Draft Submittal

VOGTLE EXAM 2002-301
50-424 AND 50-425

NOVEMBER 26, &
DECEMBER 2 - 13, 2002

1. Administrative Questions/JPMs
2. In-plant JPMs
3. Control Room JPMs (simulator JPMs)
4. Administrative Topics Outline ES-301-1
5. Control Room Systems and Facility Walk-Through Test Outline ES-301-2

Facility: Vogtle Date of Examination: 12/02/02

Examination Level (circle one): RO Operating Test Number: DRAFT

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	CONDUCT OF OPERATIONS	Calculate QPTR (LO-JP-14915-001)
	CONDUCT OF OPERATIONS	Calculate Boron needed for Stuck Rod
A.2	EQUIPMENT CONTROL	Review Tagout for maintenance
A.3	RADIATION CONTROL	Given a Survey Map, Calculate Stay Time for Entry in an Emergency
A.4	EMERGENCY PLAN	Make Emergency Notifications with Failure of the ENN (RQ-JP-91002-002)

Facility: Vogtle Date of Examination: 12/02/02

Examination Level (circle one): ISRO/ USRO Operating Test Number: DRAFT

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	CONDUCT OF OPERATIONS	Calculate Shutdown Margin
	CONDUCT OF OPERATIONS	Calculate Boron needed for Stuck Rod
A.2	EQUIPMENT CONTROL	Review Tagout for Maintenance
A.3	RADIATION CONTROL	Question Topic - License Requirements for Conducting a Waste Release with Inoperable Instrumentation and Administrative Controls Ensuring Requirements Met.
		Question Topic - Selection Process for Individuals Performing Emergency Entries into Radiation Fields Resulting in Exceeding Permissible Exposure Limits.
A.4	EMERGENCY PLAN	Perform an Emergency Action Level Classification and Recommend Protective Actions

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

LO-JP-14915-0017301-002-01A

CALCULATE QUADRANT POWER TILT RATIO

Revision ~~1~~2

~~March 3, 1998~~October 10, 2000

Written By : ~~George Gunn~~M. C. Henry Date: ~~3/3/98~~10/10/2000

Approved By : ~~Leon Ray~~XXXXXXXXXR. D. Brigdon Date: ~~3/3/98~~10~~xx~~/10~~xx~~/2000

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	The unit is at 100% power.
Assigned Task:	The USS has directed you to "Perform a QPTR Calculation using 14915, Special Conditions Surveillance Logs."

Task Standard:	Quadrant Power Tilt Ratio calculated.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___/___/___

JPM TITLE: Calculate Quadrant Power Tilt Ratio

REVISION: ~~1~~2 ~~March 3, 1998~~October 10, 2000

COMPLETION TIME: 8 minutes

This JPM is to be used for Initial License Exam Only

Application: RO/SRO
Task Number: 17007
K/A Number: 015000A104 RO: 3.5 SRO: 3.7
10CFR55.45 Ref.:

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

This JPM is based on the latest rev of 14915-1 . Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to examinee during performance of this JPM. This JPM provides data for two different conclusions (QPTR> or< 1.02).

REQUIRED ITEMS:

1. 14915, Special Conditions Surveillance Logs
2. Plant Technical Data Book

SIMULATOR SETUP:

1. Reset to IC19
2. Freeze simulator

The simulator should remain in FREEZE during the performance of this JPM.

Setup time: 3 minutes

This JPM is based on Unit 1 ~~Cycle 8~~Current Cycle. The Unit 1 PTDB Normalization Factors should be used to calculate the QPTR. To ensure examination consistency, once the examinee demonstrates the ability to determine detector current output, the attachment provided should be used to calculate the QPTR.

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: The unit is at 100% power.

ASSIGNED TASK: The USS has directed you to "Perform a QPTR Calculation using 14915, Special Conditions Surveillance Logs."

TASK STANDARD: Quadrant Power Tilt Ratio calculated.

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Record Detector Current Values

Note: The examiner must review the "Instructions to Examiner" section on page 4 of this JPM prior to administration. The examinee must demonstrate the ability to determine detector current output in order to consider this step SAT.

☐ ♦ Upper detector currents recorded
☐ ♦ Lower detector currents recorded

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Determine QPTR

*Note: If this JPM is being PERFORMED, ensure the **Unit 1 PTDB Normalization Factors** are used. The attachment should be provided to the examinee for performance of this step.*

☐ • Upper detector currents normalized (see note above)
☐ • Average upper detector current calculated
☐ ♦ Upper detector QPTR determined to be < 1.02
☐ • Lower detector currents normalized (see note above)
☐ • Average lower detector current calculated
☐ ♦ Lower detector QPTR determined to be > 1.02

STEP 3
SAT ☐ UNSAT ☐

Report to USS

☐ • Lower detector QPTR is > 1.02

STOP TIME: _____

Field Notes

NI Channel	Detector	Current
N41	A	424 mA
N42	A	380 mA
N43	A	450 mA
N44	A	415 mA
N41	B	445 mA
N42	B	414 mA
N43	B	463 mA
N44	B	435 mA

New Numbers

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PLANT VOGTLE

NRC-JP-19001

Calculate Boron Addition Following Reactor Trip With 3 Stuck Control Rods

October 04,2002
Rev #0

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: Given the Following Conditions/Events on Unit 1:

Automatic Reactor Trip due to Main Turbine Trip

- **EOL**
- **RCS Boron Concentration is at 200 ppm**
- **BAST Boron Concentration is 7100 ppm**
- **RCS is at 2235 psig and 557 degrees F.**

On step 1 of 19000-C the following conditions are observed:

- **Reactor Trip Breakers are open**
- **Power Range NI's indicate 0%**
- **DRPI indicates that 3 rod failed to fully insert**
- **The RO actuates both the QMCB Reactor Trip Handswitches and announces the Reactor Tripped**
- **The Operating Crew has entered 19001-C to stablize the plant**
- **On Step 3 on 19001-C the USS checks all "FULLY INSERTED"**

Assigned Task: How many gallons of boric acid must be added to the RCS under the stated conditions?

Task Standard: Boron addition Calculated.

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE Calculate Boron Addition Following Reactor Trip With 3 Stuck Control Rods

REVISION: 0 Date: October 04, 2002

COMPLETION TIME: 15 minutes

Application: RO

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

_____

0VERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

_____

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on latest revision of 19001-C. If this revision is no longer current, verify this JPM is in accord with the latest procedural revision. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable.

REQUIRED ITEMS:

1. Calculator
2. PTDB (Plant Technical Data Book)
3. 19001-C

Direction To Operator:

Initial Conditions: Given the Following Conditions/Events on Unit 1:

Automatic Reactor Trip due to Main Turbine Trip

- EOL
- RCS Boron Concentration is at 200 ppm
- BAST Boron Concentration is 7100 ppm
- RCS is at 2235 psig and 557 degrees F.

On step 1 of 19000-C the following conditions are observed:

- Reactor Trip Breakers are open
- Power Range NI's indicate 0%
- DRPI indicates that 3 rod failed to fully insert
- The RO actuates both the QMCB Reactor Trip Handswitches and announces the Reactor Tripped
- The Operating Crew has entered 19001-C to stablize the plant
- On Step 3 on 19001-C the USS checks all "FULLY INSERTED"

Assigned Task: How many gallons of boric acid must be added to the RCS under the stated conditions?

Task Standard: Boron addition Calculated.

START TIME: _____

STEP 1

CRITICAL (♦)

SAT ☐ ✍ **UNSAT** ☐ ✍

Boron Addition to the RCS calculated

✍☐ ♦ 4252 (+ or – 50) gallons of boric acid added to the RCS

STOP TIME: _____

Field Notes

Calculation:

(154 ppm) X (3 Rods) = 462 ppm

RCS Boron Concentration = 61346 X Ln (7100 - 200 / 7100 – 662) = 4252 gallons of Boric Acid

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PLANT VOGTLE

NRC-JP-00304

Review Clearance for
Containment Spray Pump Train "A"

October 04,2002
Rev #0

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:

- **Unit 1 is at 100% Reactor Power on 10/04/02**
- **A planned outage for Containment Spray Pump Train "A" to replace the pump seals is to be installed on 10/05/02**
- **The scope of the work requires that the motor be electrically isolated and the pump drained.**
- **NSCW cooling water to the pump is NOT required to be tagged as part of the boundary**
- **The LCO has been written and will be entered when the clearance is authorized by the USS**

Assigned Task: **Verify clearance hold points for Containment Spray Pump Train "A" are correct.**

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Review Clearance for Containment Spray Pump Train "A"

REVISION: 0 Date: October 04, 2002

COMPLETION TIME: 30 minutes

Application: RO/SRO

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

0VERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest revision of 00304-C. If this revision is no longer current, verify this JPM is in accord with the latest procedural revision. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable.

REQUIRED ITEMS:

1. **Current revision of 00304-C**

Direction To Operator:

Initial Conditions:

- **Unit 1 is at 100% Reactor Power on 10/04/02**
- **A planned outage for Containment Spray Pump Train "A" to replace the pump seals is to be installed on 10/05/02**
- **The scope of the work requires that the motor be electrically isolated and the pump drained.**
- **NSCW cooling water to the pump is NOT required to be tagged as part of the boundary**
- **The LCO has been written and will be entered when the clearance is authorized by the USS**

Assigned Task: **Verify clearance hold points for Containment Spray Pump Train "A" are correct.**

START TIME: _____

STEP 1

CRITICAL (♦)

SAT ☐ **UNSAT** ☐

Containment Spray Pump Train "A" clearance review

☐ ♦ Errors on clearance identified.

STOP TIME: _____

Field Notes

CLEARANCE SHEET

I. Clearance # 10210011	Equipment Number: 1-1206-P6-001
Equipment Description: CONTAINMENT SPRAY PUMP TRAIN "A"	
Reason For Clearance (include WO No.): Replace pump seals (1-02-111)	

Additional WOs:			

Requested by: Al Sweat	Extension: 3963	Beeper: 111

Requires LCO: ☒ Yes ☐ No	Locked Valves: ☒ Yes ☐ No	Fire Protection Impaired: ☐ Yes ☒ No	IV Required: ☒ Yes ☐ No
Prepared by: Al Sweat	Date: 10/04/02	Reviewed by:	Date:
Authorized by:		Date:	Time:
Installed by:		Date:	Time:
Verified by:		Date:	Time:

SUBCLEARANCES

NAME Printed in first space Signature in second space					GROUNDING DEVICES VERIFIED REMOVED AND SUBCLEARANCE RELEASED BY:		
PRINT AND SIGNATURE	WORK DOC	EXT.	DATE	TIME	SIGNATURE	DATE	TIME
1.							
2.							
3.							
4.							
5.							

COMMENTS:

NSCW cooling line not required to be tagged out for this work.

Front

Clearance # 10210011	Prepared by: AL SWEAT

EQUIPMENT TO BE CLEARED AND TAGGED 1-1206-P6-001					TAGS TO BE REMOVED AND EQUIPMENT RETURNED TO SERVICE AS SPECIFIED			
TAG #	EQUIPMENT #	TAGGED POSITION	INIT	IV INIT	RESTORE SEQ	RESTORE POSITION	INIT	IV INIT
01	1HS-10940	PTL						
Containment Spray Train "A" QMCB Control Handswitch								
02	1AA02-15	Disconnect						
Supply Breaker to Containment Spray Train "A" Pump								
03	2HS-9003A	CL/Normal						
Pump Discharge Isolation Motor Operated Valve from Containment Sump								
04	1HS-9001A	CL/AUTO						
Pump Discharge Isolation Motor Operated Valve								
05	1HS-9017A	CL/Normal						
Pump Discharge Isolation Motor Operated Valve from RWST								
06	1ABD-30	OFF						
1HS-9003A feeder breaker								
07	1ABD-48	OFF						
1HS-9001A feeder breaker								
08	1ABD-41	OFF						
1HS-9017A feeder breaker								
09	1ABD30W-K2	OPEN						
Alarm relay								
10	1ABD48W-K2	OPEN						
Alarm Relay								
11	1ABD41W-K2	OPEN						
Alarm Relay								
12	1AYE1-34	OFF						
1-1206-P6-001 Motor Space Heater								
13	1HV-9003A	Closed						
Pump Discharge Isolation Motor Operated Valve from Containment Sump Handwheel								

Clearance # 10210011	Prepared by: Al Sweat

EQUIPMENT TO BE CLEARED AND TAGGED 1-1206-P6-001					TAGS TO BE REMOVED AND EQUIPMENT RETURNED TO SERVICE AS SPECIFIED			
TAG #	EQUIPMENT #	TAGGED POSITION	INIT	IV INIT	RESTORE SEQ	RESTORE POSITION	INIT	IV INIT
14	1HV-9001A	Closed						
Pump Discharge Isolation Motor Operated Valve Handwheel								
15	1HV-9017A	Closed						
Pump Discharge Isolation Motor Operated Valve from RWST Handwheel								
16	1-1206-U4-115	Closed						
1HV-9003A bypass line isolation valve								
17	1-1206-U4-034	Closed						
Spray eductor manual isolation valve (Normally Locked Closed)								
18	1-1206-U4-109	Open						
Containment Spray Train "A" Pump casing drain								
19	1-1206-U4-112	Open						
Containment Spray Train "A" Pump suction line drain								
20	1-1206-X4-108	Uncap/ Open						
Containment Spray Train "A" Pump Discharge line vent								
21	1-1206-U4-108	Unflange/ Open						
Containment Spray Train "A" Pump casing vent								

Clearance #	Prepared by:
10210011	Al Sweat

TECH SPEC #	LCO #	SI #	
3.6.6	1-02-111		P&ID
			MECH
			ELEM
			ELEC
			CONN

ADDITIONAL WOs

REFERENCES:

CLEARANCE REMOVAL:		
Authorized by:	Date:	Time:
Removed by:	Date:	Time:
Verified by:	Date:	Time:

Extended Active Clearance Quarterly Audits:

DATE	INITIAL

DATE	INITIAL

DATE	INITIAL

DATE	INITIAL

CLEARANCE SHEET

1. Clearance # 10210011	Equipment Number: 1-1206-P6-001
Equipment Description: CONTAINMENT SPRAY PUMP TRAIN "A"	
Reason For Clearance (Include WO No.): Replace pump seals	
Additional WOs:	

Requested by: Al Sweat	Extension: 3963	Beeper: 111

Requires LCO: ☒ Yes ☐ No	Locked Valves: ☒ Yes ☐ No	Fire Protection Impaired: ☐ Yes ☒ No	IV Required: ☒ Yes ☐ No
Prepared by:	Date:	Reviewed by:	Date:
Authorized by:		Date:	Time:
Installed by:		Date:	Time:
Verified by:		Date:	Time:

SUBCLEARANCES

NAME Printed in first space Signature in second space					GROUNDING DEVICES VERIFIED REMOVED AND SUBCLEARANCE RELEASED BY:		
PRINT AND SIGNATURE	WORK DOC	EXT.	DATE	TIME	SIGNATURE	DATE	TIME
1.							
2.							
3.							
4.							
5.							

COMMENTS:

NSCW cooling line not required to be tagged out for this work.

Front

Clearance # 10210011	Prepared by: AL SWEAT

EQUIPMENT TO BE CLEARED AND TAGGED 1-1206-P6-001					TAGS TO BE REMOVED AND EQUIPMENT RETURNED TO SERVICE AS SPECIFIED			
TAG #	EQUIPMENT #	TAGGED POSITION	INIT	IV INIT	RESTORE SEQ	RESTORE POSITION	INIT	IV INIT
01	1HS-10940	PTL						
Containment Spray Train "A" QMCB Control Handswitch								
02	1AA02-14	Disconnect						
Supply Breaker to Containment Spray Train "A" Pump								
03	1HS-9003A (2HS-9003A)	CL/Normal						
Pump Discharge Isolation Motor Operated Valve from Containment Sump								
04	1HS-9001A	CL/AUTO						
Pump Discharge Isolation Motor Operated Valve								
05	1HS-9017A	CL/Normal						
Pump Discharge Isolation Motor Operated Valve from RWST								
06	1ABD-30	OFF						
1HS-9003A feeder breaker								
07	1ABD-48	OFF						
1HS-9001A feeder breaker								
08	1ABD-41	OFF						
1HS-9017A feeder breaker								
09	1ABD30W-K2	OPEN						
Alarm relay								
10	2ABD48W-K2	OPEN						
Alarm relay								
11	1ABD41W-K2	OPEN						
Alarm relay								
12	1AYE1-34	OFF						
1-1206-P6-001 Motor Space Heater								
13	1HV-9003A	Closed						
Pump Discharge Isolation Motor Operated Valve from Containment Sump Handwheel								

Clearance # 10210011	Prepared by: Al Sweat

EQUIPMENT TO BE CLEARED AND TAGGED 1-1206-P6-001					TAGS TO BE REMOVED AND EQUIPMENT RETURNED TO SERVICE AS SPECIFIED			
TAG #	EQUIPMENT #	TAGGED POSITION	INIT	IV INIT	RESTORE SEQ	RESTORE POSITION	INIT	IV INIT
14	1HV-9001A	Closed						
Pump Discharge Isolation Motor Operated Valve Handwheel								
15	1HV-9017A	Closed						
Pump Discharge Isolation Motor Operated Valve from RWST Handwheel								
16	1-1206-U4-115	Closed						
1HV-9003A bypass line isolation valve								
17	1-1206-U4-006	Closed						
Containment Spray Train "A" test line to RWST (Normally Locked Closed)								
18	1-1206-U4-034	Closed						
Spray eductor manual isolation valve (Normally Locked Closed)								
19	1-1206-U4-109	OPEN						
Containment Spray Train "A" Pump casing drain (Normally Locked Closed)								
20	1-1206-U4-112	Open						
Containment Spray Train "A" Pump suction line drain								
21	1-1206-X4-108	Uncap/ Open						
Containment Spray Train "A" Pump Discharge line vent								
22	1-1206-U4-108	Unflange/ Open						
Containment Spray Train "A" Pump casing vent								

Clearance #	Prepared by:
10210011	Al Sweat

TECH SPEC #	LCO #	SI #	
			P&ID
			MECH
			ELEM
			ELEC
			CONN

ADDITIONAL WOs

REFERENCES:

CLEARANCE REMOVAL:		
Authorized by:	Date:	Time:
Removed by:	Date:	Time:
Verified by:	Date:	Time:

Extended Active Clearance Quarterly Audits:

DATE	INITIAL

DATE	INITIAL

DATE	INITIAL

DATE	INITIAL

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NRC-JP-00920

CALCULATE WORKER DOSE USING SURVEY MAPS

October 04,2002
Rev #0

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS:

- **Unit 1 in MODE 5 for refueling outage.**
- **The Operating Crew has entered 18019-C "Loss of RHR" Section "B"**
- **The Auxiliary Building System Operator has been dispatched to shut 1-1205-U4-027 "RHR Recirculation to RWST isolation Valve"**

Assigned Task: **Given that Auxiliary Building System Operator is required to:**

- **Remain in the area for 15 minutes to shut 1-1205-U4-027**
- **enter the area receiving 10 mrem TEDE dose**
- **exit the area receiving 10 mrem TEDE dose**

Using the Radiological Information Survey Map provided calculate the "TOTAL" dose the Auxiliary Building System Operator has received following the task ("including" the dose received during entry and exiting the Train "A" RHR Pump Room).

TASK STANDARD: **Auxiliary Building System Operator TOTAL TEDE DOSE CALCULATED.**

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: CALCULATE WORKER DOSE USING SURVEY MAPS

COMPLETION TIME: 20 minutes

Application: RO/SRO

Task Number:

K/A Number:

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS:

- **Unit 1 in MODE 5 for refueling outage.**
- **The Operating Crew has entered 18019-C "Loss of RHR" Section "B"**
- **The Auxiliary Building System Operator has been dispatched to shut 1-1205-U4-027 "RHR Recirculation to RWST isolation Valve"**

Assigned Task: **Given that Auxiliary Building System Operator is required to:**

- **Remain in the area for 15 minutes to shut 1-1205-U4-027**
- **enter the area receiving 10 mrem TEDE dose**
- **exit the area receiving 10 mrem TEDE dose**

Using the Radiological Information Survey Map provided calculate the "TOTAL" dose the Auxiliary Building System Operator has received following the task ("including" the dose received during entry and exiting the Train "A" RHR Pump Room).

TASK STANDARD: **Auxiliary Building System Operator TOTAL TEDE DOSE CALCULATED.**

START TIME: _____

STEP 1

SAT ☐ ***UNSAT*** ☐

(300 mrem/hr) (1hr/60min) (15 min) = 75 mrem + 20 mrem = 95 mrem

Stop Time _____

Field Notes

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-14005

CALCULATE SHUTDOWN MARGIN – FOLLOWING PLANT TRIP

Revision 0

November 14, 2002

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: Reactor tripped from 100% power, the unit is currently in mode 3 at 557 degrees F.

- The reactor shutdown 2 hours ago
- Power history prior to trip 100% for 200 days
- Cycle Burnup 10,500 MWD/MTU
- Boron Concentration 1000 ppm
- Rod Height All Rods on Bottom 1 or 2 rods stuck out
- Axial Offset Correction 0 pcm
- RCP(s) running All 4 are in service

Assigned Task: The USS has directed you to calculate the shutdown margin for the current conditons using 14005-1. You should take credit for Xenon and Samarium present in the core.

Task Standard: Shutdown margin calculated.(Current)

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: CALCULATE SHUTDOWN MARGIN – FOLLOWING PLANT TRIP

REVISION: 06 November 14, 2000

COMPLETION TIME: 30 minutes

Application: SRO

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 14005-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:
1. **14005, Shutdown Margin and Keff Calculations**
2. **Plant Technical Data Book (Unit 1)**

SIMULATOR SETUP: **Performance of this JPM does not require the simulator.**

This JPM is based on Unit 1 Cycle 11 data.

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: **Reactor tripped from 100% power, the unit is currently in mode 3 at 557 degrees F.**

- **The reactor shutdown** — **2 hours ago**
- **Power history prior to trip** — **100% for 200 days**
- **Cycle Burnup** — **10,500 MWD/MTU**
- **Boron Concentration** — **1000 ppm**
- **Rod Height** — **All Rods on Bottom** ~ mestuckrod.
- **Axial Offset Correction** — **0 pcm**
- **RCP(s) running** — **All 4 are in service**

Assigned Task: **The USS has directed you to calculate the shutdown margin for the current conditons using 14005-1. You should take credit for Xenon and Samarium present in the core.**

Task Standard: **Shutdown margin calculated.(Current)**

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Select appropriate Data Sheet

☐ ♦ **Data Sheet 2 selected**
☐ • **Current conditions recorded**

STEP 2
SAT ☐ **UNSAT** ☐

Determine reactivity values using PTDB

☐ • **E.1 8835 pcm**
☐ • **E.2 1085 ppm**
☐ • **E.3 9530 pcm**
☐ • **E.4 0.88164**
☐ • **E.5 4117 pcm**
☐ • **E.6 1019 pcm**
☐ • **E.7 5136 pcm**
☐ • **E.8 4528 pcm**
☐ • **E.9 1112 pcm**
☐ • **E.10 0 pcm**
☐ • **E.11 0 pcm**
☐ • **E.12 3833 pcm**

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Determine Shutdown Margin

Note: Interpolation and rounding may result in values slightly different from those provided.

☐ ♦ **E. 13 Shutdown Margin of 3.83 (+ or – 0.1) % calculated**

STEP 4
SAT ☐ **UNSAT** ☐

Report to USS

☐ • **Shutdown margin calculation complete**

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-91001

CLASSIFY AN EMERGENCY EVENT – SITE AREA

Revision 0

October 04, 2002

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: **The following is the sequence of events as they occurred on Unit 1:**

1. **The Operating Crew has entered 19231-C "LOSS OF SECONDARY HEAT SINK" following a Reactor Trip**
2. **The RCS is currently in Feed & Bleed with the following conditions:**
   - **Core Exits TC's 511 degrees F. and lowering**
   - **Hot leg temperatures 502 degrees and lowering**
   - **RCP's are stopped**
   - **Pressurizer level is 100%**
3. **The Crew is preparing to feed Steam Generator #3 with Condensate**

Assigned Task: **You have been directed to "Determine the HIGHEST emergency classification level based on events which are in progress, considering past events, and their impact on the current plant conditions".**

Task Standard: **Emergency event classified.**

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Classify an Emergency Event – SITE AREA

REVISION: 0

COMPLETION TIME: 11 minutes

Application: SRO ONLY

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 91001-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS: 1. 91001-C, Emergency Classification and Implementing Instructions

SIMULATOR SETUP: None

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: The following is the sequence of events as they occurred on Unit 1:

3. The Operating Crew has entered 19231-C "LOSS OF SECONDARY HEAT SINK" following a Reactor Trip
4. The RCS is currently in Feed & Bleed with the following conditions:
   Core Exits TC's 511 degrees F. and lowering
   Hot leg temperatures 502 degrees and lowering
   RCP's are stopped
   Pressurizer level is 100%
3. The Crew is preparing to feed Steam Generator #3 with Condensate

Assigned Task: You have been directed to "Determine the HIGHEST emergency classification level based on events which are in progress, considering past events, and their impact on the current plant conditions".

TASK STANDARD: Emergency event classified.

JPM STEPS

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Classify the event

_____

_____

☐ • **Plant conditions evaluated**
☐ ♦ **Emergency event classified as a SITE AREA**

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-91305

IMPLEMENT OFFSITE PROTECTIVE ACTION RECOMMENDATIONS - PAR 1

Revision 0

October 04,2002

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	**Given the following Conditions/Events on Unit 1:** **- Reactor Trip following a Tornado striking the switchyard results in the loss Both RATs and the SAT** **- D/G 1B was tagged out prior to the event** **- SAT is also damaged during the event** **- D/G 1A starts then trips due failure of the shaft driven lube oil pump (Maintenance estimates 5 hours to repair)** **- RCS temperature @ 557 degrees F.** **- Emergency Director has declared a General Emergency** **- When direction is at 098 degrees**
Assigned Task:	**Based on the information given, determine the required Offsite Protective Action Recommendation(s).**

Task Standard:	**Offsite Protective Action Recommendation(s) correctly identified.**

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Implement Offsite Protective Action Recommendations - PAR 1

REVISION: 0 October 04,2002

COMPLETION TIME: 11 minutes

Application: SRO Only

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 91305-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS: 1. Procedure 91305-C, Protective Action Guidelines

SIMULATOR SETUP: Simulator not required for JPM performance

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: Given the following Conditions/Events on Unit 1:

- Reactor Trip following a Tornado striking the switchyard results in the loss Both RATs and the SAT
- D/G 1B was tagged out prior to the event
- SAT is also damaged during the event
- D/G 1A starts then trips due failure of the shaft driven lube oil pump (Maintenance estimates 5 hours to repair)
- RCS temperature @ 557 degrees F.
- Emergency Director has declared a General Emergency
- When direction is at 098 degrees

Assigned Task: given, determine the required Offsite Protective s).

Should Be Wind

TASK STANDARD: ecommendation(s) correctly identified.

JPM STEPS

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ UNSAT ☐

Determine correct Protective Action Recommendations

Note: Initial Emergency Classification is a seperate JPM therefore classification is not required and provided in the individual scenarios. In addition, notification forms are not required to be completed for performance of this JPM.

PAR 1:

☐ ♦ Evacuate zones A, C-5, D-5, E-5, F-5, SRS to 2 Miles
☐ ♦ Shelter remainder of 10 mile EPZ

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

NRC-JP-ODCM

LIQUID RELEASE WITH 1RE-0018 INOPERABLE

October 04,2002
Rev #0

INSTRUCTIONS TO EXAMINER

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS:

- **Unit 1 is at 100% Reactor Power**
- **The Auxiliary Building System Operator has just completed processing WMT #9 for release.**
- **1RE-0018 was declared INOPERABLE on the last shift.**

Assigned Task: **Under what conditions can this tank be released?**

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: LIQUID RELEASE WITH 1RE-0018 INOPERABLE

COMPLETION TIME: 20 minutes

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION [ ] SATISFACTORY [ ] UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS:

- Unit 1 is at 100% Reactor Power
- The Auxiliary Building System Operator has just completed processing WMT #9 for release.
- 1RE-0018 was declared INOPERABLE on the last shift.

Assigned Task: Under what conditions can this tank be released?

START TIME: _____

STEP 1

SAT ☐ ***UNSAT*** ☐

(1) At least Two independent samples are analyzed (2) At least two technically qualified members of the facility staff independently verify the discharge line valving and the release rate calculations.

Stop Time _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-91305

EMERGENCY EXPOSURE GUIDELINES
SRO ONLY

October 04,2002
Rev 0

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions: Given the following Conditions/Events on Unit 1:

- Major fuel damage occurred from a loose part in the RCS
- SGTR on S/G #1
- A General Emergency has been declared
- 1PV-3000, Loop #1 ARV has failed open

Assigned Task: HP has estimated that in the time it will take for a person to access the area and manually isolate the failed open ARV, they would receive 45 Rem (TEDE).

As the Emergency Director which of the following worker(s) would you select for the task?

1. 21 year old declared pregnant female, who is fully aware of the risks.
2. 45 year old male volunteer, who's lifetime exposure is 31 Rem, 27 Rem of which is classified as emergency exposure from a previous event.
3. ~~23~~ 33 year old female volunteer, who has been briefed on the task and fully aware of the risks.
4. ~~50~~ 55 year old male, non-volunteer, who has been briefed on the task and fully aware of the risks.
5. ~~40~~ 50 year old male volunteer, who due to experience could complete the task in the least amount of time and has only received 4 Rem emergency exposure during this event.

TASK STANDARD: DETERMINE WHICH WORKER(S) THE EMERGENCY DIRECTOR SHOULD SELECT TO PERFORM THE TASK.

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: EMERGENCY EXPOSURE GUIDELINES

COMPLETION TIME: 15 minutes

Application: SRO

Evaluation Method ( ) Performed ( ) Simulated

Evaluation Location ( ) Simulator ( ) Control Room ( ) Unit 1 ( ) Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION ( ) SATISFACTORY ( ) UNSATISFACTORY

Examiner Comments:

Examiner's Signature: _____

DIRECTIONS TO OPERATOR

Initial Conditions: Given the following Conditions/Events on Unit 1:

- Major fuel damage occurred from a loose part in the RCS
- SGTR on S/G #1
- A General Emergency has been declared
- 1PV-3000, Loop #1 ARV has failed open

Assigned Task: HP has estimated that in the time it will take for a person to access the area and manually isolate the failed open ARV, they would receive 45 Rem (TEDE).

As the Emergency Director which of the following worker(s) would you select for the tast?

1. 21 year old declared pregnant female, who is fully aware of the risks.
2. 45 year old male volunteer, who's lifetime exposure is 31 Rem, 27 Rem of which is classified as emergency exposure from a previous event.
3. 23 year old female volunteer, who has been briefed on the task and fully aware of the risks.
4. 50 year old male, non-volunteer, who has been briefed on the task and fully aware of the risks.
5. 40 year old male volunteer, who due to experience could complete the task in the least amount of time and has only received 4 Rem emergency exposure during this event.

TASK STANDARD: DETERMINE WHICH WORKER(S) THE EMERGENCY DIRECTOR SHOULD SELECT TO PERFORM THE TASK.

START TIME: _____

STEP 1

CRITICAL (♦)

SAT ☐ **UNSAT** ☐

Worker selected for task

_____

☐ ♦ **23 year old female volunteer, who has been briefed on the task and the risks.**

Stop Time _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

RQ-JP-~~40101-002-01B~~91002-002

MAKE EMERGENCY NOTIFICATIONS WITH FAILURE OF THE ENN

Revision ~~1~~2

~~August 16, 1996~~December 12, 2000

Written By : ~~George Gunn~~M. C. Henry Date: ~~08~~12/~~16~~12/~~96~~2000

Approved By : ~~Leon Ray~~~~XXXXXXXXX~~R. D. Brigdon Date: ~~08~~12/~~16xx/96~~200001/16/2001

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

THIS IS A TIME CRITICAL JPM

Initial Conditions:	An emergency has been declared and the Shift Superintendent has assumed the duties of the Emergency Director.
Assigned Task:	The Emergency Director has directed you to "Perform the duties of the ENN Communicator".

Task Standard:	Communications established, and the Emergency Notification form transmitted, to all State and Local authorities.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Make Emergency Notifications with Failure of the ENN

REVISION: ~~1~~2 ~~August 16, 1996~~December 12, 2000

COMPLETION TIME: **15 minutes** **TIME CRITICAL**

Application: RO / SRO
Task Number: 40003
K/A Number: 194001A1.16 RO: 3.1 SRO: 4.4
10CFR55.45 Ref.: 11

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 91002-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:

1. Procedure 91002-C, Emergency Notifications, Checklist 2
2. VEGP Emergency Response Telephone Directory

SIMULATOR SETUP: Simulator not required for JPM performance

Notes to Examiner:

(1) Checklist 2, Sheet 2, Emergency Notification, should be completed with the exception of Steps 3, 4, and 6 prior to the start of this JPM. Step 1.A, THIS IS A DRILL, should always be recorded.

(2) Step 3 of the Emergency Notification form must be completed within 15 minutes of the time documented in Step 6.A. The start time of this JPM should be the time recorded in Step 6.A.

(3) Ensure the ENN telephone jack in the rear of the ENN telephone has the "Simulator" cord installed.

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

This is a TIME CRITICAL JPM

INITIAL CONDITIONS: An emergency has been declared and the Shift Superintendent has assumed the duties of the Emergency Director.

ASSIGNED TASK: The Emergency Director has directed you to "Perform the duties of the ENN Communicator".

TASK STANDARD: Communications established and the Emergency Notification form transmitted to all State and Local authorities.

START TIME: _____ **TIME CRITICAL** ⏲

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Initiate roll call

*Note: The Emergency Response Telephone Directory, or the dial code card, should be consulted as needed for required ENN dial codes. The dial code, **, should be used initially to ring ALL required agencies.*

☐ ♦ Burke County notified ***(1)***
☐ ♦ GEMA notified
☐ ♦ Aiken County notified
☐ ♦ SRS notifed
☐ ♦ Allendale County notified
☐ ♦ State of South Carolina notified
☐ ♦ Barnwell County ***(2)***

CUES:

(1) When requested, provide cue that each emergency center hailed has responded.
(2) Do not respond when Barnwell County is hailed from Comlabs Phone.~~.~~

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Notify Barnwell County

Note: For initial notifications the 24 hour warning point commercial telephone line should be notified.

☐ ♦ Commercial telephone line (803) 541-1161
☐ • Barnwell County directed to respond to ENN ***(1)***

CUES:

(1) ~~If performed correctly~~When proper number identified, provide the cue that "Barnwell County has been reached and will _____responded to ENN."

STEP 3
SAT ☐ UNSAT ☐

Transmit fascimile

Note: On the Fax machine in the Simulator, the pushbutton labelled "~~Simulator Training~~NOTIFY(Training)" should be depressed to simulate _____"NOTIFY", if necessary a cue to the examinee should be provided that for simulation purposes, the "~~Simulator~~ NOTIFY (Training)" pushbutton should be used to trnasmit the fax.

☐ • Place message face down in transmit tray
~~☐ • Ensure Fax in AUTO REC mode~~
~~☐ • Ensure Single Button Dial selected~~
☐ • "NOTIFY(Training)" pushbutton depressed

STEP 4
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Communicate notification via ENN

Note: Examiner should arbitrarily pick a number between 1 and 100 and verify that the authentication codeword is correctly identified by examinee.

☐ • Lines 1 & 2 transmitted
☐ ♦ Examinee's name provided in Line 2, "Reported By"
☐ ♦ Line 3, Transmittal time & date completed ***(1)***
☐ • Control Room confirmation phone number transmitted

CUES:

(1) After completion of Emergency Notification form line 3, provide the following cue, "The State of South Carolina request that you authenticate number ___."

STOP TIME: _____

STEP 5
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Message authentication

Note: The authentication codes are located in the Emergency Response Telephone Directory. The codeword provided should match the number given in the cue of JPM Step 3.

☐ ♦ Authentication codeword correctly provided.

STEP 6
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Transmit classification data

☐ ♦ Emergency Classification
☐ ♦ Emergency declaration time and date
☐ • Emergency description

STEP 7
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Transmit current plant radiological conditions

- ☐ • Plant condition
- ☐ ♦ Emergency rad release status
- ☐ ♦ Current meteorological data
- ☐ • Recommended protective actions
- ☐ • ED approval,time, & date

STEP 8
SAT ☐ UNSAT ☐

Notify ED

- ☐ • Initial Emergency Notification completed

Field Notes:

Facility: Vogtle Date of Examination: 12/02/02
Exam Level (circle one): RO / SRO(I) / SRO(U) Operating Test No.: DRAFT

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
~~a.Transferring From RAT A (1NXRA) to SAT Using 4160V AC Cross-tie Breaker in Mode 6 with UAT back feed available. Only two of the three phases can be verified at 4160 V. JPM should stop at step 4.2.2.13.i Malfunction is placed in between step 4.2.2.13.b and 4.2.2.13.h~~ Could not simulate Replace: D/G emergency start with subsequent loss of NSCW, Manual Trip of D/G	A, S, N, L	6
b.~~Respond to Loss of NSCW : (RQ-JP-18021-001) One pump fails and backup fails to start. JPM should go through the end of step 6 and then be stopped.~~ One action in CR Replace : Failure of Auto Containment Spray start, manual initiation and partial lineup	A, S, M	~~8~~ 6
c. Start a Reactor Coolant Pump (RQ-JP-13003-001) After Start High Vibration requires pump to be stopped.	A, S, M, L	4P
d. ~~Collapse PRZR Bubble and Cooldown PRZR (LO-JP-120006-001) Alternate path - Step D4.3.11.c Ensure all PRZR heaters on. One bank of PRZR heaters will not come on, this will require the dispatch of an operator to operate the heaters.~~ Not conducive to schedule Replace: Phase A signal, forces manual realignment of charging and letdown	A, S, N	~~3~~ 2
e. Initiate RCS Boration using BTRS (LO-JP-13010-001) We did not have this in our bank	D, S	1
f. ~~Control PRZR Level and SG Level from Remote Shutdown Panel (RQ-JP-18038-003)~~ can not simulate Replace:Control Przr PRESS and S/G LEVEL from remote shutdown panel	S, L, D	~~2~~ 3
~~g. (1) Transfer ECCS Pumps to Cold Leg Recirculation (RQ-JP-19013-001) This is for the Upgrades ONLY~~	~~D, S, L~~	~~4P~~
g. (2)Reduce Containment pressure following a spurious CVI (LO-JP-13125-001)	D, S	~~5~~ 8

B.2 Facility Walk-Through

a. Place DG B on a dead Bus from outside the control room. (18038-1, Attachment B)	N	6
b. ~~Locally Establish Condensate Flow Per step 8 e of FR-H.1, including starting one Condensate Feed pump Locally.~~ (RQ-JP-19321-006) TDAFW control w/o DC power	D	4S
c. Locally Isolate RCP Seals (RQ-JP-19100-005) (repeat from previous exam)	D, R	4P
* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA		

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-19100-001

VERIFY PROPER DG OPERATION ON LOSS OF ALL AC POWER

Revision 0

10/24/02

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	A loss of all AC power condition has occurred, Power has been restored to 1BA03 from RAT-1B. All 1E pump handswitches other than NSCW are in the PTL position as required by EOP 19100-C. Emergency repairs to DG-1A have just been completed and the diesel is ready to be locally started.
Assigned Task:	The USS has directed you to "Verify proper DG-1A operation"

Task Standard:	DG-1A operation verified

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Verify Proper DG-1A operation

REVISION: 0

COMPLETION TIME: 6 minutes

This JPM to be used for Initial Licensed Operator Exam Only.

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 19251-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS: 1. 17035-1

SIMULATOR SETUP:

1. Reset to IC 14
2. Place DG-1A in local control
2. Insert malfunctions EL02, DG12, EL01B
3. Manually trip the reactor
4. Place all 1E pumps (except NSCW) in PTL
6. Acknowledge alarms and freeze simulation
7. Emergency start DG-1A at start of JPM ***by going to remote***
8. Override ALB035B06 (High lube oil filter D/P) to on after NSCW operation verified
9. Override ALB035B01 (Lo pressure), and then B02 (Lo Pressure Trip) to on after student references appropriate ARP

Setup time: 10 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: A loss of all AC power conditon has occurred, power has been restored to 1BA03 from RAT-1B. All 1E pump handswitches other than NSCW are in the PTL position as required by EOP 19100-C. Emergency repairs to DG-1A have just been completed and the diesel is ready to be locally started.

ASSIGNED TASK: The USS has directed you to "Verify proper EDG-1A operation."

TASK STANDARD: DG-1A operation verified

START TIME: _____

STEP 1

SAT ☐ UNSAT ☐

Verify proper DG-1A startup
Note:

- ☐ • Emergency start annunicator verified (ALB35F10)
- ☐ • DG-1A at 4160 Vac and 60 Hz
- ☐ • DG-1A output breaker closes automatically (1AA02-19)

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Verify proper load sequencing
Note: After NSCW pumps are running with discharge valves open insert trigger for lube oil alarms.

- ☐ • NSCW pumps 1 & 3 start and discharge valves fully open after 45 second time delay
- ☐ • Acknowledge DG-1A lube oil alarms and refence procedure 17035-1
- ☐ ♦ Note that DG-1A should have tripped when ALB035 B02 Alarmed ***(1)***
- ☐ ♦ Emergency stop DG-1A using both emergency stop pushbuttons
- ☐ ♦ Verify DG-1A output breaker (1AA02-19) opens and engine stops

CUES:
(1) If requested: "System Operator at DG-1A reports lube oil pressure reading 17 psig and lowering"

STEP 4
SAT ☐ UNSAT ☐

Report to USS

- ☐ • DG-1A had to be tripped due to loss of lube oil pressure

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

~~LO~~NRC-JP-~~1510~~19251-00~~13-01~~

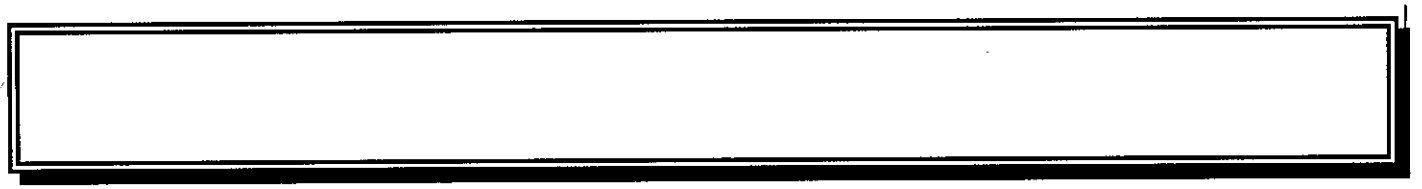
MANUALLY INITIATE CONTAINMENT SPRAY

Revision 0~~78~~

~~July 7, 1999~~10/24/02~~October 5, 2000~~

~~Written By~~ : ~~M. C. Henry~~ ~~Date:~~ ~~7~~10/~~7~~5/~~99~~2000

~~Approved By~~ : ~~Leon Ray~~XXXXXXXR. D. Brigdon ~~Date:~~ ~~7~~10XX/~~27~~10X/~~1999~~2000



This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	A large break LOCA has occurred. After transitioning to 19010, the USS has determined that an ORANGE PATH exists for Containment due to high containment pressure.
Assigned Task:	The USS has directed you to "Verify proper Containment Spray operation beginning with step 3 of 19251."

Task Standard:	Containment spray flow initiated.

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Manually Initiate Containment Spray

REVISION: ~~078~~ ~~July 7, 1999~~~~October 5, 2000~~

COMPLETION TIME: 6 minutes

~~**This JPM to be used for Initial Licensed Operator Exam Only.**~~

~~Application: RO/SRO~~
~~Task Number: 15003~~
~~K/A Number: 026000A203 RO: 4.1 SRO: 4.4~~
~~10CFR55.45 Ref.: 3~~

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

This JPM is based on the latest rev of 19251-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:

1. 19251, Response to High Containtment Pressure

SIMULATOR SETUP:

1. Reset to IC 14
2. Override HS-40059 to RESET.
3. Insert malfunction CS01A & CS01B (CS pumps auto start fails)

~~3.~~ Insert malfunction ES13 (Auto CS Failure Train A)

4. Insert malfunction ES14 (Manual CS Failure Train A)
5. Insert malfunction RC03 (Large LOCA)
6. Freeze when ORANGE Path on Cnmt exist

Setup time: 5 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: A large break LOCA has occurred. After transitioning to 19010, the USS has determined that an ORANGE PATH exists for Containment due to high containment pressure.

ASSIGNED TASK: The USS has directed you to "Verify proper Containment Spray operation beginning with step 3 of 19251."

TASK STANDARD: Containment spray flow initiated.

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Manually Actuate Containment Spray
Note: One pair of handswitches must be positioned simultaneously to actuate containment spray.

☐ • Check Containment pressure > 21.5 psig
☐ • Check Containment Spray not actuated
☐ ♦ HS-40010 and HS-40011(HS-40004 and HS-40005) in ACTUATE

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Verify Containment Spray Pumps running
Note: CS Pumps A & B must be manually started.

☐ ♦ CS Pump B RUNNING
☐ ♦ CS Pump A RUNNING

~~CUES:~~
~~©... Indicate the green lights are lit for CS Pump A, HV-9001A , and HV-8994A.~~

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Check Containment Spray Alignment
Note: Train A components will require manual alignment.

☐ • Check RWST level > 10%
☐ • Verify RWST supply HV-9017A and HV-9017B OPEN
☐ ♦ Spray isolations HV-9001A ~~and HV-9001B~~ OPEN
☐ • Spray isolation HV-9001B OPEN

STEP 4
SAT ☐ UNSAT ☐

Report to USS

☐ • Containment Spray operation has been initiated

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-13003-001

START A REACTOR COOLANT PUMP

Revision 0

10/25/02

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	A plant startup is in progress with the unit in Mode 4. Per UOP 12001, RCPs 1 and 4 have been started. The standby alignment has been verified for RCP 3 and an operator has performed a visual inspection. SGBD has been in service for 3 hours and the temperature is stable. Adequate SD Margin has been verified.
Assigned Task:	The USS has directed you to "Start RCP 3 using 13003."

Task Standard:	Reactor Coolant Pump started.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Start a Reactor Coolant Pump

REVISION: 0

COMPLETION TIME: 15 minutes

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 13003-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:

1. 13003, Reactor Coolant Pump Operation

SIMULATOR SETUP:

1. Reset to IC3 (BOL Mode 4)
2. Verify open both breakers for RCP 3. (Do not start lift pump)
3. Verify SGBD for all 4 SGs
4. Establish stable plant conditions
5. Set ALB08E04 & F04 on a trigger to turn on
6. Activate trigger 10 seconds after RCP is started
7. Ack/Reset alarms
8. Freeze simulator

Setup time: 4 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: A plant startup is in progress with the unit in Mode 4. Per UOP 12001, RCPs 1 and 4 have been started. The standby alignment has been verified for RCP 3 and an operator has performed a visual inspection. SGBD has been in service for 3 hours and the temperature is stable. Adequate SD Margin has been verified.

ASSIGNED TASK: The USS has directed you to "Start RCP 3 using 13003."

TASK STANDARD: Reactor Coolant Pump started.

START TIME: _____

STEP 1
SAT ☐ UNSAT ☐

Verify proper ΔT for pump start

☐ • Verify secondary water temperature ≤ 10°F above RCS loop Tcold
☐ • Record value in Unit Control Log *(1)*

CUES:

(1) Once value determined okay, state "The USS will record the ΔT value in the Unit Control Log."

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Start the oil lift pump

☐ ♦ RCP 3 oil lift pump running
☐ • Oil permissive light lit

STEP 3
SAT ☐ UNSAT ☐
SEQ 1

Establish RCP starting conditions

☐ • Verify visual inspection *(1)*
☐ • Seal injection flow 8 to 13 gpm
☐ • Seal leakoff flow determined to be w/in normal operating range
☐ • Seal ΔP > 200 psid
☐ • VCT pressure > 18 psig
☐ • The following annunciators windows dark:
RCP Standpipe Hi & Lo level alarms (ALB08)
RCP Upper & Lower Oil Rsvr Hi/Lo level alarms (ALB11)
ACCW Clr Lo Flow,Clr Oulet Hi Temp,& Therm Barrier Hi Flow alarms (ALB04)
☐ • RCS pressure and temperature within acceptable region of 12001, Fig 1

CUES:

(1) When requested: "Local inspection and hand rotation is complete."

© Indicate RCS pressure is 335 psig and temperature is 330°F; Seal injection flow is 9 gpm; Seal leakoff flow is 0.5 gpm; Seal ΔP is 300 psid; VCT pressure is 35 psig; the (identified) annunciator window is dark

STEP 4
SAT ☐ UNSAT ☐

Verify vibration alarms clear

☐ • The following annunciators dark:
RCP Frame and Shaft Vibration Alert (ALB-08)
RCP Frame and Shaft Hi Vibration (ALB-08)

CUES:
© "The (identified) annunciator window is dark".

STEP 5
CRITICAL (♦)
SEQ 2 (critical steps)
SAT ☐ UNSAT ☐

Start the RCP

☐ • SGBD temperatures < 10°F above RCS temperature ***(1)***
☐ • Oil lift pump running > 2 minutes
☐ • Ensure CNMT personnel clear of RCP before starting
☐ ♦ HS-0497A placed in START
☐ ♦ HS-0497B placed in START

CUES:
(1) If required, Indicate SGBD temperatures (IPC) ≈ 212°F".

©... If SG metal (skin) temperatures are requested, "SG skin temperatures are all ≈ 210°F."

STEP 6
SAT ☐ UNSAT ☐

Stop RCP oil lift pump

☐ • RCP 3 running > 1 minute
☐ • RCP 3 oil lift pump stopped

STEP 7
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Verify improper RCP operation and stop RCP
Note: Guidance in both 13003-1 and 17008-1 window F04 require that the RCP be stopped on high vibration

☐ • Adjust charging as necessary to control Pressurizer level.
☐ • The following paramters observed:
RCS pressure normal
RCS loop flow normal
RCP vibration alarms (ALB08E04 & ALB08F04) illuminated
Dispatch Control Building SO to RCP vibration monitor ***(1)***
RCP seal injection flows 8 to 13 gpm
RCP seal leakoff flows determined to be w/in normal operating range
RCP seal ΔP > 200 psid
☐ ♦ Stop RCP 3 by placing either HS-0497A or HS-0497B placed in STOP

CUES:

(1) When requested the Control Building SO reports "RCP #3 shaft vibration at 22 mils and increasing"

STEP 8
SAT ☐ UNSAT ☐

Report to USS

☐ • RCP #3 was started and had to be stopped due to high vribration

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-17006-001

Spurious CIA Response

Revision 0

10/24/02

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated.
Plant equipment is not to be operated.

Initial Conditions: A SPURIOUS CIA ACTUATION OCURRED WHILE I&C PERSONNEL WERE TAKING VOLTAGE MEASUREMENTS IN THE SSPS CABINENTS WITH THE UNIT AT 100% POWER. ALL MEASURING EQUIPMENT HAS BEEN DISCONNECTED AND SSPS CABINET DOORS CLOSED.

Assigned Task: Restore systems to normal operations using ARP 17006-1 E06

Task Standard: Systems restored to normal at power operation

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Spurious CIA Response
REVISION: 0
COMPLETION TIME: 15 minutes

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 17006-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS: 1. 17006-1

SIMULATOR SETUP:

1. Reset to IC14 (MOL 100%)
2. Initiate a manual CIA
3. Set charging flow to 85 gpm in manual with ≈ 9 gpm seal injection flow
4. Ensure LV-459,460 closed, HV-8149A,B,C, closed and HV-8152,8160, and 15214 closed
5. Ack/Reset alarms
6. Freeze simulator

Setup time: 7 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: A SPURIOUS CIA ACTUATION OCCURRED WHILE I&C PERSONNEL WERE TAKING VOLTAGE MEASUREMENTS IN THE SSPS CABINENTS WITH THE UNIT AT 100% POWER. ALL MEASURING EQUIPMENT HAS BEEN DISCONNECTED AND SSPS CABINET DOORS CLOSED.

ASSIGNED TASK: Restore systems to normal operations using ARP 17006-1 E06

TASK STANDARD: Systems restored to normal at power operation

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Restore Instrument Air to Containment

☐ ♦ RESET Phase A by placing both 1-HS-40120 and 1-HS-40122 to RESET position
☐ ♦ OPEN Instrument Air to containment 1-HV-9378 using both 1-HS-9378A and 1-HS-9378B

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Establish normal system alignment

☐ • Section 4.4.2 of 13006 selected
☐ • Verify orifice isolations HV-8149A, B, & C CLOSED
☐ • Verify letdown isolations LV-459 and LV-460 CLOSED
☐ • Verify Pressurizer Aux Spray Valve HV-8145 CLOSED
☐ ♦ CVCS HELB isolation HV-15214 OPEN
☐ ♦ Letdown isolations HV-8160 and HV-8152 OPEN
☐ • Place pressure controller PIC-131 in MAN at 50% to 75% demand
☐ • Place temperature controller TIC-0130 in MAN at 50% demand
☐ • Verify PRZR level > 17%

CUES:
© Provide indication that charging flow is 85 gpm and seal injection flows are 9 gpm.
© Provide indication that PRZR level is 32%.

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Establish letdown flow
Note: Letdown pressure may be allowed to fluctuate temporarily while establishing letdown flow, but must be stabilized within the required band. Charging flow will have to be adjusted to ≥ desired letdown flow in order to stabilize letdown parameters.

☐ ♦ Letdown isolations LV-459 and LV-460 OPEN
☐ ♦ Orifice isolation HV-8149B or HV-8149C OPEN
☐ ♦ PIC-131 adjusted to attain 360 to 380 psig on PI-131A
☐ • Record the letdown orifice that was placed in service in the Unit Control Log ***(1)***

CUES:
(1) "The USS will ensure the RO makes a log entry about the letdown orifice placed in service."

JPM STEPS

STEP 3
SAT ☐ **UNSAT** ☐

Place letdown controllers in automatic

- ☐ • PIC-131 in AUTO
- ☐ • Letdown pressure 360 to 380 psig on PI-131A
- ☐ • TIC-130 in AUTO
- ☐ • Letdown temperature ≤ 115 °F on TI-130

STEP 4
SAT ☐ **UNSAT** ☐

Verify proper system operation

- ☐ • Regen heat exchanger outlet (letdown) on TI-127 verified < 380 °F
- ☐ • Maintain PRZR level within 1% of program ***(1)***

CUES:
(1) "The RO will monitor and control PRZR level."

STEP 5
SAT ☐ **UNSAT** ☐

Complete System restorations

- ☐ • OPEN RCP Seal Return 1-HV-8100 and 1-HV-8112 using 1-HS-8100 and 1-HS-8112
- ☐ • RESET CVI by placing both 1-HS-40121 and 1-HS-40123 to RESET position
- ☐ • COMPLETE the applicable portions of 11886-1, "Recovery From ESF Actuations", for CIA and CVI ***(1)***

CUES:
(1) "The common BOP will perfrom 11886-1"

STEP 6
SAT ☐ **UNSAT** ☐

Report to USS

- ☐ • Systems Restored to normal operations following CIA

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

LO-JP-13010- 001

INITIATE RCS BORATION USING BTRS

Revision 7

September 23, 2000

Written By : M. C. Henry Date: 9/23/2000

Approved By : R. D. Brigdon Date: 10/10/2000

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	The crew is preparing to reduce power to 75% to remove MFP B from service. BTRS demineralizers 4, 5, 6, and 7 have been equilibrated with the current RCS boron concentration. In addition, the extra RO has placed the BTRS system in standby alignment.
Assigned Task:	The USS has directed you to "Initiate boration of RCS using BTRS demineralizers 4, 5, 6, and 7".

Task Standard:	RCS boration established using BTRS.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Initiate RCS Boration Using BTRS

REVISION: 7 September 23, 2000

COMPLETION TIME: 15 minutes

This JPM to be used for Initial Licensed Operator Exam Only

Application: RO/SRO
Task Number: 09024
K/A Number: 004000SG013 RO: 3.6 SRO: 3.5
10CFR55.45 Ref.:

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 13010-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during performance of this JPM.

REQUIRED ITEMS:

1. 13010, Boron Thermal Regeneration System

SIMULATOR SETUP:

1. Reset to IC14
2. Perform 13010-1 section 4.1.2
3. Place BTRS Chiller in service per 13010-1 section 4.1.3, RF: CV24
4. Ack/Reset alarms
5. Freeze simulator

Setup time: 10 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: The crew is preparing to reduce power to 75% to remove MFP B from service. BTRS demineralizers 4, 5, 6, and 7 have been equilibrated with the current RCS boron concentration. In addition, the extra RO has placed the BTRS system in standby alignment.

ASSIGNED TASK: The USS has directed you to "Initiate boration of RCS using BTRS demineralizers 4, 5, 6, and 7".

TASK STANDARD: RCS boration established using BTRS.

START TIME: _____

STEP 1
SAT ☐ UNSAT ☐

Establish prestart alignment

☐ • Verify standby alignment IAW section 4.1.2 *(1)*
☐ • Place the BTRS Chiller in service IAW section 4.1.3 *(2)*
☐ • BTRS Demin outlet isolation valves open *(3)* *(4)*

CUES:
(1) "The extra RO has performed section 4.1.2."
(2) "The ABO has placed the BTRS Chiller in service."
(3) If requested, "The USS desires that demins 4, 5, 6, and 7 be used to borate the RCS."
(4) "The ABO has opened 1-1208-U4-263, 262, 261, and 260. The SSS will ensure the IV is performed. The USS will ensure the DEMIN CONTROL LOG is updated."

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Align BTRS System for Boration

☐ ♦ BTRS Demin Isolation valve, HS-7010E open
☐ ♦ BTRS Demin Isolation valve, HS-7010D open
☐ ♦ BTRS Demin Isolation valve, HS-7010C open
☐ ♦ BTRS Demin Isolation valve, HS-7010B open
☐ • IV requested *(1)*
☐ ♦ HIC-387 to 0% Borate position
☐ • Ensure HV-8115 remains open
☐ • Place TIC-381A in manual at 0% demand

CUES: *(1)* "The extra RO will perform the IV."

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Initiate boration

- ☐ ♦ Place HS-10351 in the BORATE position
- ☐ • Verify white BORATE light lit (this will occur after auto system alignment is complete)
- ☐ • Ensure HV-7054 is OPEN
- ☐ ♦ Close HV-8115 by placing HS-8115 in AUTO
- ☐ • Adjust TIC-381 to ≈ 140° and place controller in AUTO (adjust pot if required)
- ☐ • Verify BTRS demin inlet @ 140° on TI-381 and return header @ 115° on TI-386.
- ☐ ♦ HIC-387 output lowered to initiate boration
- ☐ • Boronometer indication of BTRS outlet concentration rising

STEP 4
SAT ☐ UNSAT ☐

Report to USS

- ☐ • RCS boration initiated using BTRS

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

RQ-JP-13509-001

BYPASS CONTAINMENT HI-1 FOLLOWING A LOSS OF HEAT SINK

Revision 4

September 10, 2001

Written By : M. C. Henry Date: 9/10/2001

Approved By : R. D. Brigdon Date: 9/11/2001

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated.
Plant equipment is not to be operated.

Initial Conditions: While responding to a Loss of Heat Sink on Unit ___, Containment pressure reached the Hi-1 setpoint. The crew is preparing to establish feedwater flow in accordance with step 6 of 19231-C.

Assigned Task: The USS has directed you to "Bypass Containment Hi-1 pressure channels __ - PB936B and __ - PB935B by initiating 13509-C."

Task Standard: Containment Hi-1 pressure bistables bypassed.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Bypass Containment Hi-1 Following a Loss of Heat Sink

REVISION: 4 September 10, 2001

COMPLETION TIME: 10 minutes

Application: RO/SRO
Task Number: 37051
K/A Number: 054000EA1.01 RO: 4.5 SRO: 4.5
10CFR55.45 Ref.: 6

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on 13509-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:
1. 13509-C, BTI Panel Operation
2. Two (2) BTI panel keys

COMPONENT LOCATION: Main Control Room

Note to Examiner: ***Permission from the USS must be obtained to open the Protection Cabinet doors. A BTI key may be obtained from the USS.***

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: While responding to a Loss of Heat Sink on Unit ___, Containment pressure reached the Hi-1 setpoint. The crew is preparing to establish feedwater flow in accordance with step 6 of 19231-C.

ASSIGNED TASK: The USS has directed you to "Bypass Containment Hi-1 pressure channels __ - PB936B and __ - PB935B by initiating 13509-C."

TASK STANDARD: Containment Hi-1 pressure bistables bypassed.

START TIME: _____

STEP 1
SAT ☐ UNSAT ☐

Verify initial conditions

Note: Permission from the appropriate USS will be required to open the Protection Cabinet doors to access the BTI panels.. Discussion of the requirements to obtain 2 BTI panel keys will satisfy performance of the step.

- ☐ • Checklist 2 & 3 bistables circled (13509-C)
- ☐ • Obtain BTI Enable keys ***(reference above note)***
- ☐ • Verify all bypass switches on selected panel positioned in NORMAL
- ☐ • Verify circuit breaker is ON
- ☐ • Verify red power available LED illuminated

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Bypass NSSS Channel II Hi-1 bistable, 936B

- ☐ ♦ BTI Enable Key inserted into keylock
- ☐ ♦ Keylock switch positioned to BYPASS ENABLE & Verify LED illuminates
- ☐ • Verify ALB05B02 illuminated
- ☐ ♦ PB936B BTI switch #34 positioned to BYPASS
- ☐ • Verify 936B LED illuminated
- ☐ • Verify TSLB extinguished

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Bypass NSSS Channel III Hi-1 bistable, 935B

- ☐ • Verify all bypass switches on selected panel positioned in normal
- ☐ • Verify circuit breaker is ON
- ☐ • Verify red power available LED illuminated
- ☐ ♦ BTI Enable Key inserted into keylock
- ☐ ♦ Keylock switch positioned to BYPASS ENABLE & Verify LED illuminates
- ☐ • Verify ALB05C02 illuminated
- ☐ ♦ PB935B BTI switch #34 positioned to BYPASS
- ☐ • Verify 935B LED illuminated
- ☐ • Verify TSLB extinguished

STEP 4
SAT ☐ UNSAT ☐

Report to USS

☐ • Containment Hi-1 Channels 936 and 935 are bypassed

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

RQ-JP-~~60328-001-01~~18038-003

CONTROL PRZR PRESSURE AND SG LEVEL FROM REMOTE SHUTDOWN PANELS

Revision ~~14~~16

~~July 4, 1997~~August 15, 2001

Written By : ~~George Gunn~~M. C. Henry Date: ~~7/04/97~~8/15/2001

Approved By : ~~Leon Ray~~xxxxxxxxxxR. D. Brigdon Date: ~~7/04~~xx/~~97~~998/2/~~1999~~8x/16xx/2001

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

Initial Conditions: Unit____ control room has been evacuated due to fire. You have responded to Shutdown Panel____ . PRZR pressure is 2200 psig and lowering. SG WR levels are ≈ 60% and lowering.

Assigned Task: The USS has directed you to "Restore PRZR pressure and SG level using 18038, steps 11 and 12."

Task Standard: PRZR pressure and SG level controlled within the allowed control band from the remote shutdown panels.

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE:	Control PRZR Pressure and SG level From Remote Shutdown Panels
REVISION:	~~14~~16 ~~July 4, 1997~~August 15, 2001
COMPLETION TIME:	~~5~~ 10 minutes
Application:	RO/SRO
Task Number:	60010
K/A Number:	000068EG12 RO: 3.8 SRO: 4.0
10CFR55.45 Ref.:	4, 6, 12

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

This JPM is based on the latest rev of 18038-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:
1. 18038-1/2, Operation From Remote Shutdown Panels
2. PSDA(B) room key

COMPONENT LOCATION: PSDA(B) Rooms, Control Building, Level A

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: Unit____ control room has been evacuated due to fire. You have responded to Shutdown Panel____. PRZR pressure is 2200 psig and lowering. SG WR levels are ≈ 60% and lowering.

ASSIGNED TASK: The USS has directed you to "Restore PRZR pressure and SG level using 18038, steps 11 and 12."

TASK STANDARD: PRZR pressure and SG level controlled within the allowed control band from the remote shutdown panels.

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Control PRZR pressure

Note: All controls would have been transferred to Local at step 7. The operator should demonstrate knowledge of pressure control by expressing the need to operate sprays/heaters to stabilize pressure between 2220 and 2260 psig.

☐ ♦ PORV PV-455A(456A) closed ***(1)***
☐ ♦ [PSDA only] Sprays PV-455B and PV-455C closed
☐ ♦ Backup heater HS-10469B(10470B) in ON
☐ ♦ Heaters and Sprays operated to maintain PRZR pressure between 2220 and 2260 psig ***(2)***

CUES:

(1) Provide indication that PRZR pressure is 2200 psig and lowering slowly.
(2) Provide indication that PRZR pressure is 2220 psig and rising slowly (see ~~2nd~~ note above)

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Control Steam Generator level

Note: The operator should demonstrate knowledge of level control by expressing the need to adjust AFW flow to stabilize SG WR levels between 65% and ~~75~~70%.

☐ ♦ MDAFW pump A(B) running ***(1)***
☐ ♦ Flow control FV-5137 and FV-5139(FV-5134 and FV-5132) throttled open
☐ • Miniflow FV-5155(5154) verified open
☐ • AFW flow verified ***(2)***
☐ ♦ FCVs operated to maintain SG WR levels between 65% and 75% ***(3)***

CUES:

(1) Provide indication that WR levels are 60% on SG 1(2) and 59% on SG 4(3) and both are slowly lowering".
(2) Provide indication that AFW flow is 175 gpm to SG 1(2) and 190 gpm to SG 4(3)
(3) Provide indication that WR SG Levels are slowly rising".

STEP 3
SAT ☐ UNSAT ☐

Report to USS

☐ • PRZR pressure and SG level being maintained

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

LO-JP-~~2913~~013125-00~~12-01~~

REDUCE CONTAINMENT PRESSURE FOLLOWING CVI

Revision ~~10~~11

~~March 2, 1998~~October 5, 2000

Written By : ~~George Gunn~~M. C. Henry Date: ~~3~~10/~~26~~/~~98~~2000

Approved By : ~~Leon Ray~~XXXXXXXR. D. Brigdon Date: ~~3~~10~~XX~~/~~2~~10~~X~~/~~98~~2000

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

Initial Conditions:	During a pressure relief operation, a spurious CVI was actuated while I&C was troubleshooting a faulty slave relay. The testing has been terminated and the CVI signal has been reset.
Assigned Task:	The USS has verified the existing Gaseous Release Permit is still valid and has directed you to "Initiate containment pressure relief".

Task Standard:	Containment pressure reduced to zero and pressure relief terminated.

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Reduce Containment Pressure Following CVI

REVISION: ~~10~~11 ~~March 2, 1998~~October 5, 2000

COMPLETION TIME: 8 minutes **This JPM to be used for Initial License Exam Only**
~~**This JPM not to be used for Annual Requal Exam**~~

Application: RO/SRO
Task Number: 29006
K/A Number: 029000A103 RO: 3.0 SRO: 3.3
10CFR55.45 Ref.:

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 13125-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:

1. 13125, Containment Purge System

SIMULATOR SETUP:

1. Reset to IC14
2. Place Mini-Purge supply fan in service per 13125
3. Remove Mini-Purge supply fan from service when Containment pressure is ≈ 0.5 psig
4. Ack/Reset alarms
5. Freeze simulator

Setup time: 10 minutes

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

INITIAL CONDITIONS: During a pressure relief operation, a spurious CVI was actuated while I&C was troubleshooting a faulty slave relay. The testing has been terminated and the CVI signal has been reset.

ASSIGNED TASK: The USS has verified the existing Gaseous Release Permit is still valid and has directed you to "Initiate containment pressure relief".

TASK STANDARD: Containment pressure reduced to zero and pressure relief terminated.

START TIME: _____

STEP 1
SAT ☐ UNSAT ☐

Select procedure and section

☐ •13125 section 4.4.1 selected *(1)* *(2)*
~~☐ • Containment Sumps monitored during release *(3)*~~

CUES:
(1) If requested, "The USS does not desire to start additional containment coolers."
(2) When requested, "The USS has obtained an updated gaseous release permit."
~~*(3)* "The common RO will monitor the Containment Normal Sump trends."~~

STEP 2
CRITICAL (♦)
SEQ 1
SAT ☐ **UNSAT** ☐

Initiate containment pressure relief

☐ • Containment pressure verified between 0.3 and 4.4 psig
☐ ♦ Mini-purge exhaust damper HV-12592 CLOSED
☐ ♦ Mini-purge ORC isolation HV-2629B OPEN
~~☐ • Verify HV-2632B is open *(1)*~~
☐ ♦ Mini-purge IRC isolation HV-2628B OPEN *(21)*

CUES:
~~*(1)* If requested, "The ABO reports that air is isolated to HV-2632B and the damper is open."~~
(21) If requested, "The USS has logged the initiation of Cnmt pressure relief and notified Chemistry."

STEP 3
CRITICAL (♦)
SEQ 2
SAT ☐ **UNSAT** ☐

Place containment mini-purge exhaust fan in service

☐ ♦ Containment pressure <+0.3 psig
☐ ♦ Mini-purge exhaust damper HV-12592 ~~open~~OPEN
~~☐ • Verify HV-2632B open *(1)*~~
☐ ♦ Mini-purge exhaust fan running using HS-2631B
☐ • Place HV-12592 in AUTO

CUES:
~~*(1)* If requested, "The ABO has verified HV-2632B is open."~~

STEP 4
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Stop pressure relief

☐ • Containment pressure -0.1 to +0.1 psig *(1)*
☐ ♦ Mini-purge exhaust fan STOPPED
☐ ♦ Mini-purge cntmt isolations HV-2628B and HV-2629B CLOSED
☐ ♦ Mini-purge exhaust damper HV-12592 CLOSED
~~☐ • Restore air to HV-2632B *(1)*~~

CUES:
(1) If requested, "The ~~ABO~~ USS ~~has restored air to HV-2632b and verifies that the damper is closed~~will log the final containment pressure and stop time on the gaseous release permit."

STEP 5
SAT ☐ UNSAT ☐

Document termination of containment pressure relief

☐ • Chemistry notified *(1)*
☐ •The following valves verified CLOSED using Checklist 3
Preaccess purge inlet HV-2593
Mini-purge exhaust cntmt isolations HV-2628B and HV-2629B
Mini-purge supply cntmt isolations HV-2626B and HV-2627B
☐ • Independent verification requested for Checklist 3 *(~~1~~2)*

CUES:
(1) "~~The SSS will perform the IV~~The USS will notify Chemistry that the pressure relief is secured."
(2) "The EXTRA RO will perform the IV on checklist 3."

STEP 6
SAT ☐ UNSAT ☐

Report to USS

☐ • Containment pressure relief completed

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

NRC-JP-18038-001

Start EDG and Energize 1-E Switchgear

Revision 0

10/24/02

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated.
Plant equipment is not to be operated.

Initial Conditions: Unit ___ control room has been evacuated due to fire. ___AA02/BA03 is de-energized and the EDG is ready to locally start.

Assigned Task: The USS has directed you to "Locally start DG ___A/B and energize Unit____ Train____ 4160V and 480V buses with steps B1 through B13 of 18038, Attachment B."

Task Standard: 1E switchgear locally energized.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Locally Energize Train B Switchgear Following Local Diesel Start

REVISION:

COMPLETION TIME: minutes

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

This JPM is based on the latest rev of 18038-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:
1. 18038 Attachment B, Starting and Placing DG A(B) on a Dead Bus From Outside the Control Room
2. AA02(BA03) room key

COMPONENT LOCATION: EDG rooms & 1E 4160 VAC Switchgerar Rooms

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: Unit ___ control room has been evacuated due to fire. . ___AA02/BA03 is de-energized and the EDG is ready to locally start.

ASSIGNED TASK: The USS has directed you to "Locally start DG ___ A/B and energize Unit____ Train____ 4160V and 480V buses with steps B1 through B13 of 18038, Attachment B."

TASK STANDARD: 1E switchgear locally energized.

START TIME: _____

Control generator frequency at 60 Hz using [1/2-HS-4518A (4519A)]

STEP 1
CRITICAL (♦)
SEQ 1
SAT ☐ **UNSAT** ☐

Align DG for Local Starting

- ☐ • Establish communications
- ☐ • Reset lockout relays A, B, C if required
- ☐ • Verify Local/Remote switch in local [1/2-HS4516 (4517)]
- ☐ • UNIT 2 Train B only:
  - Place Fuel Oil Pump Transfer switches to local (2HS-9045A and 2HS-9046A) (located on back of MCC 2BBF)
- ☐ • Verify Control power breakers on front of engine control panel are shut
- ☐ ♦ Place Unit/Parallel switch in UNIT [1/2-HS-4414A(4452A)]

STEP 2
CRITICAL (♦)
SEQ 1
SAT ☐ **UNSAT** ☐

Locally Start DG

- ☐ • Alert people in EDG room of engine start
- ☐ ♦ Depress manual start pushbotton [1/2-HS-4569A(4570A)]
- ☐ • Red starting lamp energizes
- ☐ • Red shtudown system active light energizes
- ☐ • Starting air rolls engine
- ☐ • Red running lamp energizes at 200 RPM
- ☐ • Blue ready to load lamp energizes at 400 RPM
- ☐ • Generator field flashes and voltage stabilizes between 3750-4300 VAC
- ☐ • Monitor DG jacket water temperatures < 200 degrees F (positions 21 & 22)
- ☐ ♦ Control generator voltage at 4160 VAC using [1/2-HS-4488A (4494A)]
- ☐ ♦ Control generator frequency at 60 Hz using [1/2-HS-4518A (4519A)]

STEP 3
CRITICAL (♦)
SEQ 1
SAT ☐ **UNSAT** ☐

Open the normal incoming breaker

- ☐ ♦ Breaker AA02-05 (BA03-01) transfer switch in LOCAL
- ☐ ♦ Breaker AA02-05 (BA03-01) OPEN

STEP 4
CRITICAL (♦)
SEQ 2
SAT ☐ **UNSAT** ☐

Energize bus from Diesel Generator

☐ ♦ Breaker AA02-19 (BA03-19) transfer switch in LOCAL
☐ ♦ Breaker AA02-19 (BA03-19) CLOSED

STEP 5
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Energize 480V load centers

☐ ♦ The following transfer switches in LOCAL and associated breakers CLOSED:
AA02-10(BA03-06)
AA02-20(BA03-04)
AA02-21(BA03-09)
AA02-22(BA03-18)

STEP 6
SAT ☐ UNSAT ☐

Report to USS

☐ • 4160V and 480V buses energized

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

RQ-JP-18034-002

Turbine Driven AFW Pump Local Manual Control without DC Power

Revision 1

August 27, 2001

Written By	: M. C. Henry	Date:	8/27/2001
Approved By	: R. D. Brigdon	Date:	9/11/2001

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

Initial Conditions: The plant just experienced a trip due to a lightning strike in the switchyard. This caused a lock out relay to actuate on __AA02 and a fault on __CD1. The MDAFW pump B is tagged out for maintenance.

Assigned Task: The USS, with SS approval, has directed you to "Locally start the Unit ___ TDAFW pump using Attachment E of 18034-___."

Task Standard: TDAFW pump operating with proper recirculation flow or discharge pressure.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Turbine Driven AFW Pump Local Manual Control without DC Power

REVISION: 1 August 27, 2001

COMPLETION TIME: 10 minutes

Application: RO/SRO
Task Number: 20009
K/A Number: 061000A204 RO: 3.4 SRO: 3.8
10CFR55.45 Ref.: 6, 12,

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

This JPM is based on 18034-1. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS: 1. 18034-1/2 Attachment E, TDAFW Pump Local w/o DC Power

COMPONENT LOCATION: TDAFWP Room

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: The plant just experienced a trip due to a lightning strike in the switchyard. This caused a lock out relay to actuate on __AA02 and a fault on __CD1. The MDAFW pump B is tagged out for maintenance.

ASSIGNED TASK: The USS, with SS approval, has directed you to "Locally start the Unit ___ TDAFW pump using Attachment E of 18034-___."

TASK STANDARD: TDAFW pump operating with proper recirculation flow or discharge pressure.

JPM STEPS

START TIME: _____

STEP 1
SAT ☐ UNSAT ☐

Establish Communications with Control Room

☐ • Establish communications with required control room via telephone, page, headset, or radio.

STEP 2
SAT ☐ UNSAT ☐

Verify steam supply valve shut

☐ • Verify that ___-HV-5106 is CLOSED. ***(1)***

CUES:

(1) If located and verified correctly, state "__-HV-5106 is in the position you see now."

STEP 3
SAT ☐ UNSAT ☐

Verify Trip and Throttle Valve open

☐ • Verify that TDAFW Pump Trip & Throttle Valve is LATCHED. ***(1)***
☐ • Verify that TDAFW Pump Trip & Throttle Valve is OPEN. ***(2)***

CUES:

(1) If located and verified correctly, state "Trip and Throttle Valve latching mechaninsm is in the position you see now."

(2) If located and verified correctly, state "Trip and Throttle Valve is in the position you see now."

STEP 4
SAT ☐ UNSAT ☐

Locate FI-15100 to allow monitoring TDAFW Pump performance

☐ • Locate __-FI-15100 in TDAFW Pump room.

STEP 5
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Start TDAFW pump to supply feed flow to Steam Generators

☐ ♦ Throttle OPEN TDAFW Pump Steam Supply __-HV-5106. ***(1)***
☐ ♦ Observe __-FI-15100 and Adjust __-HV-5106 to attain **140gpm** miniflow. ***(2) (3)***

CUES:

(1) If valve throttled open correctly, state "Steam flow can be heard due to opening __-HV-5106."

(2) Give cues to determine the operators ability to control proper miniflow rate as required. As steam flow is increases, feedback an increase in miniflow flowrate. The operator should take actions to control at approximately 140 gpm.

(3) If requested, give feedback that "Discharge pressure reads 1650 psig."

STEP 6
SAT ☐ UNSAT ☐

Report to USS

☐ • TDAFW pump is operating and in service per Attachment E of 18034-__

STOP TIME: _____

Field Notes

SOUTHERN COMPANY

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PLANT VOGTLE

CONTROL ROOM OPERATOR

JOB PERFORMANCE MEASURE

RQ-JP-19100-005

LOCALLY ISOLATE RCP SEALS

Revision 13

September 10, 2001

Written By : M. C. Henry Date: 9/10/2001

Approved By : R. D. Brigdon Date: 9/11/2001

This information describes the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

Initial Conditions: The crew is responding to a loss of all AC power on Unit __ per 19100. Power has been lost for 12 minutes and is not expected to be restored in the near future.

Assigned Task: The USS has directed you to "Locally close the following Unit ___ valves:

- ACCW supply isolation ORC, __-HV-1979(AB-A____),
- RCP seal injection isolation valves ORC, __-HV-8103A/B(AB-A____), & __-HV-8103C/D(FHB-A____),
- RCP seal return isolation ORC, __-HV-8100(AB-A____)."

Task Standard: RCP seals locally isolated.

JPM INFORMATION

OPERATOR'S NAME: _____

EVALUATION DATE: ___ / ___ / ___

JPM TITLE: Locally Isolate RCP seals

REVISION: 13 September 10, 2001

COMPLETION TIME: 15 minutes

Application: RO/SRO
Task Number: 37018
K/A Number: 000055EG06 RO: 3.8 SRO: 4.1
10CFR55.45 Ref.: 4, 6, 12

Evaluation Method [ ] Performed [ ] Simulated

Evaluation Location [ ] Simulator [ ] Control Room [ ] Unit 1 [ ] Unit 2

Performance Time: _____minutes

OVERALL JPM EVALUATION **[ ] SATISFACTORY** **[ ] UNSATISFACTORY**

Examiner Comments:

Examiner's Signature: _____

INSTRUCTIONS TO EXAMINER

This JPM is based on the latest rev of 19100-C. Verify this JPM is in accord with the latest procedural revision prior to use. Cues preceded by a "©..." are provided to enhance simulation of this JPM and should only be used when the simulator is unavailable. Cues designated by (#) are to be provided to the examinee during the performance of this JPM.

REQUIRED ITEMS:

1. RWP and associated dosimetry
2. Hearing Protection

COMPONENT LOCATION:

UNIT 1

1979 (AB-A12); 8103A/B (AB-A09); 8103C/D (FHB-A10); and 8100 (AB-A09)

UNIT 2

1979 (AB-A105); 8103A/B (AB-A103); 8103C/D (FHB-A01); and 8100 (AB-A103)

DIRECTIONS TO OPERATOR

You will be given information describing the Initial Conditions, Assigned Task, and the Task Standard. Please ensure you understand the assigned task before beginning. You will be allowed access to any item normally used to perform this task.

REMEMBER: All steps required for this task are to be simulated. Plant equipment is not to be operated.

INITIAL CONDITIONS: The crew is responding to a loss of all AC power on Unit ___ per 19100. Power has been lost for 12 minutes and is not expected to be restored in the near future.

ASSIGNED TASK: The USS has directed you to "Locally close the following Unit __ valves:

- ACCW supply isolation outside, __-HV-1979(AB-A_____),
- RCP seal injection isolation valves, __-HV-8103A/B(AB-A_____), and __-HV-8103C/D(FHB-A_____),
- RCP seal return isolation outside, __-HV-8100(AB-A_____)."

TASK STANDARD: RCP seals locally isolated.

JPM STEPS

START TIME: _____

STEP 1
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Isolate ACCW Return from RCPs

☐ ♦ ACCW containment isolation HV-1979 located.
☐ ♦ HV-1979 CLOSED.

STEP 2
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Isolate RCP seal injection
Note: If these valves are inaccessible, the path of ingress should be to the closest point allowed by radiological conditions.

☐ ♦ RCP seal injections HV-8103A and B located.
☐ ♦ HV-8103A and B CLOSED.
☐ ♦ RCP seal injections HV-8103C and D located.
☐ ♦ HV-8103C and D CLOSED.

STEP 3
CRITICAL (♦)
SAT ☐ **UNSAT** ☐

Isolate RCP seal return
Note: If this valve is inaccessible, the path of ingress should be to the closest point allowed by radiological conditions.

☐ ♦ Seal return HV-8100 located.
☐ ♦ HV-8100 CLOSED.

STEP 4
SAT ☐ UNSAT ☐

Report to USS

☐ • RCP seals are locally isolated.

STOP TIME: _____

Field Notes