Draft Submittal

FARLEY JAN. 2005 EXAM
50-348 & 50-364/2005301

JANUARY 10 - 14, 2005
JANUARY 18, 2005 (written)

1. Administrative JPMs

Farley Operating Exam Draft

JOB PERFORMANCE MEASURES

CRO-410A MODIFIED FOR HLT 29 ADMIN

TITLE: Monitor A Critical Safety Function Status Tree

PROGRAM APPLICABLE: SOT ___ SOCT ___ OLT _X_ LOCT

ACCEPTABLE EVALUATION METHOD: ___ PERFORM _X_ SIMULATE ___ DISCUSS

EVALUATION LOCATION: _X_ SIMULATOR _X_ CONTROL ROOM ___ PLANT

PROJECTED TIME: _4 MIN_ SIMULATOR IC NUMBER: _N/A_

ALTERNATE PATH ___ TIME CRITICAL ___ PRA

JPM DIRECTIONS:

1. Access to tools, equipment, and references normally used to perform this task are allowed.
2. During initial training, it is encouraged that questions be asked as part of this OJT process to assess the extent of trainee knowledge related to this task.
3. If the trainee is significantly deficient in knowledge or does not adhere to management expectations as outlined below, then a re-examination of the JPM is warranted.
   - Potential physical harm could occur to the trainee or others
   - Potential damage to equipment could occur
   - A procedure step is missed in a continuous use procedure
   - Significant margin to reactor safety is eroded
   - Wrong unit/train/component is potentially operated
4. All unsuccessful attempts, deficiencies, and other comments must be documented in the space below and forwarded to a Training Administrative Assistant for tracking.

These appear to be In House instructions. I.E. We will not be re-training this JPM and we will not forward documents to the Trng Admin Assistant.

Trainer/Date:	**Trainee:**
Evaluator/Date:	
Overall JPM Performance: **Satisfactory** ☐	**Unsatisfactory** ☐
Evaluator Comments (attach additional sheets if necessary)	

JPM Approved: N/A
Supervisor - Operations Training or Operations

STANDARDS

Apply the following criteria during the performance of this JPM:

a. The task must be performed using the appropriate plant procedures, Technical Specifications, or other references.
b. All critical elements must be performed, simulated, or discussed without error, prompting or unnecessary queuing.
c. Management expectations regarding human performance tools (three way communications, STAR, procedural adherence, etc.), radiological controls, and industrial safety.

CONDITIONS

When I tell you to begin, you are to MONITOR A CRITICAL SAFETY FUNCTION STATUS TREE. The conditions under which this task is to be performed are:

a. A reactor trip and SI has occurred on Unit 1 30 minutes ago.
b. The team has transitioned to EEP-2, FAULTED STEAM GENERATOR ISOLATION.
c. The STA is monitoring the Critical Safety Function Status Trees (CSFST) and the Integrity CSFST is INDETERMINATE.
d. You have been directed to manually monitor the Integrity CSFST using CSF-0.4.
e. RCS Cold Leg Temperatures are:
   A-254°F **B-250°F** **C-245°F**
f. RCS WR Pressure is 400 psig.

TRACE the appropriate flowpath on FNP-1-CSF-0.4, INTEGRITY procedure provided and circle all YES/NO decisions.
Then **CIRCLE** the endpoint from the choices below:

FRP-P.1 RED FRP-P.1 ORANGE FRP-P.2 YELLOW CSF SAT

EVALUATION CHECKLIST

ELEMENTS:		STANDARDS:	RESULTS: (CIRCLE)
_____	**START TIME**		
*1.	Enters CSFST at correct location.	Determines location of arrow on CSFST and enters at this point. (CUE: None.)	S / U
*2.	Determines if TEMP DECR IN ALL CL IN LAST 60 MIN LESS THAN 100°F and follows appropriate branch line based on given parameters.	Since the temperatures are all at 254°F and less and within the last 30 min the reactor was at >547°F, the decision is **NO**.	S / U

EVALUATION CHECKLIST

ELEMENTS:		STANDARDS:	RESULTS: (CIRCLE)
*3.	Determines if ALL RCS PRESS CL TEMP (IN LAST 60 MIN) POINTS TO RIGHT OF LIMIT A and follows appropriate branch line based on actual plant conditions.	Since the lowest temperature given is 245°F, ALL temperatures are to the right of Limit A, the decision is **YES**.	S / U
*4.	Determines if ALL RCS CL TEMPS IN LAST 60 MIN GRTR THAN 250°F and follows appropriate branch line based on actual plant conditions.	Since one temperature is at 245°F and one at 250°F, the decision is **NO**.	S / U
*5.	Determines an Orange path is in effect.	Determines **FRP-P.1** must be entered on an **Orange Path**. (CUE: IF ASKED: No other red or orange paths exist.)	S / U
*6.	Informs shift supervisor that an Orange path exists on the Integrity CSFST.	FRP-P.1 ORANGE is circled.	S / U

_____ STOP TIME

Terminate when all elements of the task have been completed.

CRITICAL ELEMENTS: Critical Elements are denoted with an asterisk (*) before the element number.

GENERAL REFERENCES:

1. FNP-1-CSF-0.0, Revision 13.0

2. K/A: G2.1.19 RO 3.0 SRO 3.0

GENERAL TOOLS AND EQUIPMENT:

None

COMMENTS:

CONDITIONS

When I tell you to begin, you are to MONITOR A CRITICAL SAFETY FUNCTION STATUS TREE. The conditions under which this task is to be performed are:

a. A reactor trip and SI has occurred on Unit 1 30 minutes ago.
b. The team has transitioned to EEP-2, FAULTED STEAM GENERATOR ISOLATION.
c. The STA is monitoring the Critical Safety Function Status Trees (CSFST) and the Integrity CSFST is INDETERMINATE.
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e. RCS Cold Leg Temperatures are:
   A-254°F **B-250°F** **C-245°F**
f. RCS WR Pressure is 400 psig.

TRACE the appropriate flowpath on FNP-1-CSF-0.4, INTEGRITY procedure provided and circle all YES/NO decisions.

Then **CIRCLE** the endpoint from the choices below:

FRP-P.1 RED FRP-P.1 ORANGE FRP-P.2 YELLOW CSF SAT

Farley January 2005 exam

EXAM 50-347 & 50-364/20053-1
January 10 - 14, 2005
January 18, 2005 (written)

Unit 1
Integrity, Revision 13

4 Pages Omitted
Page 1 of 2 and Page 2 of 2 (11/2/2004)
Page 1 of 2 and Page 2 of 2 (10/26/2004)

INTENTIONALLY OMITTED

PER SISP REVIEW

Conduct of Operations: Determine minimum shift manning requirements

Initial Conditions:

Unit 1 in MODE 6 for refueling outage with fuel movement in progress.
Unit 2 is defueled.

Referenced Documents:

FNP-0-AP-16.0, CONDUCT OF OPERATION - OPERATIONS GROUP, Table 2

Task Standard:

Part #1 Fill in the Minimum shift composition on the table provided for each Unit and Shared personnel.

TABLE 2

MINIMUM TECHNICAL SPECIFICATION OPERATIONS SHIFT CREW COMPOSITION FOR BOTH UNITS IN MODE 5, 6, OR DEFUELED

Position	Unit 1	Unit 2	Common [Shared]
Operations Shift Manager (SRO)			1[a]
Shift Supervisor (SRO)			1[a]
Operator at the Controls (RO)	1	1	
Unit Operator (RO)[b]			
Systems Operator	1	1	1
Shift Technical Advisor[b]			

[a] Only one SRO is required who has a dual unit license.
[b] Neither a Unit Operator nor STA are required.

Part #2 Calculate the total number of personnel required for both units: 7.

Initiating Cues:

Part #1 Fill in the Minimum shift composition on the table provided for each Unit and Shared personnel.
Part #2 Calculate the total number of personnel required for both units.

Terminating Cues:

When examinee has filled out the table and calculated the total personnel required.

NOTE:

Provide applicant with a blank table to be filled out.

K/A G2.1.4 2.3/3.4

Conduct of Operations: Determine minimum shift manning requirements

Initial Conditions:

Unit 1 in MODE 6 for refueling outage with fuel movement in progress.
Unit 2 is defueled.

Part #1

Fill in the Minimum shift composition on the table provided for each Unit and Shared personnel.

Position	Unit 1	Unit 2	Shared
Operations Shift Manager (SRO)			
Shift Supervisor (SRO)			
Operator at the Controls (RO)			
Unit Operator (RO)			
Systems Operator			
Shift Technical Advisor			

Part #2

Calculate the total number of personnel required for both units.

Total personnel required to meet MINIMUM shift composition is _____?

Conduct of Operations: Determine minimum shift manning requirements

Initial Conditions:

Unit 1 in MODE 6 for refueling outage with fuel movement in progress.
Unit 2 is defueled.

Part #1
Fill in the Minimum shift composition on the table provided for each Unit and Shared personnel.

Position	Unit 1	Unit 2	Shared
Operations Shift Manager (SRO)			
Shift Supervisor (SRO)			
Operator at the Controls (RO)			
Unit Operator (RO)			
Systems Operator			
Shift Technical Advisor			

Part #2
Calculate the total number of personnel required for both units.

Total personnel required to meet MINIMUM shift composition is _____ ?

JOB PERFORMANCE MEASURES

CRO-035 Modified for HLT-29 ADMIN EXAM

TITLE: Perform RCS Water Inventory Balance

PROGRAM APPLICABLE: SOT ___ SOCT ___ OLT _X_ LOCT _X_

ACCEPTABLE EVALUATION METHOD: _X_ PERFORM _X_ SIMULATE ___ DISCUSS

EVALUATION LOCATION: _X_ SIMULATOR _X_ CONTROL ROOM ___ PLANT

PROJECTED TIME: _20 MIN_ SIMULATOR IC NUMBER: _N/A_

ALTERNATE PATH ___ TIME CRITICAL ___ PRA

JPM DIRECTIONS:

1. Access to tools, equipment, and references normally used to perform this task are allowed.
2. During initial training, it is encouraged that questions be asked as part of this OJT process to assess the extent of trainee knowledge related to this task.
3. If the trainee is significantly deficient in knowledge or does not adhere to management expectations as outlined below, then a re-examination of the JPM is warranted.
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   - A procedure step is missed in a continuous use procedure
   - Significant margin to reactor safety is eroded
   - Wrong unit/train/component is potentially operated

In House Instructions

All unsuccessful attempts, deficiencies, and other comments must be documented in the space below and forwarded to a Training Administrative Assistant for tracking.

Trainer/Date:	**Trainee:**
Evaluator/Date:	
Overall JPM Performance: **Satisfactory** ☐	**Unsatisfactory** ☐
Evaluator Comments (attach additional sheets if necessary)	

JPM Approved: _____N/A_____
Supervisor - Operations Training or Operations

STANDARDS

Apply the following criteria during the performance of this JPM:

a. The task must be performed using the appropriate plant procedures, Technical Specifications, or other references.
b. All critical elements must be performed, simulated, or discussed without error, prompting or unnecessary queuing.
c. Management expectations regarding human performance tools (three way communications, STAR, procedural adherence, etc.), radiological controls, and industrial safety.

CONDITIONS

When I tell you to begin, you are to complete STP-9.0, RCS LEAKAGE TEST. The conditions under which this task is to be performed are:

a. Unit 1 is in Mode 1 and has been operating 300 days at 100% power.
b. STP-9.0, RCS Leakage Test, is in progress with all initial conditions met and steps complete through step 5.3.
c. For the simulated calculation, no verified SG tube leakage exists.
d. A pre-job brief has already been performed.
e. The Unit 1 Shift Supervisor directs you to continue performing STP-9.0, starting at step 5.4 and completing step 5.8. Initial and final parameter readings are provided.
f. Determine if acceptance criteria is met.

NOTE TO EVALUATOR: THIS JPM WILL BE PERFORMED IN THE CLASSROOM. CUED PARAMETER VALUES ARE PROVIDED.

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
_____ START TIME		
*1. Read and record initial readings on data sheet 1.	Initial readings recorded on data sheet 1. (CUE: Provide the following parameters and values as they are referred to on the MCB or computer:) TI-453 = 647.7°F LI-459 = 49.9% PI-455 = 2239.0 psig LI-460 = 49.8% PI-456 = 2239.2 psig LI-461 = 50.0% PI-457 = 2239.1 psig LI-115 = 38.6% TI-412D = 572.881°F LI-1003 = 43.1% TI-422D = 572.879°F	S / U

EVALUATION CHECKLIST

ELEMENTS:		STANDARDS:	RESULTS: (CIRCLE)
		LI-470 = 73.4% TI-432D = 572.883°F FIS-168 = 000032	
*2.	After the desired time span (simulate the normal 2 hours passes between the initial and final readings) record final values on data sheet 1.	RCS Tavg verified to be within 3°F of initially recorded values and pressurizer temperature and pressure verified to have not significantly changed from values initially recorded. (CUE: Provide the following readings to the examinee as the indicators are referred to on the MCB or plant computer:) TI-453 = 647.6°F LI-459 = 49.8% PI-455 = 2239.3psig LI-460 = 49.9% PI-456 = 2239.1 psig LI-461 = 50.0% PI-457 = 2239.2 psig LI-115 = 38.5% TI-412D = 572.762°F LI-1003 = 43.3% TI-422D = 572.760°F LI-470 = 73.4% TI-432D = 572.758°F FIS-168 = 000032	S \ U
*3.	Calculate Identified and Unidentified leakages	Identified and Unidentified leakages are calculated. (Using the CUED values above: Identified = .006 ± 0.001 gpm Unidentified =-0.084 ± 0.01 gpm)	S / U

NOTE TO EVALUATOR :	**THE FOLLOWING VALUES ARE PROVIDED TO AID IN DETERMINING THE ACCURACY OF THE CUED CALCULATION:** **A = 120 B = -12.16 C = 0 D = -1.418** **E = 0.72 F = 0 G = 0 Total = -0.0895**
NOTE TO EVALUATOR:	**DUE TO THE CHANGE IN TEMPERATURE THE APPROPRIATE CORRECTION FACTOR OF 100.5 WAS USED.**

*4.	Assess calculated leakage values are within acceptance criteria limits	Calculated Identified Leakage and Unidentified Leakage are compared to acceptance limit. (CUED calculated values are compared **and determined to be within acceptance limits**.)	S / U
*5	Verify the primary-to-secondary leakage rate is acceptable.	Primary-to-secondary leakage rate is determined to be acceptable. (Per CUED calculation, primary-to-secondary leakage rate is acceptable.)	S / U

_____ STOP TIME

Terminate when acceptance criteria for primary-to-secondary leakage rate is determined to be met.

CRITICAL ELEMENTS: Critical Elements are denoted with an Asterisk (*) the element number

GENERAL REFERENCES

1. FNP-1-STP-9.0, Version 34.0
2. K/As: 000009 EA2.33 RO-3.3 SRO-3.8

GENERAL TOOLS AND EQUIPMENT

1. Calculator
2. A copy of STP-9.0
3. Tank Curve for RCDT & PRT
4. Initial and final parameter values

COMMENTS

CONDITIONS

When I tell you to begin, you are to complete STP-9.0, RCS LEAKAGE TEST. The conditions under which this task is to be performed are:

a. Unit 1 is in Mode 1 and has been operating 300 days at 100% power.
b. STP-9.0, RCS Leakage Test, is in progress with all initial conditions met and steps complete through step 5.3.
c. For the simulated calculation, no verified SG tube leakage exists.
d. A pre-job brief has already been performed.
e. The Unit 1 Shift Supervisor directs you to continue performing STP-9.0, starting at step 5.4 and completing step 5.8. Initial and final parameter readings are provided.
f. Determine if acceptance criteria is met.

INITIAL READINGS:

TI-453 = 647.7°F
LI-459 = 49.9%
PI-455 = 2239.0 psig
LI-460 = 49.8%
PI-456 = 2239.2 psig
LI-461 = 50.0%
PI-457 = 2239.1 psig
LI-115 = 38.6%
TI-412D = 572.881°F
LI-1003 = 43.1%
TI-422D = 572.879°F
LI-470 = 73.4%
TI-432D = 572.883°F
FIS-168 = 000032

FINAL READINGS 2 HOURS AFTER INITIAL:

TI-453 = 647.6°F
LI-459 = 49.8%
PI-455 = 2239.3psig
LI-460 = 49.9%
PI-456 = 2239.1 psig
LI-461 = 50.0%
PI-457 = 2239.2 psig
LI-115 = 38.5%
TI-412D = 572.762°F
LI-1003 = 43.3%
TI-422D = 572.760°F
LI-470 = 73.4%
TI-432D = 572.758°F
FIS-168 = 000032

CONDITIONS

When I tell you to begin, you are to complete STP-9.0, RCS LEAKAGE TEST. The conditions under which this task is to be performed are:

a. Unit 1 is in Mode 1 and has been operating 300 days at 100% power.
b. STP-9.0, RCS Leakage Test, is in progress with all initial conditions met and steps complete through step 5.3.
c. For the simulated calculation, no verified SG tube leakage exists.
d. A pre-job brief has already been performed.
e. The Unit 1 Shift Supervisor directs you to continue performing STP-9.0, starting at step 5.4 and completing step 5.8. Initial and final parameter readings are provided.
f. Determine if acceptance criteria is met.

INITIAL READINGS:

TI-453 = 647.7°F
LI-459 = 49.9%
PI-455 = 2239.0 psig
LI-460 = 49.8%
PI-456 = 2239.2 psig
LI-461 = 50.0%
PI-457 = 2239.1 psig
LI-115 = 38.6%
TI-412D = 572.881°F
LI-1003 = 43.1%
TI-422D = 572.879°F
LI-470 = 73.4%
TI-432D = 572.883°F
FIS-168 = 000032

FINAL READINGS 2 HOURS AFTER INITIAL:

TI-453 = 647.6°F
LI-459 = 49.8%
PI-455 = 2239.3psig
LI-460 = 49.9%
PI-456 = 2239.1 psig
LI-461 = 50.0%
PI-457 = 2239.2 psig
LI-115 = 38.5%
TI-412D = 572.762°F
LI-1003 = 43.3%
TI-422D = 572.760°F
LI-470 = 73.4%
TI-432D = 572.758°F
FIS-168 = 000032

FARLEY NUCLEAR PLANT

SURVEILLANCE TEST PROCEDURE

FNP-1-STP-9.0

SAFETY RELATED

RCS LEAKAGE TEST

PROCEDURE USAGE REQUIREMENTS PER FNP-0-AP-6	SECTIONS
Continuous Use	**ALL**
Reference Use	
Information Use	

Approved:

RAY MARTIN
Operations Manager

Date Issued 10/18/2004

FARLEY NUCLEAR PLANT
SURVEILLANCE TEST REVIEW SHEET

URVEILLANCE TEST NO. FNP-1-STP-9.0	TECHNICAL SPECIFICATION REFERENCE SR 3.4.13.1
TITLE RCS LEAKAGE TEST	MODE(S) REQUIRING TEST: 1, 2, 3, 4

TEST RESULTS (TO BE COMPLETED BY TEST PERFORMER)

PERFORMED BY _____ DATE/TIME _____

COMPONENT OR TRAIN TESTED (if applicable) _____

[ ] ENTIRE STP PERFORMED [ ] FOR SURVEILLANCE CREDIT

[ ] PARTIAL STP PERFORMED: [ ] NOT FOR SURVEILLANCE CREDIT

REASON FOR PARTIAL: _____

TEST COMPLETED: [ ] Satisfactory [ ] Unsatisfactory

[ ] The following deficiencies occurred:

_____

_____

[ ] Corrective action taken or initiated:

_____

_____

_____

_____

SHIFT SUPERVISOR/ SHIFT SUPPORT SUPERVISOR REVIEW

REVIEWED BY _____ DATE _____

[ ] Procedure properly completed and satisfactory

[ ] Comments: _____

_____

ENGINEERING SUPPORT GROUP SCREENING (IF APPLICABLE)
SCREENED BY _____ DATE _____
REVIEWED BY _____ DATE _____

[ ] Satisfactory and Approved

[ ] Comments: _____

_____

TABLE OF CONTENTS

FARLEY NUCLEAR PLANT
UNIT 1
SURVEILLANCE TEST PROCEDURE STP-9.0

RCS LEAKAGE TEST

1.0 Purpose

To determine identified and unidentified reactor coolant system leakage by performance of an RCS water inventory balance.

2.0 Acceptance Criteria

2.1 Unidentified leakage is ≤ 1 gpm.

2.2 Identified leakage ≤ 10 gpm.

NOTE:
- **Asterisked steps (*) are those associated with Acceptance Criteria.**
- **FNP-1-STP-9.0 RCS Leakage Test (SR 3.4.13.1) is only required to be performed during steady state operation. AI 2004201338**

3.0 Initial Conditions

NO 3.1 The version of this procedure has been verified to be the current version and correct unit for the task. (OR 1-98-498)

NO 3.2 Reactor power and reactor coolant temperature should be stabilized and held approximately constant for 1 hour prior to and during the test. (In Mode 3 or 4 not required until 12 hours of steady state operation.)

NO 3.3 The pressurizer level and pressure control systems are in automatic or are in manual control and are stable.

NO 3.4 The level of the VCT is in the normal operating band high enough to prevent the occurrence of an Auto Makeup during the test.

NO 3.5 The CVCS system is aligned per FNP-1-SOP-2.1A, CHEMICAL & VOLUME CONTROL SYSTEM.

NO 3.6 Notify the Shift Chemist and Shift Radiochemist of the performance of the test to ensure that no sampling of the RCS or CVCS will be done during this test.

NO N/A 3.7 IF required for step 5.2, THEN ensure the following instrument is in calibration.

- Calibrated Digital Voltmeter FNP I.D. # _____
  Cal Due Date _____

4.0 Precautions and Limitations

4.1 No sampling of the RCS or CVCS shall be done during this test.

4.2 Any of the following will render this test void:

4.2.1 Emergency boration

4.2.2 Diversion of letdown to the recycle holdup tanks.

4.2.3 Make up from any source which does not go through the boric acid blender.

4.2.4 Boration of less than 10 gpm, due to Batch Integrator counter inaccuracies.

4.3 To minimize the inaccuracy introduced into the calculation by RCS temperature changes, RCS temperature should be maintained as follows:

4.3.1 IF RCS temp is $< 545\ ^0F$, THEN the RCS temperature should not change by more than $0.1\ ^0F$ during the test.

4.3.2 IF RCS temp is $\geq 545\ ^0F$, THEN the RCS temperature should not change by more than $0.3\ ^0F$ during the test.

4.3.3 IF required to maintain RCS temperature, THEN control rods, turbine load or boron concentration should be adjusted as necessary.

4.4 The calculation assumes that changes in RCS volume due to PZR temperature / pressure fluctuations are negligible. Pressurizer parameters should be maintained stable to minimize inaccuracy.

4.5 The following guidelines should be followed to maximize precision:

- IF available, THEN computer points should be used for obtaining data.
- For RCS Tavg, the computer point data should be entered to include three decimal places (i.e., $572.204\ ^0F$).
- For other computer points and RCDT level, the data should be entered to include at least one decimal place (i.e., 50.1 %).
- Identified and unidentified leakage rates are to be reported in two significant digits (e.g., 0.07 gpm).
- IF possible, THEN normal makeup to the VCT should be avoided.

4.6 IF the RCDT or PRT level indication is invalid, THEN use 0 gpm for RCDT or PRT portion of identified leakage unless leakage into the RCDT or PRT is to be determined using another approved method.

4.7 To ensure that the STP-9.0 Computer Program remains current, the Computer Services Group should be notified of any revision or TCN to the Data Sheet 1.

5.0 Instructions

5.1 The RCDT system is aligned as follows:

pw 5.1.1 RCDT level is in the normal operating band.

no 5.1.2 RCDT PUMPS DISCH LINE ISO Q1G21HV7136 is closed.

pw 5.1.3 RCDT LCV Q1G21LCV1003 MCB handswitch has been taken to closed and returned to AUTO.

NOTE: The following step is only required if increased accuracy is necessary for determination of leak rate into PRT or the MCB PRT level indicator has a problem.

I&C N/A CV 5.2 IF required, THEN have I&C connect a calibrated digital voltmeter across the output of LQY-470, location C5-231.

no 5.3 Place VCT HI LVL DIVERT VLV, Q1E21LCV115A, in the VCT position.

NOTE: Batch Integrator readings will be taken prior to and at the conclusion of each make up evolution.

____ 5.4 Read and record initial readings on data sheet 1.

NOTE: A time span of at least 2 hours should be used during normal steady state plant operations, however if plant conditions dictate, a shorter time span may be used. (30 minutes minimum).

____ 5.5 After the desired time span (normally 2 hours) record final values on data sheet 1.

____ 5.6 IF the RCS leakrate program is to be used, THEN verify that the program is revision 3.

NOTE: If the RCS leakrate program is used, then the remainder of data sheet 1 may be left blank.

____ *5.7 Calculate identified and unidentified leakages using the RCS leakrate program or formulas on data sheet 1.

ACCEPTANCE CRITERIA:
- **Unidentified leakage ≤ 1 gpm**
- **Identified leakage ≤ 10 gpm**

____ 5.8 IF unidentified leakage is more negative than -0.2, THEN repeat FNP-1-STP-9.0, RCS LEAKAGE TEST.

____ 5.9 Return the RCDT system to normal per FNP-1-SOP-50.0, LIQUID WASTE PROCESSING SYSTEM, section 4.1.2.

____ 5.10 Place VCT HI LVL DIVERT VLV, Q1E21LCV115A in the AUTO position.

____ 5.11 IF computer point LC-0500 or LC-0501 is available, THEN review the RCS leakrate trend (last 30 days if possible) on computer point to determine if any abnormal trends exist.

____ 5.12 IF any abnormal leakage is detected, THEN perform an inspection and evaluation to identify and document the leakage path(s), any corrective actions, and the affects of the leakage (AOP-1.0, attachments 2 through 5).

NOTE: The R-67 sample is not required, with Shift Supervisor approval, if the RCS leakage is known to be outside containment.

____ 5.13 IF unidentified leakage is determined to be $\geq$ 0.25 gpm, THEN perform an additional STP-9.0 to confirm the result. IF the result is confirmed to be $\geq$ 0.25 gpm, THEN request chemistry to collect an R-67 sample for Iron analysis.

I&C N/A IV 5.14 IF applicable, THEN have I&C remove the calibrated digital voltmeter installed in step 5.2.

____ 5.15 IF used for RCS leakrate calculation, THEN attach the computer generated Data Sheet 1 to this procedure.

6.0 References

6.1 P&ID D-175037 - RCS, sheet 2

6.2 P&ID D-175039 - CVCS, sheet 2

6.3 P&ID D-175042 - Waste Processing System, sheet 1

DATA SHEET 1
RCS Leakage

INSTRUMENT	NAME	INITIAL	FINAL	FINAL – INITIAL
Computer (MCB)	TIME	0800	1000	A = 120 Minutes
TE0453 (TI0453)	LIQ PRZR TEMP	°F	°F	No significant change (≤ 1 °F)
PC0482, PT0455, PT0456 or PT0457 (PI 455, PI 456 or PI 457)	PRZR PRESS (Note 1)	psig	psig	No significant change (≤ 5 psig)
TC0484 OR Average of TY0412K, TY0422K & TY0432K (Average of TI 412D, 422D & 432D)	RCS TAVG (Note 1)	°F	°F	ΔT = °F Maximum change of 0.3°F allowed if TAVG is 545°F or greater, 0.1°F if TAVG is less than 545°F.
RCS Temperature Correction Factor	CF (Note 5)		N/A	B = ΔT × CF = Gal.
LC 1600 OR Average of LT0459, LT0460 & LT0461 (LI-459, 460, 461)	PRZR LVL	%	%	C = 56.3 × % = Gal.
LT0115 (LI 115)	VCT LVL	%	%	D = 14.18 × % = Gal.
LI 1003 Waste Pnl or BOP LS261 Pos 6	RCDT LVL	% *Gal.	% *Gal.	E = Gal. (Enter 0 if negative)
LT0470 (LI 470)	PRT LVL (Note 2)	% *Gal.	% *Gal.	F = Gal. (Enter 0 if negative)
FIS 168	TOTAL FLOW BATCH INTEG	Gal. Gal.	Gal. Gal.	G = Gal. Dilution and Blended Makeup

*From Tank Curve Book

Total Leakage

$$= \frac{B - C - D + G}{A} = \frac{(\quad) - (\quad) - (\quad) + (\quad)}{(\quad)} = \text{\_\_\_\_\_ GPM (Note 6)}$$

Identified Leakage $= \frac{E + F}{A} = \frac{(\quad) + (\quad)}{(\quad)} +$ Other leakage $=$ _____ GPM (Note 6)

Other Leakage: Source Rate (GPM)

_____ _____

_____ _____

Total Other _____

Unidentified Leakage = Total Leakage − Identified Leakage = _____ GPM (Notes 3, 4, & 6)

ACCEPTANCE CRITERIA:
- **Unidentified leakage ≤ 1 gpm**
- **Identified leakage ≤ 10 gpm**

NOTE:

1. **IF TAVG < 530°F, THEN use: PI-402A (PT0402) and PI-403A (PT0403), 1C and 1A Loop RCS WR PRESS (Avg. of Readings) AND TR-410 (TE0410) and TR-413 (TE0413), RCS COLD AND HOT LEG TEMP (Avg. of Readings)**
2. **Calibrated fluke may be used for PRT level determination if deemed necessary.**
3. **For reporting purposes values between –0.2 and 0 gpm shall be reported as 0 gpm. Values more negative than –0.2 gpm indicate a potential problem and therefore shall be reported as is.**
4. **If unidentified leakage > 0.9 but < 1 gpm, test should be reperformed with ZAS secured. At maximum injection rate, ZAS can introduce ~0.03 gpm error into calculation.**
5. **Obtain CF from Table 1 using the nearest value of RCS temperature. N/A if RCS Leakrate program is used.**
6. **Leakage calculations are to be reported in two significant digits (e.g., 0.07 gpm).**

TABLE 1

RCS Temp (^{0}F)	Correction Factor (gal/ ^{0}F)
200	24.3
225	26.6
250	28.9
275	31.2
300	33.5
325	36.6
350	39.8
375	42.9
400	46.0
425	51.4
450	56.7
475	62.1
500	67.4
525	76.3
545	83.5
547	84.5
550	86.1
555	88.8
560	91.7
565	94.8
570	98.2
571	98.9
572	99.7
573	100.5
574	101.2
575	101.9
577.2	103.6

Unit 1

Volume II Curve 28B
Reactor Coolant Drain Tank Capacity
N1G21T001
Capacity (Gallons) vs % Level
Rev. 2, December 14, 1981, C.A.P.

Approved:

C. D. [signature] 1-28-82
Technical Superintendent Date

% LEVEL	GALLONS	% LEVEL	GALLONS
0.0	18.28	51.0	180.09
1.0	20.45	52.0	183.71
2.0	22.69	53.0	187.32
3.0	25.00	54.0	190.94
4.0	27.37	55.0	194.54
5.0	29.81	56.0	198.15
6.0	32.31	57.0	201.74
7.0	34.87	58.0	205.33
8.0	37.49	59.0	208.92
9.0	40.16	60.0	212.49
10.0	42.88	61.0	216.05
11.0	45.65	62.0	219.60
12.0	48.46	63.0	223.14
13.0	51.33	64.0	226.67
14.0	54.23	65.0	230.19
15.0	57.18	66.0	233.68
16.0	60.17	67.0	237.17
17.0	63.20	68.0	240.63
18.0	66.26	69.0	244.08
19.0	69.36	70.0	247.50
20.0	72.50	71.0	250.91
21.0	75.67	72.0	254.30
22.0	78.87	73.0	257.66
23.0	82.10	74.0	261.00
24.0	85.36	75.0	264.31
25.0	88.64	76.0	267.60
26.0	91.96	77.0	270.86
27.0	95.29	78.0	274.09
28.0	98.66	79.0	277.29
29.0	102.04	80.0	280.45
30.0	105.45	81.0	283.59
31.0	108.88	82.0	286.69
32.0	112.32	83.0	289.75
33.0	115.79	84.0	292.78
34.0	119.27	85.0	295.77
35.0	122.77	86.0	298.72
36.0	126.28	87.0	301.63
37.0	129.81	88.0	304.49
38.0	133.35	89.0	307.31
39.0	136.90	90.0	310.08
40.0	140.46	91.0	312.80
41.0	144.04	92.0	315.46
42.0	147.62	93.0	318.08
43.0	151.21	94.0	320.64
44.0	154.81	95.0	323.14
45.0	158.41	96.0	325.58
46.0	162.02	97.0	327.96
47.0	165.63	98.0	330.27
48.0	169.24	99.0	332.50
49.0	172.86	100.0	334.67
50.0	176.48		

VOLUME II CURVE 27C
PRESSURIZER RELIEF TANK CAPACITY TABLE
M1502IC001
CAPACITY (GAL) VS % LEVEL
REV. 0 May 7, 1980 GAF

APPROVED:

Kenneth W. McCracken 5/15/80
TECHNICAL SUPERINTENDENT DATE

% LEVEL	GALLONS	% LEVEL	GALLONS	% LEVEL	GALLONS	% LEVEL	GALLONS
0.0	222.12	26.0	2272.29	52.0	5086.38	78.0	7842.44
1.0	272.10	27.0	2372.49	53.0	5198.21	79.0	7956.82
2.0	325.39	28.0	2473.79	54.0	5309.92	80.0	8029.58
3.0	381.91	29.0	2575.31	55.0	5421.45	81.0	8141.59
4.0	441.16	30.0	2678.96	56.0	5532.79	82.0	8211.00
5.0	502.26	31.0	2782.92	57.0	5643.89	83.0	8300.93
6.0	568.05	32.0	2887.78	58.0	5754.68	84.0	8387.71
7.0	635.34	33.0	2993.24	59.0	5865.14	85.0	8473.33
8.0	705.02	34.0	3099.49	60.0	5975.22	86.0	8557.06
9.0	776.99	35.0	3206.43	61.0	6084.90	87.0	8639.11
10.0	851.16	36.0	3314.00	62.0	6194.11	88.0	8719.39
11.0	927.43	37.0	3422.18	63.0	6302.82	89.0	8797.57
12.0	1005.71	38.0	3530.89	64.0	6411.00	90.0	8873.04
13.0	1085.89	39.0	3640.10	65.0	6518.57	91.0	8948.01
14.0	1167.94	40.0	3749.78	66.0	6625.51	92.0	9019.96
15.0	1251.77	41.0	3859.86	67.0	6731.76	93.0	9089.86
16.0	1337.29	42.0	3970.32	68.0	6837.30	94.0	9155.95
17.0	1424.47	43.0	4081.11	69.0	6942.08	95.0	9221.78
18.0	1513.20	44.0	4192.21	70.0	7046.02	96.0	9283.04
19.0	1603.42	45.0	4303.55	71.0	7149.09	97.0	9343.1[illegible]
20.0	1695.10	46.0	4415.08	72.0	7251.27	98.0	9399.61
21.0	1788.17	47.0	4526.79	73.0	7352.51	99.0	9453.90
22.0	1882.56	48.0	4638.62	74.0	7452.71	100.0	9502.68
23.0	1978.23	49.0	4750.54	75.0	7551.86		
24.0	2075.11	50.0	4862.50	76.0	7649.89		
25.0	2173.14	51.0	4974.46	77.0	7746.78		

KEY

FARLEY NUCLEAR PLANT

SURVEILLANCE TEST PROCEDURE

FNP-1-STP-9.0

SAFETY RELATED

RCS LEAKAGE TEST

PROCEDURE USAGE REQUIREMENTS PER FNP-0-AP-6	SECTIONS
Continuous Use	**ALL**
Reference Use	
Information Use	

Approved:

RAY MARTIN
Operations Manager

Date Issued 10/18/2004

FARLEY NUCLEAR PLANT
SURVEILLANCE TEST REVIEW SHEET

SURVEILLANCE TEST NO. FNP-1-STP-9.0	TECHNICAL SPECIFICATION REFERENCE SR 3.4.13.1
TITLE RCS LEAKAGE TEST	MODE(S) REQUIRING TEST: 1, 2, 3, 4

TEST RESULTS (TO BE COMPLETED BY TEST PERFORMER)

PERFORMED BY _____ DATE/TIME _____

COMPONENT OR TRAIN TESTED (if applicable) _____

[ ] ENTIRE STP PERFORMED [ ] FOR SURVEILLANCE CREDIT

[ ] PARTIAL STP PERFORMED: [ ] NOT FOR SURVEILLANCE CREDIT

REASON FOR PARTIAL: _____

TEST COMPLETED: [ ] Satisfactory [ ] Unsatisfactory

[ ] The following deficiencies occurred:

_____

_____

[ ] Corrective action taken or initiated:

_____

_____

_____

_____

SHIFT SUPERVISOR/ SHIFT SUPPORT SUPERVISOR REVIEW

REVIEWED BY _____ DATE _____

[ ] Procedure properly completed and satisfactory

[ ] Comments: _____

_____

ENGINEERING SUPPORT GROUP SCREENING (IF APPLICABLE)
SCREENED BY _____ DATE _____
REVIEWED BY _____ DATE _____

[ ] Satisfactory and Approved
[ ] Comments: _____

_____

TABLE OF CONTENTS

FARLEY NUCLEAR PLANT
UNIT 1
SURVEILLANCE TEST PROCEDURE STP-9.0

RCS LEAKAGE TEST

1.0 Purpose

To determine identified and unidentified reactor coolant system leakage by performance of an RCS water inventory balance.

2.0 Acceptance Criteria

2.1 Unidentified leakage is ≤ 1 gpm.

2.2 Identified leakage ≤ 10 gpm.

NOTE:
- **Asterisked steps (*) are those associated with Acceptance Criteria.**
- **FNP-1-STP-9.0 RCS Leakage Test (SR 3.4.13.1) is only required to be performed during steady state operation. AI 2004201338**

3.0 Initial Conditions

3.1 The version of this procedure has been verified to be the current version and correct unit for the task. (OR 1-98-498)

3.2 Reactor power and reactor coolant temperature should be stabilized and held approximately constant for 1 hour prior to and during the test. (In Mode 3 or 4 not required until 12 hours of steady state operation.)

3.3 The pressurizer level and pressure control systems are in automatic or are in manual control and are stable.

3.4 The level of the VCT is in the normal operating band high enough to prevent the occurrence of an Auto Makeup during the test.

3.5 The CVCS system is aligned per FNP-1-SOP-2.1A, CHEMICAL & VOLUME CONTROL SYSTEM.

3.6 Notify the Shift Chemist and Shift Radiochemist of the performance of the test to ensure that no sampling of the RCS or CVCS will be done during this test.

NA 3.7 IF required for step 5.2, THEN ensure the following instrument is in calibration.

- Calibrated Digital Voltmeter FNP I.D. # _____
  Cal Due Date _____

4.0 Precautions and Limitations

4.1 No sampling of the RCS or CVCS shall be done during this test.

4.2 Any of the following will render this test void:

4.2.1 Emergency boration

4.2.2 Diversion of letdown to the recycle holdup tanks.

4.2.3 Make up from any source which does not go through the boric acid blender.

4.2.4 Boration of less than 10 gpm, due to Batch Integrator counter inaccuracies.

4.3 To minimize the inaccuracy introduced into the calculation by RCS temperature changes, RCS temperature should be maintained as follows:

4.3.1 IF RCS temp is $< 545\ ^0F$, THEN the RCS temperature should not change by more than $0.1\ ^0F$ during the test.

4.3.2 IF RCS temp is $\geq 545\ ^0F$, THEN the RCS temperature should not change by more than $0.3\ ^0F$ during the test.

4.3.3 IF required to maintain RCS temperature, THEN control rods, turbine load or boron concentration should be adjusted as necessary.

4.4 The calculation assumes that changes in RCS volume due to PZR temperature / pressure fluctuations are negligible. Pressurizer parameters should be maintained stable to minimize inaccuracy.

4.5 The following guidelines should be followed to maximize precision:

- IF available, THEN computer points should be used for obtaining data.
- For RCS Tavg, the computer point data should be entered to include three decimal places (i.e., $572.204\ ^0F$).
- For other computer points and RCDT level, the data should be entered to include at least one decimal place (i.e., 50.1 %).
- Identified and unidentified leakage rates are to be reported in two significant digits (e.g., 0.07 gpm).
- IF possible, THEN normal makeup to the VCT should be avoided.

4.6 IF the RCDT or PRT level indication is invalid, THEN use 0 gpm for RCDT or PRT portion of identified leakage unless leakage into the RCDT or PRT is to be determined using another approved method.

4.7 To ensure that the STP-9.0 Computer Program remains current, the Computer Services Group should be notified of any revision or TCN to the Data Sheet 1.

5.0 Instructions

5.1 The RCDT system is aligned as follows:

DEO 5.1.1 RCDT level is in the normal operating band.

NO 5.1.2 RCDT PUMPS DISCH LINE ISO Q1G21HV7136 is closed.

PER 5.1.3 RCDT LCV Q1G21LCV1003 MCB handswitch has been taken to closed and returned to AUTO.

NOTE: The following step is only required if increased accuracy is necessary for determination of leak rate into PRT or the MCB PRT level indicator has a problem.

I&C N/A CV 5.2 IF required, THEN have I&C connect a calibrated digital voltmeter across the output of LQY-470, location C5-231.

PER 5.3 Place VCT HI LVL DIVERT VLV, Q1E21LCV115A, in the VCT position.

NOTE: Batch Integrator readings will be taken prior to and at the conclusion of each make up evolution.

_____ 5.4 Read and record initial readings on data sheet 1.

NOTE: A time span of at least 2 hours should be used during normal steady state plant operations, however if plant conditions dictate, a shorter time span may be used. (30 minutes minimum).

_____ 5.5 After the desired time span (normally 2 hours) record final values on data sheet 1.

_____ 5.6 IF the RCS leakrate program is to be used, THEN verify that the program is revision 3.

NOTE: If the RCS leakrate program is used, then the remainder of data sheet 1 may be left blank.

_____ *5.7 Calculate identified and unidentified leakages using the RCS leakrate program or formulas on data sheet 1.

ACCEPTANCE CRITERIA:
- **Unidentified leakage ≤ 1 gpm**
- **Identified leakage ≤ 10 gpm**

_____ 5.8 IF unidentified leakage is more negative than -0.2, THEN repeat FNP-1-STP-9.0, RCS LEAKAGE TEST.

____ 5.9 Return the RCDT system to normal per FNP-1-SOP-50.0, LIQUID WASTE PROCESSING SYSTEM, section 4.1.2.

____ 5.10 Place VCT HI LVL DIVERT VLV, Q1E21LCV115A in the AUTO position.

____ 5.11 IF computer point LC-0500 or LC-0501 is available, THEN review the RCS leakrate trend (last 30 days if possible) on computer point to determine if any abnormal trends exist.

____ 5.12 IF any abnormal leakage is detected, THEN perform an inspection and evaluation to identify and document the leakage path(s), any corrective actions, and the affects of the leakage (AOP-1.0, attachments 2 through 5).

NOTE: The R-67 sample is not required, with Shift Supervisor approval, if the RCS leakage is known to be outside containment.

____ 5.13 IF unidentified leakage is determined to be $\geq$ 0.25 gpm, THEN perform an additional STP-9.0 to confirm the result. IF the result is confirmed to be $\geq$ 0.25 gpm, THEN request chemistry to collect an R-67 sample for Iron analysis.

I&C N/A IV 5.14 IF applicable, THEN have I&C remove the calibrated digital voltmeter installed in step 5.2.

____ 5.15 IF used for RCS leakrate calculation, THEN attach the computer generated Data Sheet 1 to this procedure.

6.0 References

6.1 P&ID D-175037 - RCS, sheet 2

6.2 P&ID D-175039 - CVCS, sheet 2

6.3 P&ID D-175042 - Waste Processing System, sheet 1

DATA SHEET 1
RCS Leakage

INSTRUMENT	NAME	INITIAL	FINAL	FINAL – INITIAL
Computer (MCB)	TIME	0800	1000	A = 120 Minutes
TE0453 (TI0453)	LIQ PRZR TEMP	647.7 °F	647.6 °F	No significant change (≤ 1 °F)
PC0482, PT0455, PT0456 or PT0457 (PI 455, PI 456 or PI 457)	PRZR PRESS (Note 1)	2239.0 psig	2239.3 psig	No significant change (≤ 5 psig)
TC0484 OR Average of TY0412K, TY0422K & TY0432K (Average of TI 412D, 422D & 432D)	RCS TAVG (Note 1)	°F 572.881	°F 572.760	ΔT = -0.121 °F Maximum change of 0.3°F allowed if TAVG is 545°F or greater, 0.1°F if TAVG is less than 545°F.
RCS Temperature Correction Factor	CF (Note 5)	100.5	N/A	B = ΔT × CF = -12.1605 Gal.
LC 1600 OR Average of LT0459, LT0460 & LT0461 (LI-459, 460, 461)	PRZR LVL	49.9 %	49.9 %	C = 56.3 × 0 % = 0 Gal.
LT0115 (LI 115)	VCT LVL	38.6 %	38.5 %	D = 14.18 × -0.1 % = -1.42 Gal.
LI 1003 Waste Pnl or BOP LS261 Pos 6	RCDT LVL	43.1 % 151.57 *Gal.	43.3 % 152.28 *Gal.	E = 0.72 Gal. (Enter 0 if negative)
LT0470 (LI 470)	PRT LVL (Note 2)	73.4 % *Gal.	73.4 % *Gal.	F = 0 Gal. (Enter 0 if negative)
FIS 168	TOTAL FLOW BATCH INTEG	000082 Gal. Gal.	000032 Gal. Gal.	G = 0 Gal. Dilution and Blended Makeup

*From Tank Curve Book

Total Leakage $= \frac{B - C - D + G}{A} = \frac{(-12.1605) - (0) - (-1.42) + (0)}{(120)} = \frac{-0.09}{\text{(Note 6)}}$ GPM

(B = -12.1605, C = 0, D = -1.42, G = 0, A = 120)

Identified Leakage $= \frac{E + F}{A} = \frac{(0.72) + (0)}{(120)} + \frac{0}{\text{Other leakage}} = \frac{0.006 = 0.01}{\text{(Note 6)}}$ GPM

(E = 0.72, F = 0, A = 120)

Other Leakage:

Source	Rate (GPM)
Total Other	0

Unidentified Leakage = Total Leakage − Identified Leakage $= \frac{-.09}{} - \frac{0.01}{} = \frac{-0.10 \approx 0}{\text{(Notes 3, 4, \& 6)}}$ GPM

ACCEPTANCE CRITERIA:
- **Unidentified leakage ≤ 1 gpm**
- **Identified leakage ≤ 10 gpm**

NOTE:	1	**IF TAVG < 530°F, THEN use: PI-402A (PT0402) and PI-403A (PT0403), 1C and 1A Loop RCS WR PRESS (Avg. of Readings) AND TR-410 (TE0410) and TR-413 (TE0413), RCS COLD AND HOT LEG TEMP (Avg. of Readings)**
	2	**Calibrated fluke may be used for PRT level determination if deemed necessary.**
	3	**For reporting purposes values between –0.2 and 0 gpm shall be reported as 0 gpm. Values more negative than –0.2 gpm indicate a potential problem and therefore shall be reported as is.**
	4	**If unidentified leakage > 0.9 but < 1 gpm, test should be reperformed with ZAS secured. At maximum injection rate, ZAS can introduce ~0.03 gpm error into calculation.**
	5	**Obtain CF from Table 1 using the nearest value of RCS temperature. N/A if RCS Leakrate program is used.**
	6	**Leakage calculations are to be reported in two significant digits (e.g., 0.07 gpm).**

TABLE 1

RCS Temp (^{0}F)	Correction Factor (gal/ ^{0}F)
200	24.3
225	26.6
250	28.9
275	31.2
300	33.5
325	36.6
350	39.8
375	42.9
400	46.0
425	51.4
450	56.7
475	62.1
500	67.4
525	76.3
545	83.5
547	84.5
550	86.1
555	88.8
560	91.7
565	94.8
570	98.2
571	98.9
572	99.7
573	100.5
574	101.2
575	101.9
577.2	103.6

2 Equipment Control: Isolate a leak per FNP-1-AOP-9.0

Initial Conditions:
Unit 1 is at 100%, B train is on service, 1B CCW pump is running
FNP-1-AOP-9.0, LOSS OF COMPONENT COOLING WATER, is in progress for a CCW leak
The Rover reports that the 1A CCW pump casing has a crack and is leaking.

Referenced Documents:
FNP-1-AOP-9.0, LOSS OF COMPONENT COOLING WATER

Task Standard:
Identify the valves by TPNS number and valve description which will isolate the 1A CCW pump to stop the leak and which valves need to be opened to vent and drain the isolated portion of the system.

CLOSE:

From drawing PID D175002 SH1:

- QV144A, QV109A, QV002A, QV278A.

From SOP-23A Pg 14 & 15:

- Q1P17V144A, 1A CCW PUMP MINI-FLOW.
- Q1P17V109A, 1A CCW PUMP SUCT.
- Q1P17V002A, 1A CCW PUMP DISCH ISO.
- Q1P17V278A, 1A CCW PUMP CHEM MIXING ISO.

ROUTE HOSE AND OPEN TO DRAIN: **(QV281A is not necessary to open and drain, but if examinee drains from this valve, it is within the isolation boundries and thus not wrong)**

From drawing PID D175002 SH1:

- QV157B, QV157A.

From SOP-23A Pg 14 & 15:

- Q1P17V157B, 1A CCW PUMP DRN.
- Q1P17V157A, 1A CCW PUMP DRN.

OPEN TO VENT:

From drawing PID D175002 SH1:

- QV156A, QV279A, QV156D.

From SOP-23A Pg 14 & 15:

- Q1P17V156A, 1A CCW PUMP VT.
- Q1P17V279A, 1A CCW PUMP SUCT LINE VT.
- Q1P17V156D, 1A CCW PUMP VT.

Initiating Cues:
The Shift Supervisor has assigned you the task to identify the **TPNS number and valve description** of the valves which will:

1. Isolate the 1A CCW pump to stop the leak.
2. Vent and drain the isolated portion of the system.

Terminating Cues:
When examinee provides a list of all valves for isolating, venting and draining the 1A CCW Pump.

NOTE:
Provide applicant with a laminated working copy of PID D175002 SH1 & FNP-1-SOP-23A.

K/A G2.1.24 2.8/3.1

Initial Conditions:

- Unit 1 is at 100%.
- B train is on service.
- 1B CCW pump is running.

FNP-1-AOP-9.0, LOSS OF COMPONENT COOLING WATER, is in progress for a CCW leak.

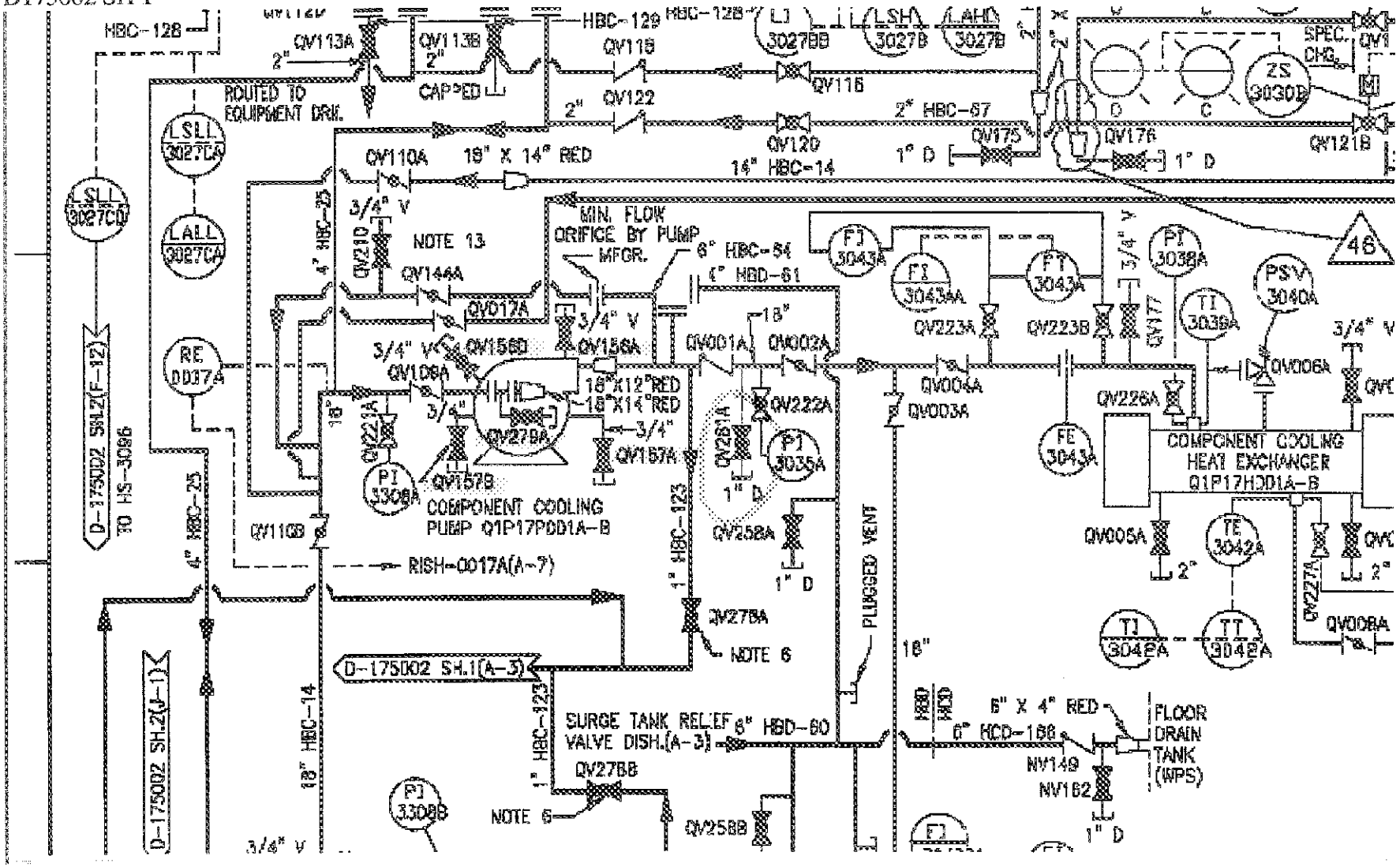
The Rover reports that the 1A CCW pump casing has a crack and is leaking.

The Shift Supervisor has assigned you the task to identify the **TPNS number and valve description** of the valves which will:

1. Isolate the 1A CCW pump to stop the leak.

2. Vent and drain the isolated portion of the system.

D175002 SH 1



vent/drains

iso valves

drain from here
but if examine drains from
this valve it is not wrong = within isolation boundary.

Initial Conditions:

- Unit 1 is at 100%.
- B train is on service.
- 1B CCW pump is running.

FNP-1-AOP-9.0, LOSS OF COMPONENT COOLING WATER, is in progress for a CCW leak.

The Rover reports that the 1A CCW pump casing has a crack and is leaking.

The Shift Supervisor has assigned you the task to identify the **TPNS number and valve description** of the valves which will:

1. Isolate the 1A CCW pump to stop the leak.

2. Vent and drain the isolated portion of the system.

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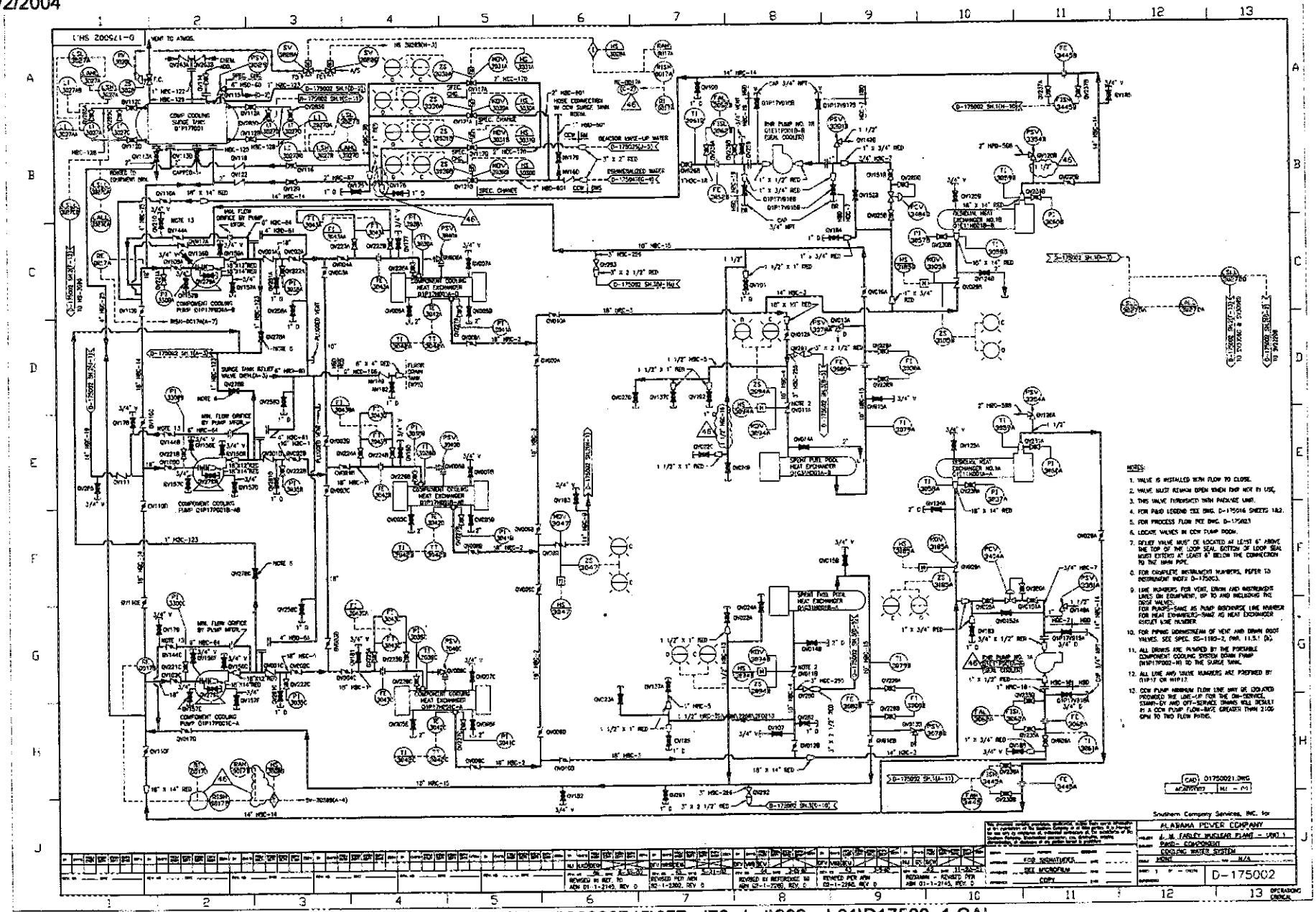

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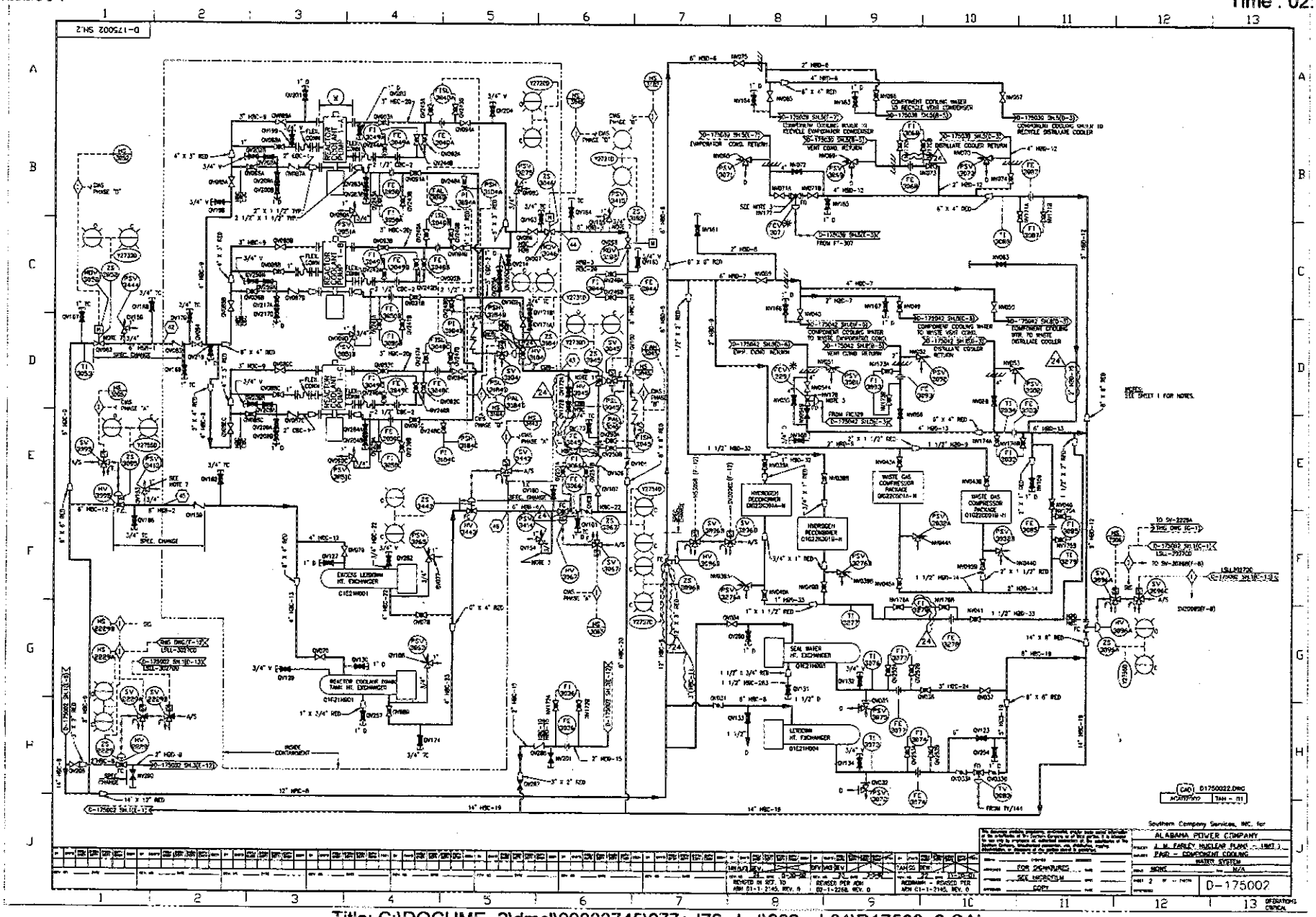

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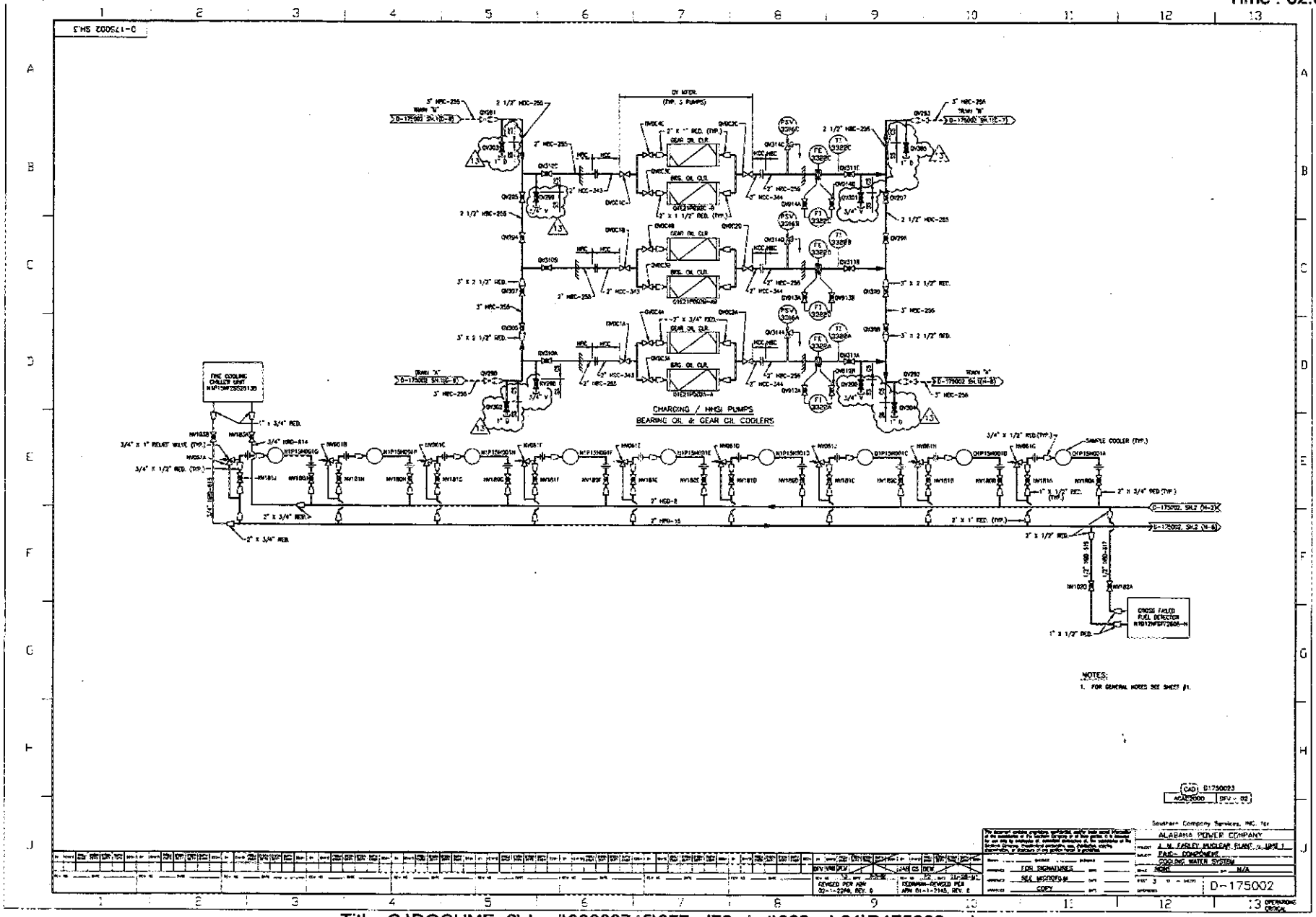

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JOB PERFORMANCE MEASURES

CRO-133A MODIFIED FOR HLT 29 ADMIN EXAM

TITLE: Start Up The Containment Mini-Purge Following a Safety Injection Signal

PROGRAM APPLICABLE: SOT ___ SOCT ___ OLT _X_ LOCT _____

ACCEPTABLE EVALUATION METHOD: _X_ PERFORM _X_ SIMULATE ___ DISCUSS

EVALUATION LOCATION: _X_ SIMULATOR _X_ CONTROL ROOM ___ PLANT

PROJECTED TIME: _10 MIN_ SIMULATOR IC NUMBER: _IC ?_____

ALTERNATE PATH ___ TIME CRITICAL ___ PRA _____

JPM DIRECTIONS:

1. Access to tools, equipment, and references normally used to perform this task are allowed.
2. During initial training, it is encouraged that questions be asked as part of this OJT process to assess the extent of trainee knowledge related to this task.
3. If the trainee is significantly deficient in knowledge or does not adhere to management expectations as outlined below, then a re-examination of the JPM is warranted.
   - Potential physical harm could occur to the trainee or others
   - Potential damage to equipment could occur
   - A procedure step is missed in a continuous use procedure
   - Significant margin to reactor safety is eroded
   - Wrong unit/train/component is potentially operated
4. All unsuccessful attempts, deficiencies, and other comments must be documented in the space below and forwarded to a Training Administrative Assistant for tracking.

In House Instructions?

Trainer/Date:	**Trainee:**
Evaluator/Date:	
Overall JPM Performance: **Satisfactory** ☐	**Unsatisfactory** ☐
Evaluator Comments (attach additional sheets if necessary)	

Approved By: _____N/A_____
Supervisor - Operations Training or Operations

STANDARDS

Apply the following criteria during the performance of this JPM:

a. The task must be performed using the appropriate plant procedures, Technical Specifications, or other references.
b. All critical elements must be performed, simulated, or discussed without error, prompting or unnecessary queuing.
c. Management expectations regarding human performance tools (three way communications, STAR, procedural adherence, etc.), radiological controls, and industrial safety.

CONDITIONS

When I tell you to begin, you are to START UP THE CONTAINMENT MINI-PURGE SYSTEM PER SOP-12.2, Containment Purge and Pre-access Filtration System. The conditions under which this task is to be performed are:

a. A Safety Injection has occurred on Unit 1.
b. The Shift Supervisor has directed you to start up the Containment Mini-Purge system per SOP-12.2, Containment Purge and Pre-access Filtration System.
c. A pre-job brief has already been performed.

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
_____ START TIME		
*1. Verify safety injection signal has been reset.	Resets both trains of safety injection signals. (CUE: MLB1 1-1 & 11-1 Lights NOT LIT.)	S / U
*2. Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to CLOSE for at least 2 seconds.	Places CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to CLOSE for at least 2 seconds. (CUE: HS-3196 and HS-3198 green lights lit.)	S / U
*3. Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to MINI.	Places CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to MINI. (CUE: CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to MINI.)	S / U
*4. Start MINI PURGE SUPP/EXH FAN.	Start MINI PURGE SUPP/EXH FAN. (CUE: MINI PURGE SUPP/EXH FAN Red lights lit. BF3, CTMT PURGE SUPP FAN FAULT, Alarm comes in.)	S / U

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)

NOTE TO EVALUATOR: BF3, CTMT PURGE SUPP FAN FAULT, Alarm comes in. The ARP will direct securing the Mini-Purge fans. Examinee may secure damper lineup and may notify appropriate personnel of the deficiency.

*5.	Refers to ARP-1.2, for BF3. Secures Mini-Purge Fans.	Mini-Purge Fans secured. (CUE: MINI PURGE SUPP/EXH FAN green lights lit. BF3, CTMT PURGE SUPP FAN FAULT, Alarm clears.)	S / U
6.	Informs Shift Supervisor that the BF3 alarm came in, and Mini-Purge is secured as directed by the ARP.	Shift Supervisor Informed BF3 alarm came in, and Mini-Purge is secured as directed by the ARP. (CUE: Shift Supervisor acknowledges.)	S / U

____STOP TIME

Terminate when Shift Supervisor is informed of status.

CRITICAL ELEMENTS: Critical Elements are denoted with an asterisk (*) preceding the element number.

GENERAL REFERENCES:

1. FNP-1-SOP-12.2, Version 31.0
2. FNP-1-ARP-1.2, Version 40.0
3. KA: G2.3.9 RO-2.5 SRO-3.4

GENERAL TOOLS AND EQUIPMENT

None

COMMENTS:

CONDITIONS

When I tell you to begin, you are to START UP THE CONTAINMENT MINI-PURGE SYSTEM PER SOP-12.2, Containment Purge and Pre-access Filtration System. The conditions under which this task is to be performed are:

a. A Safety Injection has occurred on Unit 1.
b. The Shift Supervisor has directed you to start up the Containment Mini-Purge system per SOP-12.2, Containment Purge and Pre-access Filtration System.
c. A pre-job brief has already been performed.

CONDITIONS

When I tell you to begin, you are to START UP THE CONTAINMENT MINI-PURGE SYSTEM PER SOP-12.2, Containment Purge and Pre-access Filtration System. The conditions under which this task is to be performed are:

a. A Safety Injection has occurred on Unit 1.
b. The Shift Supervisor has directed you to start up the Containment Mini-Purge system per SOP-12.2, Containment Purge and Pre-access Filtration System.
c. A pre-job brief has already been performed.

4.9 Restoring CTMT Mini-Purge Following a Safety Injection or Hi Hi Radiation Signal

4.9.1 Verify safety injection or Hi Hi radiation signal has been reset.

4.9.2 Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to CLOSE for at least 2 seconds.

4.9.3 Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to MINI.

4.9.4 Restart CTMT mini-purge fan per steps 4.7.11 through 4.7.14.

5.0 References

5.1 P&IDs

5.1.1 D-175010, sheets 1 and 2; Containment cooling and purge system
5.1.2 D-180677, sheets 1-5; Func description - Containment purge system
5.1.3 D-177783, Elem. Diag., Containment Mini-Purge Fans
5.1.4 D-177204, Elem. Diag., Containment Purge Isol Dampers Train A
5.1.5 D-177199, Elem. Diag., Containment Purge Isol Dampers Train B
5.1.6 D-177236, Elem. Diag., Containment Purge Air Handling Unit Fan
5.1.7 D-177237, Elem. Diag., Containment Purge Exhaust Fan
5.1.8 U-198771, CTMT Purge Supply Fan Starter Panel Wiring Diagram
5.1.9 D-175105, HVAC System Auxiliary Building Sections

5.2 FSAR, Section 6.2.3

4.7.4 Verify CTMT PURGE SUPP/EXH FANS & DAMPERS handswitch selected to STOP.

4.7.5 Verify recorders RR14, RR22, RR24A and RR24B in operation, or DR written for repair.

4.7.6 Verify gaseous waste release permit has been issued for CTMT mini-purge operation.

4.7.7 Verify that the alarm setpoints for R-24A and R-24B are less than or equal to the maximum allowable setpoints listed in Part II of the gaseous waste release permit. See FNP-1-CCP-213.1, GASEOUS EFFLUENT RADIATION MONITORING SYSTEM SETPOINTS, for current alarm setpoints.

NOTE: **IF the activity level within containment is determined to be excessive by sample analysis, THEN the containment pre-access filtration system should be operated per section 4.1. The activity level should be reduced to the value specified by the Health Physics department.**

4.7.8 Verify FNP-1-STP-18.5, CONTAINMENT MINIPURGE AND EXHAUST VALVE INSERVICE TEST, and FNP-1-STP-18.6, CONTAINMENT MINI PURGE AND EXHAUST ISOLATION TEST MODES 1, 2, 3, 4, are current prior to initiating mini-purge flow.

4.7.9 Close CTMT purge filter cooling valves N1P13V293 and N1P13V294, if opened while removing CTMT mini-purge system from operation.

4.7.10 Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to MINI.

4.7.11 Start MINI PURGE SUPP/EXH FAN.

4.7.12 Walkdown fans and ductwork, visually inspect for damage and report any problems to the control room.

4.7.13 Notify the Shift Radiochemist that CTMT mini-purge is in service AND continue to keep the Shift Radiochemist informed of any changes in CTMT mini-purge status.

4.7.14 Verify the following damper positions:

- Q1P13HV3203A, open
- Q1P13HV3203B, open
- Q1P13HV3196, closed
- Q1P13HV3197, closed
- Q1P13HV3198A, closed
- N1P13HV3198B, open
- N1P13HV3198C, open
- Q1P13HV3198D, closed
- Q1P13HV2866C, open
- Q1P13HV2866D, open
- Q1P13HV2867C, open
- Q1P13HV2867D, open

4.8 Removing CTMT Mini-Purge System from Operation

NOTE: If CTMT mini-purge system is to be removed from operation for a short duration for maintenance or testing, remove the CTMT mini-purge system from service by performing steps 4.8.1 through 4.8.3.

4.8.1 Stop MINI PURGE SUPP/EXH FAN.

4.8.2 Notify the Shift Radiochemist that CTMT mini-purge has been secured.

4.8.3 Place CTMT PURGE DMPRS handswitches HS-3196 and HS-3198 to CLOSE.

NOTE: N1P13V293 and N1P13V294 should only be opened after approval by the Shift Supervisor.

4.8.4 IF desired, THEN open CTMT purge filter cooling valves N1P13V293 and N1P13V294.

NOTE: R-24A or R-24B is required to be operable in Modes 1-4, and both channels are required to be operable during core alterations and moving of irradiated fuel inside containment.

4.8.5 IF desired, THEN turn off radiation monitors R-24A and R-24B, and their respective recorders.

LOCATION BF3

F3
CTMT PURGE SUPP FAN FAULT

SETPOINT:
1. Variable Current/Time
2. Variable Current/Time
3. DPS: 1.0 ± .25 inches H_2O
4. DPS-1: 1.0 + 0.25 inches H_2O - 0.0
5. DPS-2: 0.5 ± 0.3 inches H_2O

ORIGIN:
1. 600V Breaker EA06 Overload Aux. Alarm Contact
2. Motor Overload Aux. Relay, 49X
3. Diff. Pressure Switch, DPS (N1P13PDSL2868A-N)
4. Diff. Pressure Switch, DPS-1 (N1P13PDSH3206-N)
5. Diff. Pressure Switch, DPS-2 (N1P13PDSL3565-N)

PROBABLE CAUSE

1. Containment Purge Supply Fan tripped on overload.
2. High differential pressure across the Purge Supply H&V Unit Filter or low differential pressure across the Purge Supply Fan when the fan is running.
3. Low differential pressure across the Containment Mini-Purge Supply Fan when the fan is running.

AUTOMATIC ACTION

NONE

OPERATOR ACTION

1. IF the CONTAINMENT PURGE SUPPLY AND EXHAUST FANS are operating, THEN stop the CTMT PURGE SUPP/EXH FANS.
2. IF the CONTAINMENT MINI-PURGE SUPPLY AND EXHAUST FANS are operating, THEN stop the MINI PURGE SUPP/EXH FANS.
3. Refer to FNP-1-SOP-12.2, CONTAINMENT PURGE AND PRE-ACCESS FILTRATION SYSTEM.
4. Notify appropriate personnel to locate and correct the cause of the alarm.
5. Return the Containment Purge System to service as soon as possible.

References: A-177100, Sh. 118; A-177048, Sh. 8; B-175968; D-177236; D-177242; D-177783; D-175010, Sh. 2; B-175810, Sh. 101

JOB PERFORMANCE MEASURES

FORMAL OJT REQUIRED PRIOR TO EVALUATION

SS-059 MODIFIED FOR HLT 29 ADMIN EXAM

TITLE: Operate The SOUTHERN LINC ENN

PROGRAM APPLICABLE: SOT ___ SOCT ___ OLT _X_ LOCT _X_

ACCEPTABLE EVALUATION METHOD: _X_ PERFORM _X_ SIMULATE ___ DISCUSS

EVALUATION LOCATION: _X_ SIMULATOR _X_ CONTROL ROOM ___ PLANT

PROJECTED TIME: _2 MIN_ SIMULATOR IC NUMBER: _N/A_

ALTERNATE PATH ___ TIME CRITICAL _X_ PRA

JPM DIRECTIONS:

1. Access to tools, equipment, and references normally used to perform this task are allowed.
2. During initial training, it is encouraged that questions be asked as part of this OJT process to assess the extent of trainee knowledge related to this task.
3. If the trainee is significantly deficient in knowledge or does not adhere to management expectations as outlined below, then a re-examination of the JPM is warranted.
   - Potential physical harm could occur to the trainee or others
   - Potential damage to equipment could occur
   - A procedure step is missed in a continuous use procedure
   - Significant margin to reactor safety is eroded
   - Wrong unit/train/component is potentially operated
4. All unsuccessful attempts, deficiencies, and other comments must be documented in the space below and forwarded to a Training Administrative Assistant for tracking.

In House - these Directions do not apply to an NRC exam.

Trainer/Date:	**Trainee:**
Evaluator/Date:	
Overall JPM Performance: **Satisfactory** ☐	**Unsatisfactory** ☐
Evaluator Comments (attach additional sheets if necessary)	

JPM Approved: N/A

Supervisor - Operations Training or Operations

STANDARDS

Apply the following criteria during the performance of this JPM:

a. The task must be performed using the appropriate plant procedures, Technical Specifications, or other references.
b. All critical elements must be performed, simulated, or discussed without error, prompting or unnecessary queuing.
c. Management expectations regarding human performance tools (three way communications, STAR, procedural adherence, etc.), radiological controls, and industrial safety.

CONDITIONS

When I tell you to begin, you are to OPERATE THE SOUTHERN LINC ENN. The conditions under which this task is to be performed are:

a. Both Units are at 100% power.
b. An approaching hurricane is projected to cause high winds on the plant site.
c. You have been directed by the Shift Manager to make the initial notifications for a Notification of Unusual Event (NOUE) due to the approaching hurricane, using the provided GUIDELINE 4, NOTIFICATION OF UNUSUAL EVENT BLUE VERBAL NOTIFICATION FORM.
d. A pre-job brief is not required.

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)

NOTE TO EVALUATOR: USE AN UNPLUGGED SOUTHERN LINC ENN PHONE,
OR
IF USING THE REAL PHONE RECEIVER REMIND EXAMINEE TO SIMULATE USING THE ENN AND DO NOT PICK UP THE HANDSET.

CRITICAL TIME OF 10 MINUTES STARTS WHEN THE TASK IS UNDERSTOOD AND COMMENCED. This simulates 5 minutes has elapsed since classification was made and 10 more minutes remain to notify both Alabama and Georgia.

Candidate has the option to use the OPX or telephone. If either is used, the candidate will have to call each number and relay the information IAW the form at the bottom of the page. Alabama and Georgia is required.

START CRITICAL TIME

1.	Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 of the instructions if necessary.	Press group pushbutton. (CUE: Display shows WIDE AREA, FEP ENN.)	S / U

2.	Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is <u>name/title</u> at Farley Nuclear Plant. Please obtain a Notification of Unusual Event BLUE initial notification form and monitor the ENN."** Release the PTT.	Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp. (CUE: chirp is heard.) Announce **"This is <u>name/title</u> at Farley Nuclear Plant. Please obtain a Notification of Unusual Event BLUE initial notification form and monitor the ENN."** Release the PTT.	S / U
3.	PTT and request a state level agency for Alabama. Example "Alabama Radiation Control at Montgomery EOC, are you on the line?" Release the PTT to allow the party to answer.	PTT and request a state level agency for Alabama acknowledge manning of the ENN. (CUE: Alabama Radiation Control on the line.)	S / U
*4.	Enter time when the attempt was made to contact Alabama.	Time entered on Guideline 4 form in the blank for Alabama.	S / U
5.	Obtain name of person acknowledging.	Name of person acknowledging is obtained. (CUE: This is Jake Washington at Alabama Radiation Control.)	S / U
6.	Enter name of the person contacted for Alabama.	Name entered on Guideline 4 form in the blank for Alabama.	S / U
7.	PTT and request a state level agency for Georgia acknowledge manning of the ENN. Example "GEMA at Atlanta EOC, are you on the line?" Release the PTT to allow the party to answer.	PTT and request a state level agency for Georgia acknowledge manning of the ENN. (CUE: GEMA on the line.)	S / U
*8.	Enter time when the attempt was made to contact Georgia.	Time entered on Guideline 4 form in the blank for Georgia.	S / U
	END CRITICAL TIME		
9.	Obtain name of person acknowledging.	Name of person acknowledging is obtained. (CUE: This is Buddy Carter at GEMA.)	S / U

10. Enter name of the person contacted for Georgia. Name entered on Guideline 4 form. S / U

____ STOP TIME

Terminate JPM after the States of Alabama and Georgia have been notified of the NOUE, and the times and names of individuals contacted are recorded on Guideline 4 form.

CRITICAL ELEMENTS: Critical Elements are denoted with an asterisk (*) before the element number.

GENERAL REFERENCES:

1. FNP-0-EIP-9.0, Version 51.0

2. KAs: G2.4.43 RO-2.8 SRO-3.5
   G2.4.39 RO-3.3 SRO-3.1

GENERAL TOOLS AND EQUIPMENT:

SOUTHERN LINC telephone

COMMENTS:

CONDITIONS

When I tell you to begin, you are to OPERATE THE SOUTHERN LINC ENN. The conditions under which this task is to be performed are:

a. Both Units are at 100% power.
b. An approaching hurricane is projected to cause high winds on the plant site.
c. You have been directed by the Shift Manager to make the initial notifications for a Notification of Unusual Event (NOUE) due to the approaching hurricane, using the provided GUIDELINE 4, NOTIFICATION OF UNUSUAL EVENT BLUE VERBAL NOTIFICATION FORM.
d. A pre-job brief is not required.

CONDITIONS

When I tell you to begin, you are to OPERATE THE SOUTHERN LINC ENN. The conditions under which this task is to be performed are:

a. Both Units are at 100% power.
b. An approaching hurricane is projected to cause high winds on the plant site.
c. You have been directed by the Shift Manager to make the initial notifications for a Notification of Unusual Event (NOUE) due to the approaching hurricane, using the provided GUIDELINE 4, NOTIFICATION OF UNUSUAL EVENT BLUE VERBAL NOTIFICATION FORM.
d. A pre-job brief is not required.

GUIDELINE 4
NOTIFICATION OF UNUSUAL EVENT
BLUE VERBAL NOTIFICATION FORM

1. [X] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification:
   [A] Notification Of Unusual Event
6. [X] Emergency Declaration At: Time/Date 5 Minutes ago (central) 01 (MM) / today (DD) / 05 (YY)
7. **Emergency Classification criteria:**
   ☐ N1.1 ☐ N1.2 ☐ N1.3 ☐ N1.4 ☐ N2.1 ☐ N2.2
   ☐ N2.3 ☐ N3.1 ☐ N3.2 ☐ N3.3 ☐ N4.1 ☐ N4.2 ☐ N4.3 ☐ N4.4 ☐ N4.5
   ☐ N5.1 ☐ N6.1 ☐ N6.2 ☐ N7.1 ☐ N7.2 ☐ N7.3 ☒ N7.4 ☐ N7.5 ☐ N7.6
   ☐ N7.7 ☐ N7.8 ☐ N7.9 ☐ N7.10 ☐ N8.1
   Failed Barriers: ☐ RCS ☐ Containment ☐ Fuel Clad ☒ none ☐ Heat Removal Sys Inadequate
10. Emergency Releases: [A] None [C] Is Occurring
14. Meteorological Data [A] Wind Direction (from) 135 [B] Speed(mph) 2.3 [C] ΔT 0.2
15. Recommended Actions:
    [X] There are no recommended protective actions.
16. Approved By: J Youngblood Emergency Director
    (Name) (Title)

A. ____ Line 1 check box A or B.
B. ____ Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1. ____ Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2. ____ Check all failed barriers or none; check heat removal inadequate if appropriate.
C3. ____ If more information is required, list it on a separate page; read it over the ENN when line 7 is read.
D. ____ Line 10 if an Emergency Radioactive release is in progress, check box C; otherwise, check box A.
E. ____ Line 14-enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP.
F. ____ Line 16, the Emergency Director must sign this form.
G. ____ Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co. Time_____ Name_____ Acknowledged☐
GEMA **OR** Early County Time_____ Name_____ Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____ Name_____ Acknowledged☐

H. ____ Proceed to the following page for the REMAINING NOTIFICATIONS at step I.

GUIDELINE 4
NOTIFICATION OF UNUSUAL EVENT
BLUE VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a Notification of Unusual Event BLUE initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a Notification of Unusual Event BLUE initial notification message with acknowledgment"**, then slowly read the Notification of Unusual Event initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order	**GEORGIA State Agencies In preferred order**
Alabama Radiation Control at Montgomery EOC ENN (1305), OPX (6628), phone (334-242-4378) FAX (334-264-4396) State Troopers in Montgomery ENN (1303), phone (334-242-4378, 4379) Alabama Radiation Control at Alabama Forward EOC ENN (1307), OPX 6621), phone (334-793-1565) FAX (8-257-1535) **HOUSTON COUNTY** ENN(1307), OPX (6621), FAX(8-257-1535) phone (334-794-9720, 793-9655, 334-677-4807, 4808)	GEMA at Atlanta EOC ENN (1304), OPX (6629), Phone (404-635-7200) FAX (404-627-4850) GEMA at Georgia Forward EOC ENN (22) OPX (6626) phone (229-723-4826) FAX (8-257-2455) EARLY COUNTY ENN(1308) ENN(41) OPX (6622)FAX(8-257-2455) phone(229-723-3577, 3578, 4826)
AEMA COURTESY NOTIFICATION ENN (1306)	**FLORIDA State Agency** Florida Department of Emergency Management phone (800-320-0519) (850-413- 9911) FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

I_____Fax a copy of the previous page NOUE BLUE VERBAL NOTIFICATION FORM to the State of Florida, EOF, and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

J_____Verify the State of Florida has received the FAX using the numbers listed in the table above.

K_____Complete Figure 6, side 1, follow-up message as soon as possible.

L_____Fax Figure 6, side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

M_____Provide the information on Figure 6, side 1, to the NRC as soon as possible, but within one hour of the declaration per the instructions on Figure 6, side 2.

JOB PERFORMANCE MEASURES

SS-138C MODIFIED FOR HLT 29 ADMIN EXAM

TITLE: Classify An Emergency Event and Complete the Initial Notification Form

PROGRAM APPLICABLE: SOT ___ SOCT ___ OLT _X_ LOCT _X_

ACCEPTABLE EVALUATION METHOD: _X_ PERFORM _X_ SIMULATE ___ DISCUSS

EVALUATION LOCATION: _X_ SIMULATOR _X_ CONTROL ROOM ___ PLANT

PROJECTED TIME: 30 MIN SIMULATOR IC NUMBER: N/A

ALTERNATE PATH ___ TIME CRITICAL _X_ PRA

THIS JPM IS TIME CRITICAL

JPM DIRECTIONS:

1. Access to tools, equipment, and references normally used to perform this task are allowed.
2. During initial training, it is encouraged that questions be asked as part of this OJT process to assess the extent of trainee knowledge related to this task.
3. If the trainee is significantly deficient in knowledge or does not adhere to management expectations as outlined below, then a re-examination of the JPM is warranted.
   - Potential physical harm could occur to the trainee or others
   - Potential damage to equipment could occur
   - A procedure step is missed in a continuous use procedure
   - Significant margin to reactor safety is eroded
   - Wrong unit/train/component is potentially operated
4. All unsuccessful attempts, deficiencies, and other comments must be documented in the space below and forwarded to a Training Administrative Assistant for tracking.

Trainer/Date:	**Trainee:**
Evaluator/Date:	
Overall JPM Performance: **Satisfactory** ☐	**Unsatisfactory** ☐
Evaluator Comments (attach additional sheets if necessary)	

JPM Approved: N/A
Supervisor - Operations Training or Operations

STANDARDS

Apply the following criteria during the performance of this JPM:

a. The task must be performed using the appropriate plant procedures, Technical Specifications, or other references.
b. All critical elements must be performed, simulated, or discussed without error, prompting or unnecessary queuing.
c. Management expectations regarding human performance tools (three way communications, STAR, procedural adherence, etc.), radiological controls, and industrial safety.

CONDITIONS

When I tell you to begin, you are to CLASSIFY AN EMERGENCY EVENT AND COMPLETE THE EVENT NOTIFICATION FORM. The conditions under which this task is to be performed are:

a. Both Units are operating at 100% power.
b. The on shift Security Captain has received a report from the FBI that they have credible imminent threat of sabotage. A semi-truck filled with explosive devices is en-route to Farley Nuclear Plant. The truck is scheduled to arrive in 35 minutes.
c. Wind Speed is 1 MPH, Wind Direction is from 85°, and DELTA T is 0.5°F.

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)
_____ START TIME		
NOTE: THE TIME IT TAKES TO CLASSIFY THE EVENT IS TIME CRITICAL AND SHOULD BE COMPLETED IN 15 MINUTES.		
_____ TIME CRITICAL START TIME		
*1. Contact counting room to initiate offsite dose assessment.	Shift radiochemist contacted to initiate offsite dose assessment. (CUE: Shift radiochemist acknowledges.)	S / U
*2. Classify the event.	Event classified as an Alert per EIP-9.0.	S / U
_____ TIME CRITICAL STOP /START TIME		

EVALUATION CHECKLIST

ELEMENTS:	STANDARDS:	RESULTS: (CIRCLE)

NOTE: ACCURATE COMPLETION OF CERTAIN STEPS EIP-9.0, ALERT NOTIFICATION FORM, ARE ESSENTIAL TO ENSURE ADEQUATE NOTIFICATION OF STATE AND LOCAL AGENCIES. THESE STEPS ARE SHOWN AS THE STANDARDS FOR ELEMENT NUMBER 3.

ELEMENT 3, FOR THE REQUIREMENTS OF THIS JPM, MUST BE COMPLETED IN 15 MINUTES AND IS THEREFORE TIME CRITICAL. THE ACTUAL 15 MINUTE CRITICAL TIME PERIOD ALSO INCLUDES THE NOTIFICATION OF AT LEAST ONE AGENCY IN EACH STATE.

*3.	Complete EIP-9.0, Alert Notification Form	Identifies A8.1 as criteria for Alert	S / U
		Completes declaration time date	S / U
		Completes met tower data	S / U
		Approves the declaration form	S / U

TIME CRITICAL STOP TIME

Terminate JPM when initial notification form is completed

CRITICAL ELEMENTS: Critical Elements are denoted with an Asterisk (*) before the element number.

GENERAL REFERENCES:

1. FNP-0-EIP-8.1, Version 6.0
2. FNP-0-EIP-9.0, Version 51.0
3. KA: G2.4.41 RO-2.3 SRO-4.1

GENERAL TOOLS AND EQUIPMENT:

None

COMMENTS:

CONDITIONS

When I tell you to begin, you are to CLASSIFY AN EMERGENCY EVENT AND COMPLETE THE EVENT NOTIFICATION FORM. The conditions under which this task is to be performed are:

c. Both Units are operating at 100% power.
d. The on shift Security Captain has received a report from the FBI that they have credible imminent threat of sabotage. A semi-truck filled with explosive devices is en-route to Farley Nuclear Plant. The truck is scheduled to arrive in 35 minutes.
e. Wind Speed is 1 MPH, Wind Direction is from 85°, and DELTA T is 0.5°F.

KEY

GUIDELINE 3
ALERT
YELLOW VERBAL NOTIFICATION FORM

1. [X] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification:
   [X] Alert
6. [X] Emergency Declaration At: Time/Date Time (central) / MM / DD / YY
7. Emergency Classification criteria:
   ☐ A1.1 ☐ A1.2 ☐ A2.1 ☐ A2.2 ☐ A2.3 ☐ A3.1
   ☐ A3.2 ☐ A4.1 ☐ A4.2 ☐ A4.3 ☐ A4.4 ☐ A4.5 ☐ A4.6 ☐ A5.1 ☐ A5.2
   ☐ A5.3 ☐ A5.4 ☐ A5.5 ☐ A6.1 ☐ A6.2 ☐ A6.3 ☐ A7.1 ☐ A7.2 ☐ A7.3
   ☐ A7.4 ☐ A7.5 ☐ A7.6 ☐ A7.7 ☐ A7.8 ☒ A8.1 ☐ A 8.2
   Failed Barriers: ☐RCS ☐Containment ☐Fuel Clad ☒none ☐Heat Removal Sys Inadequate
10 Emergency Releases: [X] None [C] Is Occurring
14. Meteorological Data [X] Wind Direction (from) 85° [X] Speed(mph) 1 MPH [C] AT 0.5°F
15. Recommended Actions:
   [X] There are no recommended protective actions.

16. Approved By: NAME HERE (Name) Emergency Director (Title)

A. ✓ Line 1 check box A or B.
B. ✓ Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1. ✓ Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2. ✓ Check all failed barriers or none; check heat removal inadequate if appropriate.
C3. ✓ If more information is required, list it on a separate page; read it over the ENN when line 7 is read.
D. ✓ Line 10 if an Emergency Radioactive release is in progress check box C otherwise check box A
E. ✓ Line 14-enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP.
F. ✓ Line 16, the Emergency Director must sign this form.
G. _____ Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co. Time_____Name_____Acknowledged☐
GEMA **OR** Early County Time_____Name_____Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____Name_____Acknowledged☐

H. _____ Proceed to the following page for the REMAINING NOTIFICATIONS at step I.

GUIDELINE 3
ALERT
YELLOW VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a ALERT YELLOW initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a ALERT YELLOW initial notification message with acknowledgment"**, then slowly read the Alert initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order	**GEORGIA State Agencies In preferred order**
Alabama Radiation Control at Montgomery EOC ENN (1305), OPX (6628), phone (334-242-4378) FAX (334-264-4396) **State Troopers in Montgomery** ENN (1303), phone (334-242-4378, 4379) **Alabama Radiation Control at Alabama Forward EOC** ENN (1307), OPX 6621), phone (334-793-1565) FAX (8-257-1535) **HOUSTON COUNTY** ENN(1307), OPX (6621), FAX(8-257-1535) phone (334-794-9720, 793-9655, 334-677-4807, 4808) **AEMA COURTESY NOTIFICATION** ENN (1306)	**GEMA at Atlanta EOC** ENN (1304), OPX (6629), Phone (404-635-7200) FAX (404-627-4850) **GEMA at Georgia Forward EOC** ENN (22) OPX (6626) phone (229-723-4826) FAX (8-257-2455) **EARLY COUNTY** ENN(1308) ENN(41) OPX (6622)FAX(8-257-2455) phone(229-723-3577, 3578, 4826) **FLORIDA State Agency** **Florida Department of Emergency Management** phone (800-320-0519) (850-413- 9911) FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

I_____Fax a copy of the previous page ALERT YELLOW VERBAL NOTIFICATION FORM to the State of Florida, EOF, and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

J_____Verify the State of Florida has received the FAX using the numbers listed in the table above.

K_____Complete Figure 6, side 1, follow-up message as soon as possible.

L_____Fax Figure 6 side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

M____Provide the information on Figure 6, side 1, to the NRC as soon as possible, but within one hour of the declaration per the instructions on Figure 6, side 2.

GUIDELINE 3

ALERT

7.0 SITE HAZARDS

Severe natural phenomena being experienced or projected as follows:

A7.1 Earthquake greater than OBE levels. (ARP-1.12 LOC MK5)

A7.2 Flood, low river water or hurricane surge near design levels that could impact plant operations.

A7.3 Any tornado striking facility

A7.4 Hurricane winds near design basis level (115 mph)

Hazards experienced onsite which affect plant operation such as:

A7.5 Aircraft crash

A7.6 Release of toxic gas

A7.7 Release of flammable gas

NOTE: A fire or explosion potentially affecting ECCS is one that has directly affected the ability of one train of ECCS (high head, low head or accumulators specifically) to perform its intended function. This does not include attendant equipment if alternate means of performing the attendant equipment functions are available.

A7.8 Fire or explosion potentially affecting ECCS

8.0 SECURITY/EVACUATION

A8.1 A security emergency involving the occurrence or credible imminent threat of sabotage. If the basis for declaring this emergency classification is based on security concerns, then refer to Table 3 prior to taking actions that will cause people to report to the site or change locations on site.

A8.2 Evacuation of control room anticipated or required with control of shutdown systems established from local stations.

GUIDELINE 1
GENERAL EMERGENCY
RED VERBAL NOTIFICATION FORM

1. [A] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification: [X] General Emergency
6. [X] Emergency Declaration At: Time/Date _____ (central) ____/____/____ MM DD YY
7. Emergency Classification criteria: ☐ G1.1 ☐ G1.2 ☐ G2.1 ☐ G3.1
   Failed Barriers: ☐RCS ☐Containment ☐Fuel Clad ☐none ☐Heat Removal Sys Inadequate
10 Emergency Releases: [A] None [C] Is Occurring
14. Meteorological Data [A] Wind Direction (from) _____ [B] Speed(mph) _____ [C] ΔT _____
15. Recommended Actions:
[X] Evacuate and control access in down wind zones
[X] A-2 ☐ B-5 ☐ C-5 ☐ D5 ☐ E-5 ☐ F-5 ☐ I-5 ☐ J-5 ☐ K-5
[D1] Shelter and control access in down wind zones ***OR*** [D2] Evacuate and control access in down wind zones
☐ B-10 ☐ C-10 ☐ D-10 ☐ E-10 ☐ F-10 ☐ G-10 ☐ H-10 ☐ I-10 ☐ J-10 ☐ K-10

AND In all affected areas: Monitor environmental radiation levels, locate and evacuate hot spots and implement control and possible confiscation of food and water supplies and consider evacuation of children and pregnant women.

[E] Other _____

16. Approved By: _____ (Name) Emergency Director (Title)

A. ____ Line 1 check box A or B.
B. ____ Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1. ____ Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2. ____ Check all failed barriers or none, check heat removal inadequate if appropriate.
C3. ____ If more information is required, list it on a separate page, read it over the ENN when line 7 is read.
D. ____ Line 10 if an Emergency Radioactive release is in progress, check box C otherwise check box A.
E. ____ Line 14 enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP
F. ____ Line 15 indicated the PARs required for this declaration, by selecting the down wind zones in lines C and D1 or D2. Use line E as appropriate. For example list PARs beyond 10 miles.
G. ____ Line 16 the Emergency Director must sign this form.
H. ____ Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state and local agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co Time_____Name_____Acknowledged☐
GEMA **OR** Early County Time_____Name_____Acknowledged☐
If Alabama Radiation Control is at the FEOC in Houston County then Houston County is not required to be notified.
Houston County Time_____Name_____Acknowledged☐
If GEMA is at the FEOC in Early County then Early County is not required to be notified.
Early County Time_____Name_____Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____Name_____Acknowledged☐

I. ____ Proceed to the following page for the REMAINING NOTIFICATIONS at step J.

GUIDELINE 1
GENERAL EMERGENCY
RED VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a GENERAL EMERGENCY RED initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a GENERAL EMERGENCY, RED initial notification message with acknowledgment",** then slowly read the GE initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order	**GEORGIA State Agencies In preferred order**
Alabama Radiation Control at Montgomery EOC ENN (1305), OPX (6628), phone (334-242-4378) FAX (334-264-4396) **State Troopers in Montgomery** ENN (1303), phone (334-242-4378, 4379) **Alabama Radiation Control at Alabama Forward EOC** ENN (1307), OPX 6621), phone (334-793-1565) FAX (8-257-1535) **HOUSTON COUNTY** ENN(1307), OPX (6621), FAX(8-257-1535) phone (334-794-9720, 793-9655, 334-677-4807, 4808)	**GEMA at Atlanta EOC** ENN (1304), OPX (6629), Phone (404-635-7200) FAX (404-627-4850) **GEMA at Georgia Forward EOC** ENN (1308) OPX (6626) phone (229-723-4826) FAX (8-257-2455) **EARLY COUNTY** ENN(1308) OPX (6622)FAX(8-276-4655) phone(229-723-3577, 3578, 4826)
AEMA COURTESY NOTIFICATION ENN (1306)	**FLORIDA State Agency** **Florida Department of Emergency Management** phone (800-320-0519) (850-413- 9911) FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

J.____Fax a copy of the previous page GENERAL EMERGENCY RED VERBAL NOTIFICATION FORM to the State of Florida, EOF and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

K.____Verify the state of Florida has received the FAX using the numbers listed in the table above.

L.____Complete Figure 6, side 1, follow-up message as soon as possible.

M.____Fax Figure 6, side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

N.____Provide the information on Figure 6, side 1, to the NRC as soon as possible, but within one hour of the declaration per the instructions on Figure 6, side 2.

GUIDELINE 2
SITE AREA EMERGENCY
ORANGE VERBAL NOTIFICATION FORM

1. [A] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification:
   [X] Site Area Emergency
6. [X] Emergency Declaration At: Time/Date _____ (central) ____/____/____ MM DD YY
7. Emergency Classification criteria: ☐ S1.1 ☐ S1.2 ☐ S2.1 ☐ S2.2 ☐ S3.1 ☐ S3.2
   ☐ S3.3 ☐ S3.4 ☐ S4.1 ☐ S4.2 ☐ S5.1 ☐ S5.2 ☐ S6.1 ☐ S6.2 ☐ S6.3
   ☐ S7.1 ☐ S7.2 ☐ S7.3 ☐ S7.4 ☐ S7.5 ☐ S7.6 ☐ S7.7 ☐ S8.1 ☐ S8.2
   Failed Barriers: ☐ RCS ☐ Containment ☐ Fuel Clad ☐ none ☐ Heat Removal Sys Inadequate
10. Emergency Releases: [A] None [C] Is Occurring
14. Meteorological Data [A] Wind Direction (from) _____ [B] Speed(mph) _____ [C] ΔT _____
15. Recommended Actions:
   [A] There are no recommended protective actions.
   [C] Evacuate and control access in down wind zones
   ☐ A-2 ☐ B-5 ☐ C-5 ☐ D5 ☐ E-5 ☐ F-5 ☐ I-5 ☐ J-5 ☐ K-5
   [D1] Shelter and control access in down wind zones ***OR*** [D2] Evacuate and control access in down wind zones
   ☐ B-10 ☐ C-10 ☐ D-10 ☐ E-10 ☐ F-10 ☐ G-10 ☐ H-10 ☐ I-10 ☐ J-10 ☐ K-10
   AND In all affected areas: Monitor environmental radiation levels, located and evacuate hot spots and implement control and possible confiscation of food and water supplies and consider evacuation of children and pregnant women.
   [E] Other _____
16. Approved By: _____ (Name) Emergency Director (Title)

A._____Line 1 check box A or B.
B._____Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1._____Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2._____Check all failed barriers or none, check heat removal inadequate if appropriate.
C3._____If more information is required, list it on a separate page, read it over the ENN when line 7 is read.
D._____Line 10 if an Emergency Radioactive release is in progress, check box C otherwise check box A.
E._____Line 14-enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP.
F._____Line 15 indicated the PARs required for this declaration, (normally 15A, none for SAE). If PARs are required, indicate by selecting the down wind zones in lines C and D1 or D2. Use line E if necessary.
G._____Line 16, the Emergency Director must sign this form.
H._____Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co. Time_____Name_____Acknowledged☐
GEMA **OR** Early County Time_____Name_____Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____Name_____Acknowledged☐

I._____Proceed to the following page for the REMAINING NOTIFICATIONS at step J.

GUIDELINE 2
SITE AREA EMERGENCY
ORANGE VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a SITE AREA EMERGENCY ORANGE initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a SITE AREA EMERGENCY ORANGE initial notification message with acknowledgment"**, then slowly read the SAE initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order

Alabama Radiation Control at Montgomery EOC
ENN (1305), OPX (6628), phone (334-242-4378)
FAX (334-264-4396)

State Troopers in Montgomery
ENN (1303), phone (334-242-4378, 4379)

Alabama Radiation Control at Alabama Forward EOC
ENN (1307), OPX 6621), phone (334-793-1565)
FAX (8-257-1535)

HOUSTON COUNTY
ENN(1307), OPX (6621),
FAX(8-257-1535)
phone (334-794-9720, 793-9655, 334-677-4807, 4808)

AEMA COURTESY NOTIFICATION
ENN (1306)

GEORGIA State Agencies In preferred order

GEMA at Atlanta EOC
ENN (1304), OPX (6629), Phone (404-635-7200)
FAX (404-627-4850)

GEMA at Georgia Forward EOC
ENN (22) OPX (6626) phone (229-723-4826)
FAX (8-257-2455)

EARLY COUNTY
ENN(1308) ENN(41) OPX (6622)FAX(8-276-4655)
phone(229-723-3577, 3578, 4826)

FLORIDA State Agency

Florida Department of Emergency Management
phone (800-320-0519) (850-413- 9911)
FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

J_____Fax a copy of the previous page SITE AREA EMERGENCY, ORANGE VERBAL NOTIFICATION FORM to the State of Florida, EOF and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

K_____Verify the State of Florida has received the FAX using the numbers listed in the table above.

L_____Complete Figure 6, side 1, follow-up message as soon as possible.

M_____Fax Figure 6, side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

N_____Provide the information on Figure 6, side 1 to the NRC as soon as possible but within one hour of the declaration per the instructions on Figure 6, side 2.

GUIDELINE 3
ALERT
YELLOW VERBAL NOTIFICATION FORM

1. [A] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification:
   [X] Alert
6. [X] Emergency Declaration At: Time/Date _____ (central) ____/____/____ MM DD YY
7. Emergency Classification criteria:
   ☐ A1.1 ☐ A1.2 ☐ A2.1 ☐ A2.2 ☐ A2.3 ☐ A3.1
   ☐ A3.2 ☐ A4.1 ☐ A4.2 ☐ A4.3 ☐ A4.4 ☐ A4.5 ☐ A4.6 ☐ A5.1 ☐ A5.2
   ☐ A5.3 ☐ A5.4 ☐ A5.5 ☐ A6.1 ☐ A6.2 ☐ A6.3 ☐ A7.1 ☐ A7.2 ☐ A7.3
   ☐ A7.4 ☐ A7.5 ☐ A7.6 ☐ A7.7 ☐ A7.8 ☐ A8.1 ☐ A 8.2
   Failed Barriers: ☐RCS ☐Containment ☐Fuel Clad ☐none ☐Heat Removal Sys Inadequate
10. Emergency Releases: [A] None [C] Is Occurring
14. Meteorological Data [A] Wind Direction (from) _____ [B] Speed(mph) _____ [C] ΔT _____
15. Recommended Actions:
    [X] There are no recommended protective actions.

16. Approved By: _____ Emergency Director
    (Name) (Title)

A. ____ Line 1 check box A or B.
B. ____ Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1. ____ Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2. ____ Check all failed barriers or none; check heat removal inadequate if appropriate.
C3. ____ If more information is required, list it on a separate page; read it over the ENN when line 7 is read.
D. ____ Line 10 if an Emergency Radioactive release is in progress check box C otherwise check box A
E. ____ Line 14-enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP.
F. ____ Line 16, the Emergency Director must sign this form.
G. ____ Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co. Time_____Name_____Acknowledged☐
GEMA **OR** Early County Time_____Name_____Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____Name_____Acknowledged☐

H. ____ Proceed to the following page for the REMAINING NOTIFICATIONS at step I.

GUIDELINE 3
ALERT
YELLOW VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a ALERT YELLOW initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a ALERT YELLOW initial notification message with acknowledgment"**, then slowly read the Alert initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order	**GEORGIA State Agencies In preferred order**
Alabama Radiation Control at Montgomery EOC ENN (1305), OPX (6628), phone (334-242-4378) FAX (334-264-4396) **State Troopers in Montgomery** ENN (1303), phone (334-242-4378, 4379) **Alabama Radiation Control at Alabama Forward EOC** ENN (1307), OPX 6621), phone (334-793-1565) FAX (8-257-1535) **HOUSTON COUNTY** ENN(1307), OPX (6621), FAX(8-257-1535) phone (334-794-9720, 793-9655, 334-677-4807, 4808)	**GEMA at Atlanta EOC** ENN (1304), OPX (6629), Phone (404-635-7200) FAX (404-627-4850) **GEMA at Georgia Forward EOC** ENN (22) OPX (6626) phone (229-723-4826) FAX (8-257-2455) **EARLY COUNTY** ENN(1308) ENN(41) OPX (6622)FAX(8-257-2455) phone(229-723-3577, 3578, 4826)
AEMA COURTESY NOTIFICATION ENN (1306)	**FLORIDA State Agency** **Florida Department of Emergency Management** phone (800-320-0519) (850-413- 9911) FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

I_____Fax a copy of the previous page ALERT YELLOW VERBAL NOTIFICATION FORM to the State of Florida, EOF, and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

J_____Verify the State of Florida has received the FAX using the numbers listed in the table above.

K_____Complete Figure 6, side 1, follow-up message as soon as possible.

L_____Fax Figure 6 side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

M____Provide the information on Figure 6, side 1, to the NRC as soon as possible, but within one hour of the declaration per the instructions on Figure 6, side 2.

GUIDELINE 4
NOTIFICATION OF UNUSUAL EVENT
BLUE VERBAL NOTIFICATION FORM

1. [A] This is a Drill [B] Actual Emergency [X] Initial
2. Site: Farley Nuclear Plant
3. Confirmation Phone Numbers: (334)899-5156 or (334)794-0800 Ext. 4662 or 4663
5. Emergency Classification:
   [X] Notification Of Unusual Event
6. [X] Emergency Declaration At: Time/Date _____ (central) _____/_____/_____ MM DD YY
7. Emergency Classification criteria:
   ☐ N1.1 ☐ N1.2 ☐ N1.3 ☐ N1.4 ☐ N2.1 ☐ N2.2
   ☐ N2.3 ☐ N3.1 ☐ N3.2 ☐ N3.3 ☐ N4.1 ☐ N4.2 ☐ N4.3 ☐ N4.4 ☐ N4.5
   ☐ N5.1 ☐ N6.1 ☐ N6.2 ☐ N7.1 ☐ N7.2 ☐ N7.3 ☐ N7.4 ☐ N7.5 ☐ N7.6
   ☐ N7.7 ☐ N7.8 ☐ N7.9 ☐ N7.10 ☐ N8.1
   Failed Barriers: ☐RCS ☐Containment ☐Fuel Clad ☐none ☐Heat Removal Sys Inadequate
10 Emergency Releases: [A] None [C] Is Occurring
14. Meteorological Data [A] Wind Direction (from) _____ [B] Speed(mph) _____ [C] ΔT _____
15 Recommended Actions:
   [X] There are no recommended protective actions.

16. Approved By: _____ (Name) Emergency Director (Title)

A._____Line 1 check box A or B.
B._____Line 6 fill in the declaration time/date (time that you evaluated the condition in procedure).
C1._____Line 7 check the box(es) for the criteria requiring this emergency classification (only one required).
C2._____Check all failed barriers or none; check heat removal inadequate if appropriate.
C3._____If more information is required, list it on a separate page; read it over the ENN when line 7 is read.
D._____Line 10 if an Emergency Radioactive release is in progress, check box C; otherwise, check box A.
E._____Line 14-enter the current met data (35 foot elevation preferred) from PPC (ERDS) or the BOP.
F._____Line 16, the Emergency Director must sign this form.
G._____Within 15 minutes of declaration time, using the ENN (instructions on following page), contact the state agencies listed below. Enter below the time of the attempted initial ENN contact (transmission time). Enter below the name of the person contacted once obtained. Check the acknowledged box when receipt of message is acknowledged. The table on the next page lists methods of contact.

Alabama Radiation Control **OR** State Troopers
OR Houston Co. Time_____Name_____Acknowledged☐
GEMA **OR** Early County Time_____Name_____Acknowledged☐
If AEMA is not on the ENN, they are not required to be notified.
AEMA Time_____Name_____Acknowledged☐
H._____Proceed to the following page for the REMAINING NOTIFICATIONS at step I.

GUIDELINE 4
NOTIFICATION OF UNUSUAL EVENT
BLUE VERBAL NOTIFICATION FORM

SOUTHERN LINC ENN INSTRUCTIONS FOR INITIAL NOTIFICATION

1. Press group pushbutton, verify display shows WIDE AREA, FEP ENN. Correct per step 6 below if necessary. Pickup handset or leave in cradle, press to talk (PTT), wait for the chirp and announce **"This is name/title at Farley Nuclear Plant. Please obtain a Notification of Unusual Event BLUE initial notification form and monitor the ENN."** Release the PTT.
2. PTT and request a state level agency (see NOTIFICATION MEANS table below) for Alabama and Georgia, a county level agency for Houston County (not required IF Alabama Radiation Control is at the FEOC) and Early County (not required if GEMA at the FEOC), and AEMA acknowledge manning of the ENN per step H on the previous page. Example **"Alabama Radiation Control at Montgomery EOC are you on the line?"** Release the PTT after each request to allow the party to answer
3. PTT and announce on the ENN **"Please prepare to receive a Notification of Unusual Event BLUE initial notification message with acknowledgment"**, then slowly read the Notification of Unusual Event initial notification form over the ENN. Release the PTT after reading two or three lines to allow individuals to respond.
4. Have the agencies contacted above, acknowledge receipt of the message and fill in the checkbox on previous page when they do.
5. If any required agency could not be contacted on the ENN, then use numbers listed below or in FNP-0-EIP-8.3 to contact them by any available means as soon as possible.
6. If the display does not show "WIDE AREA, FEP ENN" when group is pressed, press the button with the square until the top line is indicated, then press the arrow buttons until "WIDE AREA" is displayed, then press the button under OK. Press the button with the square until the second line is indicated then press the arrow buttons until "FEP ENN" is displayed, then press the button under OK

NOTIFICATION MEANS (underlined numbers are available 24 hours a day)

ALABAMA State Agencies In preferred order	**GEORGIA State Agencies In preferred order**
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AEMA COURTESY NOTIFICATION ENN (1306)	**FLORIDA State Agency** **Florida Department of Emergency Management** phone (800-320-0519) (850-413- 9911) FAX (850-488-7841)

REMAINING NOTIFICATIONS (continued from previous page)

I_____Fax a copy of the previous page NOUE BLUE VERBAL NOTIFICATION FORM to the State of Florida, EOF, and EOC using speed dial #10 or an alternative method of contact that is listed in the table above.

J_____Verify the State of Florida has received the FAX using the numbers listed in the table above.

K_____Complete Figure 6, side 1, follow-up message as soon as possible.

L_____Fax Figure 6, side 1, to state and local agencies as soon as possible, but within 30 minutes of the verbal notification per the instructions on Figure 6, side 2.

M_____Provide the information on Figure 6, side 1, to the NRC as soon as possible, but within one hour of the declaration per the instructions on Figure 6, side 2.

4.0 Classify emergency based on the most severe plant conditions OR projected off-site dose/dose rate conditions, WHICHEVER results in the higher emergency classification. Figure 2 provides a flowpath for dose assessment methods and plant conditions criteria.

4.1 Plant Conditions

While performing the remainder of step 4.1, have the On Shift Dose Analyst commence performing the calculations for dose assessment per step 4.2. Use the following guidelines to determine the highest indicated emergency classification based on plant conditions:

Guideline 1, Section I, General Emergency Classification Criteria

Guideline 2, Section I, Site Area Emergency Classification Criteria

Guideline 3, Section I, Alert Criteria

Guideline 4, Section I, NOUE Criteria

4.2 Dose Assessment

CAUTION: DOSE CALCULATIONS FROM EIP-9.1 OR EIP-9.3 ARE NOT TO BE USED TO DECLARE A NOUE OR ALERT SINCE EIP-9.1 AND EIP-9.3 ARE BASED ON EDCM METHODOLOGY, AND NOUE AND ALERT LIMITS ARE BASED ON ODCM METHODOLOGY.

NOTE: Due to the differences in the met data used for EDCM and ODCM calculations, the following sequence of step 4.2 substeps must be followed. The Top Down approach must be used for dose assessment.

NOTE: EDCM dose assessment can only be done from an ERDS terminal or a MIDAS terminal. The only location in the power block where these terminals are available is in the TSC.

NOTE: All of the step 4.2 substeps will normally be accomplished by the On Shift Dose Analyst with the exception of steps 4.2.8 and 4.2.11. Steps 4.2.8 and 4.2.11 must be performed by the Shift Supervisor, Operations Shift Superintendent, or Emergency Director.

4.2.1 Initial evaluation of off-site dose.

The On Shift Dose Analyst when asked to perform dose assessment should initially evaluate effluent monitors (R-14, R-21, R-22, R-29, an R-60 series or an R-15 series) as follows: