

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 8, 2004

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 04-130
NAPS/MPW
Docket Nos. 50-338/339
License Nos. NPF-4/7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNITS 1 AND 2
REVISIONS TO EMERGENCY PLAN IMPLEMENTING PROCEDURE

Pursuant to 10 CFR 50.54(q), enclosed is a recent revision to the North Anna Power Station Emergency Plan Implementing Procedure. This revision does not implement actions that decrease the effectiveness of our Emergency Plan. The Emergency Plan and Implementing Procedures continue to meet the standards of 10 CFR 50.47(b).

Please update your manual by performing the actions described in Attachment 1, Tabulation of Changes.

Very truly yours,



J. M. Davis
Site Vice President

Commitments Stated or Implied: None.

Enclosures

cc: U.S. Nuclear Regulatory Commission (2 copies)
Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, GA 30303

Mr. M. T. Widmann
NRC Senior Resident Inspector
North Anna Power Station

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**ATTACHMENT 1
TABULATION OF CHANGES**

**VIRGINIA ELECTRIC AND POWER COMPANY
REVISIONS TO NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE**

Enclosed is a recent revision to the North Anna Power Station Emergency Plan Implementing Procedure (EPIP). Please take the following actions in order to keep your manual updated.

REMOVE AND DESTROY	DATED	INSERT	EFFECTIVE DATE
EPIP - 4.35, Rev. 0	07/01/03	EPIP - 4.35, Rev. 1	03/02/04

Emergency Plan Privacy and Proprietary Material has been removed. Reference Generic Letter No. 81-27.

NORTH ANNA POWER STATION
LIST OF NAPS EMERGENCY PLAN IMPLEMENTATION PROCEDURES
CHECK DMIS FOR LATEST DOCUMENT INFORMATION

DOCUMENT NUMBER	REV	APPROVAL **DATE**	EFFECT** **DATE**	DOCUMENT TITLE
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EPIP-1.01	039	01/15/04	01/15/04	EMERGENCY MANAGER CONTROLLING PROCEDURE
EPIP-1.02	011	09/07/99	10/01/99	RESPONSE TO NOTIFICATION OF UNUSUAL EVENT
EPIP-1.03	014	09/07/99	10/01/99	RESPONSE TO ALERT
EPIP-1.04	014	09/07/99	10/01/99	RESPONSE TO SITE AREA EMERGENCY
EPIP-1.05	016	09/07/99	10/01/99	RESPONSE TO GENERAL EMERGENCY
EPIP-1.06	004	09/05/01	09/05/01	PROTECTIVE ACTION RECOMMENDATIONS
EPIP-2.01	025	08/13/02	08/28/02	NOTIFICATION OF STATE AND LOCAL GOVERNMENTS
EPIP-2.02	015	08/13/02	08/28/02	NOTIFICATION OF NRC
EPIP-3.02	021	03/04/03	03/17/03	ACTIVATION OF TECHNICAL SUPPORT CENTER
EPIP-3.03	013	03/04/03	03/17/03	ACTIVATION OF OPERATIONAL SUPPORT CENTER
EPIP-3.04	015	07/14/98	07/20/98	ACTIVATION OF LOCAL EMERGENCY OPERATIONS FACILITY
EPIP-3.05	002	04/02/03	04/08/03	AUGMENTATION OF EMERGENCY RESPONSE ORGANIZATION
EPIP-4.01	020	06/24/03	07/01/03	RADIOLOGICAL ASSESSMENT DIRECTOR CONTROLLING PROCEDURE
EPIP-4.02	015	06/24/03	07/01/03	RADIATION PROTECTION SUPERVISOR CONTROLLING PROCEDURE
EPIP-4.03	011	12/20/93	01/01/94	DOSE ASSESSMENT TEAM CONTROLLING PROCEDURE
EPIP-4.04	009	11/21/94	11/28/94	EMERGENCY PERSONNEL RADIATION EXPOSURE
EPIP-4.05	009	01/28/00	02/04/00	RESPIRATORY PROTECTION AND KI ASSESSMENT
EPIP-4.06	009	12/21/95	12/28/95	PERSONNEL MONITORING AND DECONTAMINATION
EPIP-4.07	014	09/29/00	10/06/00	PROTECTIVE MEASURES
EPIP-4.08	015	12/17/03	02/12/04	INITIAL OFFSITE RELEASE ASSESSMENT
EPIP-4.09	015	12/17/03	02/12/04	SOURCE TERM ASSESSMENT
EPIP-4.10	011	08/13/02	08/28/02	DETERMINATION OF X/Q
EPIP-4.13	009	09/29/00	10/06/00	OFFSITE RELEASE ASSESSMENT WITH ENVIRONMENTAL DATA

NORTH ANNA POWER STATION
LIST OF NAPS EMERGENCY PLAN IMPLEMENTATION PROCEDURES
CHECK DMIS FOR LATEST DOCUMENT INFORMATION

DOCUMENT NUMBER	REV	APPROVAL **DATE**	EFFECT** **DATE**	DOCUMENT TITLE
EPIP-4.14	007	12/20/93	01/01/94	INPLANT MONITORING
EPIP-4.15	011	02/18/00	02/28/00	ONSITE MONITORING
EPIP-4.16	015	12/13/02	12/18/02	OFFSITE MONITORING
EPIP-4.17	016	12/13/02	12/18/02	MONITORING OF EMERGENCY RESPONSE FACILITIES
EPIP-4.18	013	12/13/02	12/18/02	MONITORING OF LEOF
EPIP-4.21	008	12/20/93	01/01/94	EVACUATION AND REMOTE ASSEMBLY AREA MONITORING
EPIP-4.24	013	04/02/03	04/08/03	GASEOUS EFFLUENT SAMPLING DURING AN EMERGENCY
EPIP-4.26	012	06/24/03	07/01/03	HIGH LEVEL ACTIVITY SAMPLE ANALYSIS
EPIP-4.28	007	01/09/97	01/14/97	TSC/LEOF RADIATION MONITORING SYSTEM
EPIP-4.30	005	04/05/02	04/09/02	USE OF MIDAS CLASS A MODEL
EPIP-4.31	003	06/20/94	06/20/94	USE OF MIDAS CLASS B MODEL
EPIP-4.33	003	11/28/00	11/30/00	HEALTH PHYSICS NETWORK COMMUNICATIONS
EPIP-4.34	003	12/13/02	12/18/02	FIELD TEAM RADIO OPERATOR INSTRUCTIONS
EPIP-4.35	001	02/26/04	03/02/04	CHEMISTRY SAMPLING
EPIP-5.01	011	12/11/96	12/17/96	TRANSPORTATION OF CONTAMINATED INJURED PERSONNEL
EPIP-5.03	016	02/18/00	02/28/00	PERSONNEL ACCOUNTABILITY
EPIP-5.04	010	03/04/03	03/17/03	ACCESS CONTROL
EPIP-5.05	013	06/25/96	07/02/96	SITE EVACUATION
EPIP-5.07	012	06/24/03	07/01/03	ADMINISTRATION OF RADIOPROTECTIVE DRUGS
EPIP-5.08	008	04/02/03	04/08/03	DAMAGE CONTROL GUIDELINE
EPIP-5.09	004	08/02/02	08/15/02	SECURITY TEAM LEADER CONTROLLING PROCEDURE
EPIP-6.01	007	05/12/99	05/17/99	RE-ENTRY/RECOVERY GUIDELINE

VIRGINIA POWER
NORTH ANNA POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING (With No Attachments)	REVISION 1
		PAGE 1 of 11

PURPOSE

To provide controls for chemistry sampling of the Reactor Coolant System, containment atmosphere and containment sump.

LEVEL 2 COPY
THIS DOCUMENT SHALL BE VERIFIED
TO A CONTROLLED SOURCE AS
REQUIRED TO PERFORM WORK

ENTRY CONDITIONS

Any one of the following:

1. Alert or higher emergency classification has been declared.
2. Activation by EPIP-4.02, Radiation Protection Supervisor Controlling Procedure.
3. As deemed necessary by the Radiological Assessment Director.

Approvals on File

Effective Date 3/2/2004

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
		PAGE 2 of 11

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1	INITIATE EPIP-4.35: • By: _____ Date: _____ Time: _____	
2	CHECK WITH RADIATION PROTECTION SUPERVISOR TO ENSURE NORMAL CHEMISTRY SAMPLING IS ACCEPTABLE	IF sampling to be conducted under provisions of the Contingency Plan, <u>THEN</u> GO TO Step 13.
3	CHECK IF SAMPLE POINT IS AVAILABLE IN PRIMARY SAMPLE ROOM	IF sample point is <u>NOT</u> available in primary sample room, <u>THEN</u> determine location of alternate sample point.
<p>NOTE: Prompt notification of RPS upon detection of stop work dose rates at the Primary Sample Room is essential for timely classification decision-making.</p>		
4	BRIEF SAMPLE PERSONNEL: a) Review sampling procedure b) Review ingress and egress routes c) Review RWP requirements d) Review enroute hazards e) Review operation of RABBIT sample transfer system f) Review criteria for promptly reporting stop work dose rate <ul style="list-style-type: none"> • 15 R/hr - GENERAL AREA • 3 R/hr - 12 INCHES FROM PRIMARY SAMPLE CONTAINER 	

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

___ 5 DISPATCH SAMPLING PERSONNEL:

- a) Assure sampling personnel have proper materials and personal protection equipment
- b) Give sampling personnel a copy of this procedure

___ 6 GO TO SAMPLE LOCATION:

- a) Use pre-planned travel route to sample location
- b) Continuously monitor radiation dose rates
- c) Verify radiation dose rates - EXPECTED
- c) IF unexpected radiation dose rates are found, THEN leave area.

CAUTION:

- Do not open RABBIT transfer system while sending sample.
- Samples may become stuck in the RABBIT system (e.g. due to loss of vacuum). System piping can be monitored to determine the location of the stuck RABBIT. The Radiation Protection Supervisor should be notified if this occurs.

___ 7 PERFORM SAMPLING:

(STEP 7 CONTINUED ON NEXT PAGE)

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
		PAGE 4 of 11

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
7	PERFORM SAMPLING: (Continued)	
	a) Verify sampling from Primary Sample Room	a) <u>IF NOT</u> performing sample from Primary Sample Room, <u>THEN</u> do the following:
		1) Perform sampling in designated alternate location.
		2) Leave sample area.
		a) Monitor sample dose rates.
		b) Maintain ALARA (reduce exposure).
		c) GO TO Step 7.e.
	b) Collect required sample volume	
	c) Turn on RABBIT sample transfer system at primary sample room	c) <u>IF NOT</u> operable, <u>THEN</u> do the following:
		1) Transfer sample manually in accordance with HP Technician instructions.
		2) Leave sample area.
		a) Monitor sample dose rates.
		b) Maintain ALARA (reduce exposure).
		c) GO TO Step 7.e.
	d) Send sample to Hot Lab	
	e) Leave sample area by pre-planned route	

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
8	<p>PREPARE SAMPLE FOR ANALYSIS:</p> <p>a) Put sample in a clean poly bag</p> <p>b) Label sample with the following:</p> <ul style="list-style-type: none"> • Date and time • Sample type • Sample volume • Dose rate 	<p>IF sample activity GREATER THAN 10 mR/hr, THEN do the following:</p> <p>a) Take sample to Hot Lab for dilution IAW EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS.</p> <p>b) GO TO Step 11.</p>
9	<p>CHECK SAMPLE ACTIVITY - LESS THAN 10 mR/HR</p>	
10	<p>TAKE SAMPLE TO COUNT ROOM</p>	
11	<p>NOTIFY THE FOLLOWING THAT SAMPLING IS COMPLETE:</p> <ul style="list-style-type: none"> • Radiological Assessment Director • Radiation Protection Supervisor • Shift Manager 	
12	<p>GO TO STEP 28</p>	

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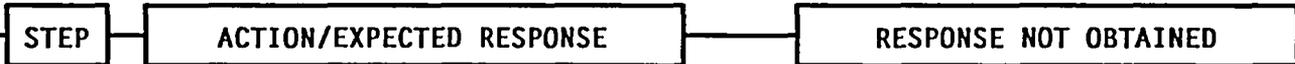
STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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NOTE: CH-94.300, HIGH RADIATION SAMPLING SYSTEM, describes Contingency Plan sampling considerations.

13 REVIEW SYSTEM DESIGN BASES:

<u>IF</u> sampling is for.	<u>THEN</u> consider the following:
Reactor Coolant <u>OR</u> Containment Sump	<ul style="list-style-type: none"> • Design basis RCS estimated sample dose rates: <ul style="list-style-type: none"> - 1000 Rem/hr surface, undiluted - 1 Rem/hr surface, diluted - 650 mRem/hr at surface of cask when cover is <u>NOT</u> in place, undiluted • Design basis Liquid Sample Panel (LSP) dose rate is 365 mRem/hr at 1 meter • LSP is maintained at negative pressure
Containment Air	<ul style="list-style-type: none"> • CASP design basis dose rates equal 30 mR/hr at three feet • Containment Air Sample design basis dose rates: <ul style="list-style-type: none"> - 8,000 mR/hr surface - 100 mR/hr at one foot • CASP is maintained at a negative pressure • Dose rates and airborne contamination levels at the PCP/CCP are not normally affected by the sampling process

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
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14 GIVE SAMPLE TEAM COPY OF SAMPLING PROCEDURE(S):

<u>IF</u> sampling is for,	<u>THEN</u> give Sample Team the following:
Reactor Coolant	<ul style="list-style-type: none"> • CH-41.120 (UNIT 1) / CH-42.120 (UNIT 2), HIGH RADIATION SAMPLING SYSTEM RCS DILUTED LIQUID SAMPLING <li style="text-align: center;"><u>OR</u> • CH-41.121 (UNIT 1) / CH-42.121 (UNIT 2), HIGH RADIATION SAMPLING SYSTEM RCS UNDILUTED LIQUID SAMPLING • EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS
Containment Sump	<ul style="list-style-type: none"> • 1-OP-12.5, HIGH RADIATION CONTAINMENT SUMP SAMPLING • EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS
Containment Air	CH-41.310 (UNIT 1) / CH-42.310 (UNIT 2), HIGH RADIATION SAMPLING SYSTEM CONTAINMENT AIR SAMPLING

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
		PAGE 8 of 11

STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

15 BRIEF SAMPLE TEAM:

- a) Review sampling and analysis procedures, as appropriate
- b) Establish and review entry and exit routes (use ALARA)
- c) Review RWP requirements for sample locations (e.g., PCP, LSP, PCP/CCP, CASP, as appropriate):
 - Stay times
 - Protective clothing
 - Dosimetry
 - Respiratory equipment
 - Monitoring
- d) Review criteria for promptly reporting stop work dose rate
- e) Review cautions:
 - High radiation levels
 - High activity sample level(s) (for Containment Air samples, estimate the correct volume of sample to be collected using the gas sampler (RCT))
 - High sample pressure (for Reactor Coolant samples)
 - Open valves slowly
- f) Give team a copy of this procedure

16 HAVE SAMPLE TEAM DRESS OUT IAW RWP

17 NOTIFY RPS THAT SAMPLE TEAM IS READY FOR DISPATCH

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
		PAGE 9 of 11

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
_____ 18	ASK RPS FOR CURRENT PLANT STATUS	
_____ 19	GIVE UPDATE TO TEAM MEMBERS	
_____ 20	DISPATCH SAMPLE TEAM	
_____ 21	CHECK SAMPLE - CONTAINMENT AIR	<u>IF</u> Reactor Coolant or Containment Sump sample, <u>THEN</u> GO TO Step 26.
_____ 22	VERIFY SAMPLE PREPARED FOR TRANSPORT:	
	a) Sample container labelled with the following information:	
	<ul style="list-style-type: none"> • Sample ID and Unit # • Sample volume • Date and time • Dose rate 	
	b) Glass bottle and syringe assembly put in separate bags/containers	
_____ 23	CHECK SAMPLE CONTACT READING - LESS THAN 10 MR/HR	<u>IF</u> sample contact reading GREATER THAN 10 mR/hr, <u>THEN</u> have HP initiate EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS.

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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____ 24 TAKE SAMPLE TO COUNT ROOM:

- a) Use pre-planned route
 - b) Monitor radiological conditions during transit
 - c) Check dose rates along route within expected levels
 - d) Maintain ALARA
- c) Do the following:
 - 1) Notify RPS.
 - 2) Identify route of lowest dose.

____ 25 GO TO STEP 27

____ 26 HAVE REACTOR COOLANT SAMPLE ANALYZED:

- a) Refer to EPIP-4.26, HIGH LEVEL ACTIVITY SAMPLE ANALYSIS, for sample dilution
 - b) Transport sample to Hot Lab or HRSS hood for dilutions
 - c) Implement appropriate Chemistry procedure for analysis
 - d) Check if diluted HRSS sample is to be flushed back through system for disposal
 - e) Implement affected unit HIGH RADIATION SAMPLING SYSTEM SAMPLE DISPOSAL OR STORAGE procedure
Unit 1 - CH-41.820
Unit 2 - CH-42.820
- d) GO TO Step 27.

NUMBER EPIP-4.35	PROCEDURE TITLE CHEMISTRY SAMPLING	REVISION 1 <hr/> PAGE 11 of 11
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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

____ 27 NOTIFY THE FOLLOWING INDIVIDUALS
ONCE SAMPLING HAS BEEN COMPLETED:

- Radiation Protection Supervisor
- Shift Manager
- Station Emergency Manager

____ 28 TERMINATE EPIP-4.35:

- Give completed EPIP-4.35, forms and other applicable records to the Radiation Protection Supervisor

• Completed by: _____

Time: _____

Date: _____

-END-