

VIRGINIA ELECTRIC AND POWER COMPANY

REVISIONS TO
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES

Enclosed are recently revised pages to the Surry Power Station Emergency Plan Implementing Procedures. Please take the following actions in order to keep your manual updated with the most recent revisions..

EPIP-4.23

POST ACCIDENT SAMPLING OF REACTOR COOLANT

Remove and Destroy

Pages 1 of 14 through
14 of 14 of the
procedure disregarding
Attachment 1

Enter

Page 1 of 16 through
16 of 16 of the
procedure disregarding
Attachment 1
Dated 12-08-83

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VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NUMBER	PROCEDURE TITLE	REVISION
EPIP-4.23	POST ACCIDENT SAMPLING OF REACTOR COOLANT (With 1 Attachment)	03 PAGE 1 of 16

PURPOSE

1. To collect a post accident sample of reactor coolant from the hot leg of Unit 1 OR Unit 2 Reactor Coolant Systems.

USER

Chemistry Team Leader AND Chemistry Team Member.

ENTRY CONDITIONS

1. Entry directed by Emergency Technical Director

OR
2. Entry directed by Station Emergency Manager

REVISION RECORD

REV. 00	PAGE(S): Entire Procedure	DATE: 07-29-82
REV. 01	PAGE(S): 1, 13, 14	DATE: 02-24-83
REV. 02	PAGE(S): Pages 1 of 14 through 14 of 14	DATE: 09-23-83
REV. 03	PAGE(S): Pages 1 of 16 through 16 of 16	DATE: DEC 8 1983
REV.	PAGE(S):	DATE:
REV.	PAGE(S):	DATE:
REV.	PAGE(S):	DATE:

<p>APPROVAL RECOMMENDED</p>	<p>APPROVED</p>	<p>DATE</p> <p>DEC 8 1983</p>
<p>QC REVIEW</p>	<p>CHAIRMAN STATION NUCLEAR SAFETY AND OPERATING COMMITTEE</p>	

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

1. INITIATE PROCEDURE:

a) By: _____

Date: _____

Time: _____

NOTE: Only one reactor coolant sample may be obtained from this system.

2. VERIFY STATION SYSTEMS:

a) Systems Operable

1) Station Service Electrical System per OP-262) Component Coolant System per OP-513) Compressed Air Service System per OP-464) Ventilation System per OP-215) Radiation Monitoring System per OP-56a) IF NOT operable, request operations assistance to insure system operability

3. DESIGNATE SAMPLING PARTY:

a) Chemistry team leaders

AND

b) Chemistry team members

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
4.	VERIFY RWP:	
	a) RWP issued	a) <u>IF NOT</u> issued, request initiation of RWP.
5.	OBTAIN REQUIRED EQUIPMENT:	
	a) <u>2</u> adjustable wrenches	
	b) Extension wrench	
	c) Come-A-Long or equivalent	
	d) <u>5</u> gallon poly bottle	
	e) 10 ft. of 3/4" tygon tubing	
6.	DRESS OUT:	
	a) Have sample party dress out IAW RWP	
7.	OBTAIN SAMPLE ROOM RAD LEVEL:	
	a) RM-RMS-156, "Sample Area Monitor"	
8.	BRIEF SAMPLING PARTY:	
	a) Review sampling procedure	
	b) Review entry and exit routes	
	c) Review RWP requirements	
	1) Stay times 2) Protective clothing 3) Dosimetry 4) Respiratory equipment 5) H.P. monitoring	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
8.	(CONTINUED)	
	d) Review cautions <ol style="list-style-type: none"> 1) High radiation levels 2) High sample activity level 3) High pressure sample 4) High temperature sample 5) Open valves slowly 	
9.	NOTIFICATIONS:	
	a) Notify Station Emergency Manager sampling party is being dispatched	
	<u>AND</u>	
	Notify Shift Supervisor sampling party is being dispatched	
10.	DISPATCH SAMPLE TEAM:	
	a) Insure sample party has a copy of this procedure	
	<u>NOTE:</u> Refer to attachment <u>1</u> for system arrangement	
11.	PROCEED TO PRIMARY SAMPLE ROOM:	
	a) Monitor radiation levels	
	b) Follow preplanned routes	
	c) Leave rope at Aux. Bldg. entry Door.	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
12.	VERIFY SAMPLE COLLECTION CYLINDER CONNECTED:	
	a) Cylinder - IN SHIELDED "PIG"	a) <u>IF NOT</u> , place in "PIG"
	b) Quick Disconnect - CONNECTED	b) <u>IF NOT</u> , connect quick disconnect
	c) Vent valve 1-SS-237 - CLOSED	c) <u>IF NOT</u> , close valve 1-SS-237
	d) Vent plug on tank <u>2</u> - REMOVED	d) <u>IF NOT</u> , remove plug
13.	ENTER PRIMARY SAMPLE ROOM:	
	a) Observe radiation readings on RM-RMS-156 "Sample Room Monitor"	
14.	VERIFY DILUTION WATER - TK <u>3</u> :	
	a) Insure dilution water checklist on wall is updated	a) <u>IF NOT</u> updated, drain sampling tank
		<u>AND</u>
		Add 835 ml of DI water through funnel
		<u>AND</u>
		<u>GO TO STEP 15</u>
15.	VERIFY NITROGEN BOTTLE PRESSURE:	
	a) Open isolation valve 1-SS-241 on Nitrogen Bottle	

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

15. (CONTINUED)

b) Verify Nitrogen Bottle
pressure GREATER THAN
200 PSIG

b) IF NOT, leave area

AND

initiate Nitrogen Bottle
replacement

AND

GO TO step 16

16. VERIFY VALVE LINE UP:

a) Insure following valves - CLOSED

_____ 1-SS-229
 _____ 1-SS-230
 _____ 1-SS-233
 _____ 1-SS-236
 _____ 1-SS-238
 _____ 1-SS-239
 _____ 1-SS-240
 _____ 1-SS-241
 _____ 1-SS-242
 _____ 1-SS-236 valve "K"
 _____ 1-SS-236 valve "L"

b) Insure following valve - OPEN

_____ 1-SS-231

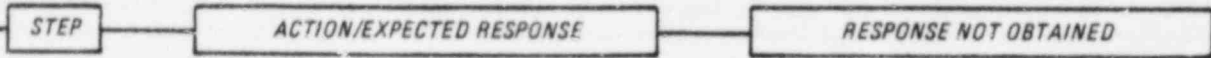
17. VENT AND DRAIN HOLDING TANK - TK₁

a) Remove vent plug on TK₁

b) Insure following valves - CLOSED

_____ 1-SS-234
 _____ 1-SS-235

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17. (CONTINUED)

c) Attach tygon tubing to
1-SS-234

AND

Attach opposite end to
5 gallon poly bottle

d) Insure following valves - OPEN

_____ 1-SS-234
_____ 1-SS-235

e) Drain until flow to 5
gallon poly bottle stops

e) IF NO flow detected
GO TO Step 18

18. ISOLATE HOLDING TANK:

a) Insure following valves - CLOSED

_____ 1-SS-235
_____ 1-SS-234

19. DETERMINE UNIT TO BE SAMPLED:

a) IF UNIT 1 to be sampled
GO TO NOTE prior to Step 20

a) IF UNIT 2 to be sampled
GO TO NOTE prior to Step 21

NOTE: Step 20 is for sampling Unit 1.

20. SAMPLE UNIT 1:

a) Insure control room
valves - CLOSED

_____ TV-SS-106A
_____ TV-SS-106B

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
20.	(CONTINUED)	
	b) Insure following valve CLOSED	
	___ 1-SS-228	
	c) Insure UNIT 1 sample line trip valve (solenoid valve back of sample room) - OPEN	
	___ HCV-SS-101D	
	d) Insure following valve - OPEN	
	___ 1-SS-233	
	e) Insure control room trip valves - OPEN	
	___ TV-SS-106A	
	___ TV-SS-106B	

	CAUTION: Flow of high activity reactor coolant will commence when next steps are performed.	

	f) Observe sample line pressure gage PI-SS-200	
	g) Carefully open following valve	
	___ 1-SS-229	
	<u>AND</u>	
	<u>AT 20 PSIG</u> on PI-SS-200 insure following valve - CLOSED	
	___ 1-SS-229	

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STEP

ACTION/EXPECTED RESPONSE

RESPONSE NOT OBTAINED

20. (CONTINUED)

h) Insure following valve - CLOSED

___ 1-SS-233

i) Insure following valves - OPEN

___ 1-SS-236 valve "I"

___ 1-SS-236 valve "J"

j) Observe sample pressure
gage PI-SS-200

k) Cycle following valve

___ 1-SS-229

ANDAT 100 PSIG on PI-SS-200
Insure following valve - CLOSED

___ 1-SS-229

ANDGO TO Step 22NOTE: The following step is for sampling UNIT 221. SAMPLE UNIT 2:a) Insure control room
valves - CLOSED

___ TV-SS-206A

___ TV-SS-206B

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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21. (CONTINUED)

b) Insure following valve - CLOSED

___ 2-SS-240

c) Insure UNIT 2 sample
line trip valve (solenoid
valve - back of sample room) -
OPEN

___ HCV-SS-201D

d) Insure following valve - OPEN

___ 1-SS-233

e) Insure control room trip
valves - OPEN

___ TV-SS-206A

___ TV-SS-206B

CAUTION: Flow of high activity reactor coolant
will commence when next steps are
performed.

f) Observe sample line
pressure gage PI-SS-200

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
21.	(CONTINUED)	
	g) Carefully open following valve	
	___ 1-SS-230	
	___ <u>AND</u>	
	<u>AT 20 PSIG</u> on PI-SS-200 insure following valve - CLOSED	
	___ 1-SS-230	
	h) Insure following valve - CLOSED	
	___ 1-SS-233	
	i) Insure following valves - OPEN	
	___ 1-SS-236 valve "I"	
	___ 1-SS-236 valve "J"	
	j) Observe sample pressure gage PI-SS-200	
	k) Cycle following valve	
	___ 1-SS-230	
	___ <u>AND</u>	
	<u>AT 100 PSIG</u> on PI-SS-200 insure following valve - CLOSED	
	___ 1-SS-230	
22.	ISOLATE AND TRANSFER CALIBRATED SAMPLE:	
	a) Insure following valves - CLOSED	
	___ 1-SS-236 valve "I"	
	___ 1-SS-236 valve "J"	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
22.	(CONTINUED)	
	b) Insure following valves - OPEN	
	___ 1-SS-236 valve "K"	
	___ 1-SS-236 valve "L"	
	c) Verify valve 1-SS-238 - OPEN until pressure on sample bottle is appx. <u>50</u> PSIG	
	<u>AND</u>	
	Wait appx. one minute to complete transfer.	
	d) Open 1-SS-241 until pressure on regulator is approx. <u>50</u> psig	
	e) Insure following valves - CLOSED	
	___ 1-SS-238	
	___ 1-SS-236 valve "K"	
	___ 1-SS-236 valve "L"	
23.	DISCONNECT SAMPLE CYLINDER:	
	a) Use adjustable wrench or extension wrench if HP determines it is necessary	
	b) Disconnect quick disconnect	
	c) Lower lid onto sample "pig"	
24.	SURVEY SAMPLE PIG:	
	a) Survey sample "pig" to determine rad levels and hot spot locations	

<p>NUMBER</p> <p>EPIP-4.23</p>	<p>PROCEDURE TITLE</p> <p>POST ACCIDENT SAMPLING OF REACTOR COOLANT</p> <p>(With 1 Attachment)</p>	<p>REVISION</p> <p>03</p>
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
25.	<p>TRANSPORT PIT:</p> <ul style="list-style-type: none"> a) Unlock wheel brakes b) Use preplanned exit route c) Avoid hot spots on pig d) Roll sample pig to Aux. Bldg. exit door 	
<p>*****</p> <p><u>CAUTION:</u> The sample pig is extremely heavy and may present a hazard if allowed to roll down the ramp unrestrained. Use caution in lowering.</p> <p>*****</p>		
26.	<p>LOWER PIG DOWN RAMP:</p> <ul style="list-style-type: none"> a) Use come-a-long or equivalent to lower sample pig down ramp 	
27.	<p>TRANSPORT PIG TO HOT LAB:</p> <ul style="list-style-type: none"> a) Roll pig to Chemistry Hot Lab b) Place shielded sample pig in corner by the A.A. 	
28.	<p>RECORD SAMPLE DATE/TIME</p> <ul style="list-style-type: none"> a) Date _____ b) Time _____ 	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
29.	HAVE SAMPLE TRIP VALVES SHUT: a) Notify Shift Supervisor that sampling completed b) <u>IF</u> sampling Unit <u>1</u> , have Control Room shut TV-SS-106A <u>AND</u> TV-SS-106B	a) <u>IF</u> sampling Unit <u>2</u> , have Control Room shut TV-SS-206A <u>AND</u> TV-206B
30.	NOTIFICATIONS: a) Notify following that sampling completed 1) Shift Supervisor 2) Station Emergency Manager	
31.	VERIFY RWP: a) Request initiation of RWP to dilute sample b) Dress out IAW RWP c) Observe precautions and limitations noted in RWP	
32.	VENT SAMPLE BOMB: a) Raise lid covering sample bomb to highest position b) Ensure suction through AA vent c) Attach vent hose to AA vent d) Attach vent hose to sample bomb	

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
32.	(CONTINUED) e) Open sample bomb valve to vent pressure to hood f) Remove vent hose from sample bomb	
33.	REMOVE SAMPLE FROM SAMPLE BOMB: a) Attach appx. 6" micro-bore tubing to syringe needle b) Carefully insert tubing into sample bomb and withdraw 1 ml of sample c) Expel 1 ml sample into marinelli beaker and mix well with 999 mls DI water	
34.	SAMPLE ANALYSIS: a) Label sample beaker as to: PASS sample, date, time of sample, final dilution, actual mls sample used b) Transport diluted sample to HP count room c) Have HP count sample	c) <u>IF</u> sample will not count, consider initiation of EPIP-4.26, <u>High Activity Sample Analysis</u> , upon termination of procedure.

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
35.	TERMINATE EPIP-4.23: a) COMPLETED BY: _____ TIME: _____ BY: _____ b) Forward completed EPIP-4.23 and other applicable records to secretary SNSOC	

END

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

W. L. STEWART
VICE PRESIDENT
NUCLEAR OPERATIONS

December 14, 1983

Mr. James P. O'Reilly
Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

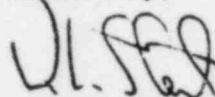
Serial No. 711
NO/REB/jmj:LMI-031
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Dear Mr. O'Reilly:

REVISIONS TO
SURRY POWER STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURES

Pursuant to 10CFR 50, Appendix E, paragraph 50.54(q), revisions to the Surry Power Station Emergency Plan Implementing Procedures, numbers, and subjects as listed on enclosures are submitted.

Sincerely,


W. L. Stewart

Enclosures

cc:  (2)

w/o Enclosures

cc: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1

Mr. D. J. Burke - (NRC - Surry)

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