North Anna Power Station
Updated Final Safety Analysis Report

Chapter 16

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Chapter 16: Technical Specifications and Requirements
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CHAPTER 16 TECHNICAL SPECIFICATIONS AND REQUIREMENTS

16.1 SAFETY AND ENVIRONMENTAL TECHNICAL SPECIFICATIONS

Technical Specifications define plant variables, operating conditions, surveillance requirements, and administrative controls that are considered necessary to ensure the health and safety of the public.

The scope of these specifications is as set forth in Section 50.36 of 10 CFR 50 for Final Safety Analysis Report Technical Specifications. Items in six broad categories are included: (1) safety limits, (2) limiting safety system settings, (3) limiting conditions for operation, (4) surveillance requirements, (5) design features, and (6) administrative controls.

Safety limits are limits upon measurable plant variables, such as thermal power, neutron flux, flow rates, pressures, and temperatures, which ensure fuel cladding and reactor coolant system integrity.

Limiting safety system settings are settings for automatic protective devices that ensure that even under the most adverse situation anticipated, a safety limit will not be exceeded. Prime examples are the reactor trip settings. Instrument inaccuracies, calibration errors, and circuit response times, as well as calculational uncertainties, are considered.

Limiting conditions for operation primarily establish the conditions of the various safety-related components and systems necessary to either begin reactor operation or to continue operation. The reactor coolant system, Chemical and Volume Control System, steam and power conversion system, instrumentation systems, containment system, auxiliary electrical systems, and the systems making up the engineered safety features have minimum acceptable capabilities.

Specifications on pumps, valves, tanks, fluid levels, chemical constituents in certain fluids, radioactivity levels, etc., ensure that the above systems meet their minimum acceptable performance levels.

Surveillance requirements are imposed on plant conditions, systems, and components to ensure that the limiting conditions for operation are being met. Tests, checks, calibrations, inspections, and samplings at appropriate intervals verify the required plant conditions and performance capability of systems and components.

Design features include a description of the plant's site, reactor containment, reactor core, reactor coolant system, and fuel storage facilities. The purpose of this section is to delineate the features of a plant not covered in other specifications.

Administrative controls are meant to prevent the existence or development of an unsafe condition in connection with the operation of the reactor. They also define the administrative action to be taken in the event a safety limit or allowed condition for operation is exceeded.

Requirements concerning the facility's organization and management, procedures, record-keeping, review and audit, and reporting are specified.

The Configuration Risk Management Program (CRMP) provides a proceduralized risk-informed assessment to manage risks associated with equipment inoperability. The program applies to technical specification structures, systems, and components for which a risk-informed allowed outage time has been granted. The program includes the following elements:

1. Provisions for the control and implementation of a Level 1, at power, internal events, PRA-informed methodology. The assessment shall be capable of evaluating the applicable plant configuration.
2. Provisions for performing an assessment prior to entering an LCO Actions Table for planned activities.
3. Provisions for performing an assessment after entering the LCO Actions Table for unplanned entry into the LCO Condition(s).
4. Provisions for assessing the need for addition actions after the discovery of additional equipment out of service conditions while in the LCO Actions Table.
5. Provisions for considering other applicable risk significant contributors such as Level 2 issue and external events, qualitatively or quantitatively.

The Technical Specifications originally in this chapter have been deleted, since they are no longer applicable. References to this chapter have been amended as appropriate.

The Technical Specifications (issued as Appendix A to the Operating License) and changes thereto are contained in a separately bound document to facilitate updating independently of the FSAR.

Environmental Technical Specifications

The Environmental Technical Specifications (ETS) define plant variables, operating conditions, monitoring requirements, and administrative controls that are considered necessary to ensure that the station will be operated within limits of acceptable environmental impact.

VEPCO submitted proposed Environmental Technical Specifications as Chapter 16A of the FSAR during September 1976. The NRC staff issued on November 16, 1976, a working edition of the ETS.

The ETS underwent an iterative process of review and development between VEPCO and the NRC. The finalized version of the ETS was issued by the NRC as Appendix B to the Operating License.

The ETS originally in this chapter have been deleted since they are no longer applicable. References to this chapter have been amended as appropriate.

The Environmental Technical Specifications and changes thereto are contained in a separately bound document to facilitate updating independently of the FSAR.

The Environmental Technical Specifications have subsequently been replaced by the Environmental Protection Plan, Appendix B of the Facility Operating License.

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16.2 TECHNICAL REQUIREMENTS

The Technical Requirements Manual (TRM) contains requirements for plant operation and surveillance of systems formerly contained in the Technical Specifications, along with other selected items. Some requirements were removed from the Technical Specifications as part of NRC and industry efforts to simplify Technical Specifications.

The TRM is controlled by station procedure, and a 10 CFR 50.59 review is required to change the TRM. Changes to the TRM may be made without prior NRC approval, provided that the changes do not involve a license amendment as defined in 10 CFR 50.59. Changes to the TRM that are implemented without prior NRC approval are reported to the NRC in accordance with 10 CFR 50.59. Proposed changes that involve a license amendment are reviewed and approved by the NRC prior to implementation.

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