

May 8, 1986

Docket Nos. 50-338
and 50-339

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L. Tremper	M. F. Runyan

Mr. W. L. Stewart
Vice President - Nuclear Operations
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment Nos. 78 and 67 to Facility Operating License Nos. NPF-4 and NPF-7 for the North Anna Power Station, Units No. 1 and No. 2 (NA-1&2). The amendments revise the Technical Specifications (TS) in response to your letter dated November 2, 1984.

The amendments revise the NA-1&2 TS to reflect changes in the current organizations within the Nuclear Operation Department, Quality Assurance Department, Maintenance and Performance Services Department and Security Department. In addition, the changes reflect title changes to corporate officials and responsibilities and reporting requirements. The most significant change involved the creation of the Manager, Nuclear Programs and Licensing, and the Assistant Station Manager (Nuclear Safety and Licensing).

A copy of the Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next monthly Federal Register notice.

Sincerely,

/s/

Leon B. Engle, Project Manager
PWR Project Directorate #2
Division of PWR Licensing-A

Enclosure:

1. Amendment No. 78 to NPF-4
2. Amendment No. 67 to NPF-7
3. Safety Evaluation

cc w/enclosures:
See next page

*See previous concurrence

LA: PAD#2
DM: Ver
5/6/86

PM: PAD#2
LEngle:hc
4/9/86

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D: PAD#2
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5/6/86

OELD* *no legal objection*
4/27/86

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LA/PAD#2
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LEngle:hc
4/9/86

[Signature]
D/PAD#2
LRubenstein
4/12/86

OELD
No legal objection
[Signature]
4/11/86

Mr. W. L. Stewart
Virginia Electric & Power Company

North Anna Power Station
Units 1 and 2

cc:

Richard M. Foster, Esq.
Cockrell, Quinn & Creighton
516 Cherry Tower
920 South Cherry Street
Denver, Colorado 80222

Michael W. Maupin, Esq.
Hunton, Williams, Gay and Gibson
P. O. Box 1535
Richmond, Virginia 23212

Mr. W. T. Lough
Virginia Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Ellyn R. Weiss, Esq.
Harmon, Weiss and Jordan
2001 S Street NW
Washington, DC 20009

Mr. J. T. Rhodes
Senior Vice President - Power
Virginia Electric and Power Co.
Post Office Box 26666
Richmond, Virginia 23261

Mr. Anthony Gambardella
Office of the Attorney General
Supreme Court Building
101 North 8th Street
Richmond, Virginia 23219

Resident Inspector/North Anna
c/o U.S. NRC
Senior Resident Inspector
Route 2, Box 78
Mineral, Virginia 23117

Mrs. Margaret Dietrich
Route 2, Box 568
Gordonsville, Virginia 22042

Mr. Paul W. Purdom
Environmental Studies Institute
Drexel University
32nd and Chestnut Streets
Philadelphia, Pennsylvania 19104

Atomic Safety and Licensing Appeal
Board Panel
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
Office of Executive Director
for Operations
101 Marietta Street N.W., Suite 2900
Atlanta, Georgia 30323

Mr. E. W. Harrell
P. O. Box 402
Mineral, Virginia 23117

Old Dominion Electric Cooperative
c/o Executive Vice President
Innsbrook Corporate Center
4222 Cox Road, Suite 102
Glen Allen, Virginia 23060

Mr. Richard C. Klepper
Board of Supervisors
Louisa County Courthouse
P. O. Box 27
Louisa, Virginia 23093



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

DOCKET NO. 50-338

NORTH ANNA POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 78
License No. NPF-4

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company, et al., (the licensee) dated November 2, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.D.(2) of Facility Operating License No. NPF-4 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 78, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Acting
for

Lester S. Rubenstein, Director
PWR Project Directorate #2
Division of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 8, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 78

TO FACILITY OPERATING LICENSE NO. NPF-4

DOCKET NO. 50-338

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Page

5-1
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5.0 DESIGN FEATURES

5.1 SITE

EXCLUSION AREA

5.1.1 The exclusion area shall be as shown in Figure 5.1-1.

LOW POPULATION ZONE

5.1.2 The low population zone shall be as shown in Figure 5.1-2.

MAP DEFINING UNRESTRICTED AREAS FOR RADIOACTIVE GASEOUS AND LIQUID EFFLUENTS

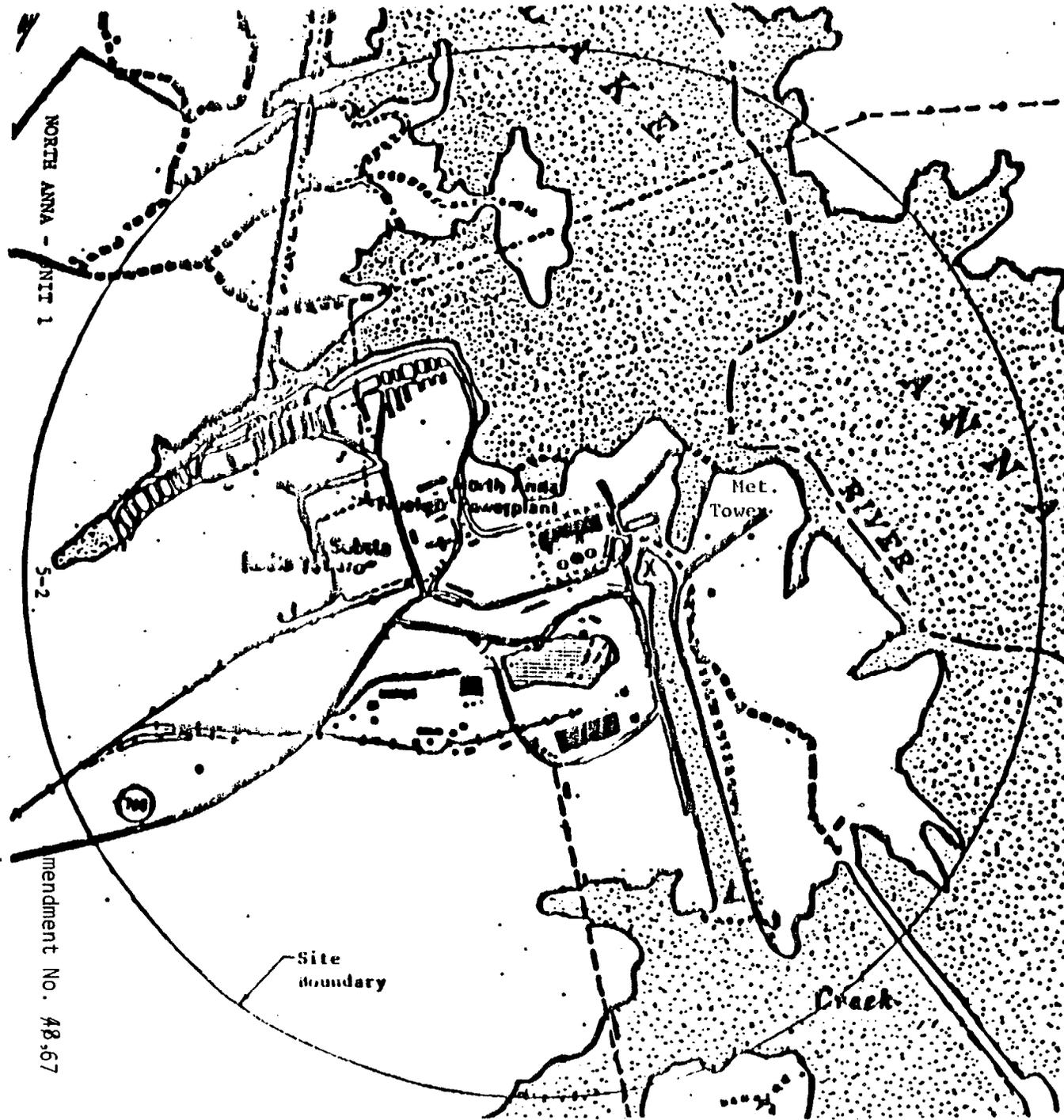
5.1.3 Information regarding radioactive gaseous and liquid effluents, which allows identification of structures and release points as well as definition of UNRESTRICTED AREAS within the SITE BOUNDARY that are accessible to MEMBERS OF THE PUBLIC, shall be as shown in Figure 5.1-1.

5.2 CONTAINMENT

CONFIGURATION

5.2.1 The reactor containment building is a steel lined, reinforced concrete building of cylindrical shape with a dome roof and having the following design features:

- a. Nominal inside diameter = 126 feet.
- b. Nominal inside height = 190 feet, 7 inches.
- c. Minimum thickness of concrete walls = 4.5 feet.
- d. Minimum thickness of concrete roof = 2.5 feet.
- e. Minimum thickness of concrete floor pad = 10 feet.
- f. Nominal thickness of the cylindrical portion of the steel liner = 3/8 inches.
- g. Net free volume = 1.825×10^6 cubic feet.
- h. Nominal thickness of hemispherical dome portion of the steel liner = 1/2 inch.



● Gaseous Release
 1. Process Vent- 157.5 ft.
 2. Vent-Vent A&B and other release points considered ground level releases

X Liquid Release to the Discharge Canal

▲ Liquid Release to the Unrestricted Area

●●● Buoy Barriers

--- Security Fence- Area outside is unrestricted for gaseous effluents

Land Maximum Member of the Public Occupancy = 336 hrs/year

Lake Maximum Member of the Public Occupancy = 2232 hrs/year

Figure 5.1-1

Map Defining Unrestricted Areas for Radioactive Gaseous and Liquid Effluents

NORTH ANNA - UNIT 1

5-2

Amendment No. 48,67

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Station Manager shall be responsible for overall facility operation. In his absence, the Assistant Station Manager shall be responsible for overall facility operation. During the absence of both, the Station Manager shall delegate in writing the succession to this responsibility.

6.1.2 The Shift Supervisor (or during his absence from the Control Room, a designated individual) shall be responsible for the Control Room command function and shall be the only individual that may direct the licensed activities of licensed operators. A management directive to this effect, signed by the Executive Vice President-Power, shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Reactor Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in MODES 1, 2, 3 or 4, at least one licensed Senior Reactor Operator shall be in the Control Room.
- c. A health physics technician# shall be on site when fuel is in the reactor.
- d. ALL CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- e. A Fire Brigade of at least 5 members shall be maintained onsite at all times#. The Fire Brigade shall not include the minimum shift crew shown in Table 6.2-1 or any personnel required for other essential functions during a fire emergency.

#The health physics technician and Fire Brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

ADMINISTRATIVE CONTROLS

6.2.3 SAFETY ENGINEERING STAFF (SES)

FUNCTION

6.2.3.1 The SES shall function to examine plant operating characteristics, NRC issuances, industry advisories, Licensee Event Reports, and other sources which may indicate areas for improving plant safety.

COMPOSITION

6.2.3.2 The SES shall be composed of at least five dedicated, full-time engineers located onsite.

RESPONSIBILITIES

6.2.3.3 The SES shall be responsible for maintaining surveillance of plant activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

AUTHORITY

6.2.3.4 The SES shall make detailed recommendations for revised procedures, equipment modifications, or other means of improving plant safety to the Assistant Station Manager (Nuclear Safety and Licensing).

6.2.4 SHIFT TECHNICAL ADVISOR

6.2.4.1 The Shift Technical Advisor shall serve in an advisory capacity to Shift Supervisor on matters pertaining to the engineering aspects of assuring safe operation of the unit.

6.2.4.2 The Shift Technical Advisor shall disseminate relevant operational experience identified by the SES.

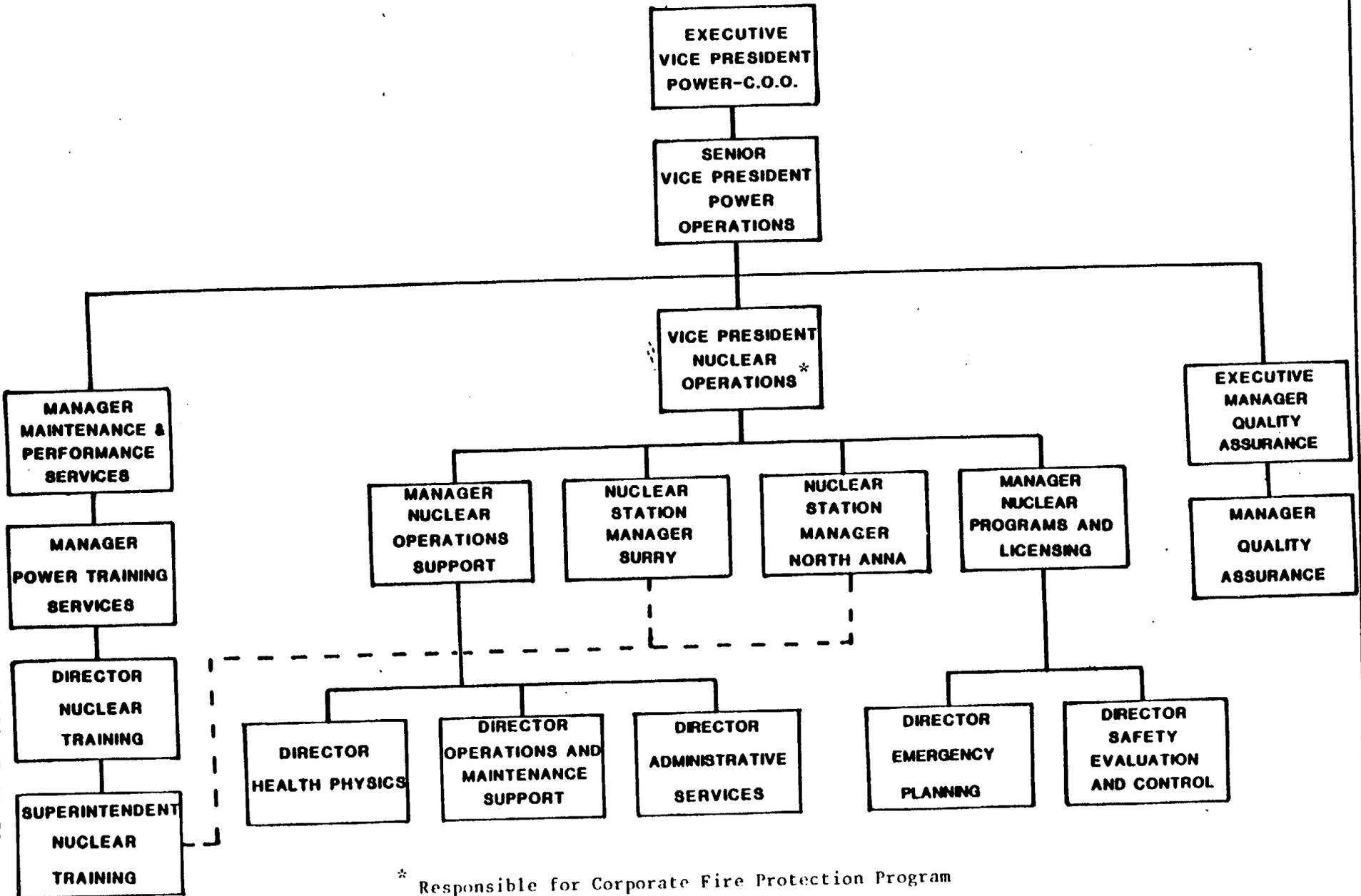
*Not responsible for sign-off function.

Figure 6.2-1 Offsite Organization for Facility Management and Technical Support

NORTH ANNA - UNIT 1

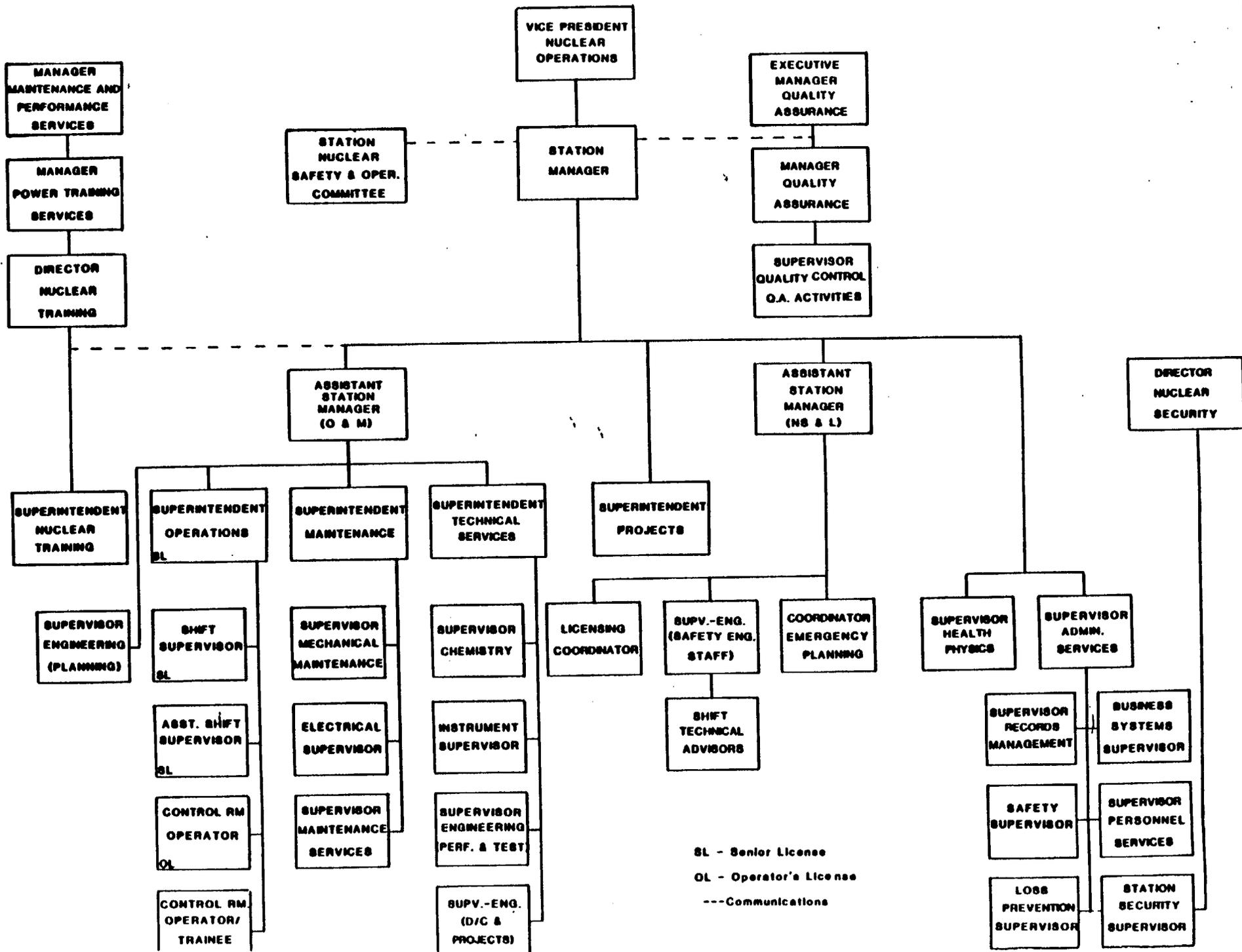
6-2

Amendment No. 2, 17, 17, 20, 78



* Responsible for Corporate Fire Protection Program

Figure 6.2-2, Facility Organization - North Anna - Units 1 and 2



NORTH ANNA - UNIT 1

6-3

Amendment No. 2, 11, 17, 20 78

TABLE 6.2-1
MINIMUM SHIFT CREW COMPOSITION

WITH UNIT 2 IN MODE 5 OR 6 OR DE-FUELED

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1 ^a	1 ^a
SRO	1	none
RO	2	1
AO	2	2 ^b
STA	1	none

WITH UNIT 2 IN MODES 1, 2, 3, OR 4

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1 ^a	1 ^a
SRO	1 ^a	none
RO	2 ^b	1
AO	2 ^b	1
STA	1 ^a	none

a/ Individual may fill the same position of Unit 2.

b/ One of the two required individuals may fill the same position on Unit 2.

ADMINISTRATIVE CONTRLS

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANS 3.1-(12/79 Draft) for comparable positions and the supplemental requirements specified in the March 28, 1980 NRC letter to all licensees, except for (1) the Supervisor - Health Physics who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975 and (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 The Station Manager is responsible for ensuring that retraining and replacement training programs for the facility staff are maintained and that such programs meet or exceed the requirements and recommendations of Section 5 of ANS 3.1-(12/79 Draft) and Appendix "A" of 10 CFR Part 55 and the supplemental requirements specified in the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience identified by the SES.

6.5 REVIEW AND AUDIT

6.5.1 STATION NUCLEAR SAFETY AND OPERATING COMMITTEE (SNSOC)

FUNCTION

6.5.1.1 The SNSOC shall function to advise the Station Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The SNSOC shall be composed of the :

Chairman: Assistant Station Manager (Nuclear Safety and Licensing)
Vice Chairman: Assistant Station Manager (Operations and Maintenance)
Member: Superintendent-Operations
Member: Superintendent-Maintenance
Member: Superintendent-Technical Services
Member: Supervisor-Health Physics

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the SNSOC Chairman to serve on a temporary basis; however, no more than one alternate shall participate as a voting member in SNSOC activities at any one time.

ADMINISTRATIVE CONTROLS

MEETING FREQUENCY

6.5.1.4 The SNSOC shall meet at least once per calendar month and as convened by the SNSOC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the SNSOC consists of the Chairman or Vice-Chairman and two members including alternates.

RESPONSIBILITIES

6.5.1.6 The SNSOC shall be responsible for:

- a. Review of 1) all procedures required by Specifications 6.8.1, 6.8.2 and 6.8.3 and changes thereto, 2) all programs required by Specification 6.8.4 and changes thereto, 3) any other proposed procedures or changes thereto as determined by the Station Manager to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- d. Review of all proposed changes to Appendix "A" Technical Specifications and Appendix "B" Environmental Protection Plan. Recommended changes shall be submitted to the Station Manager.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and the Director-Safety Evaluation and Control.
- f. Review of all REPORTABLE EVENTS and Special Reports.
- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Station Nuclear Safety and Operating Committee or Station Manager.
- i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Station Manager.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Station Manager.

ADMINISTRATIVE CONTROLS

- k. Review of every unplanned onsite release of radioactive material to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Vice President-Nuclear Operations and to the Director-Safety Evaluation and Control..
- l. Review changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.

AUTHORITY

6.5.1.7 The SNSOC shall:

- a. Provide written approval or disapproval of items considered under 6.5.1.6(a) through (c) above. SNSOC approval shall be certified in writing by an Assistant Station Manager.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Vice President-Nuclear Operations and the Director-Safety Evaluation and Control of disagreement between the SNSOC and the Station Manager; however, the Station Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The SNSOC shall maintain written minutes of each meeting and copies shall be provided to the Station Manager, Vice President-Nuclear Operations and the Director-Safety Evaluation and Control.

6.5.2 SAFETY EVALUATION AND CONTROL (SEC)

FUNCTION

6.5.2.1 SEC shall function to provide independent review of designated activities in the areas of:

- a. Nuclear power plant operations
- b. Nuclear engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Instrumentation and control
- f. Radiological safety
- g. Mechanical and electrical engineering
- h. Administrative controls and quality assurance practices
- i. Other appropriate fields associated with the unique characteristics of the nuclear power plant

ADMINISTRATIVE CONTROLS

COMPOSITION

6.5.2.2 The SEC staff shall be composed of the Director-Safety Evaluation and Control and a minimum of three individuals who are qualified as staff specialists. Each SEC staff specialist shall have an academic degree in an engineering or physical science field and, in addition, shall have a minimum of five years technical experience in one or more areas given in Specification 6.5.2.1. These staff specialists shall not be directly involved in the licensing function.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the Director-Safety Evaluation and Control to provide expert advice to the SEC.

MEETING FREQUENCY

6.5.2.5 The SEC staff shall meet at least once per calendar month for the purpose of fostering interaction of reviews regarding safety-related operational activities.

REVIEW

6.5.2.7 The following subjects shall be reviewed by SEC:

- a. Written safety evaluations of changes in the stations as described in the Safety Analysis Report, changes in procedures as described in the Safety Analysis Report and tests or experiments not described in the Safety Analysis Report which are completed without prior NRC approval under the provisions of 10 CFR 50.59(a)(1). This review is to verify that such changes, tests or experiments did not involve a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(a)(2) and is accomplished by review of minutes of the Station Nuclear Safety and Operating Committee and the design change program.
- b. Proposed changes in procedures, proposed changes in the station, or proposed tests or experiments, any of which may involve a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(a)(2). Matters of this kind shall be referred to the Director-Safety Evaluation and Control by the Station Nuclear Safety and Operating Committee following its review prior to implementation.
- c. Changes in the technical specifications or license amendments relating to nuclear safety prior to implementation except in those cases where the change is identical to a previously reviewed proposed change.

ADMINISTRATIVE CONTROLS

- d. Violations, REPORTABLE EVENTS and Special Reports such as:
1. Violations of applicable codes, regulations, orders, Technical Specifications, license requirements or internal procedures or instructions having safety significance;
 2. Significant operating abnormalities or deviations from normal or expected performance of station safety-related structures, systems, or components; and
 3. All REPORTABLE EVENTS submitted in accordance with Section 50.73 to 10 CFR Part 50 and Special Reports required by Specification 6.9.2.
- Review of events covered under this paragraph shall include the results of any investigations made and recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.
- e. The Quality Assurance Department audit program at least once per 12 months and audit reports.
- f. Any other matter involving safe operation of the nuclear power stations which is referred to the Director-Safety Evaluation and Control.
- g. Reports and meeting minutes of the Station Nuclear Safety and Operating Committee.

AUTHORITY

6.5.2.9 The Director-Safety Evaluation and Control shall report to and advise the Manager-Nuclear Programs and Licensing, who shall advise the Vice President-Nuclear Operations on those areas of responsibility specified in Section 6.5.2.7.

RECORDS

6.5.2.10 Records of SEC activities required by Section 6.5.2.7 shall be prepared and maintained in the SEC files and a summary shall be disseminated as indicated below each calendar month.

1. Vice President-Nuclear Operations
2. Nuclear Power Station Managers
3. Manager-Nuclear Operations Support
4. Manager-Nuclear Programs and Licensing
5. Executive Manager-Quality Assurance
6. Others that the Director-Safety Evaluation and Control may designate.

ADMINISTRATIVE CONTROLS

6.5.3 QUALITY ASSURANCE DEPARTMENT

FUNCTION

6.5.3.1 The Quality Assurance Department shall function to audit station activities. These audits shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 12 months.
- c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.
- e. The Station Emergency Plan and implementing procedures at least once per 12 months.
- f. The Station Security Plan and implementing procedures at least once per 12 months.
- g. Any other area of facility operation considered appropriate by the Executive Manager-Quality Assurance or the Senior Vice President-Power Operations.
- h. The Station Fire Protection Program and implementing procedures at least once per 24 months.
- i. An independent fire protection and loss prevention program inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- j. An inspection and audit of the fire protection and loss prevention program shall be performed by a qualified outside fire consultant at least once per 36 months.
- k. The radiological environmental monitoring program and the results thereof at least once per 12 months.
- l. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.

ADMINISTRATIVE CONTROLS

- m. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.
- n. The performance of activities required by the Quality Assurance Program to meet the provisions of Regulatory Guide 1.21, Revision 1, June 1974, and Regulatory Guide 4.1, Revision 1, April 1975 at least once per 12 months.

AUTHORITY

6.5.3.2 The Quality Assurance Department shall report to and advise the Executive Manager-Quality Assurance, who shall advise the Senior Vice President-Power Operations on those areas of responsibility specified in Section 6.5.3.1.

RECORDS

6.5.3.3 Records of the Quality Assurance Department audits shall be prepared and maintained in the department files. Audit reports shall be disseminated as indicated below:

1. Vice President - Nuclear Operations
2. Nuclear Power Station Manager
3. Manager-Nuclear Operations Support
4. Manager-Nuclear Programs and Licensing
5. Executive Manager - Quality Assurance
6. Director - Safety Evaluation and Control
7. Nuclear Power Station Manager Quality Assurance
8. Supervisor of area audited

ADMINISTRATIVE CONTROLS

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the SNSOC and the results of this review shall be submitted to the Director-Safety Evaluation and Control and the Vice President-Nuclear Operations.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The facility shall be placed in at least HOT STANDBY within one hour.
- b. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within one hour. The Vice President-Nuclear Operations, and the Director-Safety Evaluation and Control shall be notified within 24 hours.
- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the SNSOC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the Director-Safety Evaluation and Control and the Vice President-Nuclear Operations within 14 days of the violation.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
- b. Refueling operations.

ADMINISTRATIVE CONTROLS

- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.
- i. Quality Assurance Program for effluent and environmental monitoring, using the guidance in Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975.

6.8.2 Each procedure of 6.8.1 above, except 6.8.1.d and 6.8.1.e and changes thereto, shall be reviewed and approved by the SNSOC prior to implementation and reviewed periodically as set forth in administrative procedures. Procedures of 6.8.1.d and 6.8.1.e shall be reviewed and approved as per 6.5.1.6.i and 6.5.1.6.j. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant supervisory staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed, and approved by the SNSOC within 14 days of implementation. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.4 The following programs shall be established, implemented, and maintained:

- a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the recirculation spray, safety injection, chemical and volume control, gas stripper, and hydrogen recombiners. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements, and
- (ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

ADMINISTRATIVE CONTROLS

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for monitoring, and
- (iii) Provisions for maintenance of sampling and analysis equipment.

c. Secondary Water Chemistry

A program for monitoring of secondary water chemistry to inhibit steam generator tube degradation. This program shall include:

- (i) Identification of a sampling schedule for the critical variables and control points for these variables,
- (ii) Identification of the procedures used to measure the values of the critical variables,
- (iii) Identification of process sampling points,
- (iv) Procedures for the recording and management of data,
- (v) Procedures defining corrective actions for all control point chemistry conditions,
- (vi) A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective action, and
- (vii) Monitoring of the condensate at the discharge of the condensate pumps for evidence of condenser inleakage. When condenser inleakage is confirmed, the leak shall be repaired, plugged, or isolated within 96 hours.

d. Post-Accident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions. The program shall include the following:

- (i) Training of personnel,
- (ii) Procedures for sampling and analysis,
- (iii) Provisions for maintenance of sampling and analysis equipment.

ADMINISTRATIVE CONTROLS (Continued)

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator, Region II, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirement of the applicable reference specification:

- a. Inservice Inspection Program Reviews shall be reported within 90 days of completion. Specification 4.0.5.
- b. ECCS Actuation shall be reported within 90 days of the occurrence. The report shall describe the circumstances of the actuation and the total accumulated cycles to date. Specifications 3.5.2 and 3.5.3.
- c. With Seismic Monitoring Instrumentation inoperable for more than 30 days, submit a special report within the next 10 days outlining the cause of the malfunction and the plans for restoring the instrumentation to operable status. Specification 3.3.3.3.
- d. For all seismic events actuating a seismic monitoring instrument, submit a special report within 10 days describing the magnitude, frequency spectrum and resultant effects upon features important to safety. Specification 4.3.3.3.2.
- e. With Meteorological Instrumentation inoperable for more than 7 days, submit a special report within the next 10 days, outlining the cause of the malfunction and the plans for restoring the instrumentation to operable status. Specification 3.3.3.4.
- f. With the primary coolant specific activity $> 1.0 \mu\text{Ci}/\text{gram DOSE EQUIVALENT I-131}$ or $> 100/E \mu\text{Ci}/\text{gram}$, a specific activity analysis shall be included in the Special Report. The information requested in Specification 3.4.8 shall also be included in that report.
- g. With sealed source or fission detector leakage tests revealing the presence of ≥ 0.005 microcuries of removable contamination submit a special report on an annual basis outlining the corrective actions taken to prevent the spread of contamination. Specification 4.7.11.1.3.
- h. With the MTC more positive than $0 \Delta\text{k}/\text{k}/^{\circ}\text{F}$ submit a special report within the next 10 days describing the value of the measured MTC, the interim control rod withdrawal limits and the predicted average core burnup necessary for restoring the positive MTC to within its limit for the all rods withdrawn condition. Specification 3.1.1.4.

ADMINISTRATIVE CONTROLS

- i. For any abnormal degradation of the structural integrity of the reactor vessel or the Reactor Coolant System pressure boundary detected during the performance of Specification 4.4.10, an initial report shall be submitted within 10 days after detection and a detailed report submitted within 90 days after the completion of Specification 4.4.10.
- j. For any abnormal degradation of the containment structure detected during the performance of Specification 4.6.1.6, an initial report shall be submitted within 10 days after completion of Specification 4.6.1.6. A final report, which includes (1) a description of the condition of the liner plate and concrete, (2) inspection procedure, (3) the tolerance on cracking, and (4) the corrective actions taken, shall be submitted within 90 days after the completion of Specification 4.6.1.6.
- k. Inoperable Fire Detection Instrumentation, Specification 3.3.3.7.
- l. Inoperable Fire Suppression Systems, Specifications 3.7.14.1, 3.7.14.2, 3.7.14.3, 3.7.14.4 and 3.7.14.5.

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. ALL REPORTABLE EVENTS and Special Reports.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to Operating Procedures.
- f. Records of radioactive shipments.
- g. Records of sealed source leak tests and results.
- h. Records of annual physical inventory of all sealed source material of record.
- i. Records of the annual audit of the Station Emergency Plan and implementing procedures.
- j. Records of the annual audit of the Station Security Plan and implementation procedures.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

DOCKET NO. 50-339

NORTH ANNA POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 67
License No. NPF-7

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Virginia Electric and Power Company, et al., (the licensee) dated November 2, 1984, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

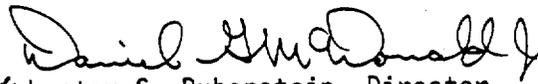
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-7 is hereby amended to read as follows:

(2) Technical Specifications.

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 67, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Active 7/07

Lester S. Rubenstein, Director
PWR Project Directorate #2
Division of PWR Licensing-A

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 8, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 67

TO FACILITY OPERATING LICENSE NO. NPF-7

DOCKET NO. 50-339

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages as indicated. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Page

6-1
6-1a
6-2
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6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Station Manager shall be responsible for overall facility operation. In his absence, the Assistant Station Manager (Operations and Maintenance) shall be responsible for overall facility operation. During the absence of both, the Station Manager shall delegate in writing the succession to this responsibility.

6.1.2 The Shift Supervisor (or during his absence from the Control Room, a designated individual) shall be responsible for the Control Room command function and shall be the only individual that may direct the licensed activities of licensed operators. A management directive to this effect, signed by the Senior Vice President - Power Operations, shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATION

OFFSITE

6.2.1 The offsite organization for facility management and technical support shall be as shown on Figure 6.2-1.

FACILITY STAFF

6.2.2 The Facility organization shall be as shown on Figure 6.2-2 and:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one licensed Reactor Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in MODES 1, 2, 3 or 4, at least one licensed Senior Reactor Operator shall be in the Control Room.
- c. A health physics technician# shall be on site when fuel is in the reactor.
- d. ALL CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- e. A site Fire Brigade of at least 5 members shall be maintained onsite at all times#. The Fire Brigade shall not include the minimum shift crew shown in Table 6.2-1 or any personnel required for other essential functions during a fire emergency.

#The health physics technician and Fire Brigade composition may be less than the minimum requirement for a period of time not to exceed 2 hours in order to accommodate unexpected absence provided immediate action is taken to fill the required positions.

ADMINISTRATIVE CONTROLS

6.2.3 SAFETY ENGINEERING STAFF (SES)

FUNCTION

6.2.3.1 The SES shall function to examine plant operating characteristics, NRC issuances, industry advisories, Licensee Event Reports, and other sources which may indicate areas for improving plant safety.

COMPOSITION

6.2.3.2 The SES shall be composed of at least five dedicated, full-time engineers located onsite.

RESPONSIBILITIES

6.2.3.3 The SES shall be responsible for maintaining surveillance of plant activities to provide independent verification* that these activities are performed correctly and that human errors are reduced as much as practical.

AUTHORITY

6.2.3.4 The SES shall make detailed recommendations for revised procedures, equipment modifications, or other means of improving plant safety to the Assistant Station Manager (Nuclear Safety and Licensing).

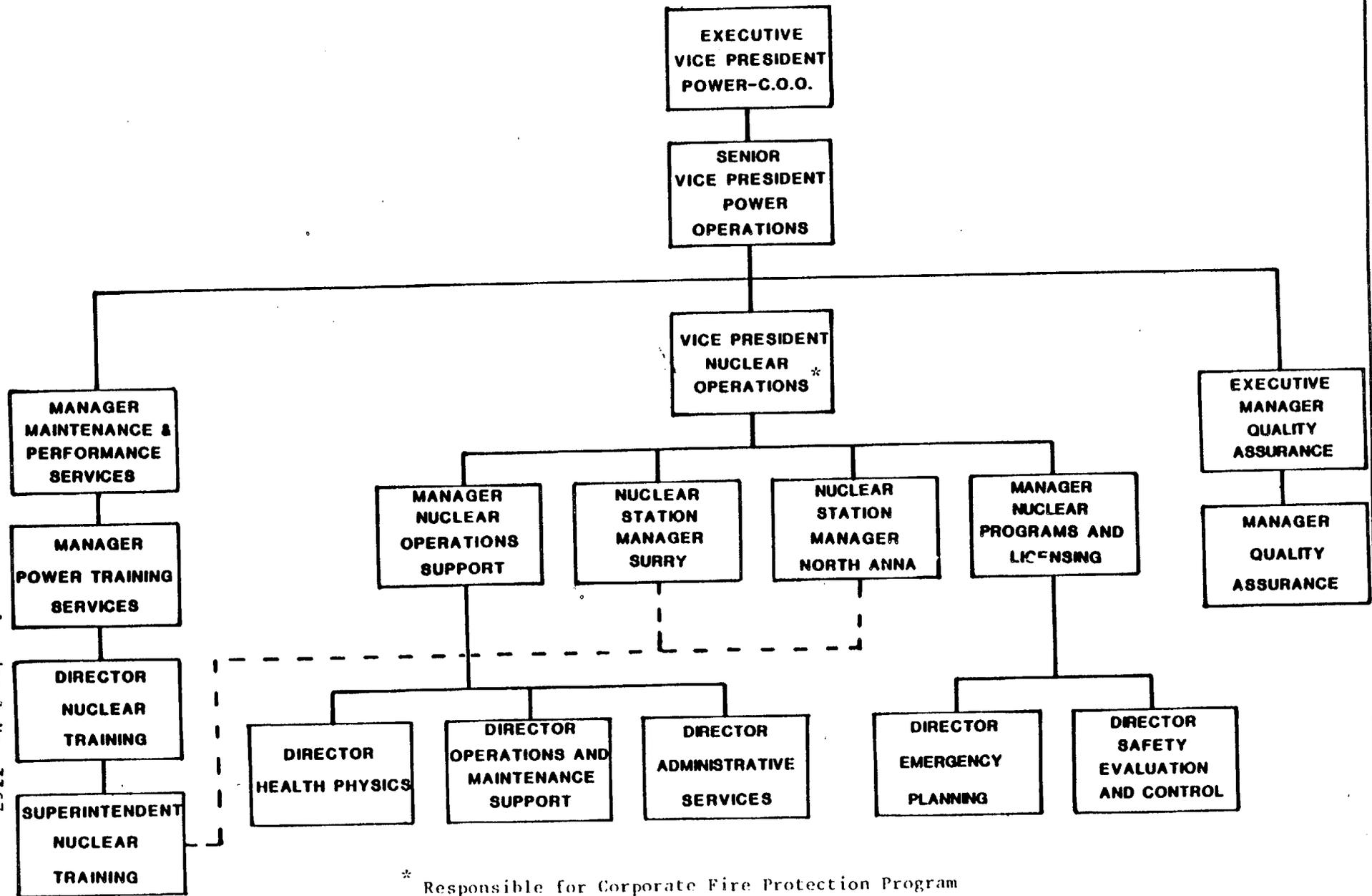
6.2.4 SHIFT TECHNICAL ADVISOR

6.2.4.1 The Shift Technical Advisor shall serve in an advisory capacity to Shift Supervisor on matters pertaining to the engineering aspects of assuring safe operation of the unit.

6.2.4.2 The Shift Technical Advisor shall disseminate relevant operational experience identified by the SES.

*Not responsible for sign-off function.

Figure 6.2-1 Offsite Organization for Facility Management and Technical Support



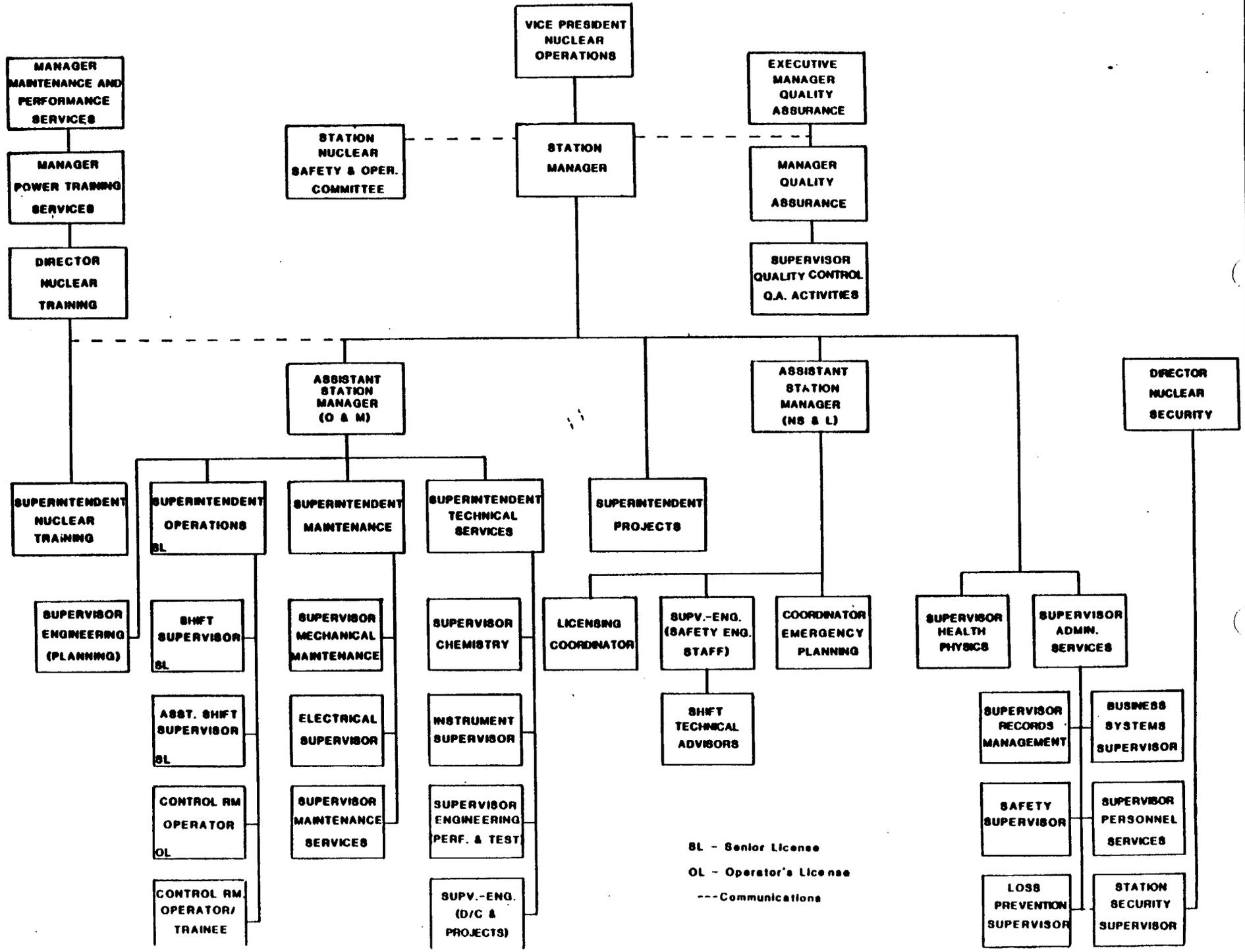
Amendment No. 1767

Figure 6.2-2 Facility Organization - North Anna - Units 1 and 2

NORTH ANNA - UNIT 2

6-3

Amendment No. 77, 67



BL - Senior License
 OL - Operator's License
 --- Communications

TABLE 6.2-1
MINIMUM SHIFT CREW COMPOSITION

WITH UNIT 1 IN MODE 5 OR 6 OR DE-FUELED

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1 ^a	1 ^a
SRO	1	none
RO	2	1
AO	2	2 ^b
STA	1	none

WITH UNIT 1 IN MODES 1, 2, 3, OR 4

POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODES 1, 2, 3, & 4	MODES 5 & 6
SS	1 ^a	1 ^a
SRO	1 ^a	none
RO	2 ^b	1
AO	2 ^b	1
STA	1 ^a	none

a/ Individual may fill the same position of Unit 1.

b/ One of the two required individuals may fill the same position on Unit 1.

TABLE 6.2-1 (Continued)

SS - Shift Supervisor with a Senior Reactor Operators License on Unit 2.
SRO - Individual with a Senior Reactor Operators License on Unit 2.
RO - Individual with a Reactor Operators License on Unit 2.
AO - Auxiliary Operator
STA - Shift Technical Advisor

Except for the Shift Supervisor, the Shift Crew Composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the Shift Crew Composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.

During any absence of the Shift Supervisor from the Control Room while the unit is in MODE 1, 2, 3 or 4, an individual (other than the Shift Technical Advisor) with a valid SRO license shall be designated to assume the Control Room command function. During any absence of the Shift Supervisor from the Control Room while the unit is in MODE 5 or 6, an individual with a valid RO license (other than the Shift Technical Advisor) shall be designated to assume the Control Room command function.

Procedures will be established to insure that NRC policy statement guidelines regarding working hours established for employees are followed. In addition, procedures will provide for documentation of authorized deviations from these guidelines and that the documentation is available for NRC review.

ADMINISTRATIVE CONTRLS

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANS 3.1-(12/79 Draft) for comparable positions and the supplemental requirements specified in the March 28, 1980 NRC letter to all licensees, except for (1) the Supervisor - Health Physics who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975 and (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 The Station Manager is responsible for ensuring that retraining and replacement training programs for the facility staff are maintained and that such programs meet or exceed the requirements and recommendations of Section 5 of ANS 3.1-(12/79 Draft) and Appendix "A" of 10 CFR Part 55 and the supplemental requirements specified in the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience identified by the SES.

6.5 REVIEW AND AUDIT

6.5.1 STATION NUCLEAR SAFETY AND OPERATING COMMITTEE (SNSOC)

FUNCTION

6.5.1.1 The SNSOC shall function to advise the Station Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The SNSOC shall be composed of the :

Chairman: Assistant Station Manager (Nuclear Safety and Licensing)
Vice Chairman: Assistant Station Manager (Operations and Maintenance)
Member: Superintendent-Operations
Member: Superintendent-Maintenance
Member: Superintendent-Technical Services
Member: Supervisor-Health Physics

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the SNSOC Chairman to serve on a temporary basis; however, no more than one alternate shall participate as a voting member in SNSOC activities at any one time.

ADMINISTRATIVE CONTROLS

MEETING FREQUENCY

6.5.1.4 The SNSOC shall meet at least once per calendar month and as convened by the SNSOC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the SNSOC consists of the Chairman or Vice-Chairman and two members including alternates.

RESPONSIBILITIES

6.5.1.6 The SNSOC shall be responsible for:

- a. Review of 1) all procedures required by Specifications 6.8.1, 6.8.2 and 6.8.3 and changes thereto, 2) all programs required by Specification 6.8.4 and changes thereto, 3) any other proposed procedures or changes thereto as determined by the Station Manager to affect nuclear safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.
- c. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- d. Review of all proposed changes to Appendix "A" Technical Specifications and Appendix "B" Environmental Protection Plan. Recommended changes shall be submitted to the Station Manager.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President-Nuclear Operations and the Director-Safety Evaluation and Control.
- f. Review of all REPORTABLE EVENTS and Special Reports.
- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Chairman of the Station Nuclear Safety and Operating Committee or Station Manager.
- i. Review of the Plant Security Plan and implementing procedures and shall submit recommended changes to the Station Manager.
- j. Review of the Emergency Plan and implementing procedures and shall submit recommended changes to the Station Manager.

ADMINISTRATIVE CONTROLS

- k. Review of every unplanned onsite release of radioactive material to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Vice President-Nuclear Operations and to the Director-Safety Evaluation and Control.
- l. Review changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.

AUTHORITY

6.5.1.7 The SNSOC shall:

- a. Provide written approval or disapproval of items considered under 6.5.1.6(a) through (c) above. SNSOC approval shall be certified in writing by an Assistant Station Manager.
- b. Render determinations in writing with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question.
- c. Provide written notification within 24 hours to the Vice President-Nuclear Operations and the Director-Safety Evaluation and Control of disagreement between the SNSOC and the Station Manager; however, the Station Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The SNSOC shall maintain written minutes of each meeting and copies shall be provided to the Station Manager, Vice President-Nuclear Operations and the Director-Safety Evaluation and Control.

6.5.2 SAFETY EVALUATION AND CONTROL (SEC)

FUNCTION

6.5.2.1 SEC shall function to provide independent review of designated activities in the areas of:

- a. Nuclear power plant operations
- b. Nuclear engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Instrumentation and control
- f. Radiological safety
- g. Mechanical and electrical engineering
- h. Administrative controls and quality assurance practices
- i. Other appropriate fields associated with the unique characteristics of the nuclear power plant.

ADMINISTRATIVE CONTROLS

COMPOSITION

6.5.2.2 The SEC staff shall be composed of the Director-Safety Evaluation and Control and a minimum of three individuals who are qualified as staff specialists. Each SEC staff specialist shall have an academic degree in an engineering or physical science field and, in addition, shall have a minimum of five years technical experience in one or more areas given in Specification 6.5.2.1. These staff specialists shall not be directly involved in the licensing function.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the Director-Safety Evaluation and Control to provide expert advice to the SEC.

MEETING FREQUENCY

6.5.2.5 The SEC staff shall meet at least once per calendar month for the purpose of fostering interaction of reviews regarding safety-related operational activities.

REVIEW

6.5.2.7 The following subjects shall be reviewed by SEC:

- a. Written safety evaluations of changes in the stations as described in the Safety Analysis Report, changes in procedures as described in the Safety Analysis Report and tests or experiments not described in the Safety Analysis Report which are completed without prior NRC approval under the provisions of 10 CFR 50.59(a)(1). This review is to verify that such changes, tests or experiments did not involve a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(a)(2) and is accomplished by review of minutes of the Station Nuclear Safety and Operating Committee and the design change program.
- b. Proposed changes in procedures, proposed changes in the station, or proposed tests or experiments, any of which may involve a change in the technical specifications or an unreviewed safety question as defined in 10 CFR 50.59(a)(2). Matters of this kind shall be referred to the Director-Safety Evaluation and Control by the Station Nuclear Safety and Operating Committee following its review prior to implementation.
- c. Changes in the technical specifications or license amendments relating to nuclear safety prior to implementation except in those cases where the change is identical to a previously reviewed proposed change.

ADMINISTRATIVE CONTROLS

- d. Violations, REPORTABLE EVENTS and Special Reports such as:
1. Violations of applicable codes, regulations, orders, Technical Specifications, license requirements or internal procedures or instructions having safety significance;
 2. Significant operating abnormalities or deviations from normal or expected performance of station safety-related structures, systems, or components; and
 3. All REPORTABLE EVENTS submitted in accordance with Section 50.73 to 10 CFR Part 50 and Special Reports required by Specification 6.9.2.
- Review of events covered under this paragraph shall include the results of any investigations made and recommendations resulting from such investigations to prevent or reduce the probability of recurrence of the event.
- e. The Quality Assurance Department audit program at least once per 12 months and audit reports.
- f. Any other matter involving safe operation of the nuclear power stations which is referred to the Director-Safety Evaluation and Control.
- g. Reports and meeting minutes of the Station Nuclear Safety and Operating Committee.

AUTHORITY

6.5.2.9 The Director-Safety Evaluation and Control shall report to and advise the Manager-Nuclear Programs and Licensing, who shall advise the Vice President-Nuclear Operations on those areas of responsibility specified in Section 6.5.2.7.

RECORDS

6.5.2.10 Records of SEC activities required by Section 6.5.2.7 shall be prepared and maintained in the SEC files and a summary shall be disseminated as indicated below each calendar month.

1. Vice President-Nuclear Operations
2. Nuclear Power Station Managers
3. Manager-Nuclear Operations Support

ADMINISTRATIVE CONTROLS

RECORDS (Cont'd)

4. Manager-Nuclear Programs and Licensing
5. Executive Manager-Quality Assurance
6. Others that the Director-Safety Evaluation and Control may designate.

6.5.3 QUALITY ASSURANCE DEPARTMENT

FUNCTION

6.5.3.1 The Quality Assurance Department shall function to audit station activities. These audits shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 12 months.
- c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.
- e. The Station Emergency Plan and implementing procedures at least once per 12 months.
- f. The Station Security Plan and implementing procedures at least once per 12 months.
- g. Any other area of facility operation considered appropriate by the Executive Manager-Quality Assurance or the Senior Vice President-Power Operations.
- h. The Station Fire Protection Program and implementing procedures at least once per 24 months.
- i. An independent fire protection and loss prevention program inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- j. An inspection and audit of the fire protection and loss prevention program shall be performed by a qualified outside fire consultant at least once per 36 months.

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- k. The radiological environmental monitoring program and the results thereof at least once per 12 months.
- l. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.
- m. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.
- n. The performance of activities required by the Quality Assurance Program to meet the provisions of Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975 at least once per 12 months.

AUTHORITY

6.5.3.2 The Quality Assurance Department shall report to and advise the Executive Manager-Quality Assurance, who shall advise the Senior Vice President-Power Operations on those areas of responsibility specified in Section 6.5.3.1.

RECORDS

6.5.3.3 Records of the Quality Assurance Department audits shall be prepared and maintained in the department files. Audit reports shall be disseminated as indicated below:

1. Vice President - Nuclear Operations
2. Nuclear Power Station Manager
3. Manager-Nuclear Operations Support
4. Manager-Nuclear Programs and Licensing
5. Executive Manager - Quality Assurance
6. Director-Safety Evaluation and Control
7. Nuclear Power Station Manager-Quality Assurance
8. Supervisor of area audited

ADMINISTRATIVE CONTROLS

6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the SNSOC and the results of this review shall be submitted to the Director-Safety Evaluation and Control and the Vice President-Nuclear Operations.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. The facility shall be placed in at least HOT STANDBY within one hour.
- b. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within one hour. The Vice President-Nuclear Operations and the Director-Safety Evaluation and Control shall be notified within 24 hours.
- c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the SNSOC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the Director-Safety Evaluation and Control and the Vice President-Nuclear Operations within 14 days of the violation.

6.8 PROCEDURES AND PROGRAMS

6.8.1 Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.
- b. Refueling operations.

ADMINISTRATIVE CONTROLS

- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Program implementation.
- g. PROCESS CONTROL PROGRAM implementation.
- h. OFFSITE DOSE CALCULATION MANUAL implementation.
- i. Quality Assurance Program for effluent and environmental monitoring, using the guidance in Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975.

6.8.2 Each procedure of 6.8.1 above, except 6.8.1.d and 6.8.1.e and changes thereto, shall be reviewed and approved by the SNSOC prior to implementation. and reviewed periodically as set forth in administrative procedures. Procedures of 6.8.1.d and 6.8.1.e shall be reviewed and approved as per 6.5.1.6.i and 6.5.1.6.j. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant supervisory staff, at least one of whom holds a Senior Reactor Operator's License on the unit affected.
- c. The change is documented, reviewed and approved by the SNSOC within 14 days of implementation. SNSOC approval shall be certified in writing by an Assistant Station Manager.

6.8.4 The following programs shall be established, implemented, and maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the recirculation spray, safety injection, chemical and volume control, gas stripper, and hydrogen recombiners. The program shall include the following:

- (i) Preventive maintenance and periodic visual inspection requirements and
- (ii) Integrated leak test requirements for each system at refueling cycle intervals or less.

ADMINISTRATIVE CONTROLS (Continued)

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator, Region II, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirement of the applicable reference specification:

- a. Inservice Inspection Program Reviews shall be reported within 90 days of completion. Specification 4.0.5.
- b. ECCS Actuation shall be reported within 90 days of the occurrence. The report shall describe the circumstances of the actuation and the total accumulated cycles to date. Specifications 3.5.2 and 3.5.3.
- c. With the primary coolant specific activity $> 1.0 \mu\text{Ci/gram DOSE EQUIVALENT I-131}$ or $> 100 \text{ E Ci/gram}$, a specific activity analysis shall be included in the Special Report. The information requested in Specification 3.4.8 shall also be included in that report.
- d. With sealed sources or fission detector leakage tests revealing the presence of > 0.005 microcuries of removable contamination submit a special report on an annual basis outlining the corrective actions taken to prevent the spread of contamination. Specification 4.7.11.1.3.
- e. With the MTC more positive than $0 \Delta k/k^{\text{OF}}$ submit a special report within the next 10 days describing the value of the measured MTC, the interim control rod withdrawal limits and the predicted average core burnup necessary for restoring the positive MTC to within its limit for the all rods withdrawn condition. Specification 3.1.1.4.
- f. For any abnormal degradation of the structural integrity of the reactor vessel or the Reactor Coolant System pressure boundary detected during the performance of Specification 4.4.10.1, an initial report shall be submitted within 10 days after detection and a detailed report submitted within 90 days after the completion of Specification 4.4.10.1.
- g. For any abnormal degradation of the containment structure detected during the performance of Specification 4.6.1.6.2, an initial report shall be submitted within 10 days after completion of Specification 4.6.1.6.2. A final report, which includes (1) a description of the condition of the liner plate and concrete, (2) inspection procedure, (3) the tolerance on cracking and (4) the corrective actions taken, shall be submitted within 90 days after the completion of Specification 4.6.1.6.2.
- h. Inoperable Fire Detection Instrumentation, Specification 3.3.3.7.
- i. Inoperable fire Suppression Systems, Specifications 3.7.14.1, 3.7.14.2, 3.7.14.3, 3.7.14.4 and 3.7.14.5.

ADMINISTRATIVE CONTROLS (Continued)

6.10 RECORD RETENTION

In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

6.10.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. All REPORTABLE EVENTS and Special Reports.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to Operating Procedures.
- f. Records of radioactive shipments.
- g. Records of sealed source leak tests and results.
- h. Records of annual physical inventory of all sealed source material of record.
- i. Records of the annual audit of the Station Emergency Plan and implementing procedures.
- j. Records of the annual audit of the Station Security Plan and implementing procedures.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material release to the environs.
- f. Records of transient or operational cycles for those facility components identified in Table 5.7-1.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 78 AND 67 TO

FACILITY OPERATING LICENSE NOS. NPF-4 AND NPF-7

VIRGINIA ELECTRIC AND POWER COMPANY

OLD DOMINION ELECTRIC COOPERATIVE

NORTH ANNA POWER STATION, UNITS NO. 1 AND NO. 2

DOCKET NOS. 50-338 AND 50-339

Introduction:

By letter dated November 2, 1984 (Serial No. 578), the Virginia Electric and Power Company (the licensee) proposed changes to the Technical Specifications (TS) for the North Anna Power Station, Unit Nos. 1 and 2 (NA-1&2). The proposed changes would update the licensee's corporate and plant organizational TS. The proposed changes are administrative in nature. Our discussion and evaluation of each of these changes below.

Discussion: Organizational Changes in the Nuclear Operations Department

The licensee proposed changes to the TS to reflect recent reorganization changes in the Nuclear Operations Department. Organization figures 6.2-1 and 6.2-2 were revised to show the structure of the new organization. The most significant change involved the creation of the Manager, Nuclear Programs and Licensing, and the Assistant Station Manager (Nuclear Safety and Licensing). Otherwise, several changes were made to titles, responsibilities, and reporting requirements. The proposed change is administrative in nature and does not involve a reduction in organizational effectiveness.

Discussion: Reporting Requirements of the Safety Engineering Staff

The licensee proposed that the Safety Engineering staff be required to make detailed recommendations to the Assistant Station Manager (Nuclear Safety and Licensing) instead of the Station Manager and the Director-Safety Evaluation and Control. This change is consistent with the recent organization changes.

Discussion: Facility Staff Qualifications and Training

The licensee proposed to change the referenced ANSI Standard on Facility Staff Qualifications (Section 6.3) and Training (Section 6.4) to reflect the ANS Standard specified in VEPCO's QA Topical Report, VEP 1-4, regarding VEPCO's position on Regulatory Guide 1.8. The change replaces ANSI N18.1-1971 with ANS 3.1-(12/79 Draft). The proposed change is consistent with regulatory requirements committed to by the licensee.

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Discussion: Composition of the Station Nuclear Safety and Operating Committee (SNSOC) (Section 6.5.1.2)

The licensee proposed to change the composition of the SNSOC. The Station Manager is to be replaced by the Assistant Station Manager (Nuclear Safety and Licensing) as the Chairman of the SNSOC. This change will not diminish the effectiveness of the SNSOC as long as the Station Manager is kept informed of its activities. The proposed change is administrative in nature.

Discussion: Responsibilities of the Station Nuclear Safety and Operating Committee (SNSOC) (Section 6.5.1.6)

The licensee proposed to allow the SNSOC to recommend Appendix A Technical Specification changes and Appendix B Environmental Protection Plan changes to the Station Manager instead of just reviewing proposed changes. Also, the SNSOC is to submit recommended changes to the Plant Security Plan and the Emergency Plan to the Plant Manager instead of the Chairman of the SNSOC, because the Plant Manager is no longer the SNSOC Chairman. In addition, the Plant Manager will approve changes to the Process Control Program and the Offsite DOSE Calculation Manual, currently approved by the SNSOC. The proposed changes are administrative in nature.

Discussion: Approval Authority (Section 6.5.1.7)

The licensee proposed to allow SNSOC to approve items listed in Section 6.5.1.6 of the NA-1&2 TS in lieu of Station Manager's approval. Approval by SNSOC for the items listed under Section 6.5.1.6 (a) through (d) is not considered acceptable. However, the licensee agreed to insert the sentence, "SNSOC approval shall be certified in writing by an Assistant Station Manager," in Section 6.5.1.7.a.

Discussion: SNSOC Records (Section 6.5.1.8)

The licensee proposed to change the requirement for whom the SNSOC must provide minutes of SNSOC meetings. The Manager-Nuclear Operations and Maintenance was replaced by the Station Manager and Vice President-Nuclear Operations. The proposed change is administrative in nature.

Discussion: Authority (Section 6.5.2.9)

The licensee proposed to change "Manager-Nuclear Technical Services" to "Manager-Nuclear Programs and Licensing" in Specification 6.5.2.9 to reflect the organizational change. The proposed change is administrative in nature.

Discussion: Safety Evaluation and Control Records (Section 6.5.2.10)

The licensee proposed to change the requirements to disseminate Safety Evaluation and Control (SEC) file records of SEC activities in order to become consistent with the organization change. The proposed change is administrative in nature.

Discussion: Quality Assurance Audit Records (Section 6.5.3.3)

The licensee proposed to change the list of individuals to whom the Quality Assurance Department audit reports must be disseminated to reflect the organizational change. The proposed change is administrative in nature.

Discussion: Notification of Reportable Occurrence and Safety Limit Violation (Sections 6.6 and 6.7)

The licensee proposed to insert the new title of Vice President-Nuclear Operations in Sections 6.6.1 and 6.7.1 involving report and review requirements for reportable occurrences and safety limit violations. The proposed change is administrative in nature.

Discussion: Approval of Procedures and Programs (Section 6.8.2)

The licensee proposed changes to TS 6.8.2 regarding approval authority for procedures and programs. As delineated in the proposed change to Specification 6.5.1.7, approval authority for several items was given exclusively to the SNSOC. As noted earlier in this Safety Evaluation, this method of approval is not considered acceptable and the licensee agreed to insert the statement, "SNSOC approval shall be certified in writing by an Assistant Station Manager." The proposed change is administrative in nature.

Discussion: Temporary Changes to Procedures

The licensee proposed to change the requirement for the Station Manager to document, review, and approve temporary changes to procedures within 14 days of implementation by giving these responsibilities to the SNSOC. As in Section 6.8.2, the licensee has agreed to insert the statement, "SNSOC approval shall be certified in writing by an Assistant Station Manager." The proposed change is administrative in nature.

Discussion: Record Retention (Section 6.10.1)

The licensee proposed the adding of two items to the list of records requiring five-year retention. These were records of the annual audits of the Station Emergency Plan and the Station Security Plan, which require five-year retention per 10 CFR 50.54(t) and 10 CFR 73.46g(6), respectively. The proposed change is administrative in nature.

Evaluation:

The changes as itemized above are administrative in nature and do not affect any of the operating parameters of the facility or the acceptability of the licensee's organization in terms of its technical capability or, as appropriate, its functional independence. In fact, the changes to the NA-1&2 TS enhance managerial attention of safety activities for NA-1&2 since the plant managers would now report directly to a Vice-President. The creation of the Assistant Station Manager (Nuclear Safety and Licensing) is an important upgrade in liaison between the corporate and plant staff directly involved in nuclear safety and licensing. In addition, the changes within the Nuclear Operations Department, Quality Assurance Department, Emergency Planning and Security

Department would result in a redistribution of existing authorities and responsibilities to enhance and provide greater management control in these selected areas. The creation of a new Maintenance and Performance Services Department would plan, organize, direct and control nuclear training and provide for more effective and efficient technical training for the NA-1&2 Nuclear Operations staff. Also, the Senior Vice President - Power Operation would now sign (formerly Executive Vice President - Power) the management directive on Shift Supervisor's responsibilities and issue this to all station personnel on an annual basis. Thus, the change would provide higher corporate responsibility in preparing the annual directive for the responsibilities of the Control Room command function of the Shift Supervisors. In addition, one of the changes would change the presently referenced ANSI Standard on Facility Staff Qualifications and Training from ANSI N18.1-1971 to ANS 3.1 (12/79 Draft). The ANSI 3.1 (12/79 Draft) meets or exceeds the requirements of the older ANSI standard presently specified in the NA-1&2 TS.

Finally, the changes would require that records be retained for at least five years with respect to Emergency Planning and Station Security. This record retention is specified in 10 CFR 50.54(t) and 10 CFR 73.46g(6), and thus imposes an additional restriction or control on the NA-1&2 TS. Accordingly, based on all of the above, we find the changes as itemized above to be acceptable.

Environmental Consideration

These amendments involve changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR §51.22(c)(10). Pursuant to 10 CFR §51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 8, 1986

Principal Contributors: M. F. Runyan, L. B. Engle