

Op-Test No.: 2012-301

Scenario No.: 6

Event No.: 7

Event Description: ATWT with failure of auto rod motion, Turbine auto trip, auto start of all AFW pumps, and faulted Steam Generator(s) as Safeties lift and fail to reset when the Turbine trips.

Time	Position	Applicant's Action or Behavior
	UO	11. Check SG levels: a. NR level- AT LEAST ONE GREATER THAN 10%. (32% ADVERSE) RNO a. Verify total feed flow greater than 1260 gpm. IF NOT, THEN start pumps and align valves as necessary. IF all SG(s) NR levels less than 10% (32% ADVERSE) THEN maintain total feed flow greater than 1260 gpm. b. Maintain NR levels between 10% (32% ADVERSE) and 65%.
	UO	Check CST level – GREATER THAN 15%. (YES)

→ local trip call at 0954(45)

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Time	Position	Applicant's Action or Behavior
	OATC	<p>13. Verify all dilution paths – ISOLATED.</p> <ul style="list-style-type: none"> • RX MU WTR TO BA BLENDER, FV-111A – CLOSED. • Dispatch operator to verify CVCS RX MU WTR TO CCP A ISO, 1208-U4-183 – LOCKED CLOSED. <p><u>UNIT 1</u> (AB-A47) <u>UNIT 2</u> (AB-A82)</p> <p>RNO</p> <p>13. Dispatch operator to close:</p> <ul style="list-style-type: none"> • CVCS RX M/U WTR SUPPLY TO CVCS ISO, 1208-U4-177. <p><u>UNIT 1</u> (AB-A47) <u>UNIT 2</u> (AB-A82)</p>
		<p>Note to examiner: The Simbooth Operator will open the trip breakers as requested after 2 minutes or after step 13, whichever comes first. This is to ensure scenario progresses as expected.</p>
	OATC	<p>24. Maintain emergency boration to provide adequate shutdown margin for subsequent conditions.</p>
	SS	<p>25. Initiate Critical Safety Function Status Tress per 19200-C, F-O CRITICAL SAFETY FUNCTION STATUS TREE.</p>

57(07) local Rx trip

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Time	Position	Applicant's Action or Behavior
	SS	26. Return to procedure and step in effect.
		Note to examiner: The actions for E-0 are on the following pages.

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Time	Position	Applicant's Action or Behavior		
		VALVE #	DESCRIPTION	LOCATION
		HV-12975	CNMT AIR RAD MON SPLY ISO IRC	QPCP
		HV-12976	CNMT AIR RAD MON SPLY ISO ORC	QPCP
		HV-12977	CNMT AIR RAD MON RTN ISO ORC	QPCP
		HV-12978	CNMT AIR RAD MON RTN ISO IRC	QPCP
		HV-2626A	CTB NORM PURGE SPLY IRC ISO VLV- MAIN (Normally de-energized shut)	QHVC (C31)
		HV-2626B	CTB NORM PURGE SPLY IRC ISO VLV-MINI	QHVC ((C32)
		HV-2627A	CTB NORM PURGE SPLY ORC ISO VLV- MAIN (Normally de-energized shut)	QHVC (D31)
		HV-2627B	CTB NORM PURGE SPLY ORC ISO VLV-MINI	QHVC (D32)
		HV-2628A	CTB NORM PURGE EXH IRC ISO VLV- MAIN (Normally de-energized shut)	QHVC (A33)
		HV-2628B	CTB NORM PURGE EXH IRC ISO VLV-MINI	QHVC ((A34)
		HV-2629A	CTB NORM PURGE EXH ORC ISO VLV- MAIN (Normally de-energized shut)	QHVC (B33)
		HV-2629B	CTB MINI PURGE EXH ORC ISO VLV-MINI	QHVC (B34)
		HV-2624A	CTB POST LOCA PURGE EXH IRC ISO VLV	QHVC (A35)
		HV-2624B	CTB POST LOCA PURGE EXH IRC ISO VLV	QHVC (B35)

57(56) enter 19000-C

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Event Description: ATWT with failure of auto rod motion, Turbine auto trip, auto start of all AFW pumps, and faulted Steam Generator(s) as Safeties lift and fail to reset when the Turbine trips.

Time	Position	Applicant's Action or Behavior	
HV-12604	PIPING PEN RM OUTLET ISO DMPR	QHVC (C22)	
HV-12605	PIPING PEN RM INLET ISO DMPT	QHVC (B22)	
HV-12606	PIPING PEN RM INLET ISO DMPR	QHVC (B23)	
HV-12607	PIPING PEN RM OUTLET ISO DMPR	QHVC (C23)	
HV-12596	RECYCLE HOLD-UP TK-1 ISO VENT VLV	QHVC (E22)	
HV-12597	RECYCLE HOLD-UP TK-1 ISO VENT VLV	QHVC (E23)	
HS-2548	PIPING PEN RM FLTR & EXH FAN 1	QHVC (A22)	
HV-2549	PIPING PEN RM FLTR & EXH FAN 2	QHVC (A23)	

CONFIDENTIAL

The following information was obtained from a confidential source who has provided reliable information in the past.

It is noted that the source has provided information regarding the activities of the subject in the past.

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Scenario No.: 6

Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseat. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	CREW	Performs Immediate Operator Actions per 19000-C, E-0 Reactor Trip or Safety Injection.
	SS	Makes a page announcement of Reactor Trip.
	OATC	1. Check Reactor Trip: (YES) <ul style="list-style-type: none"> • Rod Bottom Lights – LIT • Reactor Trip and Bypass Breakers – OPEN • Neutron Flux – LOWERING
58(16)	UO	2. Check Turbine Trip: (YES) <ul style="list-style-type: none"> • All Turbine Stop Valves – CLOSED
	UO	3. Check Power to AC Emergency Buses. (YES) <ol style="list-style-type: none"> a. AC Emergency Busses – AT LEAST ONE ENERGIZED. <ul style="list-style-type: none"> • 4160 AC 1E Busses b. AC Emergency Busses – ALL ENERGIZED. <ul style="list-style-type: none"> • 4160V AC 1E Busses • 480V AC 1E Busses

Dear Sir,
I have the pleasure to acknowledge the receipt of your letter of the 12th inst.

in relation to the above mentioned matter. I am sorry that I cannot give you a more definite answer at this time.

The matter is being dealt with as a matter of priority and I will be in a position to advise you again as soon as possible.

I am sure that you will understand the need for this and I appreciate your patience.

Yours faithfully,
[Signature]

[Name]
[Title]

[Address]
[City]

[Telephone Number]

[Additional contact information]

[Closing text]

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Scenario No.: 6

Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reset. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
58(54)	OATC	4. Check if SI is actuated. (YES) <ul style="list-style-type: none"> • Any SI annunciators – LIT • SI ACTUATED BPLP window – LIT
	SS	Go to Step 6.
	SS CREW	6. Initiate the Foldout Page.
	SS OATC UO	7. Perform the following: <ul style="list-style-type: none"> • OATC Initial Actions Page • UO Initial Actions Page NOTE: SS initiates step 8 after OATC/UO Initial Actions completed.

1. Introduction

2. Methodology

3. Results

4. Discussion

5. Conclusion

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Time	Position	Applicant's Action or Behavior
	OATC	<p>PERFORMS OATC INITIAL ACTIONS</p> <p>1. Check both trains of ECCS equipment – ALIGNING FOR INJECTION PHASE: (YES)</p> <ul style="list-style-type: none"> • MLB indication
	OATC	<p>2. Check Containment Isolation Phase A – ACTUATED. (YES)</p> <ul style="list-style-type: none"> • CIA MLB indication
	OATC	<p>3. Check ECCS Pumps and NCP status:</p> <ul style="list-style-type: none"> a. CCPs RUNNING. (YES) b. SI Pumps – RUNNING. (YES) <p>Note to Examiner: SIP A is tagged out.</p> <ul style="list-style-type: none"> c. RHR pumps – RUNNING. (YES) d. NCP – TRIPPED. (YES)
	OATC	<p>4. Verify CCW Pumps – ONLY TWO RUNNING EACH TRAIN.</p>

59(27)

open bkrs RCP 1,3 \Rightarrow but didn't
do all of them? check
panel after?

CSFST monitoring \rightarrow note F-0
procedure only 1 set bkrs
req'd

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Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	OATC	<p>PERFORMS OATC INITIAL ACTIONS</p> <p>5. Verify proper NSCW system operation: (YES)</p> <p>a. NSCW Pumps – ONLY TWO RUNNING EACH TRAIN.</p> <p>b. NSCW TOWER RTN HDR BYPASS BASIN hand switches – IN AUTO:</p> <ul style="list-style-type: none"> • HS-1668A • HS-1669A
	OATC UO	<p>6. Verify Containment Cooling Units: (YES)</p> <p>a. ALL RUNNING IN LOW SPEED.</p> <ul style="list-style-type: none"> • MLB indication <p>b. NSCW Cooler isolation valves – OPEN. (YES)</p> <ul style="list-style-type: none"> • MLB indication
	OATC	<p>7. Check Containment Ventilation Isolation.</p> <p>a. Dampers and Valves – CLOSED. (YES)</p>

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reset. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	OATC	<p>PERFORMS OATC INITIAL ACTIONS</p> <p>8. Check Containment pressure – REMAINED LESS THAN 21 PSIG. (YES)</p>
	OATC	<p>9. Check ECCS flows:</p> <ul style="list-style-type: none"> a. BIT flow. (YES) b. RCS pressure – LESS THAN 1625 PSIG. (YES) c. SI Pump flow. (YES) d. RCS pressure – LESS THAN 300 PSIG. (NO) <p>RNO</p> <ul style="list-style-type: none"> d. Go to Step 10.

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	OATC	<p>PERFORMS OATC INITIAL ACTIONS</p> <p>10. Check ECCS Valve alignment – PROPER INJECTION LINEUP INDICATED ON MLBs. (YES)</p>
	OATC	11. Check ACCW Pumps – AT LEAST ONE RUNNING. (YES)
	OATC	12. Adjust Seal Injection flow to all RCPs 8 TO 13 GPM.
	OATC	<p>13. Dispatch Operator to ensure one train of SPENT FUEL POOL COOLING in service per 13719, SPENT FUEL POOL COOLING AND PURIFICATION SYSTEM.</p> <p>END OF OATC INITIAL OPERATOR ACTIONS, return to E-0 Step 8.</p>

APPROVED: _____
DATE: _____
BY: _____
TITLE: _____
OFFICE: _____
FOR: _____
RE: _____

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Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	UO	<p>UO INITIAL ACTIONS</p> <p>1. Check AFW Pumps – RUNNING. (YES)</p> <ul style="list-style-type: none"> • MDAFW Pumps • TDAFW Pump, if required.
	UO	<p>2. Check NR level in at least one SG – GREATER THAN 10% (32% ADVERSE)</p> <p>RNO</p> <p>2. Establish AFW flow greater than 570 gpm by starting pumps and aligning valves as necessary.</p>
	UO	<p>3. Check if main steamlines should be isolated: (YES)</p> <p>a. Check for one or more of the following conditions:</p> <p>Any steamline pressure – LESS THAN OR EQUAL TO 585 PSIG.</p> <p>Containment pressure – GREATER THAN 14.5 PSIG.</p> <p>Low Steam Pressure SI/SLI – BLOCKED AND High Steam Pressure Rate – ONE TWO OR MORE CHANNELS OF ANY STEAMLIN.</p> <p>b. Verify Main Steamline Isolation and Bypass Valves – CLOSED. (YES)</p>

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseat. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	UO	<p>UO INITIAL ACTIONS</p> <p>4. Verify FW Isolation Valves closed: (YES)</p> <ul style="list-style-type: none"> • MFIVs • BFIVs • MFRVs • BFRVs
	UO	<p>5. Verify SG Blowdown isolated. (YES)</p> <ul style="list-style-type: none"> • Place SG Blowdown isolation Valve handswitches HS-7603A, B, C, and D in the CLOSE position. <p>Note to examiner: The UO will place the HS-7603A valves in the hard closed position.</p> <ul style="list-style-type: none"> • SG Sample Isolation Valves – CLOSED. (YES)
	UO	<p>6. Verify Diesel Generators – RUNNING. (YES)</p>
	UO	<p>7. Throttle total AFW flow as necessary to maintain SG NR levels between 10% (32% ADVERSE) and 65%.</p>

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	UO	8. Verify both MFPs – TRIPPED. (YES)
	UO	9. Check Main Generator Output Breakers – OPEN. (YES) END OF UO INITIAL ACTIONS, return to step 8 of E-0.

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Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	OATC UO	<p>19000-C, E-0 actions beginning with step 8.</p> <p>8. Initiate the Continuous Actions Page.</p>
	OATC	<p>9. Check RCS temperature stable at or trending to 557°F. (NO)</p> <p>RNO</p> <p>9. IF temperature is less than 557°F and lowering, (it is) THEN perform the following as necessary:</p> <p>a. Stop dumping steam.</p> <p>b. Perform the following as appropriate:</p> <p style="padding-left: 40px;">IF at least one SG NR level greater than 10% (32% ADVERSE), THEN lower total feed flow.</p> <p style="padding-left: 40px;">-OR-</p> <p style="padding-left: 40px;">If all SG NR levels less than 10% (32% ADVERSE), THEN lower total feed flow to NOT less than 570 gpm.</p> <p>c. If cooldown continues, THEN close MSIVs and BSIVs.</p> <p>d. If temperature greater than 557°F and rising, THEN dump steam.</p>

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseat. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	OATC	<p>CAUTION: A PRZR PORV Block Valve which was closed to isolate an excessively leaking or open PRZR PORV should not be opened unless used to prevent challenging the PRZR Safeties.</p> <p>10. Check PRZR PORVs, Block Valves, and Spray Valves:</p> <ul style="list-style-type: none"> a. PRZR PORVs – CLOSED AND IN AUTO. (YES) b. Normal PRZR Spray Valves – CLOSED (YES) c. Power to at least one Block Valve – AVAILABLE. (YES) d. PRZR PORV Block Valves – AT LEAST ONE OPEN. (NO) <p>RNO</p> <ul style="list-style-type: none"> d. Verify open at least one PRZR PORV Block Valve when PRZR pressure is greater than 2185 psig.
1010	UO	<p>11. Check if RCPs should be stopped.</p> <ul style="list-style-type: none"> a. ECCS Pumps – AT LEAST ONE RUNNING: (YES) <ul style="list-style-type: none"> • CCP or SI Pump b. RCS pressure – LESS THAN 1375 PSIG. (NO) <p>RNO</p> <ul style="list-style-type: none"> b. Go to Step 12.

10 05 (37) steam  blow #4 s/g →
↑✓

10 08 (13) isolate AFW to s/g #4

09 (00) isolate AFW to s/g (~~2~~ 3)
(idle loops), keep feeding #2

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Event No.: 7 Faulted SG (Code Safety Open on SG # 4)

Event Description: During the ATWT, SG Safeties will lift on all SG(s), however, safety valve Loop # 4 will fail to reseal. These are the actions for E-0.

Time	Position	Applicant's Action or Behavior
	UO	12. Check SGs secondary pressure boundaries: <ul style="list-style-type: none"> a. SG Pressures: <ul style="list-style-type: none"> Any lowering in an uncontrolled manner. (YES) -OR- Any completely depressurized. b. Go to 19020-C, E-2 FAULTED STEAM GENERATOR ISOLATION.
	SS	Transitions to 19020-C, E-2 FAULTED STEAM GENERATOR ISOLATION

Section 1: Introduction

10/27/2023

This document is a confidential report containing sensitive information.

The purpose of this report is to provide a detailed analysis of the current market conditions.

The data was collected from various sources and is subject to change.

The information is provided for your reference and is not intended to be used for any other purpose.

For more information, please contact the relevant department.

Thank you for your attention.

Best regards,
[Signature]

cc:

[Name], [Name], [Name]

For any questions, please reach out to the support team.

We appreciate your feedback and look forward to your response.

Thank you for your time and cooperation.

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Scenario No.: 6

Event No.: 7 (E-2 Actions)

Event Description: 19020-C E-2 actions for Faulted Steam Generator.

Time	Position	Applicant's Action or Behavior
	CREW SS	<p>1. Initiate critical safety function status trees per 19200-C, F-O CRITICAL SAFETY FUNCTION STATUS TREE.</p> <p>2. Initiate NMP-EP-110, EMERGENCY CLASSIFICATION DETERMINATION AND INITIAL ACTION.</p> <p>Note to examiner: The SS will call the Simbooth to have the Shift Manager implement NMP-EP-110.</p>
	OATC	CAUTION: At least one SG should be available for RCS cooldown.
	UO	3. Verify Main Steamline Isolation and Bypass Valves – CLOSED. (YES)
	UO	<p>4. Check SGs secondary pressure boundaries:</p> <p>a. Identify intact SG(s): (# 1, 2, and 3 are intact)</p> <ul style="list-style-type: none"> • SG pressures – ANY STABLE OR RISING (YES) <p>b. Identify faulted SG(s)</p> <p>ANY SG PRESSURE LOWERING IN AN UNCONTROLLED MANNER. (YES, SG # 4)</p> <p>-OR-</p> <p>ANY SG COMPLETELY DEPRESSURIZED. (maybe by now, SG # 4)</p>

10 11 (55) transition to E-2

10 15 (55) simulator → freeze.

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Event No.: 7 (E-2 Actions)

Event Description: 19020-C E-2 actions for Faulted Steam Generator.

Time	Position	Applicant's Action or Behavior
	UO	<p>8. Close affected TDAFW Pump Steam Supply Valve(s):</p> <p>HV-3009 (SG 1) LP-1 MS SPLY TO AUX FW TD PMP-1</p> <p>HV-3019 (SG-2) LP-2 MS SPLY TO AUX FW TD PMP-1</p> <p>Note to examiner: This step is N/A.</p>
	UO	<p>9. Verify affected SG ARV(s) – CLOSED:</p> <p>PV-3000 (SG 1)</p> <p>PV-3010 (SG 2)</p> <p>PV-3020 (SG 3)</p> <p>PV-3030 (SG 4)</p>
	UO	<p>10. Align SGBD valves:</p> <ul style="list-style-type: none"> • Place SG Blowdown Isolation Valve handswitches in CLOSE position. • Close sample valves. <p>HV-9451 (SG 1)</p> <p>HV-9452 (SG 2)</p> <p>HV-9453 (SG 3)</p> <p>HV-9454 (SG 4)</p>
	UO	<p>11. Verify faulted SG(s) remains isolated during subsequent recovery actions unless needed for RCS cooldown or SG activity sampling.</p>
	UO	<p>12. Check CST level – GREATER THAN 15%. (YES)</p>

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Event No.: 7 (E-2 Actions)

Event Description: 19020-C E-2 actions for Faulted Steam Generator.

Time	Position	Applicant's Action or Behavior
	UO	<p>13. Initiate checking if SG Tubes intact:</p> <ul style="list-style-type: none"> a. Direct Chemistry to take periodic activity samples of all SGs one at a time. b. Secondary radiation – NORMAL. (YES) <ul style="list-style-type: none"> • MAIN STM LINE MONITORS <ul style="list-style-type: none"> • RE-13120 (SG 1) • RE-13121 (SG 2) • RE-13122 (SG 3) • RE-13119 (SG 4) • CNDSR AIR EJCTR/STM RAD MONITORS: <ul style="list-style-type: none"> • RE-12839C • RE-12839D (if on scale) • RE-12839E (if on scale) • STM GEN LIQ PROCESS RAD: <ul style="list-style-type: none"> • RE-0019 (Sample) • RE-0021 (Blowdown) • SG sample radiation. c. Check SG levels – ANY RISING IN AN UNCONTROLLED MANNER. (NO) <p>RNO</p> <ul style="list-style-type: none"> c. Go to Step 14.

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Event Description: 19020-C E-2 actions for Faulted Steam Generator.

Time	Position	Applicant's Action or Behavior
	OATC	<p>14. Check if ECCS flow should be reduced:</p> <ul style="list-style-type: none"> a. RCS Subcooling – GREATER THAN 24°F. (38°F ADVERSE) (YES) b. Secondary Heat Sink: (YES) <p>Total feed flow to intact SGs – GREATER THAN 570 GPM.</p> <p>-OR-</p> <p>Narrow range level in at least one intact SG – GREATER THAN 10%. (32% ADVERSE)</p> <ul style="list-style-type: none"> c. RCS pressure – STABLE or RISING (YES) d. PRZR level – GREATER THAN 9%. (37% ADVERSE) (YES) e. Go to 19011-C, ES-1.1 SI TERMINATION.
		<p>END OF SCENARIO if desired, freeze the simulator if NRC Chief Examiner concurs.</p> <p>IF the NRC Chief would like to see more, steps for SI termination are attached through step 5a.</p>

Subject: [Illegible]

Reference is made to [Illegible]

The following information was obtained from [Illegible]

[Illegible text block containing the main body of the memorandum, including a list of items or details. The text is too faint to transcribe accurately.]

Very truly yours,

[Illegible Signature]

[Illegible Title]

[Illegible text]

[Illegible text]

Op-Test No.: 2012-301

Scenario No.: 6

Event No.: 7

Event Description: Steps for 19011-C, ES-1.1 SI Termination through step 5b.

Time	Position	Applicant's Action or Behavior
	SS	Enters 19011-C, ES-1.1 SI Termination.
	OATC UO	1. Initiate the following: <ul style="list-style-type: none"> • Continuous Actions and Foldout Page. • Critical Safety Function Status Trees per 19200-C, F-O CRITICAL SAFETY FUNCTION STATUS TREE.
	SS	2. Initiate NMP-EP-110, EMERGENCY CLASSIFICATION AND DETERMINATION AND INITIAL ACTION.
	CREW	<p style="text-align: center;"><u>CAUTIONS</u></p> <p>If offsite power is lost after SI reset, action is required to restart the following equipment if plant conditions require their operation.</p> <ul style="list-style-type: none"> • RHR Pumps • SI Pumps • Post-LOCA Cavity Purge Units • Containment Coolers in low speed (started in high speed on a UV signal) • ESF Chilled Water Pumps (If CRI is reset)
	OATC	3. Reset SI.
	OATC	4. Verify only one CCP – RUNNING. Note to examiner: It is expected both CCPs will be running, usually the crew will stop CCP A.

Case No. 12345

The first part of the document discusses the background of the case and the parties involved. It mentions that the case was filed on [Date] and that the parties are [Party 1] and [Party 2].

The second part of the document discusses the facts of the case. It mentions that [Party 1] filed a motion for summary judgment on [Date] and that the court granted the motion on [Date].

The third part of the document discusses the legal issues in the case. It mentions that the court found in favor of [Party 1] and that the court's decision was based on the following legal principles: [Principle 1] and [Principle 2].

The fourth part of the document discusses the court's decision. It mentions that the court granted summary judgment in favor of [Party 1] and that the court's decision was based on the following legal principles: [Principle 1] and [Principle 2].

Conclusion

In conclusion, the court has found in favor of [Party 1] and has granted summary judgment. The court's decision is based on the following legal principles: [Principle 1] and [Principle 2].

The court's decision is based on the following legal principles: [Principle 1] and [Principle 2]. The court has found that [Party 1] is entitled to summary judgment because [Reason 1] and [Reason 2].

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Op-Test No.: 2012-301

Scenario No.: 6

Event No.: 7

Event Description: Steps for 19011-C, ES-1.1 SI Termination through step 5b.

Time	Position	Applicant's Action or Behavior
	UO	<p>5. Check SGs secondary pressure boundaries:</p> <ul style="list-style-type: none"> a. Any SG – FAULTED. (YES, # 4) b. Faulted SG – COMPLETELY DEPRESSURIZED. (NO) <p>RNO</p> <ul style="list-style-type: none"> b. Do NOT continue with this procedure until faulted SG(s) – COMPLETELY DEPRESSURIZED. <p>Return to Step 5a.</p> <p>Note to examiner: It is expected SG # 4 will still be showing steam flow at this time, this will be the end of the scenario.</p>
		END OF EVENT 7, END OF THE SCENARIO.

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**NUCLEAR SAFETY FOCUS
TARGET ZERO**

Protected Train:

- Alpha
- Bravo

EOOS:

- Green
- Yellow
- Orange
- Red

**Plant
Conditions:**

100 % power BOL.

Major Activities:

Maintain power operations per UOP 12004-C section 4.3 for power operation.

Active LCOs:

- LCO 3.5.2 Condition A is in effect due to SIP A tagged out.

**OOS/ Degraded
CR Instruments:**

- None

**Narrative
Status:**

- Containment mini-purge is in service for a planned Containment Entry on next shift.
- SIP A is tagged out for motor repair, expected return to service time is 24 hours with 48 hours left on a shutdown LCO of 72 hours.
- The remnants of Hurricane Maya are passing through, severe weather and thunderstorms will be in the area for the next 8 hours. The Severe Weather Checklist is in effect.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 311 - QUANTUM MECHANICS

PROBLEM SET 10

DATE: _____

1. A particle of mass m is confined to a one-dimensional infinite potential well of width L .

(a) Find the energy levels E_n .

(b) Calculate the expectation value of the position $\langle x \rangle$ for the n -th energy level.

(c) Calculate the expectation value of the momentum $\langle p \rangle$ for the n -th energy level.

(d) Find the probability density $|\psi(x)|^2$ for the n -th energy level.

(e) Calculate the probability of finding the particle in the region $0 < x < L/2$ for the n -th energy level.

(f) Calculate the probability of finding the particle in the region $L/2 < x < L$ for the n -th energy level.

(g) Find the expectation value of the kinetic energy $\langle T \rangle$ for the n -th energy level.

(h) Find the expectation value of the potential energy $\langle V \rangle$ for the n -th energy level.

2. A particle of mass m is confined to a one-dimensional infinite potential well of width L .

(a) Find the energy levels E_n .

(b) Calculate the expectation value of the position $\langle x \rangle$ for the n -th energy level.

(c) Calculate the expectation value of the momentum $\langle p \rangle$ for the n -th energy level.

(d) Find the probability density $|\psi(x)|^2$ for the n -th energy level.

(e) Calculate the probability of finding the particle in the region $0 < x < L/2$ for the n -th energy level.

(f) Calculate the probability of finding the particle in the region $L/2 < x < L$ for the n -th energy level.