCD10
899	2.11.02.06		DCD10
900	2.11.02.07		DCD10
901	2.11.02.08		DCD10
902	2.11.02.09a		DCD10
903	2.11.02.09b		DCD10

904	2.11.04.01	Maine Turbine	DCD10
905	2.11.04.02		DCD10
906	2.11.04.03		DCD10
907	2.11.04.04		DCD10
908	2.11.04.05		DCD10
909	2.11.04.06		DCD10
910	2.11.04.07		DCD10
911	2.11.05.01	Turbine Gland Seal System	DCD10
912	2.11.06.01	Turbine Bypass System	DCD10
913	2.11.06.02		DCD10
914	2.11.06.03		DCD10
915	2.11.06.04		DCD10
916	2.11.06.05		DCD10
917	2.11.06.06		DCD10
918	2.11.06.07		DCD10
919	2.11.07.01	Main Condenser	DCD10
920	2.11.07.02		DCD10
921	2.11.07.03		DCD10
922	2.12.03.01	Reactor Component Cooling Water System	DCD10
923	2.12.03.02		DCD10
924	2.12.03.03		DCD10
925	2.12.03.04		DCD10
926	2.12.05.01	Chilled Water System	DCD10
927	2.12.05.02		DCD10
928	2.12.05.03		DCD10
929	2.12.05.04		DCD10
930	2.12.07.01	Plant Service Water System	DCD10
931	2.12.07.02		DCD10
932	2.12.07.03		DCD10
933	2.12.07.04		DCD10
934	C.2.12.07.01a (C.2.4.03.01.01a)*	Plant Service Water Reserve Storage	COL8
935	C.2.12.07.01b (C.2.4.03.01.01b)*		COL8
936	2.13.01.01	Electric Power Distribution System	DCD10
937	2.13.01.02.i		DCD10
938	2.13.01.02.ii		DCD10
939	2.13.01.02.iii		DCD10
940	2.13.01.03a		DCD10
941	2.13.01.03b		DCD10
942	2.13.01.04		DCD10
943	2.13.01.05		DCD10
944	2.13.01.06a		DCD10
945	2.13.01.06b		DCD10
946	2.13.01.09		DCD10
947	2.13.01.10		DCD10
948	2.13.01.11a		DCD10
949	2.13.01.11b		DCD10

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950	2.13.01.11c		DCD10
951	2.13.01.11d		DCD10
952	2.13.01.11e		DCD10
953	2.13.01.12a		DCD10
954	2.13.01.12b		DCD10
955	2.13.01.12c		DCD10
956	2.13.01.12d		DCD10
957	2.13.01.13		DCD10
958	2.13.01.14a		DCD10
959	2.13.01.14b		DCD10
960	2.13.03.01	Direct Current Power Supply	DCD10
961	2.13.03.02		DCD10
962	2.13.03.03.i		DCD10
963	2.13.03.03.ii		DCD10
964	2.13.03.04.i		DCD10
965	2.13.03.04.ii		DCD10
966	2.13.03.04.iii		DCD10
967	2.13.03.05		DCD10
968	2.13.03.06		DCD10
969	2.13.03.07		DCD10
970	2.13.03.08		DCD10
971	2.13.03.09		DCD10
972	2.13.03.12		DCD10
973	2.13.03.13		DCD10
974	2.13.03.14	DCD10	
975	2.13.04.01	Standby Onsite AC Power Supply	DCD10
976	2.13.04.02a		DCD10
977	2.13.04.02b		DCD10
978	2.13.04.02c		DCD10
979	2.13.04.02d		DCD10
980	2.13.04.02e		DCD10
981	2.13.04.02f		DCD10
982	2.13.04.02g		DCD10
983	2.13.04.02h		DCD10
984	2.13.04.02i		DCD10
985	2.13.04.04		DCD10
986	2.13.04.05a		DCD10
987	2.13.04.05b		DCD10
988	2.13.04.05c		DCD10
989	2.13.04.05d		DCD10
990	2.13.04.05e		DCD10
991	2.13.04.07.i		DCD10
992	2.13.04.07.ii	DCD10	
993	2.13.05.01	Uninterruptible AC Power Supply	DCD10
994	2.13.05.02		DCD10
995	2.13.05.03.i		DCD10
996	2.13.05.03.ii		DCD10
997	2.13.05.03.iii		DCD10
998	2.13.05.04		DCD10
999	2.13.05.05		DCD10

1000	2.13.05.06		DCD10
1001	2.13.05.09		DCD10
1002	2.13.05.10		DCD10
1003	2.13.05.11.i		DCD10
1004	2.13.05.11.ii		DCD10
1005	2.13.05.12		DCD10
1006	2.13.05.13		DCD10
1007	2.13.05.14		DCD10
1008	2.13.08.01	Lighting Power Supply	DCD10
1009	2.13.08.02		DCD10
1010	2.13.08.03		DCD10
1011	2.13.08.04		DCD10
1012	2.13.08.05		DCD10
1013	2.13.08.06		DCD10
1014	2.13.08.07		DCD10
1015	2.13.09.01	Grounding and Lighting Protection System	DCD10
1016	C.2.13.10.01a (C.2.4.08.01.01a)*	Offsite Power Systems	COL8
1017	C.2.13.10.01b (C.2.4.08.01.01b)*		COL8
1018	C.2.13.10.01c (C.2.4.08.01.01c)*		COL8
1019	C.2.13.10.02 (C.2.4.08.01.02)*		COL8
1020	C.2.13.10.03 (C.2.4.08.01.03)*		COL8
1021	C.2.13.10.04 (C.2.4.08.01.04)*		COL8
1022	C.2.13.10.05 (C.2.4.08.01.05)*		COL8
1023	2.15.01.01	Containment System	DCD10
1024	2.15.01.02a.02		DCD10
1025	2.15.01.02a.03		DCD10
1026	2.15.01.02b.01		DCD10
1027	2.15.01.02b.02		DCD10
1028	2.15.01.02b.03		DCD10
1029	2.15.01.02c.01		DCD10
1030	2.15.01.02c.02		DCD10
1031	2.15.01.02c.03		DCD10
1032	2.15.01.03a		DCD10
1033	2.15.01.03b		DCD10
1034	2.15.01.04.i		DCD10
1035	2.15.01.04.ii		DCD10
1036	2.15.01.05.i		DCD10
1037	2.15.01.05.ii		DCD10
1038	2.15.01.05.iii		DCD10
1039	2.15.01.06a		DCD10
1040	2.15.01.06b		DCD10

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1041	2.15.01.06c		DCD10
1042	2.15.01.07		DCD10
1043	2.15.01.08		DCD10
1044	2.15.01.09.i		DCD10
1045	2.15.01.09.ii		DCD10
1046	2.15.01.09.iii		DCD10
1047	2.15.01.09.iv		DCD10
1048	2.15.01.09.v		DCD10
1049	2.15.01.10		DCD10
1050	2.15.01.12		DCD10
1051	2.15.01.13		DCD10
1052	2.15.01.14		DCD10
1053	2.15.01.15		DCD10
1054	2.15.01.16a		DCD10
1055	2.15.01.16b		DCD10
1056	2.15.01.17		DCD10
1057	2.15.01.18		DCD10
1058	2.15.01.19		DCD10
1059	2.15.01.20		DCD10
1060	2.15.01.21		DCD10
1061	2.15.01.22a		DCD10
1062	2.15.01.22b		DCD10
1063	2.15.01.23a		DCD10
1064	2.15.01.23b		DCD10
1065	2.15.01.23c		DCD10
1066	2.15.03.01	Containment Internal Structures	DCD10
1067	2.15.03.02		DCD10
1068	2.15.03.03.i		DCD10
1069	2.15.03.03.ii		DCD10
1070	2.15.03.05		DCD10
1071	2.15.03.09		DCD10
1072	2.15.04.01	Passive Containment Cooling System	DCD10
1073	2.15.04.02a.02		DCD10
1074	2.15.04.02a.03		DCD10
1075	2.15.04.02b.01		DCD10
1076	2.15.04.02b.02		DCD10
1077	2.15.04.02b.03		DCD10
1078	2.15.04.03a		DCD10
1079	2.15.04.03b		DCD10
1080	2.15.04.04a		DCD10
1081	2.15.04.04b		DCD10
1082	2.15.04.05.i		DCD10
1083	2.15.04.05.ii		DCD10
1084	2.15.04.05.iii		DCD10
1085	2.15.04.06		DCD10
1086	2.15.04.07		DCD10
1087	2.15.04.09		DCD10
1088	2.15.04.10		DCD10
1089	2.15.04.11		DCD10
1090	2.15.04.12	DCD10	

1091	2.15.04.13		DCD10
1092	2.15.04.14		DCD10
1093	2.15.04.15		DCD10
1094	2.15.04.16		DCD10
1095	2.15.05.01	Containment Inerting System	DCD10
1096	2.15.05.03		DCD10
1097	2.15.07.01	Containment Monitoring System	DCD10
1098	2.15.07.02		DCD10
1099	2.15.07.03		DCD10
1100	2.15.07.04		DCD10
1101	2.15.07.05		DCD10
1102	2.15.07.06.i		DCD10
1103	2.15.07.06.ii		DCD10
1104	2.15.07.06.iii		DCD10
1105	2.15.08.01	Passive Autocatalytic Recombiner	DCD10
1106	2.15.08.02		DCD10
1107	2.16.01.01	Cranes, Hoists and Elevators	DCD10
1108	2.16.01.02		DCD10
1109	2.16.01.03		DCD10
1110	2.16.01.04		DCD10
1111	2.16.01.05		DCD10
1112	2.16.01.06		DCD10
1113	2.16.01.07		DCD10
1114	2.16.01.08		DCD10
1115	2.16.01.09		DCD10
1116	2.16.01.10.i		DCD10
1117	2.16.01.10.ii		DCD10
1118	2.16.01.10.iii		DCD10
1119	2.16.01.10.iv		DCD10
1120	2.16.01.10.v		DCD10
1121	2.16.01.10.vi		DCD10
1122	2.16.01.11.i		DCD10
1123	2.16.01.11.ii		DCD10
1124	2.16.01.11.iii		DCD10
1125	2.16.01.11.iv		DCD10
1126	2.16.01.11.v		DCD10
1127	2.16.01.11.vi	DCD10	
1128	2.16.01.12	DCD10	
1129	2.16.02.01.01	Reactor Building HVAC	DCD10
1130	2.16.02.01.02		DCD10
1131	2.16.02.01.03.i		DCD10
1132	2.16.02.01.03.ii		DCD10
1133	2.16.02.01.03.iii		DCD10
1134	2.16.02.01.04		DCD10
1135	2.16.02.01.05.i		DCD10
1136	2.16.02.01.05.ii		DCD10
1137	2.16.02.01.06.i		DCD10
1138	2.16.02.01.06.ii		DCD10
1139	2.16.02.01.07		DCD10
1140	2.16.02.01.09.i		DCD10

1141	2.16.02.01.09.ii		DCD10
1142	2.16.02.01.11		DCD10
1143	2.16.02.01.12a		DCD10
1144	2.16.02.01.12b		DCD10
1145	2.16.02.01.13		DCD10
1146	2.16.02.02.01	Control Building Habitability HVAC Subsystem	DCD10
1147	2.16.02.02.02		DCD10
1148	2.16.02.02.03.i		DCD10
1149	2.16.02.02.03.ii		DCD10
1150	2.16.02.02.03.iii		DCD10
1151	2.16.02.02.04.i		DCD10
1152	2.16.02.02.04.ii		DCD10
1153	2.16.02.02.04.iii		DCD10
1154	2.16.02.02.05.i		DCD10
1155	2.16.02.02.05.ii		DCD10
1156	2.16.02.02.06.i		DCD10
1157	2.16.02.02.06.ii		DCD10
1158	2.16.02.02.07		DCD10
1159	2.16.02.02.08		DCD10
1160	2.16.02.02.10	DCD10	
1161	2.16.02.02.11	DCD10	
1162	2.16.02.03.01	Emergency Filter Units	DCD10
1163	2.16.02.03.02		DCD10
1164	2.16.02.03.03.i		DCD10
1165	2.16.02.03.03.ii		DCD10
1166	2.16.02.03.03.iii		DCD10
1167	2.16.02.03.04.i		DCD10
1168	2.16.02.03.04.ii		DCD10
1169	2.16.02.03.05a		DCD10
1170	2.16.02.03.05b		DCD10
1171	2.16.02.03.06		DCD10
1172	2.16.02.03.07		DCD10
1173	2.16.02.03.10		DCD10
1174	2.16.02.03.11		DCD10
1175	2.16.02.03.12	DCD10	
1176	2.16.02.04.01	Turbine Building Ventilation System	DCD10
1177	2.16.02.04.02		DCD10
1178	2.16.02.05.01	Fuel Building HVAC System	DCD10
1179	2.16.02.05.02		DCD10
1180	2.16.02.05.03.i		DCD10
1181	2.16.02.05.03.ii		DCD10
1182	2.16.02.05.03.iii		DCD10
1183	2.16.02.05.04.i		DCD10
1184	2.16.02.05.04.ii		DCD10
1185	2.16.02.05.05		DCD10
1186	2.16.02.07.01	Electrical Building Ventilation System	DCD10
1187	2.16.02.07.02		DCD10
1188	2.16.02.07.03		DCD10
1189	2.16.02.07.04		DCD10
1190	2.16.02.07.05		DCD10

1191	2.16.03.01	Fire Protection System	DCD10
1192	2.16.03.02.i		DCD10
1193	2.16.03.02.ii		DCD10
1194	2.16.03.03.i		DCD10
1195	2.16.03.03.ii		DCD10
1196	2.16.03.03.iii		DCD10
1197	2.16.03.04a		DCD10
1198	2.16.03.04b		DCD10
1199	2.16.03.05.i		DCD10
1200	2.16.03.05.ii		DCD10
1201	2.16.03.06		DCD10
1202	2.16.03.07a		DCD10
1203	2.16.03.07b		DCD10
1204	2.16.03.09		DCD10
1205	2.16.03.01.01	Fire Barriers	DCD10
1206	2.16.03.01.02		DCD10
1207	2.16.03.01.03		DCD10
1208	2.16.03.01.04		DCD10
1209	2.16.03.01.05		DCD10
1210	2.16.04.01	Equipment and Floor Drain System	DCD10
1211	2.16.04.02		DCD10
1212	2.16.04.03		DCD10
1213	2.16.05.01	Reactor Building	DCD10
1214	2.16.05.02		DCD10
1215	2.16.05.03		DCD10
1216	2.16.05.04		DCD10
1217	2.16.05.05		DCD10
1218	2.16.05.06		DCD10
1219	2.16.05.07		DCD10
1220	2.16.05.08		DCD10
1221	2.16.05.09a		DCD10
1222	2.16.05.09b		DCD10
1223	2.16.05.10		DCD10
1224	2.16.05.11		DCD10
1225	2.16.05.12		DCD10
1226	2.16.05.13		DCD10
1227	2.16.05.14		DCD10
1228	2.16.05.15		DCD10
1229	2.16.06.01	Control Building	DCD10
1230	2.16.06.02		DCD10
1231	2.16.06.03		DCD10
1232	2.16.06.04		DCD10
1233	2.16.06.05		DCD10
1234	2.16.06.06		DCD10
1235	2.16.06.07		DCD10
1236	2.16.06.08		DCD10
1237	2.16.06.09		DCD10
1238	2.16.07.01	Fuel Building	DCD10
1239	2.16.07.02		DCD10
1240	2.16.07.03		DCD10

1241	2.16.07.04		DCD10
1242	2.16.07.05		DCD10
1243	2.16.07.06		DCD10
1244	2.16.07.07		DCD10
1245	2.16.07.08		DCD10
1246	2.16.07.09		DCD10
1247	2.16.07.10		DCD10
1248	2.16.07.11		DCD10
1249	2.16.07.12		DCD10
1250	2.16.08.01	Turbine Building	DCD10
1251	2.16.08.02		DCD10
1252	2.16.08.03		DCD10
1253	2.16.08.04		DCD10
1254	2.16.08.05		DCD10
1255	2.16.08.06		DCD10
1256	C.2.16.08.07 (C.2.4.15.01.01)*		COL8
1257	C.2.16.08.08 (C.2.4.15.01.02)*		
1258	2.16.09.01	Radwaste Building	DCD10
1259	2.16.09.02		DCD10
1260	2.16.09.03		DCD10
1261	C.2.16.09.04 (C.2.4.16.01.01)*		COL8
1262	C.2.16.09.05 (C.2.4.16.01.02)*		COL8
1263	C.2.16.09.06 (C.2.4.16.01.03)*		COL8
1264	2.16.10.01	Service Building	DCD10
1265	2.16.10.02		DCD10
1266	2.16.10.03		DCD10
1267	C.2.16.10.04 (C.2.4.17.01.01)*		COL8
1268	C.2.16.10.05 (C.2.4.17.01.02)*		COL8
1269	2.16.11.01	Ancillary Diesel Building	DCD10
1270	2.16.11.02		DCD10
1271	2.16.11.03		DCD10
1272	2.16.11.04		DCD10
1273	2.16.11.05		DCD10
1274	2.16.11.06		DCD10
1275	2.16.11.07		DCD10
1276	C.2.16.11.08 (C.2.4.18.01.01)*		COL8
1277	C.2.16.11.09 (C.2.4.18.01.02)*		COL8
1278	2.16.12.01		Fire Water Service Complex
1279	2.16.12.02	DCD10	

* Reference ITAAC number from COLA

1280	2.16.12.03		DCD10
1281	2.16.12.04		DCD10
1282	2.16.12.05		DCD10
1283	2.16.13.01	Electrical Building	DCD10
1284	2.16.13.02		DCD10
1285	2.16.13.03		DCD10
1286	2.16.13.04		DCD10
1287	2.16.13.05		DCD10
1288	2.16.13.06		DCD10
1289	2.16.14.01	Service Water Building	DCD10
1290	2.16.14.02		DCD10
1291	2.16.14.03		DCD10
1292	2.16.14.04		DCD10
1293	2.16.14.05		DCD10
1294	2.16.14.06		DCD10
1295	2.16.14.07		DCD10
1296	2.19.00.01a	Plant Security	DCD10
1297	2.19.00.01b		DCD10
1298	2.19.00.06		DCD10
1299	2.19.00.10		DCD10
1300	2.19.00.11b		DCD10
1301	2.19.00.12		DCD10
1302	2.19.00.13a		DCD10
1303	2.19.00.13b		DCD10
1304	2.19.00.14		DCD10
1305	2.19.00.15		DCD10
1306	2.19.00.16a		DCD10
1307	2.19.00.16b		DCD10
1308	2.19.00.16c		DCD10
1309	C.2.19.00.01a (C.2.2.01.01a)*	Site-Specific Security System	COL8
1310	C.2.19.00.01b (C.2.2.01.01b)*		COL8
1311	C.2.19.00.02a (C.2.2.01.02a)*		COL8
1312	C.2.19.00.02b (C.2.2.01.02b)*		COL8
1313	C.2.19.00.02c (C.2.2.01.02c)*		COL8
1314	C.2.19.00.03a (C.2.2.01.03a)*		COL8
1315	C.2.19.00.03b (C.2.2.01.03b)*		COL8
1316	C.2.19.00.03c (C.2.2.01.03c)*		COL8
1317	C.2.19.00.04a (C.2.2.01.04a)*		COL8
1318	C.2.19.00.04b (C.2.2.01.04b)*		COL8

* Reference ITAAC number from COLA

1319	C.2.19.00.04c (C.2.2.01.04c)*		COL8
1320	C.2.19.00.05 (C.2.2.01.05)*		COL8
1321	C.2.19.00.06 (C.2.2.01.06)*		COL8
1322	C.2.19.00.07 (C.2.2.01.07)*		COL8
1323	C.2.19.00.08a (C.2.2.01.08a)*		COL8
1324	C.2.19.00.08b (C.2.2.01.08b)*		COL8
1325	C.2.19.00.09 (C.2.2.01.09)*		COL8
1326	C.2.19.00.10 (C.2.2.01.10)*		COL8
1327	C.2.19.00.11a (C.2.2.01.11a)*		COL8
1328	C.2.19.00.11b (C.2.2.01.11b)*		COL8
1329	C.2.19.00.11c (C.2.2.01.11c)*		COL8
1330	C.2.19.00.11d (C.2.2.01.11d)*		COL8
1331	C.2.19.00.11e (C.2.2.01.11e)*		COL8
1332	C.2.19.00.12 (C.2.2.01.12)*		COL8
1333	C.2.19.00.13a (C.2.2.01.13a)*		COL8
1334	C.2.19.00.13b (C.2.2.01.13b)*		COL8
1335	C.2.19.00.15 (C.2.2.01.15)*		COL8
1336	C.2.19.00.16a (C.2.2.01.16a)*		COL8
1337	C.2.19.00.16b (C.2.2.01.16b)*		COL8
1338	C.2.19.00.16c (C.2.2.01.16c)*		COL8
1339	3.1.00.03	Design of Piping Systems and Components	DCD10
1340	3.1.00.06		DCD10
1341	3.2.00.01a.01	Software Development	DCD10
1342	3.2.00.01a.02		DCD10
1343	3.2.00.01a.03		DCD10
1344	3.2.00.01a.04		DCD10
1345	3.2.00.01a.05		DCD10
1346	3.2.00.01a.06		DCD10
1347	3.2.00.01a.07		DCD10
1348	3.2.00.01a.08		DCD10
1349	3.2.00.01a.09		DCD10

1350	3.2.00.01b.01	DCD10
1351	3.2.00.01b.02	DCD10
1352	3.2.00.01b.03	DCD10
1353	3.2.00.01b.04	DCD10
1354	3.2.00.01b.05	DCD10
1355	3.2.00.01b.06	DCD10
1356	3.2.00.01b.07	DCD10
1357	3.2.00.01b.08	DCD10
1358	3.2.00.01b.09	DCD10
1359	3.2.00.01c.01	DCD10
1360	3.2.00.01c.02	DCD10
1361	3.2.00.01c.03	DCD10
1362	3.2.00.01c.04	DCD10
1363	3.2.00.01c.05	DCD10
1364	3.2.00.01c.06	DCD10
1365	3.2.00.01c.07	DCD10
1366	3.2.00.01c.08	DCD10
1367	3.2.00.01c.09	DCD10
1368	3.2.00.01d.01	DCD10
1369	3.2.00.01d.02	DCD10
1370	3.2.00.01d.03	DCD10
1371	3.2.00.01d.04	DCD10
1372	3.2.00.01d.05	DCD10
1373	3.2.00.01d.06	DCD10
1374	3.2.00.01d.07	DCD10
1375	3.2.00.01d.08	DCD10
1376	3.2.00.01d.09	DCD10
1377	3.2.00.01e.01	DCD10
1378	3.2.00.01e.02	DCD10
1379	3.2.00.01e.03	DCD10
1380	3.2.00.01e.04	DCD10
1381	3.2.00.01e.05	DCD10
1382	3.2.00.01e.06	DCD10
1383	3.2.00.01e.07	DCD10
1384	3.2.00.01e.08	DCD10
1385	3.2.00.01e.09	DCD10
1386	3.2.00.01f.01	DCD10
1387	3.2.00.01f.02	DCD10
1388	3.2.00.01f.03	DCD10
1389	3.2.00.01f.04	DCD10
1390	3.2.00.01f.05	DCD10
1391	3.2.00.01f.06	DCD10
1392	3.2.00.01f.07	DCD10
1393	3.2.00.01f.08	DCD10
1394	3.2.00.01f.09	DCD10
1395	3.2.00.01g.01	DCD10
1396	3.2.00.01g.02	DCD10
1397	3.2.00.01g.03	DCD10
1398	3.2.00.01g.04	DCD10
1399	3.2.00.01g.05	DCD10

1400	3.2.00.01g.06	DCD10
1401	3.2.00.01g.07	DCD10
1402	3.2.00.01g.08	DCD10
1403	3.2.00.01g.09	DCD10
1404	3.2.00.01h.01	DCD10
1405	3.2.00.01h.02	DCD10
1406	3.2.00.01h.03	DCD10
1407	3.2.00.01h.04	DCD10
1408	3.2.00.01h.05	DCD10
1409	3.2.00.01h.06	DCD10
1410	3.2.00.01h.07	DCD10
1411	3.2.00.01h.08	DCD10
1412	3.2.00.01h.09	DCD10
1413	3.2.00.01i.01	DCD10
1414	3.2.00.01i.02	DCD10
1415	3.2.00.01i.03	DCD10
1416	3.2.00.01i.04	DCD10
1417	3.2.00.01i.05	DCD10
1418	3.2.00.01i.06	DCD10
1419	3.2.00.01i.07	DCD10
1420	3.2.00.01i.08	DCD10
1421	3.2.00.01i.09	DCD10
1422	3.2.00.01j.01	DCD10
1423	3.2.00.01j.02	DCD10
1424	3.2.00.01j.03	DCD10
1425	3.2.00.01j.04	DCD10
1426	3.2.00.01j.05	DCD10
1427	3.2.00.01j.06	DCD10
1428	3.2.00.01j.07	DCD10
1429	3.2.00.01j.08	DCD10
1430	3.2.00.01j.09	DCD10
1431	3.2.00.01k.01	DCD10
1432	3.2.00.01k.02	DCD10
1433	3.2.00.01k.03	DCD10
1434	3.2.00.01k.04	DCD10
1435	3.2.00.01k.05	DCD10
1436	3.2.00.01k.06	DCD10
1437	3.2.00.01k.07	DCD10
1438	3.2.00.01k.08	DCD10
1439	3.2.00.01k.09	DCD10
1440	3.2.00.01l.01	DCD10
1441	3.2.00.01l.02	DCD10
1442	3.2.00.01l.03	DCD10
1443	3.2.00.01l.04	DCD10
1444	3.2.00.01l.05	DCD10
1445	3.2.00.01l.06	DCD10
1446	3.2.00.01l.07	DCD10
1447	3.2.00.01l.08	DCD10
1448	3.2.00.01l.09	DCD10
1449	3.2.00.02a.01	DCD10

1450	3.2.00.02a.02	DCD10
1451	3.2.00.02a.03	DCD10
1452	3.2.00.02a.04	DCD10
1453	3.2.00.02a.05	DCD10
1454	3.2.00.02a.06	DCD10
1455	3.2.00.02a.07	DCD10
1456	3.2.00.02a.08	DCD10
1457	3.2.00.02a.09	DCD10
1458	3.2.00.02b.01	DCD10
1459	3.2.00.02b.02	DCD10
1460	3.2.00.02b.03	DCD10
1461	3.2.00.02b.04	DCD10
1462	3.2.00.02b.05	DCD10
1463	3.2.00.02b.06	DCD10
1464	3.2.00.02b.07	DCD10
1465	3.2.00.02b.08	DCD10
1466	3.2.00.02b.09	DCD10
1467	3.2.00.02c.01	DCD10
1468	3.2.00.02c.02	DCD10
1469	3.2.00.02c.03	DCD10
1470	3.2.00.02c.04	DCD10
1471	3.2.00.02c.05	DCD10
1472	3.2.00.02c.06	DCD10
1473	3.2.00.02c.07	DCD10
1474	3.2.00.02c.08	DCD10
1475	3.2.00.02c.09	DCD10
1476	3.2.00.02d.01	DCD10
1477	3.2.00.02d.02	DCD10
1478	3.2.00.02d.03	DCD10
1479	3.2.00.02d.04	DCD10
1480	3.2.00.02d.05	DCD10
1481	3.2.00.02d.06	DCD10
1482	3.2.00.02d.07	DCD10
1483	3.2.00.02d.08	DCD10
1484	3.2.00.02d.09	DCD10
1485	3.2.00.02e.01	DCD10
1486	3.2.00.02e.02	DCD10
1487	3.2.00.02e.03	DCD10
1488	3.2.00.02e.04	DCD10
1489	3.2.00.02e.05	DCD10
1490	3.2.00.02e.06	DCD10
1491	3.2.00.02e.07	DCD10
1492	3.2.00.02e.08	DCD10
1493	3.2.00.02e.09	DCD10
1494	3.2.00.03a.01	DCD10
1495	3.2.00.03a.02	DCD10
1496	3.2.00.03a.03	DCD10
1497	3.2.00.03b.01	DCD10
1498	3.2.00.03b.02	DCD10
1499	3.2.00.03b.03	DCD10

1500	3.2.00.03c.01		DCD10
1501	3.2.00.03c.02		DCD10
1502	3.2.00.03c.03		DCD10
1503	3.2.00.03d.01		DCD10
1504	3.2.00.03d.02		DCD10
1505	3.2.00.03d.03		DCD10
1506	3.2.00.03e.01		DCD10
1507	3.2.00.03e.02		DCD10
1508	3.2.00.03e.03		DCD10
1509	3.2.00.03f.01		DCD10
1510	3.2.00.03f.02		DCD10
1511	3.2.00.03f.03		DCD10
1512	3.2.00.03g.01		DCD10
1513	3.2.00.03g.02		DCD10
1514	3.2.00.03g.03		DCD10
1515	3.2.00.03h.01		DCD10
1516	3.2.00.03h.02		DCD10
1517	3.2.00.03h.03		DCD10
1518	3.2.00.03.i.01		DCD10
1519	3.2.00.03j.01		DCD10
1520	3.2.00.03j.02		DCD10
1521	3.2.00.03k.01		DCD10
1522	3.2.00.03k.02		DCD10
1523	3.2.00.03l.01		DCD10
1524	3.2.00.03l.02		DCD10
1525	3.2.00.03m.01		DCD10
1526	3.2.00.03m.02		DCD10
1527	3.2.00.03n.01		DCD10
1528	3.2.00.03n.02		DCD10
1529	3.2.00.03o.01		DCD10
1530	3.2.00.03o.02		DCD10
1531	3.2.00.03p.01		DCD10
1532	3.2.00.03p.02		DCD10
1533	3.2.00.03q.01		DCD10
1534	3.2.00.03q.02		DCD10
1535	3.2.00.03r.01		DCD10
1536	3.2.00.03r.02		DCD10
1537	3.2.00.03r.03		DCD10
1538	3.2.00.03s.01		DCD10
1539	3.2.00.03s.02		DCD10
1540	3.3.00.01	Human Factors Engineering	DCD10
1541	3.3.00.02		DCD10
1542	3.3.00.03		DCD10
1543	3.3.00.04.i		DCD10
1544	3.3.00.04.ii		DCD10
1545	3.3.00.05.i		DCD10
1546	3.3.00.05.ii		DCD10
1547	3.3.00.06.i		DCD10
1548	3.3.00.06.ii		DCD10
1549	3.3.00.09		DCD10

1550	3.3.00.10		DCD10
1551	3.3.00.11		DCD10
1552	3.3.00.12		DCD10
1553	3.4.00.01	Radiation Protection	DCD10
1554	3.4.00.03		DCD10
1555	3.6.00.01	Design Reliability Assurance Program	DCD10
1556	3.7.00.01	Post-Accident Monitoring Instrumentation	DCD10
1557	3.8.00.01.ii.01	Environmental and Seismic Qualification of Mechanical and Electrical Equipment	DCD10
1558	3.8.00.01.ii.02		DCD10
1559	3.8.00.01.ii.03		DCD10
1560	3.8.00.01.ii.04		DCD10
1561	3.8.00.01.ii.05		DCD10
1562	3.8.00.01.ii.06		DCD10
1563	3.8.00.01.ii.07		DCD10
1564	3.8.00.01.ii.10		DCD10
1565	3.8.00.01.ii.11		DCD10
1566	3.8.00.01.ii.12		DCD10
1567	3.8.00.01.ii.13		DCD10
1568	3.8.00.01.ii.14		DCD10
1569	3.8.00.01.ii.15		DCD10
1570	3.8.00.01.ii.16		DCD10
1571	3.8.00.01.ii.17		DCD10
1572	3.8.00.01.ii.20		DCD10
1573	3.8.00.01.ii.21		DCD10
1574	3.8.00.01.ii.26		DCD10
1575	3.8.00.01.ii.27		DCD10
1576	3.8.00.01.ii.29		DCD10
1577	3.8.00.01.ii.30		DCD10
1578	3.8.00.01.ii.31		DCD10
1579	3.8.00.01.ii.32		DCD10
1580	3.8.00.01.ii.34		DCD10
1581	3.8.00.01.ii.35		DCD10
1582	3.8.00.01.ii.37		DCD10
1583	3.8.00.01.iii.01		DCD10
1584	3.8.00.01.iii.02		DCD10
1585	3.8.00.01.iii.03		DCD10
1586	3.8.00.01.iii.04		DCD10
1587	3.8.00.01.iii.05		DCD10
1588	3.8.00.01.iii.06		DCD10
1589	3.8.00.01.iii.07		DCD10
1590	3.8.00.01.iii.10		DCD10
1591	3.8.00.01.iii.11		DCD10
1592	3.8.00.01.iii.12		DCD10
1593	3.8.00.01.iii.13		DCD10
1594	3.8.00.01.iii.14		DCD10
1595	3.8.00.01.iii.15		DCD10
1596	3.8.00.01.iii.16		DCD10
1597	3.8.00.01.iii.17		DCD10
1598	3.8.00.01.iii.20		DCD10

1599	3.8.00.01.iii.21	DCD10
1600	3.8.00.01.iii.26	DCD10
1601	3.8.00.01.iii.27	DCD10
1602	3.8.00.01.iii.29	DCD10
1603	3.8.00.01.iii.30	DCD10
1604	3.8.00.01.iii.31	DCD10
1605	3.8.00.01.iii.32	DCD10
1606	3.8.00.01.iii.34	DCD10
1607	3.8.00.01.iii.35	DCD10
1608	3.8.00.01.iii.37	DCD10
1609	3.8.00.02.ii.01	DCD10
1610	3.8.00.02.ii.02	DCD10
1611	3.8.00.02.ii.04	DCD10
1612	3.8.00.02.ii.07	DCD10
1613	3.8.00.02.ii.13	DCD10
1614	3.8.00.02.ii.14	DCD10
1615	3.8.00.02.ii.15	DCD10
1616	3.8.00.02.ii.16	DCD10
1617	3.8.00.02.ii.17	DCD10
1618	3.8.00.02.ii.22	DCD10
1619	3.8.00.02.ii.23	DCD10
1620	3.8.00.02.ii.24	DCD10
1621	3.8.00.02.ii.25	DCD10
1622	3.8.00.02.ii.30	DCD10
1623	3.8.00.02.ii.31	DCD10
1624	3.8.00.02.ii.32	DCD10
1625	3.8.00.02.ii.33	DCD10
1626	3.8.00.02.ii.34	DCD10
1627	3.8.00.02.iii.01	DCD10
1628	3.8.00.02.iii.02	DCD10
1629	3.8.00.02.iii.04	DCD10
1630	3.8.00.02.iii.07	DCD10
1631	3.8.00.02.iii.13	DCD10
1632	3.8.00.02.iii.14	DCD10
1633	3.8.00.02.iii.15	DCD10
1634	3.8.00.02.iii.16	DCD10
1635	3.8.00.02.iii.17	DCD10
1636	3.8.00.02.iii.22	DCD10
1637	3.8.00.02.iii.23	DCD10
1638	3.8.00.02.iii.24	DCD10
1639	3.8.00.02.iii.25	DCD10
1640	3.8.00.02.iii.30	DCD10
1641	3.8.00.02.iii.31	DCD10
1642	3.8.00.02.iii.32	DCD10
1643	3.8.00.02.iii.33	DCD10
1644	3.8.00.02.iii.34	DCD10
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1650	3.8.00.03.i.08	
1651	3.8.00.03.i.09	DCD10
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1669	3.8.00.03.ii.08	
1670	3.8.00.03.ii.09	DCD10
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1690	3.8.00.03.iii.18	
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1759	C.3.9.01.01 (C.2.3.01.01.01)*	Emergency Planning – Emergency Classification System	COL8
1760	C.3.9.02.01 (C.2.3.01.02.01)*	Emergency Planning – Notification Methods and Procedure	COL8
1761	C.3.9.02.02 (C.2.3.01.02.02)*		COL8
1762	C.3.9.02.03 (C.2.3.01.02.03)*		COL8
1763	C. 3.9.03.01.01 (C.2.3.01.03.01.01)	Emergency Planning – Emergency Communications	
1764	C. 3.9.03.01.02 (C.2.3.01.03.01.02)		
1765	C. 3.9.03.01.03 (C.2.3.01.03.01.03)		
1766	C. 3.9.03.01.04 (C.2.3.01.03.01.04)		
1767	C. 3.9.03.01.05 (C.2.3.01.03.01.05)		
1768	C. 3.9.03.02 (C.2.3.01.03.02)		
1769	C.3.9.05.01.01 (C.2.3.01.05.01.01)*	Emergency Planning – Emergency Facilities and Equipment	COL8
1770	C.3.9.05.01.02 (C.2.3.01.05.01.02)*		COL8
1771	C.3.9.05.01.03 (C.2.3.01.05.01.03)†		COL8
1772	C.3.9.05.01.04 (C.2.3.01.05.01.04)*		COL8
1773	C.3.9.05.01.05 (C.2.3.01.05.01.05)*		COL8
1774	C.3.9.05.01.06 (C.2.3.01.05.01.06)*		COL8
1775	C.3.9.05.01.07 (C.2.3.01.05.01.07)*		COL8
1776	C.3.9.05.02.01 (C.2.3.01.05.02.01)*		COL8

* Reference ITAAC number from COLA

1777	C.3.9.05.02.02 (C.2.3.01.05.02.02)*		COL8
1778	C.3.9.05.02.03 (C.2.3.01.05.02.03)*		COL8
1779	C.3.9.05.02.04 (C.2.3.01.05.02.04)*		COL8
1780	C.3.9.06.01 (C.2.3.01.06.01)*	Emergency Planning – Accident Assessment	COL8
1781	C.3.9.06.02 (C.2.3.01.06.02)*		COL8
1782	C.3.9.06.03 (C.2.3.01.06.03)*		COL8
1783	C.3.9.06.04 (C.2.3.01.06.04)*		COL8
1784	C.3.9.06.05 (C.2.3.01.06.05)*		COL8
1785	C.3.9.06.06 (C.2.3.01.06.06)*		COL8
1786	C.3.9.06.07 (C.2.3.01.06.07)*		COL8
1787	C.3.9.07.01.01 (C.2.3.01.07.01.01)*		Emergency Planning – Protective Response
1788	C.3.9.07.01.02 (C.2.3.01.07.01.02)*	COL8	
1789	C.3.9.08.01.01 (C.2.3.01.08.01.01)*	Emergency Planning - Exercises and Drills	COL8
1790	C.3.9.08.01.02 (C.2.3.01.08.01.02)*		COL8
1791	C.3.9.08.01.03 (C.2.3.01.08.01.03)*		COL8 COL8
1792	C.3.9.09.01 (C.2.3.01.09.01)*	Emergency Planning – Implementing Procedures	COL8
1793	C.3.10.01.01 (C.2.4.01.01.01)*	Site-Specific Fill Concrete Under and Around the Sides of Seismic Category I Structures	COL8
1794	C.3.10.02.01 (C.2.4.02.01.01)*	Site-Specific Structural Fill Surrounding Seismic Category I Structures	COL8

* Reference ITAAC number from COLA

April 6, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
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DOMINION VIRGINIA POWER) Docket No. 052-017-COL
)
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(North Anna Nuclear Power Station, Unit 3))

CERTIFICATE OF SERVICE

I hereby certify that the document entitled NRC STAFF RESPONSES TO POST-HEARING QUESTIONS, dated April 6, 2017, has been filed through the E-Filing system this 6th day of April, 2017.

/Signed (electronically) by/
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Dated at Rockville, Maryland
This 6th day of April 2017