

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

April 29, 1991

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

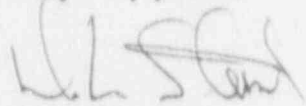
Serial No. 91-227
NL&P/RMN:jmj
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
UPDATED FINAL SAFETY ANALYSIS REPORT
REVISION 13

Pursuant to 10 CFR 50.71(e), Virginia Electric and Power Company submits Revision 13 to the Updated Final Safety Analysis Report (UFSAR) for North Anna Power Station Units 1 and 2. Each revision package contains replacement instructions and Revision 13 pages, including overleaves. The Revision 13 pages replace the existing pages as described in the instructions. One signed original and ten additional copies of Revision 13 to the UFSAR are enclosed.

Very truly yours,



W. L. Stewart
Senior Vice President - Nuclear

Enclosures (Original and 10 copies)

cc: United States Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, GA 30323

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

9105070278 910429
PDR ADCK 05000338
K PDR



A053
1/11

NORTH ANNA POWER STATION UNITS 1 & 2 UFSAR REVISION 13 INSTRUCTIONS

The following instructions show replacement pages and additional pages for Revision 13 of the North Anna Updated Final Safety Analysis Report. The pages listed in the "Remove Pages" column should be replaced by those in the "Insert Revision 13 Pages" column. Each sheet is identified by its front and back page numbers. (Figure pages are one-sided.)

<u>Location</u>	<u>Remove Pages</u>	<u>Insert Revision 13 Pages</u>
GENERAL INFORMATION BINDER		
List of Effective Pages	LEP-65/LEP-66 Through LEP-67/LEP-68	LEP-65/LEP-66 Through LEP-67/LEP-68
Drawing Index Pages	82/83	82/83
VOLUME XV		
	13-i/13-ii	13-i/13-ii
	13.1-3/13.1-4 through 13.1-17/13.1-18	13.1-3/13.1-4 through 13.1-9
	Figure 13.1-1a	Figure 13.1-1
	Figure 13.1-1b	--
	Figure 13.1-2	--

LIST OF EFFECTIVE PAGES

Page	Date	Amendment	Page	Date	Amendment
VOLUME XV			Figure 12.1-16	7/82	Original
Chapter 12			Figure 12.1-17	7/82	Original
12-i	6/83	1	Figure 12.1-18	7/82	Original
12-ii	6/83	1	Figure 12.1-19	7/82	Original
12-iii	6/83	1	Figure 12.1-20	7/82	Original
12-iv	7/82	Original	Figure 12.1-21	2/91	12
12-1	6/83	1	Figure 12.1-22	2/91	12
12-2	6/83	1	Figure 12.1-23	7/82	Original
12.1-1	7/82	Original	12.2-1	7/82	Original
12.1-2	7/82	Original	12.2-2	7/82	Original
12.1-3	7/82	Original	12.2-3	7/82	Original
12.1-4	7/82	Original	12.2-4	7/82	Original
12.1-5	7/82	Original	12.2-5	7/82	Original
12.1-6	7/82	Original	12.2-6	7/82	Original
12.1-7	7/82	Original	12.2-7	6/83	1
12.1-8	7/82	Original	12.2-8	6/83	1
12.1-9	7/82	Original	12.2-9	6/83	1
12.1-10	7/82	Original	12.2-10	6/83	1
12.1-11	6/83	1	12.2-11	6/83	1
12.1-12	6/83	1	12.2-12	6/83	1
12.1-13	6/83	1	12.2-13	6/83	1
12.1-14	6/83	1	12.2-14	6/83	1
12.1-15	6/83	1	12.3-1	6/86	4
12.1-16	6/83	1	12.3-2	2/91	12
12.1-17	6/83	1	12.3-3	7/82	Original
12.1-18	6/83	1	12.3-4	7/82	Original
12.1-19	6/83	1	12.3-5	7/82	Original
12.1-20	6/83	1	12.3-6	2/91	12
12.1-21	6/83	1	12.3-7	2/91	12
12.1-22	7/82	Original	12.3-8	2/91	12
12.1-23	7/82	Original	12.3-9	2/91	12
12.1-24	7/82	Original	12.3-10	2/91	12
12.1-25	7/82	Original	12.4-1	6/85	3
12.1-26	7/82	Original	12.4-2	2/91	12
12.1-27	7/82	Original	12.4-3	6/83	1
12.1-28	7/82	Original	12A-i	7/82	Original
12.1-29	7/82	Original	12A-ii	7/82	Blank
Figure 12.1-1	7/82	Original	12A-iii	7/82	Original
Figure 12.1-2	7/82	Original	12A-iv	7/82	Original
Figure 12.1-3	7/82	Original	12A-v	7/82	Original
Figure 12.1-4	7/82	Original	12A-vi	7/82	Original
Figure 12.1-5	7/82	Original	12A-vii	7/82	Original
Figure 12.1-6	7/82	Original	12A-viii	7/82	Original
Figure 12.1-7	7/82	Original	12A-1	7/82	Original
Figure 12.1-8	7/82	Original	12A-2	7/82	Original
Figure 12.1-9	7/82	Original	12A-3	7/82	Original
Figure 12.1-10	7/82	Original	12A-4	7/82	Original
Figure 12.1-11	7/82	Original	12A-5	7/82	Original
Figure 12.1-12	7/82	Original	12A-6	7/82	Blank
Figure 12.1-13	7/82	Original	12A-7	7/82	Original
Figure 12.1-14	7/82	Original	12A-8	7/82	Original
Figure 12.1-15	7/82	Original	12A-9	7/82	Original
			12A-10	7/82	Original
			12A-11	7/82	Original

LIST OF EFFECTIVE PAGES

<u>Page</u>	<u>Date</u>	<u>Amendment</u>	<u>Page</u>	<u>Date</u>	<u>Amendment</u>
VOLUME XV (continued)					
12A-12	7/82	Blank	Figure 12A-21	7/82	Original
12A-13	7/82	Original	Figure 12A-22	/82	Original
12A-14	7/82	Original	Figure 12A-23	7/82	Original
12A-15	7/92	Original	Figure 12A-24	7/82	Original
12A-16	7/82	Original	Figure 12A-25	7/82	Original
12A-17	7/82	Original	Figure 12A-26	7/82	Original
12A-18	7/82	Original	Figure 12A-27	7/82	Original
12A-19	7/82	Original	Figure 12A-28	7/82	Original
12A-20	7/82	Original	Figure 12A-29	7/82	Original
12A-21	7/82	Original	Figure 12A-30	7/82	Original
12A-22	7/82	Original	Figure 12A-31	7/82	Original
12A-23	7/82	Original	Figure 12A-32	7/82	Original
12A-24	7/82	Original	Figure 12A-33	7/82	Original
12A-25	7/82	Original	Figure 12A-34	7/82	Original
12A-26	7/82	Original	Figure 12A-35	7/82	Original
12A-27	7/82	Original	Figure 12A-36	7/82	Original
12A-28	7/82	Original	Figure 12A-37	7/82	Original
12A-29	7/82	Original	Figure 12A-38	7/82	Original
12A-30	7/82	Original	Figure 12A-39	7/82	Original
12A-31	7/82	Original	Figure 12A-40	7/82	Original
12A-32	7/82	Original	Figure 12A-41	7/82	Original
12A-33	7/82	Original	Figure 12A-42	7/82	Original
12A-34	7/82	Original	Figure 12A-43	7/82	Original
12A-35	7/82	Original	Figure 12A-44	7/82	Original
12A-36	7/82	Original	Figure 12A-45	7/82	Original
12A-37	7/82	Original	Figure 12A-46	7/82	Original
12A-38	7/82	Original	Figure 12A-47	7/82	Original
12A-39	7/82	Original	Figure 12A-48	7/82	Original
12A-40	7/82	Original	Figure 12A-49	7/82	Original
12A-41	7/82	Original	Figure 12A-50	7/82	Original
12A-42	7/82	Original	Figure 12A-51	7/82	Original
12A-43	7/82	Original	Figure 12A-52	7/82	Original
Figure 12A-1	7/82	Original	Figure 12A-53	7/82	Original
Figure 12A-2	7/82	Original	Figure 12A-54	7/82	Original
Figure 12A-3	7/82	Original	Figure 12A-55	7/82	Original
Figure 12A-4	7/82	Original			
Figure 12A-5	7/82	Original	<u>Chapter 13</u>		
Figure 12A-6	7/82	Original	13- i	6/83	1
Figure 12A-7	7/82	Original	13-ii	4/91	13
Figure 12A-8	7/82	Original	13.1-1	9/88	8
Figure 12A-9	7/82	Original	13.1-2	9/88	8
Figure 12A-10	7/82	Original	13.1-2a	6/84	2
Figure 12A-11	7/82	Original	13.1-3	4/91	13
Figure 12A-12	7/82	Original	13.1-4	4/91	13
Figure 12A-13	7/82	Original	13.1-5	4/91	13
Figure 12A-14	7/82	Original	13.1-6	4/91	13
Figure 12A-15	7/82	Original	13.1-7	4/91	13
Figure 12A-16	7/82	Original	13.1-8	4/91	13
Figure 12A-17	7/82	Original	13.1-9	4/91	13
Figure 12A-18	7/82	Original			
Figure 12A-19	7/82	Original			
Figure 12A-20	7/82	Original			

LIST OF EFFECTIVE PAGES

Page	Date	Amendment	Page	Date	Amendment
VOLUME XV (continued)			14.1-17	7/82	Original
Figure 13.1-1	4/91	13	14.1-18	7/82	Original
13.2-1	6/86	4	14.1-19	7/82	Original
13.2-2	6/86	4	14.1-20	7/82	Original
13.2-3	6/86	4	14.1-21	6/83	1
13.2-4	6/86	4	14.1-22	7/82	Original
13.2-4a	6/86	4	14.1-23	7/82	Original
13.2-4b	6/86	4	14.1-24	7/82	Original
13.2-5	6/84	2	14.1-25	7/82	Original
13.3-1	6/83	1	14.1-26	7/82	Original
13.3-2	6/83	1	14.1-27	7/82	Original
13.4-1	7/82	Original	14.1-28	7/82	Original
13.4-2	7/82	Original	14.1-29	7/82	Original
13.4-3	7/82	Original	14.1-30	7/82	Original
13.5-1	7/82	Original	14.1-31	7/82	Original
13.5-2	7/82	Original	14.1-32	7/82	Original
13.5-3	7/82	Original	14.1-33	7/82	Original
13.5-4	7/82	Original	14.1-34	7/82	Original
13.5-5	7/82	Original	14.1-35	7/82	Original
13.5-6	7/82	Original	14.1-36	7/82	Original
13.5-7	7/82	Original	14.1-37	7/82	Original
13.5-8	7/82	Original	14.1-38	7/82	Original
13.6-1	7/82	Original	14.1-39	7/82	Original
13.6-2	7/82	Original	14.1-40	7/82	Original
13.7-1	7/82	Original	14.1-41	7/82	Original
Chapter 14			14.1-42	7/82	Original
14-i	7/82	Original	14.1-43	7/82	Original
14-ii	7/82	Original	14.1-44	7/82	Original
14-iii	7/82	Original	14.1-45	7/82	Original
14-iv	7/82	Blank	14.1-46	7/82	Original
14-1	7/82	Original	14.1-47	7/82	Original
14-2	7/82	Original	14.1-48	7/82	Original
14-3	7/82	Original	14.1-49	7/82	Original
14-4	7/82	Original	14.1-50	7/82	Original
14-5	7/82	Original	14.1-51	7/82	Original
14.1-1	7/82	Original			
14.1-2	7/82	Original			
14.1-3	7/82	Original			
14.1-4	7/82	Original			
14.1-5	7/82	Original			
14.1-6	7/82	Original			
14.1-7	7/82	Original			
14.1-8	7/82	Original			
14.1-9	7/82	Original			
14.1-10	7/82	Original			
14.1-11	7/82	Original			
14.1-12	7/82	Blank			
14.1-13	7/82	Original			
14.1-14	7/82	Original			
14.1-15	7/82	Original			
14.1-16	7/82	Original			

LIST OF EFFECTIVE PAGES

<u>Page</u>	<u>Date</u>	<u>Amendment</u>	<u>Page</u>	<u>Date</u>	<u>Amendment</u>
VOLUME XV (continued)					
14.1-52	7/82	Original			
14.1-53	7/82	Original			
14.1-54	7/82	Original			
14.1-55	7/82	Original			
14.1-56	7/82	Original			
14.1-57	7/82	Original			
14.1-58	7/82	Original			
14.1-59	7/82	Original			
14.1-60	7/82	Original			
14.1-61	7/82	Original			
14.1-62	7/82	Original			
14.1-63	7/82	Original			
14.1-64	7/82	Original			
Figure 14.1-1	7/82	Original			
Figure 14.1-2	7/82	Original			
Figure 14.1-3	2/91	12			
Figure 14.1-4	2/91	12			
Figure 14.1-5	2/91	12			
Figure 14.1-6	2/91	12			
Figure 14.1-7	2/91	12			
Figure 14.1-8	2/91	12			
Figure 14.1-9	2/91	12			
Figure 14.1-10	2/91	12			
Figure 14.1-11	2/91	12			
Figure 14.1-12	2/91	12			
Figure 14.1-13	2/91	12			
Figure 14.1-14	2/91	12			
Figure 14.1-15	2/91	12			
Figure 14.1-16	2/91	12			
Figure 14.1-17	2/91	12			
Figure 14.1-18	7/82	Original			
14.2-1	7/82	Original			
14.2-2	7/82	Original			
14A-i	7/82	Blank			
14A-ii	7/82	Original			
14A-iii	7/82	Original			
14A-iv	7/82	Original			
14A-1	7/82	Original			
14A-2	7/82	Original			
14A-3	7/82	Original			
14A-4	7/82	Original			
14A-5	7/82	Original			
14A-6	7/82	Original			
14A-7	7/82	Original			
14A-8	7/82	Original			
14A-9	7/82	Original			
Figure 14A-1	7/82	Original			
Figure 14A-2	7/82	Original			

NORTH ANNA UFSAR DRAWING INDEX

Part I: Sequential Listing by UFSAR Figure Number (continued)

<u>UFSAR Figure Number</u>	<u>Drawing Number</u>	<u>Figure Title</u>
12A-37	-	Safety Injection System, Seismic Mathematical Model, Problem 703
12A-38	-	Safety Injection System, NCCODE Analysis Model, Problem 706
12A-39	-	Safety Injection System, Seismic Mathematical Model, Problem 706
12A-40	-	Safety Injection System, NCCODE Analysis Model, Problem 707
12A-41	-	Safety Injection System, Seismic Mathematical Model, Problem 707
12A-42	-	Safety Injection System, NCCODE Analysis Problem 727
12A-43	-	Safety Injection System, Seismic Mathematical Model, Problem 727
12A-44	-	Safety Injection System, NCCODE Analysis Model, Problem 733
12A-45	-	Safety Injection System, Seismic Mathematical Model, Problem 733
12A-46	-	Safety Injection System, NCCODE Analysis Model, Problem 734
12A-47	-	Safety Injection System, Seismic Mathematical Model, Problem 734
12A-48	-	RC Loop 1 Low Head Safety Injection and Residual Heat Removal System, NCCODE Analysis Model, Problem 130, Sheet 1
12A-49	-	RC Loop 1 Low Head Safety Injection and Residual Heat Removal System, NCCODE Analysis Model, Problem 130, Sheet 2
12A-50	-	RC Loop 1 Low Head Safety Injection and Residual Heat Removal System, Mathema- tical Model, Problem 130, Sheet 1
12A-51	-	RC Loop 1 Low Head Safety Injection and Residual Heat Removal System, Mathema- tical Model, Problem 130, Sheet 2

NORTH ANNA UFSAR DRAWING INDEX

Part I: Sequential Listing by UFSAR Figure Number (continued)

<u>UFSAR Figure Number</u>	<u>Drawing Number</u>	<u>Figure Title</u>
12A-52	-	RC Loop 2 Low Head Safety Injection and Residual Heat Removal System, NCCODE Analysis Model, Problem 1310
12A-53	-	RC Loop 2 Low Head Safety Injection and Residual Heat Removal System, Mathema- tical Model, Problem 1310
12A-54	-	RC Loop 3 Low Head Safety Injection and Residual Heat Removal System, NCCODE Analysis Model, Problem 132
12A-55	-	RC Loop 3 Low Head Safety Injection and Residual Heat Removal System, Mathema- tical Model, Problem 132
13.1-1	-	Station Organization
14.1-1	-	Typical Preoperational Test Sequence
14.1-2	-	Typical Startup Test Sequence
14.1-3	11715-LSK-1-3A	Generator Breaker Closing
14.1-4	11715-LSK-1-3B	Generator Breaker Trip Logic Diagram
14.1-5	11715-LSK-1-3C	"86" Protective Lockout Relay Logic Diagram
14.1-6	11715-LSK-1-3D	Main Transformer Protection Relay 86-TL Logic Diagram
14.1-7	11715-LSK-1-3E	Generator Lockout Relays Logic Diagram
14.1-8	11715-LSK-1-3F	Main Transformer Differential Lockout Relays 86-GL & 86-PW1A Logic Diagram
14.1-9	11715LSK-1-3G	Main Transformer Coolers, Logic Diagram
14.1-10	11715-LSK-1-2A	External Turbine Trips, Logic Diagram
14.1-11	11715-LSK-1-3H	Main Transformer Alarms, Logic Diagram
14.1-12	11715-LSK-1-2B	Turbine Trips Logic Diagram

CHAPTER 13: CONDUCT OF OPERATIONSTABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
13.1	ORGANIZATIONAL STRUCTURE OF VIRGINIA ELECTRIC AND POWER COMPANY	13.1-1
13.1.1	Organization.	13.1-1
13.1.1.1	Nuclear Participation by Vepco.	13.1-1
13.1.1.2	Operational Phase	13.1-2
13.2	TRAINING PROGRAM.	13.2-1
13.3	EMERGENCY PLANNING.	13.3-1
13.3	References.	13.3-2 1
13.4	REVIEW AND AUDIT.	13.4-1
13.4.1	Review and Audit - Construction	13.4-1
13.4.2	Review and Audit - Preoperation	13.4-2
13.4.3	Review and Audit - Startup and Operation.	13.4-2
13.5	PLANT PROCEDURES.	13.5-1
13.6	PLANT RECORDS	13.6-1
13.7	INDUSTRIAL SECURITY	13.7-1

CHAPTER 13: CONDUCT OF OPERATIONSLIST OF FIGURES

Figure	Title
13.1-1	Station Organization

the safety of the public, station personnel, and equipment. The station shall be operated in accordance with the license granted by the NRC, the Technical Specifications, and the Final Safety Analysis Report (FSAR).

On November 18, 1983, the NRC approved Amendment Nos. 49 and 33 to the North Anna 1 and 2 Facility Operating Licenses. These amendments reflected the partial sale of North Anna 1 and 2 to the Old Dominion Electric Cooperative (ODEC). The amount of the partial ownership is 11.6% for ODEC. ODEC will be a partial owner, but responsibility for power operations, maintenance and maintaining the units in a safe shutdown condition is Virginia Electric and Power Company's.

Each nuclear power station's Technical Specifications contain the company's organizational requirements for facility operation and corporate management. A simplified operating organization chart is shown in figure 13.1-1. This figure shows the lines of authority, responsibility, and communication for the highest management levels through intermediate levels and including operating organization positions.

The organization shown in the figure, and described below is not a comprehensive listing of positions at the station. The following descriptions include only those management, supervisory and working level positions existing at the Station and the Corporate level which are directly involved in the daily activities necessary to operate the facility.

Senior Vice President Nuclear

The Senior Vice President Nuclear has corporate responsibility for and directs the planning and development of the Nuclear Organization staff, organization resources, and nuclear power generation.

Vice President Nuclear Operations

The Vice President Nuclear Operations has corporate responsibility for the operation of the nuclear power stations.

Station Manager

The Station Manager has supervisory control over all Virginia Electric and Power Company personnel within the North Anna Power Station organization and administrative control over all other Company personnel or non-Company individuals within the site boundary.

The Station Manager is responsible for operating and maintaining the station as a safe, economical, reliable, and efficient functional part of the Virginia Electric and Power Company power generating system. The station will be operated

consistent with good electric utility operating practice, and in compliance with the Technical Specifications and applicable regulations.

The Station Manager shall have overall responsibility for the training, retraining, and replacement training programs for the facility staff. These programs shall meet or exceed the requirements and recommendations of the applicable regulatory requirements as described in Station Administrative Procedures.

The Station Manager is the local representative of company management and is empowered to implement all company policy with regard to operations of the facility, support of Company public relations policy, and employee relations policies. The Station Manager is also responsible for coordinating station functions with outside agencies and services.

In the absence of the Station Manager, these duties will be assumed by the Assistant Station Manager (O&M) unless otherwise designated in writing.

Assistant Station Manager (O&M)

The Assistant Station Manager (O&M) is responsible for directing and coordinating all aspects of day-to-day station operations and maintenance. The Assistant Station Manager (O&M) is the Vice Chairman of the Station Nuclear Safety and Operating Committee and is responsible for planning and coordination of unit outage.

In the absence of the Assistant Station Manager, these duties will be assumed by the Station Manager unless otherwise designated in writing. In the absence of the Assistant Station Manager (O&M) and the Station Manager, the duties of the Assistant Station Manager (O&M) will be assumed by the Superintendent of Operations, unless otherwise designated in writing.

Superintendent Maintenance

The Superintendent Maintenance is responsible for directing and coordinating the maintenance activities at the station, and for ensuring that station facilities and equipment are maintained in accordance with regulatory requirements and station procedures.

The Superintendent Maintenance is responsible for: 1) the development and implementation of uniform policies and procedures for installation, maintenance, and repair of station equipment and systems, 2) ensuring maintenance tasks will be performed in a timely and efficient manner, and 3) detailed maintenance planning to support scheduled outages is completed as needed.

Superintendent Operations

The Superintendent Operations is responsible for directing and coordinating station operations in accordance with approved programs and procedures, including the safe conduct of all nuclear fuel handling operations.

The Superintendent Operations will report any unusual occurrences in connection to station operations to the Assistant Station Manager (O&M) or the Assistant Station Manager (NS&L).

The Superintendent Operations is responsible for: 1) development and implementation of uniform operating policies and procedures, 2) implementation of on-the-job training for operations personnel, 3) ensuring each shift is adequately staffed and sufficient back-up personnel is available, 4) all required operating data is properly logged or recorded, and 5) appropriate station operations records are retained.

Supervisor Shift Operations

The Supervisor Shift Operations provides direct supervision to the Shift Supervisors, operational input to the Station Nuclear Safety and Operating Committee, and identifies any deviations from the Technical Specifications or any unusual events.

The Supervisor Shift Operations must possess a valid Senior Reactor Operator (SRO) license, and may only be relieved by an individual who possesses a valid SRO license. This position fulfills the function of the "operations manager" as described in ANSI 3.1 (12/79 DRAFT).

Shift Supervisor

The Shift Supervisor directs the operations activities of the station for the assigned shift. The Shift Supervisor is responsible for maintaining the safe operation of the facility under all conditions, and shall maintain a broad, general perspective of operational conditions affecting the safety of the facility. The Shift Supervisor shall not become totally involved in any single operation when multiple operations are taking place at the facility.

When both units are operating, the Shift Supervisor may have command responsibility for one of the operating units in addition to being responsible for overall command of the facility. The Shift Supervisor is responsible for ensuring that facility operations during his shift are conducted in accordance with the requirements of the Technical Specifications, the currently approved operating procedures for normal, abnormal and emergency evolutions, and company policies which apply to his assigned shift.

The Shift Supervisor is responsible for recommending changes to procedures and ensuring that the requirements, as contained in

the Station Administrative Procedures, for activities that affect the safety of the station are implemented. The Shift Supervisor shall perform the initial classification of Deviation Reports. If any event listed in the administrative procedure for notification requirements is identified, the Shift Supervisor shall notify the Superintendent Operations or the SRO on call.

The Shift Supervisor must possess a valid SRO license, and may only be relieved by an individual who possesses a valid SRO license.

Assistant Shift Supervisor

During two unit operation, Assistant Shift Supervisors are normally delegated the command responsibility for one of the units and are responsible for directing the activities of the operators on their designated unit, and provide backup and support to the Shift Supervisor. The Assistant Shift Supervisor must possess a valid SRO license, and may only be relieved by an individual who possesses a valid SRO license.

The Assistant Shift Supervisor is responsible for ensuring that unit operations during his shift are conducted in accordance with the requirements of the Technical Specifications, the currently approved operating procedures for normal, abnormal and emergency evolutions, and company policies which apply to his assigned shift.

Control Room Operators (Licensed)

The Control Room Operator (CRO) is responsible for the safe operation of the assigned unit and must ensure that it is operated within the Technical Specifications and in accordance with approved normal, abnormal and emergency procedures. The CRO is responsible for initiating changes to these procedures, as necessary, in accordance with Station Administrative policy and procedures.

The Control Room Operator has the authority and responsibility for shutting down the reactor if the CRO determines that the safety of the reactor is in jeopardy, or when operating parameters exceed any of the reactor protection system setpoints and automatic shutdown does not occur.

For each shift, the Control Room Operator shall maintain a log recording both routine and abnormal conditions which could affect the operation of the unit, or the safety of the station. The Control Room Operator is responsible for notifying the Supervisor, in command of the unit, of any condition which could affect the operation of the unit or the station.

The Control Room Operator is a Licensed Reactor Operator, and can only be relieved by another Licensed Reactor Operator or Senior Reactor Operator.

Control Room Operators (Non-Licensed and trainees)

The Control Room Operator (non-licensed and trainees) are responsible for the safe operation of the unit's primary, secondary and auxiliary systems, consistent with their qualification level.

The Control Room Operator (non-licensed and trainees) are supervised by the Shift Supervisor or Assistant Shift Supervisor to support the activities of the Licensed Control Room Operators at the controls. Direction will be taken from the licensed control room operator, as necessary, to coordinate plant operations.

Assistant Station Manager - Nuclear Safety & Licensing (NS&L)

The Assistant Station Manager (NS&L) is responsible for directing and coordinating nuclear safety and licensing issues at the station. The Assistant Station Manager (NS&L) is Chairman of the Station Nuclear Safety and Operating Committee (SNSOC) and conducts periodic meetings to ensure the facility operates in a manner ensuring the health and safety of the public. The Assistant Station Manager maintains information on industry operating experience, is cognizant of licensing and regulatory issues, is responsible for nuclear safety and the Shift Technical Advisors (STAs), administers the Station Emergency Plan, and ensures adequate training for station employees regarding emergency preparedness.

The Assistant Station Manager (NS&L) is responsible for the Station Commitment Tracking program and provides the station interface with the corporate licensing organization.

Superintendent Radiological Protection

The Superintendent Radiological Protection directs the activity of the Radiological Protection group at the station. Responsibilities include: 1) monitor the radiological effluent programs and personnel radiation protection programs, 2) maintain records of radiological exposures for all persons working or visiting within the station's restricted area, 3) ensure regular surveys of the station, 4) maintain records of background radiation levels, and 5) check all radioactive material releases and shipments from station and maintain appropriate records. The Radiological Protection group is responsible for determining the

radiation levels of all work areas, and posting, as needed, areas where sources of radiation exist.

The Superintendent Radiological Protection directs the activities of his group to minimize the exposure of station personnel to excessive doses of radiation and to prevent the spread of radioactive contamination. All activities in these areas are coordinated with other station groups to ensure full awareness of problems through implementation of the station ALARA program. The Superintendent Radiological Protection is responsible for the Radiological Protection Program, and ensuring that the implementation of these procedures is discussed with station personnel in the General Employee Training Program.

Superintendent Site Services

Superintendent Site Services is responsible for managing all aspects of assigned projects including interface with station management, engineering, and construction. Support activities such as accounting, procurement planning, scheduling and cost control are also included in these responsibilities.

Supervisor Administrative Services

The Supervisor Administrative Services is responsible for managing the activities related to administrative tasks for smooth station operation. These tasks include: planning and budget, station records management, station safety and loss prevention, fire protection, and medical assistance.

Superintendent Station Engineering

The Superintendent Station Engineering is responsible to the Manager Nuclear Engineering for providing engineering services at the nuclear power station. These services include: implementation of the design change program at the site including initiating field changes as required, providing engineering disposition to Deviation Reports as required, managing the drawing update program, and managing engineering services as requested by station management.

Manager Quality Assurance (Station)

The Manager Quality Assurance (Station) is responsible to the Manager Nuclear Quality Assurance for monitoring compliance with the Operational Quality Assurance Program for the nuclear power station and the technical support of the quality assurance effort associated with the modification, operation and maintenance of the nuclear station. The Manager Quality Assurance (Station) may make recommendations to the Station Manager or other levels of management. If he disagrees with any quality assurance actions

taken by the Station Manager, he shall notify the Manager Nuclear Quality Assurance and the Vice President Nuclear Operations.

Station Nuclear Safety and Operating Committee (SNSOC)

The SNSOC advises the Station Manager on all matters related to nuclear safety. Details of SNSOC operation and function are in the Technical Specifications..

Management Safety Review Committee (MSRC)

The MSRC advises the Senior Vice President-Nuclear on all matters related to nuclear safety. Details of MSRC operation and function are in the Technical Specifications..

Superintendent Nuclear Training

The Superintendent Nuclear Training reports directly to the Manager Nuclear Training (Corporate) and functionally to the Station Manager. Additional details are in the Technical Specifications.

Station Nuclear Safety (SNS)

The Station Nuclear Safety group is under the Assistant Station Manager (Nuclear Safety and Licensing) and includes the Shift Technical Advisors. Additional details are in the Technical Specifications.

Other Support Positions

Other management, supervisory, and working level positions existing at the Station and Corporate level provide support to the operating management and operating staff. Although these individuals are not always involved directly in the day-to-day specifics of operating the facility, positions in outage management, nuclear safety, licensing, procedures, construction, chemistry, emergency planning, security, and training are vital to the safe and efficient operation of the Stations. These individuals report to the Station management positions described in this section, and meet the requirements of ANSI 3.1 (12/79 DRAFT).

NORTH ANNA ORGANIZATION

