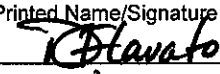
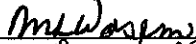

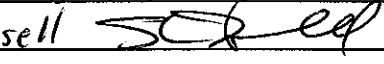


Facility: Calvert Cliffs Nuclear Power Plant		Date of Examination: 1-22-09		Operating Test Number: 2008	
1. General Criteria		Initials			
		a	b*	c#	
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	DL	MLW	SL	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	N/A	N/A	N/A	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (See Section D.1.a.)	DL	MLW	SL	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	DL	MLW	SL	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	DL	MLW	SL	
2. Walk-Through Criteria					
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> • initial conditions • Initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee • operationally important specific performance criteria that include: <ul style="list-style-type: none"> - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable 	DL	MLW	SL	
	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	DL	MLW	SL	
3. Simulator Criteria					
The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.		N/A	N/A	N/A	
		Printed Name / Signature		Date	
a.	Author	Domenic F. Lavato	<i>Domenic F. Lavato</i>	1/16/09	
b.	Facility Reviewer(*)	Michael L. Wasem	<i>Michael L. Wasem</i>	1/19/09	
c.	NRC Chief Examiner (#)	David Silk	<i>David Silk</i>	1/21/09	
d.	NRC Supervisor	Sam Hansell	<i>Sam Hansell</i>	1/22/09	
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: Calvert Cliffs Nuclear Power Plant		Date of Examination: January 22, 2009	
Exam Level: RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/>		Operating Test No.: 2009	
Control Room Systems [@] (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)			
System / JPM Title	Type Code*	Safety Function	
a.	N/A	N/A	
b.	N/A	N/A	
c.	N/A	N/A	
d.	N/A	N/A	
e.	N/A	N/A	
f.	N/A	N/A	
g.	N/A	N/A	
h.	N/A	N/A	
In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)			
i.	N/A	N/A	
j. CAC – Start 11 & 12 Containment Air Coolers	E, N, R	5	
k. FRV – Align #11 Main Feed Reg Valve for local/manual operation	E, D	4 (sec)	
@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.			
* Type Codes	Criteria for RO / SRO-I / SRO-U		
(A)lternate path	4-6 / 4-6 / 2-3		
(C)ontrol room			
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4		
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1		
(EN)gineered safety feature	- / - / ≥ 1 (control room system)		
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1		
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1		
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)		
(R)CA	≥ 1 / ≥ 1 / ≥ 1		
(S)imulator			

Facility: Calvert Cliffs Nuclear Power Plant		Date of Examination: January 22, 2009		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	N/A	N/A	N/A
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	N/A	N/A	N/A
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	N/A	N/A	N/A
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	N/A	N/A	N/A
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	N/A	N/A	N/A
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	N/A	N/A	N/A
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	N/A	N/A	N/A
3. W A L K T H R U	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	TE	hew	WJ
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	TE	MEW	AE
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	N/A	N/A	N/A

4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	DL	MLW	DL
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	DL	MLW	DL
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	DL	MLW	DL
	d. Check for duplication and overlap among exam sections.	DL	MLW	DL
	e. Check the entire exam for balance of coverage.	DL	MLW	DL
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	DL	MLW	DL
		Printed Name/Signature		Date
a. Author	<u>Domenic F. Lavato</u>			<u>1/16/09</u>
b. Facility Reviewer (*)	<u>Michael L. Wasem</u>			<u>1/16/09</u>
c. NRC Chief Examiner (#)	<u>David Silk</u>			<u>1/21/09</u>
d. NRC Supervisor	<u>Sam Hansell</u>			<u>1/22/09</u>
Note:		# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.		
		* Not applicable for NRC-prepared examination outlines		

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/19/08 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of _____. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	D. F. LAVATO	EXAM DEVELOPER	<i>[Signature]</i>	1/13/09	<i>[Signature]</i>	1/27/09
2.	M. V. Wason	Facility Mgr	<i>[Signature]</i>	1/13/09	<i>[Signature]</i>	1/27/09
3.	R. V. Pace	G3-ops Training	<i>[Signature]</i>	1/14/09	<i>[Signature]</i>	1/27/09
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Facility: **Calvert Cliffs 1 & 2**

Job Performance Measure No.: **2009-CAC**

Task Title: **Start 11 & 12 Containment Air Coolers**

Task Number: **032.049**

K/A Reference: **022 A4.01 (3.6, 3.6)**

Method of testing:

Simulated Performance: √ Actual Performance:

Classroom: Simulator: Plant: √

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- 1) A severe fire has resulted in Control Room evacuation. AOP-9A has been implemented.**
- 2) You are performing the duties of the Unit-1 ABO.**

Initiating Cue:

You have just completed Step BK, RESTORE SWITCHGEAR ROOM VENTILATION which directs you to "Go to the 45' West Penetration Room to perform Step BL". Are there any questions? You may begin.

Task Standard:

This JPM is complete when 1C43 has been notified that 11 and 12 Containment Air Coolers are in high speed.

Evaluation Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps (denoted by an asterisk) completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

Required Materials:

1. Procedures and manuals normally available in the plant

General References:

1. AOP-9A, CONTROL ROOM EVACUATION AND SAFE SHUTDOWN DUE TO A SEVERE CONTROL ROOM FIRE.

Time Critical Task:

No

Validation Time:

20 minutes

Simulator Setup:

1. None

ELEMENT
(* = CRITICAL STEP)

STANDARD

Time Start: _____	
CUE: You have just completed Step BK, RESTORE SWITCHGEAR ROOM VENTILATION which directs you to "Go to the 45' West Penetration Room to perform Step BL".	
<input type="checkbox"/> Locate AOP-9A, Step BL.	Same as element.
<input type="checkbox"/> Candidate proceeds to the 45' Unit-1 45' West Penetration Room	Same as element
CUE: When the Local/Remote Key is inserted and rotated each switch is in the LOCAL position.	
1. Start 12 Containment Air Cooler in HIGH speed: <input type="checkbox"/> *a. Place a Local/Remote Key into 12 Containment Air Cooler Load Contactor Panel handswitch, 1-HS-5300A1, and unlock the handswitch.	Same as element
<input type="checkbox"/> *b. Rotate the handswitch to LOCAL.	Same as element
CUE: When the Local Control handswitch is positioned, 12 CAC is running in HIGH.	
<input type="checkbox"/> *c. Place 12 Containment Air Cooler Local Handswitch, 1-HS-5300A, to HIGH.	Same as element
<input type="checkbox"/> d. GO TO the 45' East Electrical Penetration Room.	Same as element
CUE: When the Local/Remote Key is inserted and rotated, each switch is in the LOCAL position.	
2. Start 11 Containment Air Cooler in HIGH speed: <input type="checkbox"/> *a. Place a Local/Remote Key into 11 Containment Air Cooler Load Contactor Panel handswitch, 1-HS-5299A1, and unlock the handswitch.	Same as element
<input type="checkbox"/> *b. Rotate the handswitch to LOCAL	Same as element
CUE: When the Local Control handswitch is positioned, 11 CAC is running in HIGH.	
<input type="checkbox"/> *c. Place 11 Containment Air Cooler Local Handswitch, 1-HS-5299A, to HIGH.	Same as element

locate in provide procedure

?

CUE: Acknowledge communication that 11 and 12 Containment Air Coolers are in high speed using proper communication techniques.

3. Notify 1C43 that 11 and 12 Containment Air Coolers are in high speed.

Same as element

Terminating Cue: This JPM is complete when 11 and 12 Containment Air Coolers are in LOCAL and operating in high speed. per AOP-9A, Section BL

Time Stop _____

Verification of Completion

Job Performance Measure Number: 2009-CAC

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

Applicant Response: _____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

Initial Conditions:

- 1) A severe fire has resulted in Control Room evacuation. AOP-9A has been implemented.
- 2) You are performing the duties of the Unit-1 ABO.

Initiating Cue:

You have just completed Step BK, RESTORE SWITCHGEAR ROOM VENTILATION which directs you to "Go to the 45' West Penetration Room to perform Step BL". Are there any questions? You may begin.

Facility: **Calvert Cliffs 1&2**

Job Performance Measure No.: **2009-FRV**

Task Title: **Respond to a FRV or FRV Controller Malfunction**

Task Number: **202.040**

K/A Reference: **059 A2.12 (3.1, 3.4)**

Method of testing:

Simulated Performance: √ Actual Performance:

Classroom: Simulator: Plant: √

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- 1) Unit 1 is at 100% power.**
- 2) 11 SG FRV has an oscillation of about 5% output both in auto and manual. AOP-3G has been implemented.**
- 3) 11 SG FRV must be pinned to support Pri-1 maintenance on the positioner.**
- 4) You are performing the duties of an extra CRO.**

Initiating Cue:

The CRS directs you to take local control of #11 SG FRV per AOP-3G, Step VII.D.7.d. The Safer Brief has been completed and the 800 Mhz radios will be used for communication. Are there any questions? You may begin.

Task Standard:

This JPM is complete when 11 SG FRV is in Local Manual Control per AOP-3G VII.D.7.d.

Evaluation Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps (denoted by an asterisk) completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

Required Materials:

1. Procedures and manuals normally available in the plant

General References:

1. AOP-3G, MALFUNCTION OF MAIN FEEDWATER SYSTEM

Time Critical Task:

No

Validation Time:

20 minutes

Simulator Setup:

1. None

ELEMENT
(* = CRITICAL STEP)

STANDARD

Time Start: _____

CUE: The CRS directs you to take local control of #11 FRV per AOP-3G, Step VII.D.7.d.

<input type="checkbox"/> Locate AOP-3G, Step VII.D.7.d.	Same as element.
---	------------------

<input type="checkbox"/> Candidate proceeds to the 27' Elevation of the Unit-1 Turbine Building	Same as element
---	-----------------

locate or provide procedure

CUE: Communications have been established with the Control Room.

<input type="checkbox"/> 1. Candidate establishes communication with the Unit-1 Control Room	Same as element
--	-----------------

CUE: The holes in the valve bushing and stem are aligned.

<input type="checkbox"/> *2. Turn the handwheel until the holes in the valve bushing and stem are aligned.	Same as element
--	-----------------

WARNING

The FRV pin may be hot due to heat conducted through the valve body. Gloves should be worn when handling the FRV pin.

CUE: The pin has been inserted.

<input type="checkbox"/> *3. Insert the FRV alignment pin.	Same as element
--	-----------------

CUE: 1-IA-191 is shut.

<input type="checkbox"/> *4. Shut the Instrument Air isolation for the affected FRV: <ul style="list-style-type: none"> • 11 SG FRV 1-IA-191 • 12 SG FRV 1-IA-194 	Shuts 1-IA-191
---	----------------

CUE: 1-IA-1100 is open.

<input type="checkbox"/> *5. Open the equalizing valve for the affected FRV: <ul style="list-style-type: none"> • 11 SG FRV 1-IA-1100 • 12 SG FRV 1-IA-1101 	Opens 1-IA-1100
---	-----------------

Terminating Cue: This JPM is complete when 11 SG FRV is in local manual control per AOP-3G, Section VII.D.7.d

Time Stop _____

Verification of Completion

Job Performance Measure Number: 2009-FRV

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

Applicant Response: _____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

Initial Conditions:

- 5) Unit 1 is at 100% power.
- 6) 11 SG FRV has an oscillation of about 5% output both in auto and manual. AOP-3G has been implemented.
- 7) 11 SG FRV must be pinned to support Pri-1 maintenance on the positioners.
- 8) You are performing the duties of an extra CRO.

Initiating Cue:

The CRS directs you to take local control of #11 SG FRV per AOP-3G, Step VII.D.7.d. The Safer Brief has been completed and the 800 Mhz radios will be used for communication. Are there any questions? You may begin.