U.S. Nuclear Regulatory Commission Individual Examination Report						
Applicant's Name: [redacted]			Docket Number: [redacted]			
I	R	Examination Type (Initial or Retake)	Facility Name: **Vogtle**			
		Reactor Operator	Facility Description	X	Hot	
X		Senior Reactor Operator (SRO) Instant			Cold	
		SRO Upgrade			BWR	
		SRO Limited to Fuel Handling		X	PWR	

Written Examination Summary	
NRC Author (Reviewer) **Daniel X. Bacon**	RO/SRO/Total Exam Points: **73 / 25 / 98**
NRC (Grader)/Reviewer: **Phillip G. Capehart**	Applicant Points: **61 / 16 / 77**
Date Administered: **04/01/2011**	Applicant Grade (%): **83.56/ 64.00 / 78.57**

Operating Test Summary	
Administered by: **Phillip G. Capehart**	Date Administered: **03/16 – 24/2011**
Walk-Through (Overall)	**S**
Administrative Topics	**S**
Simulator Operating Test	**S**

Examiner Recommendations					
Check Blocks	Pass	Fail	Waive	Signature	Date
Written Examination		X		Phillip G. Capehart	05/02/2011
Operating Test	X			Phillip G. Capehart	05/23/2011
Final Recommendation		X		Michael K. Meeks	05/02/2011

License Recommendation			
	Issue License		Date
✓	Deny License	Malcolm T. Widmann	05/03/11

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

Applicant Docket Number: [redacted]

Walk-Through Grading Details	Evaluation (S or U)	Comment Page Number
Administrative Topics		
a. Critical Safety Function Status Tree Evaluation	S	
b. Evaluate Inoperable AFD Monitor Alarm (Administered by M. Meeks)	S	
c. Determine mode change requirements (Administered by M. Meeks)	S	
d. Life Saving in Emergency Conditions (Administered by J. Hopkins)	S	
e. Classify an Emergency Event	S	4
Systems - Control Room		
a. Emergency Borate due to Rods below insertion limits (RIL) (Administered by P. Capehart)	S	
b. Establish Safety Grade Letdown (Administered by J. Hopkins)	S	
c. Depressurize RCS to Reduce Break Flow to Ruptured Steam Generator-Normal Pressurizer Spray Not Available	S	
d. Isolate a Faulted Steam Generator	S	
e. Place Containment Hydrogen Monitors in service using 13130-1	S	5
f. DG Parallel Operation with voltage regulator failure	S	6
g. Perform Power Range NI ACOT (Administered by M. Meeks)	S	
h. NA		
Systems - In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps (Administered by M. Meeks)	S	
j. Response to the Inability to Reset or Block SI (Administered by J. Hopkins)	**U**	7
k. Locally Remove Diesel Generator From Service (Administered by J. Hopkins)	S	

Applicant Docket Number: [redacted]

Senior Reactor Operator Simulator Operating Test Grading Details

Competencies/ Rating Factors (RFs)	RF Weights	RF Scores	RF Grades	Comp. Grades	Comment Page No.
1. Interpretation/Diagnosis					
a. Recognize & Attend	0.20	3	0.60		
b. Ensure Accuracy	0.20	3	0.60	3.00	
c. Understanding	0.30	3	0.90		
d. Diagnose	0.30	3	0.90		
2. Procedures					
a. Reference	0.30	3	0.90		
b. EOP Entry	0.30	3	0.90	3.00	
c. Correct Use	0.40	3	1.20		
3. Control Board Operations					
a. Locate & Manipulate	0.34	3	1.02		
b. Understanding	0.33	3	0.99	3.00	
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	3	1.20		
b. Crew & Others Informed	0.40	3	1.20	**2.80**	
c. Receive Information	0.20	**2**	**0.40**		8
5. Directing Operations					
a. Timely & Decisive Action	0.30	3	0.90		
b. Oversight	0.30	3	0.90	3.00	
c. Solicit Crew Feedback	0.20	3	0.60		
d. Monitor Crew Activities	0.20	3	0.60		
6. Technical Specifications					
a. Recognize and Locate	0.40	**2**	**0.80**		
b. Compliance	0.60	3	1.80	**2.60**	9

[Note: Enter RF Weights (nominal, adjusted, or "0" if not observed (N/O)), RF Scores (1, 2, 3, or N/O), and RF Grades from Form ES-303-4 and sum to obtain Competency Grades.]

CROSS REFERENCE:

Administrative Topic "e"

JPM/TASK:

Classify an Emergency Event

EXPECTED ACTION/RESPONSE:

The applicant was directed to complete NMP-EP-110, "EMERGENCY CLASSIFICATION DETERMINATION," Checklist 1, "Classification Determination." At step 1, the applicant was expected to check both boxes for the appropriate Initiating Condition Matrix for classification of the event, and continue to step 2. At step 2, the applicant was expected to identify that each fission product barrier is intact in step 2a and initial the step; for step 2b, the applicant was expected to mark "NONE" for the highest applicable fission product barrier Initial Condition and initial the step.

APPLICANT ACTION/RESPONSE:

The applicant, in step 1 of the NMP-EP-110 Checklist 1, checked only the "COLD IC/EAL Matrix Evaluation Chart" and proceeded to step 3 of the checklist. The applicant did not perform step 2a or 2b to identify any potential degraded fission product barriers. These steps were not critical; therefore, the applicant's performance was graded as satisfactory.

LACK OF ABILITY/KNOWLEDGE:

The applicant displayed a weakness in his ability to take actions called for in the facility emergency plan (K/A G2.4.38). Specifically, the applicant did not meet the plant expectations to properly fill out Checklist 1 of E-Plan procedure NMP-EP-110 for dual plant events.

CROSS REFERENCE:

Simulator JPM "e"

JPM/TASK:

Place Containment Hydrogen Monitors in service using 13130-1

EXPECTED ACTION/RESPONSE:

The applicant was expected to place the Train A Containment Hydrogen Monitors in service using 13130-1, "Post-Accident Hydrogen Control," Section 4.2. At step 4.2.1.9, the applicant was expected to note hydrogen concentration on 1-AI-12979 on the Main Control Board (QMCB).

APPLICANT ACTION/RESPONSE:

At step 4.2.1.9, the applicant used recorder 1-AR-12979 on the QMCB. The failure to use the appropriate indication per this step was not critical and therefore the applicant was graded as satisfactory on this JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant displayed a lack of ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions (K/A G2.2.44). Specifically, the applicant did not use the correct instrumentation as required by the procedure.

CROSS REFERENCE:

Simulator JPM "f"

JPM/TASK:

DG Parallel Operation with voltage regulator failure

EXPECTED ACTION/RESPONSE:

Using procedure SOP 13427A-1, the applicant was directed to parallel D/G-1A to 1AA02 and raise D/G-1A load to 7000kW. Step 4.2.1.20 substep a. states to, "**Adjust** DG load to 2100 to 7000kW by gradually increasing the pot setting on DSL GEN 1A LOADING SET PT CONTROL 1SE-4915." The applicant was expected to initially load the D/G to 3000 kW per the note prior to the step that states "It is highly desirable to initially load the DG to 3000kW and maintain the load until cylinder exhaust temperatures stabilize or 15 minutes".

APPLICANT ACTION/RESPONSE:

At step 4.2.1.20, the applicant initially loaded the D/G to 2000kW and waited for 5 minutes to increase the DG load in 1000kW increments every 5 minutes. A follow up question was asked as to why the applicant loaded the D/G to 2000 kW. The applicant referenced step 4.2.1.20 that states to "adjust DG load to 2100 to 7000kW" and one of the five bulleted notes prior to step 4.2.1.20 that states "The DG should be loaded in increments of approximately 1000kW and 500kVAR in time increments of approximately 5 minutes between load changes". The failure to perform this step was not critical; therefore, the applicant was graded as satisfactory on this JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant displayed a lack of ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions (K/A 2.2.44). Specifically, the applicant did not take the necessary actions to ensure that the D/G is operated within the desired plant parameters.

CROSS REFERENCE:

In-plant JPM "j"

JPM/TASK:

Response to the Inability to Reset or Block SI

EXPECTED ACTION/RESPONSE:

The applicant was expected to reset the safety injection (SI) signal on Unit 2 Train A using 19011-C, Attachment D, Response to Inadvertent SI and Inability to Reset or Block SI. Specifically, per Step 2 of Attachment D, the applicant was expected to de-energize the Top and Bottom 48 VDC power supplies for the Train A SSPS Logic Cabinet by placing only the 48 VDC ON/OFF switches to the OFF position. The Top power supply is panel number 2374A07G01 and the Bottom power supply is panel number 2384A38G01.

APPLICANT ACTION/RESPONSE:

On the Top power supply panel, the applicant placed both the 48 VDC and the 15 VDC ON/OFF switches to the OFF position. The applicant identified the error, stated that he would report the error to the shift supervisor and would recommend placing the 15 VDC switch back to the ON position. The examiner, acting as the shift supervisor, directed the applicant not to reposition the 15 VDC switch and to continue with the JPM. The applicant successfully completed the remaining steps in the JPM.

Placing only the 48 VDC ON/OFF switch to the OFF position was a critical step; therefore, the applicant's performance was rated as unsatisfactory for this JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant displayed a lack of ability to manually operate and/or monitor resetting of engineered safety features actuation system (ESFAS) channels in the control room (K/A 013A4.02). Specifically, the applicant placed both the 48 VDC and the 15 VDC ON/OFF switches to the OFF position.

CROSS REFERENCE:

4. c. Communications – Receive Information

SCENARIO/EVENT:

Scenario 5 / Event 7,8, 9: A steam line break developed on SG #4 inside containment (IRC) with a failure of both trains of steam line isolation (SLI) to automatically isolate and failure of automatic SI.

EXPECTED ACTION/RESPONSE:

Steps 3.3.1.8 and 3.3.1.9 of procedure 10000-C, "OPERATIONS ADMINISTRATIVE CONTROLS," provide detailed guidance on Vogtle operations department expectations for verbal communications for on-shift operators. Specifically, step 3.3.1.8 reads, in part: "Three way closed loop communications are essential to the safe and efficient operation. Using informal or vague communications can potentially result in a breakdown in understanding between individuals. When relating numerical values to another individual provide a specific value or clearly state the provided value is an approximation. Trend information may also be relevant." In accordance with the above guidance, the applicant was expected to correctly perform three-way closed loop communications with other operating team members.

APPLICANT ACTION/RESPONSE:

Step 9 of procedure 19000-C, "REACTOR TRIP OR SAFETY INJECTION," directs the operators to check RCS temperature stable at or trending to 557 °F. The applicant, as the Operator at the Controls (OATC), reported to the Shift Supervisor (SS) that RCS cold leg temperatures were "464 degrees and not stable at or trending to." The SS responded, "564 degrees and stable." The applicant replied "correct."

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to implement station requirements for verbal communications when performing procedures, specifically in that the applicant did not correctly communicate (receive) a provided numerical value. The applicant made one non-critical error associated with this rating factor, and was therefore evaluated with a score of "2" for this rating factor.

CROSS REFERENCE:

6. a. Tech Specs – Recognize and Locate

SCENARIO/EVENT:

Scenario 1 / Event 4: PR NIS N-42 Lower Detector Fails High requiring entry into AOP-18002-C, Section B for PR NIS Malfunction.

EXPECTED ACTION/RESPONSE:

The applicant, as Shift Supervisor (SS), was expected to identify that PR NIS N-42 lower detector had failed the Tech Specs LCO Condition and initiate the required actions per the LCO statements.

APPLICANT ACTION/RESPONSE:

The applicant correctly identified the applicable 3.3.1 Reactor Trip System Instrumentation Tech Specs for this failure. However, the applicant also identified incorrectly that a 3.0.3 condition existed due to previous RCS NR Temperature Instrument failure. This failure was in the same loop as the NIS failure; therefore, a 3.0.3 condition did not exist.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate overlapping Tech Spec LCO conditions for generic 3.0.3 conditions. The applicant made one non-critical error associated with this rating factor, and was therefore evaluated with a score of "2" for this rating factor.