

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

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		X	Hot
		Senior Reactor Operator (SRO) Instant			Cold
X		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: 60 / 17 / 77		
Date Administered: 04/01/2011			Applicant Grade (%): 82.19 / 68.00 / 78.57		
Operating Test Summary					
Administered by: Michael K. Meeks			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		<i>Phillip G. Capehart</i> Phillip G. Capehart	05/02/2011
Operating Test	X			<i>Michael K. Meeks</i> Michael K. Meeks	05/02/2011
Final Recommendation		X		<i>Phillip G. Capehart</i> Phillip G. Capehart	05/02/2011
License Recommendation					
	Issue License	<i>Malcolm T. Widmann</i> Malcolm T. Widmann			Date
✓	Deny License				05/03/11

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

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 (Administered by J. Hopkins)	S	
b. Evaluate Inoperable AFD Monitor Alarm	S	
c. Determine mode change requirements (Administered by P. Capehart)	S	
d. Life Saving in Emergency Conditions	U	4
e. Classify an Emergency Event (Administered by P. Capehart)	S	
Systems - Control Room		
a. NA		
b. NA		
c. Depressurize RCS to Reduce Break Flow to Ruptured Steam Generator-Normal Pressurizer Spray Not Available (Administered by P. Capehart)	S	
d. NA		
e. NA		
f. DG Parallel Operation with voltage regulator failure (Administered by P. Capehart)	S	5
g. NA		
h. NA		
Systems - In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps	S	
j. Response to the Inability to Reset or Block SI (Administered by J. Hopkins)	U	6
k. Locally Remove Diesel Generator From Service (Administered by J. Hopkins)	S	

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

Applicant Docket Number: XXXXXXXXXX					
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	3.00	
b. Ensure Accuracy	0.20	3	0.60		
c. Understanding	0.30	3	0.90		
d. Diagnose	0.30	3	0.90		
2. Procedures					
a. Reference	0.30	3	0.90	3.00	
b. EOP Entry	0.30	3	0.90		
c. Correct Use	0.40	3	1.20		
3. Control Board Operations					
a. Locate & Manipulate	0.34	2	0.68	2.33	7 8
b. Understanding	0.33	2	0.66		
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	2	0.80	2.60	9
b. Crew & Others Informed	0.40	3	1.20		
c. Receive Information	0.20	3	0.60		
5. Directing Operations					
a. Timely & Decisive Action	0.30	3	0.90	3.00	
b. Oversight	0.30	3	0.90		
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	3	1.20	3.00	
b. Compliance	0.60	3	1.80		

[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.]

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

APPLICANT DOCKET NUMBER [REDACTED]

CROSS REFERENCE:

Administrative JPM "d"

JPM/TASK:

Lifesaving in Emergency Conditions

EXPECTED ACTION/RESPONSE:

The applicant, as Emergency Director (ED), was expected to correctly complete Data Sheet #1, "Permit for Emergency Radiation Exposure," of Vogtle procedure 91301-C, "EMERGENCY EXPOSURE GUIDELINES." After calculating the projected (i.e., estimated) dose to the rescuer of 40 REM, the applicant was expected to correctly determine that the Total Effective Dose Equivalent (TEDE) Dose Limit for the given situation (lifesaving) was >25 REM, in accordance with Table 1, "Emergency Exposure Guidelines," of this procedure. The applicant was expected to enter ">25" in the portion of Data Sheet #1 that reads as follows: "DOSE LIMITS: _____ REM TEDE." Correctly completing the "DOSE LIMITS" section of Data Sheet #1 was a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

The applicant filled in Data Sheet #1 as follows: "DOSE LIMITS: 40 REM."

During the post-JPM discussion, the applicant stated that dose limits of greater than 25 rem applied because the situation was lifesaving. The examiner pointed out that the applicant had filled in Data Sheet #1 with 40 REM as the dose limit. The examiner then asked the applicant, if the rescuer hypothetically received more than 40 REM during the lifesaving rescue, did the rescuer violate the dose limits? The applicant stated that more than 40 would be in excess of the permit dose limits. The applicant did not correctly perform a critical step of the JPM; therefore, the applicant did not successfully complete the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to take actions called for in the facility emergency plan, including supporting or acting as emergency director if required (K/A G2.4.38), and a lack of knowledge of radiation exposure limits under normal or emergency conditions (K/A G2.3.4).

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY
APPLICANT DOCKET NUMBER [REDACTED]**CROSS REFERENCE:**

Simulator JPM "P"

JPM/TASK:

DG Parallel Operation with voltage regulator failure

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel DG-1A to 1AA02 and raise DG-1A load to 7000kW. At step 4.2.1.8, the applicant was expected to select the highest 1AA02 4160V Bus voltage by moving the "Normal Incoming Voltmeter Switch" through all positions to identify the highest voltage. At step 4.2.1.11, the applicant was expected to check the synch scope rotating and apply the notes prior to this step to adjust DG speed slightly in order to acquire synch scope rotation and then adjust DG voltage in step 4.2.1.12. At step 4.2.1.20, 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 4.2.1.8, the applicant used the incorrect "Bus Voltage" switch and obtained the highest Bus Voltage instead of using the "Normal Incoming Voltage" switch to obtain the highest Normal Incoming Voltage as required by the step. At step 4.2.1.12, the applicant applied the notes prior to step 4.2.1.11 and attempted to adjust DG voltage by adjusting DG speed. The applicant recognized that adjusting DG speed was having no effect on DG voltage. At step 4.2.1.20, the applicant initially loaded the D/G to 2100kW and waited for 5 minutes. The applicant then requested to increase the DG load to 3000kW to meet the note. A follow up question was asked as to why the applicant loaded the D/G to 2100 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 received a grade of satisfactory on this JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to implement plant procedure. Specifically, the applicant did not take the necessary actions to ensure that the D/G is operated within the desired plant parameters (K/A 064A4.06).

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY
APPLICANT DOCKET NUMBER [REDACTED]**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, "ES-1.1 SI TERMINATION," 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 and stated that it would not matter if the 15 VDC ON/OFF switches on both the Top and Bottom power supplies were placed in the OFF position. The applicant successfully completed the remaining steps in the JPM.

After the applicant completed Attachment D, the applicant stated he would check if SI had reset and he would place the 15 VDC ON/OFF switches on both the Top and Bottom power supplies in the ON position, if needed.

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.

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY

APPLICANT DOCKET NUMBER [REDACTED]

CROSS REFERENCE:

3. a Control Board Operations – Locate & Manipulate

SCENARIO/EVENT:

Scenario No. 4 / Event No. 2: Reactor Power Ascension from 33% RTP to 100% RTP.

EXPECTED ACTION/RESPONSE:

The applicant, as the Unit Operator (UO), was expected to manipulate the turbine controls in an accurate manner to increase turbine load 10 megawatts electrical (MWe) per procedure 13800-1, "Main Turbine Operation," Step 4.2.1.2. Specifically, the applicant was expected to use the Load Increase pushbutton to raise the Load Set to a value approximately 10 MWe above the current load of 334 MWe. The applicant was further expected to observe the LOAD INCREASING light was LIT and report turbine load increasing to the Shift Supervisor (SS). When turbine load had increased approximately 10 MWe, the applicant was expected to stop the load increase by slowly bumping the Load Set down until the AT SET LOAD light was LIT and the LOAD INCREASING light was NOT LIT.

APPLICANT ACTION/RESPONSE:

The applicant raised turbine load approximately 10 MWe and then attempted to stop the load increase by slowly bumping the Load Set down until the AT SET LOAD light was LIT and the LOAD INCREASING light was NOT LIT. The applicant reduced load to approximately 336 MWe and reported that he was "too heavy handed" on stopping the load increase. Actual load increase was approximately 2 MWe. The SS again directed the applicant to increase load approximately 10 MWe. The applicant raised load approximately 10 MWe from 336 MWe, but then again reduced load to approximately 336 MWe while stopping the load increase.

The operator at the controls (OATC) recommended placing the turbine on the Load Limit and using Load Limit potentiometer to raise turbine load. The SS agreed and directed the applicant to raise turbine load using the Load Limit potentiometer. The applicant adjusted the potentiometer and raised turbine load from 336 MWe to approximately 344 MWe.

Because the applicant made one error related to this rating factor (RF) and the error was not related to a critical task, the received an RF score of "2."

LACK OF ABILITY/KNOWLEDGE:

The applicant's score was downgraded to a "2" for this competency because he demonstrated a weakness in the ability to manipulate console controls as required to operate the facility between shutdown and designated power levels (K/A G2.2.2). Specifically, the applicant required three attempts to successfully raise turbine load 10 MWe beginning from 334 MWe.

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY
APPLICANT DOCKET NUMBER [REDACTED]**CROSS REFERENCE:**

3. b Control Board Operations – Understanding

SCENARIO/EVENT:

Scenario No. 4 / Event No. 9: Turbine Driven Auxiliary Feedwater Pump (TDAFWP) Overspeed Trip.

EXPECTED ACTION/RESPONSE:

The applicant, as the Unit Operator (UO), was expected to correctly reset the TDAFW Pump overspeed trip using 13610-1, "Auxiliary Feedwater System," steps 4.4.7.8 through 4.4.7.11. Specifically, the applicant was expected to hold the handswitch for TDAFW pump steam admission valve, 1-HV-5106, in the Close position while simultaneously opening the Trip and Throttle valve using handswitch 1HS-15111. When the Trip and Throttle valve was fully opened, the applicant was expected to release the handswitch for TDAFW pump steam admission valve and observe the TDAFW pump increase speed to normal operating parameters.

APPLICANT ACTION/RESPONSE:

After releasing the handswitch for TDAFW pump steam admission valve, the applicant reported that the TDAFW reset had not been successful. The operator at the controls (OATC), another applicant, reported that the TDAFW speed was increasing. The applicant confirmed that TDAFW speed was increasing and then established AFW flow to the steam generators per procedure 19231-C, Response to Loss of Heat Sink (FR-H.1).

After the scenario was completed, the applicant was asked why he initially reported that resetting the TDAFW pump had not been successful. The applicant stated that he had not waited for the TDAFW pump speed to increase.

Because the applicant made one error related to this rating factor (RF) and the error was not related to a critical task, the received an RF score of "2."

LACK OF ABILITY/KNOWLEDGE:

The applicant's score was downgraded to a "2" for this competency because he demonstrated a weakness in the ability to interpret control room indications to verify the status and operation of the TDAFW pump, and understand how operator actions and directives affect plant and system conditions (K/A G2.2.44). Specifically, the applicant initially reported that resetting the TDAFW pump had not been successful because he did not wait for the TDAFW pump speed to increase to normal operating parameters.

PRIVACY ACT INFORMATION - FOR OFFICIAL USE ONLY**APPLICANT DOCKET NUMBER** [REDACTED]**CROSS REFERENCE:**

4. a Communications – Clarity

SCENARIO/EVENT:

Scenario No. 4 / Event No. 5: 1PT-507 Steam Line Header Pressure Slowly Fails to 0 psig.

EXPECTED ACTION/RESPONSE:

The applicant, as the Unit Operator (UO), was expected to communicate in a clear, easily understood manner by using formal 3-way communication per Administrative Procedure 00004-C, Plant Communications, Section 4.1, Three-Way Communications. Specifically, per Section 4.1.3, the applicant, as the sender of the information, was expected to be sure the communication was understood and confirm the understanding. The applicant was expected to correctly repeat back the directions of the shift supervisor (SS), another applicant, to manually control main feedwater pump (MFP) discharge pressure/steam generator (SG) pressure differential between 100 and 225 pounds per square inch (psi).

APPLICANT ACTION/RESPONSE:

When directed by the SS to manually control MFP discharge pressure/SG pressure differential between 100 and 225 psi, the applicant responds was "maintain 150 to 205 psi." The applicant was not corrected by SS.

Since maintaining a MFP discharge pressure/SG pressure differential between 150 to 205 psi was sufficient to provide feedwater flow to the SG, the levels in the SGs remained at or near their program levels.

Because the applicant made one error related to this rating factor (RF) and the error was not related to a critical task, the received an RF score of "2."

LACK OF ABILITY/KNOWLEDGE:

The applicant's score was downgraded to a "2" for this competency because he demonstrated a weakness in the knowledge of the station's requirements for verbal communications when implementing procedures (K/A G2.1.38). Specifically, the applicant did not correctly repeat back the pressure differential band directed by the SS.