Ex 6

U.S. Nuclear Regulatory Commission Individual Examination Report					
Applicant's Name: [redacted]			Docket Numbe[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: M. Meeks	RO/SRO/Total Exam Points 75 / 25 / 100
NRC Grader/Reviewer: M. Meeks	Applicant Points 65 / 20 / 85
Date Administered: April 20, 2012	Applicant Grade (%) 86.66 / 80.00 / 85.00

Operating Test Summary	
Administered by: M. Meeks	Date Administered: March 26– April 13, 2012
Walk-Through (Overall)	S
Administrative Topics	S
Simulator Operating Test	S

Examiner Recommendations					
Check Blocks	Pass	Fail	Waive	Signature	Date
Written Examination	X			M. Meeks	05/10/2012
Operating Test	X			M. Meeks	05/10/2012
Final Recommendation	X			M. Bates	10 MAY 2012

License Recommendation			
✓	Issue License	Supervisor's Signature Malcolm T. Widmann	Date 05/10/12
	Deny License		

Ex 6

Applicant Docket Number: [redacted]		
Walk-Through Grading Details	**Evaluation (S or U)**	**Comment Page Number**
Administrative Topics		
a. Perform AFD Monitoring	S	
b. K_{eff} Determination for Shutdown Banks Withdrawn	S	
c. Determine Tagging Requirements	S	
d. Determine if Task Can Be Completed Without Exceeding any Radiological Limits	S	
e. Emergency Plan Classification and Notification (Administered by P. Capehart)	S	
Systems: Control Room		
a. Control Rod Operability Test	S*	4
b. Transfer ECCS Pumps to Cold Leg Recirc (Administered by P. Capehart)	S*	5
c. Depressurize RCS to Reduce Break Flow to Ruptured SG (Administered by M. Bates)	S*	6
d. Start an RCP with Subsequent Seal Failure (Administered by P. Capehart)	U	7
e. Transfer AFW Suction Source to CST 2 (Administered by P. Capehart)	S	
f. Dilute Containment with Service Air	S	
g. Return ESF Bus from Diesel Generator to Normal Supply	S	
h. N/A	N/A	
Systems: In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps to HLs (Administered by M. Bates)	S	
j. Establish Local Control of 1E Switchgear (Administered by P. Capehart)	S	
k. Placing the RHR 25kVA Inverter 1DD1I6 in Service (Administered by M. Bates)	S*	8

Ex 6

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	**2**	**0.40**	**2.80**	9
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	**1**	**0.33**	**2.34**	10, 11
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	**2**	**0.80**		12
b. Crew & Others Informed	0.40	**2**	**0.80**	**2.20**	13
c. Receive Information	0.20	3	0.60		
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**		14
b. Compliance	0.60	**2**	**1.20**	**2.00**	15

[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.]

Ex 6

CROSS REFERENCE:

Systems: Control Room "a"

JPM/TASK:

Perform Control Rod Operability Test.

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly perform surveillance procedure 14410-1, "Control Rod Operability Test," for control banks A, B, C, and D. Step 5.1.7 of this procedure directs the operator to "**Record** the test IPC Bank Demand reading for the control bank being tested on Data Sheet 1." At this step, the applicant was expected to correctly determine IPC Bank Demand using the plant computer and record the appropriate value on the data sheet. However, properly determining the IPC Bank Demand was not a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

At step 5.1.7, the applicant called up IPC screen "SHOW30" on the main control board, which displayed both IPC Bank Demand information and IPC individual rod position information. However, the applicant incorrectly recorded the IPC individual rod position information (which was at 216 steps) instead of the correct reading for IPC Bank Demand (which was at 218 steps).

Although the applicant did not correctly perform this specific portion of the surveillance, the applicant did correctly perform all of the critical steps in the JPM. In this case, incorrectly recording IPC Bank Demand did not impact any Technical Specification requirements. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to use plant computers to evaluate system or component status.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Systems – Control Room JPM "b"

JPM/TASK:

Transfer ECCS Pumps to Cold Leg Recirculation

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly apply the procedural rules of usage to determine that a transition to 19111-C, ECA-1.1, Loss of Emergency Coolant Recirculation, was required. More specifically, the applicant was expected to determine that no RHR flow path was available from either train of the containment sump and at RNO step 3.b.1 of Attachment A, 19013-C, ES-1.3 Transfer to Cold Leg Recirculation, STOP RHR pump B and then complete steps 3.b.2 – 3.b.4 to attempt to realign train B to establish a suction path. These RNO steps were unsuccessful and at Step 3.b.5, the procedure directed the applicant to go to step 3.d. After completing step 3.d, the applicant was expected to continue on to step 3.e. At step 3.e, the applicant was directed to check for proper flow through the RHR Heat Exchanger. No flow path has been established; therefore, the applicant was expected at this point to go to the RNO step for 3.e and inform the SS that he should GO TO 19111-C.

APPLICANT ACTION/RESPONSE:

The applicant successfully completed Attachment A up to RNO step 3.b.4. At this step, the applicant stopped marking the procedure and read through the rest of the procedure section. It was noted as the applicant read aloud through the steps that he skipped over step 3.e and the corresponding RNO step. After paging through the procedure two times, the applicant informed the SS that he needed to go to 19111-C. The applicant was asked a follow up question to determine how he had arrived at the step to inform the SS to go to 19111-C. The applicant stated that he knew this would be the correct procedure transition based on not being able to establish a flow path from this procedure. The applicant informed the SS of the proper procedure transition based on knowledge of plant conditions but failed to address the steps following RNO step 3.b.4 that directed the applicant to go to 19111-C. The applicant made a procedural usage error in that he should have addressed the procedure steps that proceeded to the RNO column of Step 3.e to inform the SS of the proper procedure transition.

The applicant's performance was rated as satisfactory because he successfully completed all critical steps.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in the ability to correctly use procedures.

EX 6

CROSS REFERENCE:

Systems – Control Room JPM "c"

JPM/TASK:

Depressurize RCS to Reduce Break Flow to Ruptured SG

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly apply the procedural rules of usage when arming one available train of COPS in accordance with procedure 19030-C, "E-3 Steam Generator Tube Rupture," Revision 37.1, Step 34. Specifically, the applicant was expected to attempt to arm the first train of COPS, recognize that it failed to successfully arm, and then arm the second train of COPS, which was designed to properly arm. The applicant was not expected to proceed to the RNO column of the procedure after the first train of COPS failed to arm because the left hand column of the procedure could be successfully performed. The RNO column should not have been performed until arming of both trains of COPS had been attempted.

APPLICANT ACTION/RESPONSE:

The applicant attempted to arm the first train of COPS, recognized that the PORV Block Valve did not open, and then proceeded to the RNO column and attempted to manually open the PORV Block Valve. The applicant then went back to the left hand column of the same step and armed the second train of COPS and successfully completed the task. The applicant made a procedural usage error in that he should not have proceeded to the RNO column of Step 34 until after he had attempted to arm both trains of COPS.

The applicant's performance was rated as satisfactory because he successfully completed all critical steps.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in the ability to correctly use procedures.

Ex 6

CROSS REFERENCE:

Systems – Control Room JPM "d"

JPM/TASK:

Start an RCP With Subsequent Seal Failure

EXPECTED ACTION/RESPONSE:

The applicant was expected to start RCP # 2 using procedure 13003-1, "Reactor Coolant Pump Operation", then shutdown the RCP and close the seal leakoff isolation valve (critical step) per 13003-1 upon receiving RCP 2 CONTROLLED LKG HI/LO FLOW alarm due to a failure of # 1 seal.

APPLICANT ACTION/RESPONSE:

The applicant, upon starting # 2 RCP at step 4.1.2.16 of 13003-1, responded to the RCP 2 CONTROLLED LKG HI/LO FLOW alarm using the alarm response procedure, 17008-1. The alarm response procedure directed the applicant back to procedure 13003-1. Upon reentering the procedure, the applicant selected to shutdown the RCP in accordance with section 4.3.1 for a normal RCP shutdown. The applicant should have gone to section 4.2.1 for RCP shutdown for seal abnormality. The normal RCP shutdown section does not contain steps to close the RCP Seal Leakoff Isolation Valve. This was a critical step.

The applicant's performance was rated as unsatisfactory because he failed to complete a critical step.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in the ability to correctly use procedures.

Ex6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Systems – In-Plant JPM "k"

JPM/TASK:

Placing the RHR 25kVA Inverter 1DD1I6 in Service

EXPECTED ACTION/RESPONSE:

The applicant was expected to check proper inverter operation by observing 480 VAC on all three inverter output voltmeters in accordance with step 4.1.11.2(g) of procedure 13405-1, "125V DC 1E Electrical Distribution System," Rev 41.2.

APPLICANT ACTION/RESPONSE:

The applicant only verified 480 VAC on one of the three phases of the inverter output voltmeter.

The applicant's performance was rated as satisfactory because he completed all critical steps correctly and verifying voltage on all three phases was not a critical step.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to locate local voltage indications.

Ex 6

CROSS REFERENCE:

1.b: Interpretation/Diagnosis – Ensure Accuracy

SCENARIO/EVENT:

Scenario 2, Event 2: Control Rod K-14 Dropped, Rapid Power Reduction Required

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to correctly diagnose the dropped rod and report the plant condition to the other operators. Available indications for the dropped rod included: rod bottom LED on digital rod position indication for rod K-14, Tave lowering, PRZR pressure dropping and then returning to program, indicated power on NI-44 lowering to ~82%, and multiple alarms associated with a dropped rod condition.

APPLICANT ACTION/RESPONSE:

When the dropped rod occurred, the applicant looked at several of the annunciators, then focused on the NI-44 indication, and incorrectly reported to the Senior Reactor Operator (SRO) that "we have a failure of NI-44." At this time the Unit Operator (UO) corrected the applicant and stated "no, there is a rod bottom light lit."

During post-scenario follow-up questions, the applicant stated that he focused on the NI indication and did not see the rod bottom light lit. 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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

3.b: Control Board Operations – Understanding

SCENARIO/EVENT:

Scenario 2, Event 2: Control Rod K-14 Dropped, Rapid Power Reduction Required

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to correctly understand the operational implications of the dropped rod on primary plant parameters.

APPLICANT ACTION/RESPONSE:

Several minutes after the dropped rod occurred, the applicant became focused on the IPC computer screen trends of pressurizer level, and excitedly reported to the Senior Reactor Operator (SRO) that "pressurizer level is at 50.5% and charging is increasing." With the assistance of the SRO, the team was able to determine that this condition was an expected plant response for the dropped rod.

During post-scenario follow-up questions, the applicant stated that the concern about lowering pressurizer level was "because we cooled down from the rod drop and I got overly excited." The applicant made two non-critical errors associated with this rating factor, and was therefore evaluated with a score of "1" for this rating factor.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.

Ex 6

CROSS REFERENCE:

3.b: Control Board Operations – Understanding

SCENARIO/EVENT:

Scenario 2, Event 2: Control Rod K-14 Dropped, Rapid Power Reduction Required

EXPECTED ACTION/RESPONSE:

During the rapid power reduction, the applicant, as Reactor Operator (RO), was expected to correctly understand the operational implications of lowering plant power on delta-flux control. As the operators lower turbine load, the Tref value lowers and the Tave tends to rise, which leads to inward rod motion to maintain Tave-to-Tref approximately matched. The inward rod motion is the dominant effect on delta-flux values, and causes delta-flux values to lower as power is lowered.

APPLICANT ACTION/RESPONSE:

As the Senior Reactor Operator (SRO) was about to begin the rapid power reduction, the applicant reported to the SRO that he was concerned that delta-flux values were ~3% out from the target value, and that lowering load would make the delta-flux values worse.

During post-scenario follow-up questions, the applicant stated that although the procedure had specified a 5% delta flux band, there were two trends diverging at that point, and lowering load would have the effect of pushing absolute flux values higher in the core, taking the delta flux further away from target. The applicant made two non-critical errors associated with this rating factor, and was therefore evaluated with a score of "1" for this rating factor.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.

Ex6

CROSS REFERENCE:

4.a.: Communications – Clarity

SCENARIO/EVENT:

Scenario 2, Event 2: Control Rod K-14 Dropped, Rapid Power Reduction Required

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to clearly provide verbal reports to the other control room operators.

APPLICANT ACTION/RESPONSE:

During the rapid power reduction following the dropped rod, the applicant reported to the Senior Reactor Operator (SRO) that Tave was "6 degrees cold, close to 5% out [on delta flux values], recommend moving rods in 3 steps." The applicant was corrected by the SRO, and clarified his earlier report that Tave was 0.6 degrees cold. This mis-communication was significant, because the rapid power reduction AOP required a manual reactor trip is Tave-to-Tref deviation is 6 degrees or greater and not improving.

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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to make accurate, clear, and concise verbal reports.

Ex6

CROSS REFERENCE:

4.b: Communications – Crew & Others Informed

SCENARIO/EVENT:

Scenario 4, Event 1: Power Range NI-43 Failed High Causing Inward Rod Motion

EXPECTED ACTION/RESPONSE:

The applicant, as SRO, was expected to request the Shift Manager's permission prior to placing the rod control back to automatic following the restoration of Tave to program. Procedure NMP-OS-007-001, Version 9.0, "Conduct of Operations Standards and Expectations," Step 6.29.2.1, states, in part, "When a system or component has been placed in manual due to a transient caused by an automatic control malfunction, SM permission is required prior to returning the system or component to automatic control following stabilization from the transient and correction of the malfunction."

APPLICANT ACTION/RESPONSE:

The applicant incorrectly directed the Reactor Operator (RO) to return rod control to automatic without first getting permission from the Shift Manager. The applicant was downgraded due to not keeping the Shift Manager informed as required by NMP-OS-007-001.

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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to keep other crew members informed by not getting permission from the Shift Manager prior to restoring rod control to automatic.

Ex 6

CROSS REFERENCE:

6.a: Technical Specifications – Recognize and Locate

SCENARIO/EVENT:

Scenario 4, Event 5: Reserve Auxiliary Transformer (RAT) Supply Breakers to Bus 1AA02 Tripped Open Due to a Fault on the Bus. Diesel Generator (DG) 1A Started, but Did Not Re-Energize the Bus

EXPECTED ACTION/RESPONSE:

During the post-transient actions, procedure AOP 18031-C, "Loss of Class 1E Electrical Systems," directs the operators to take manual control of the turbine-driven AFW pump and lower speed . This action renders the TDAFW pump inoperable. The "A" motor-driven AFW pump would also be inoperable due to the loss of bus 1AA02. The applicant, as Senior Reactor Operator (SRO), was expected to recognize this condition and correctly enter LCO 3.7.5 Condition C, which requires the plant to shut down to MODE 3 in a 6 hour completion time.

APPLICANT ACTION/RESPONSE:

During post-scenario follow-up questions, the applicant incorrectly stated that the only Technical Specification he was in for this event was LCO 3.8.1 Condition B for one inoperable DG.

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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to determine operability and/or availability of safety related equipment.

Ex 6

CROSS REFERENCE:

6.b: Technical Specifications – Compliance

SCENARIO/EVENT:

Scenario 4, Event 5: Reserve Auxiliary Transformer (RAT) Supply Breakers to Bus 1AA02 Tripped Open Due to a Fault on the Bus. Diesel Generator (DG) 1A Started, but Did Not Re-Energize the Bus

EXPECTED ACTION/RESPONSE:

Due to the electrical fault on safeguards bus 1AA02, the offsite circuit supplying this train was rendered inoperable and DG 1A was also rendered inoperable (*i.e.*, the bus failure prevented either source of electrical power to perform its designed safety functions). The applicant, as Senior Reactor Operator (SRO), was expected to correctly comply with this condition in accordance with Technical Specification (TS) 3.8.1, "AC Sources – Operating." The applicant was expected to enter (1) LCO 3.8.1 Condition A for one required offsite circuit inoperable, (2) LCO 3.8.1 Condition B for one DG inoperable, and (3) LCO 3.8.1 Condition E for one required offsite circuit inoperable AND one DG inoperable; and to perform all required actions for these conditions.

APPLICANT ACTION/RESPONSE:

During post-scenario follow-up questions, the applicant incorrectly stated that the only Technical Specification he was in for this event was LCO 3.8.1 Condition B for one inoperable DG.

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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to determine operability and/or availability of safety related equipment.

Ex. 6

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: M. Meeks	RO/SRO/Total Exam Points 75 / 25 / 100
NRC Grader/Reviewer: M. Meeks	Applicant Points 68 / 18 / 86
Date Administered: April 20, 2012	Applicant Grade (%) 90.66 / 72.00 / 86.00

Operating Test Summary	
Administered by: M. Bates	Date Administered: March 26– April 13, 2012
Walk-Through (Overall)	S
Administrative Topics	S
Simulator Operating Test	S

Examiner Recommendations					
Check Blocks	Pass	Fail	Waive	Signature	Date
Written Examination	X			M. Meeks	05/10/2012
Operating Test	X			M. Bates	10 MAY 2012
Final Recommendation	X			M. Meeks	05/10/2012

License Recommendation			
✓	Issue License	Supervisor's Signature Malcolm T. Widmann	Date 05/10/12
	Deny License		

Ex 6

Applicant Docket Number: [redacted]		
Walk-Through Grading Details	**Evaluation (S or U)**	**Comment Page Number**
Administrative Topics		
a. Perform AFD Monitoring (Administered by M. Meeks)	U	4
b. K_{eff} Determination for Shutdown Banks Withdrawn (Administered by M. Meeks)	S	
c. Determine Tagging Requirements (Administered by M. Meeks)	U	5
d. Determine if Task Can Be Completed Without Exceeding any Radiological Limits (Administered by M. Meeks)	S	
e. Emergency Plan Classification and Notification (Administered by P. Capehart)	S	
Systems: Control Room		
a. Control Rod Operability Test (Administered by M. Meeks)	S*	6
b. Transfer ECCS Pumps to Cold Leg Recirc (Administered by M. Bates)	S	
c. Depressurize RCS to Reduce Break Flow to Ruptured SG	S*	7
d. Start an RCP with Subsequent Seal Failure	S*	8
e. Transfer AFW Suction Source to CST 2 (Administered by P. Capehart)	S	
f. Dilute Containment with Service Air (Administered by M. Meeks)	S	
g. Return ESF Bus from Diesel Generator to Normal Supply (Administered by M. Meeks)	S	
h. N/A	N/A	
Systems: In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps to HLs	S	
j. Establish Local Control of 1E Switchgear (Administered by P. Capehart)	S	
k. Placing the RHR 25kVA Inverter 1DD1I6 in Service	S*	9

Ex 6

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	**2**	**0.40**	**2.20**	10
b. Ensure Accuracy	0.20	3	0.60		
c. Understanding	0.30	**1**	**0.30**		11, 12, 13
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**	**2.66**	14
b. Understanding	0.33	3	0.99		
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	3	1.20	**2.60**	15
b. Crew & Others Informed	0.40	**2**	**0.80**		
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	**2**	**0.80**	**2.60**	16
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.]

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Administrative Topic "a"

JPM/TASK:

Evaluate Inoperable Axial Flux Difference (AFD) Monitor Alarm

EXPECTED ACTION/RESPONSE:

Given an operationally valid set of delta-flux values for several different times, the applicant was expected to correctly determine that the surveillance for AFD was met (i.e. within the listed acceptance criteria) in accordance with surveillance procedure 14915-1, "Special Conditions Surveillance Logs," Data Sheet 6 for AFD. Specifically, only one data point at time 0700 was out of specification, and all other data points were within the limits. Data Sheet 6 step 4 specified that acceptance criteria was not met (required actions were needed) when the indicated AFD was outside of the above required limits on two or more channels. Therefore, with only one channel outside the limits, the surveillance met its acceptance criteria, and no Technical Specification (TS) required actions were required. Marking "yes" for step 7.2 of procedure 14915-1, which states: "Results obtained through the performance of this procedure meet the ACCEPTANCE CRITERIA of Section 6.0," was a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

The applicant correctly determined the required limits at the given power levels, and correctly identified that only one data point was outside the limits. However, the applicant incorrectly checked the "no" block in step 7.2 of the procedure, and stated that the surveillance test results did not meet the acceptance criteria.

During post-JPM questions with the examiner, the applicant stated that although the test results did not meet acceptance criteria, TS required actions did not have to be taken, because only one channel was outside the limits. The applicant repeated that the surveillance had to be considered as not met, although no further TS required actions needed to be performed. The applicant did not correctly perform a critical step in the JPM. Therefore, the applicant was evaluated as not successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of knowledge of surveillance procedures associated with AFD monitoring requirements.

Ex 6

CROSS REFERENCE:

Administrative Topic "c"

JPM/TASK:

Determine Tagging Requirements.

EXPECTED ACTION/RESPONSE:

Given the appropriate references, the applicant was expected to correctly determine the appropriate boundary points and required positions of components to (1) isolate the fluid boundary and (2) drain the "A" Containment Spray Pump (CSP), 1-1206-P6-001, in preparation for maintenance on the pump seals. The applicant was expected to identify 1-1206-U4-108, CSP A Pump Casing Vent Valve, as a required vent path to be tagged in the UNFLANGE/OPEN or UNCAP/OPEN position. Proper tagging of 1-1206-U4-108 was a critical step in the JPM. The applicant was also expected to identify 1-1206-U4-002, CSP A Suction Floor Drain Isolation, as a required drain path to be tagged in the OPEN position. Proper tagging of 1-1206-U4-002 was not a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

When the applicant developed the tagout, the applicant stated that 1-1206-U4-108 should be tagged in the CLOSE position, and also stated that 1-1206-U4-002 should be tagged in the LOCKED CLOSED position.

During post-JPM discussion with the examiner, the applicant incorrectly stated that both of the above points were isolation boundaries that were required to be tagged in a closed configuration. The applicant did not correctly perform a critical step in the JPM. Therefore, the applicant was evaluated as not successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of knowledge of tagging and clearance procedures.

Ex 6

CROSS REFERENCE:

Systems: Control Room "a"

JPM/TASK:

Perform Control Rod Operability Test

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly perform surveillance procedure 14410-1, "Control Room Operability Test," for control banks A, B, C, and D. Step 5.1.7 of this procedure directs the operator to record the test IPC Bank Demand reading for the control bank being tested on Data Sheet 1. At this step, the applicant was expected to correctly determine IPC Bank Demand using the plant computer and record the appropriate value on the data sheet. However, properly determining the IPC Bank Demand was not a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

At step 5.1.7, the applicant called up IPC screen "ALLRODS" on the main control board, which displayed both IPC Bank Demand information and IPC individual rod position information. However, the applicant incorrectly recorded the IPC individual rod position information (which was at 216 steps) instead of the correct reading for IPC Bank Demand (which was at 218 steps).

Although the applicant did not correctly perform this specific portion of the surveillance, the applicant did correctly perform all of the critical steps in the JPM. In this case, incorrectly recording IPC Bank Demand did not impact any Technical Specification requirements. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to use plant computers to evaluate system or component status.

Ex6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Systems – Control Room "c"

JPM/TASK:

Depressurize RCS to Reduce Break Flow to Ruptured SG

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly apply the procedural rules of usage when arming one available train of COPS in accordance with procedure 19030-C, "E-3 Steam Generator Tube Rupture," Revision 37.1, Step 34. Specifically, the applicant was expected to attempt to arm the first train of COPS, recognize that it failed to successfully arm, and then arm the second train of COPS, which was designed to properly arm. The applicant was not expected to proceed to the RNO column of the procedure after the first train of COPS failed to arm, because the left hand column of the procedure could be successfully performed by arming the other train of COPS. The RNO column should not have been performed until arming of both trains of COPS had been attempted and proven to be unsuccessful. The design of this JPM actually allowed for the second train of COPS to be armed, thereby negating the need to perform Step 34 RNO.

APPLICANT ACTION/RESPONSE:

The applicant attempted to arm the first train of COPS, recognized that the PORV Block Valve did not open, then proceeded to the RNO column and attempted to manually open the PORV Block Valve. The applicant then went back to the left hand column of the same step, armed the second train of COPS, and successfully completed the task. The applicant made a procedural usage error in that he should not have proceeded to the RNO column of Step 34 because the left hand column of the procedure directed arming one train of COPs, which could be accomplished per JPM design.

The applicant's performance was rated as satisfactory because he successfully completed all critical steps.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in the ability to correctly use procedures.

CROSS REFERENCE:

Systems – Control Room "d"

JPM/TASK:

Start an RCP with Subsequent Seal Failure

EXPECTED ACTION/RESPONSE:

The applicant was expected to perform alarm panel checks as part of verifying no applicable alarms being lit prior to starting the RCP.

APPLICANT ACTION/RESPONSE:

The applicant did not perform alarm panel checks as part of verifying applicable alarms not lit.

The applicant's performance was rated as satisfactory because performing alarm panel checks was not a critical step.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in thoroughly performing a procedure step that required a verification of applicable alarms not being lit.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Systems – In-Plant "k"

JPM/TASK:

Placing the RHR 25kVA Inverter 1DD116 in Service

EXPECTED ACTION/RESPONSE:

The applicant was expected to check proper inverter operation by observing 60 Hz on the inverter output frequency meter in accordance with step 4.1.11.2(g) of procedure 13405-1, "125V DC 1E Electrical Distribution System," Rev 41.2.

APPLICANT ACTION/RESPONSE:

The applicant initially looked at AC Output Current (Amps) to verify inverter output frequency of 60 Hz. The applicant was provided the cue that the meters were reading as they were at that time (~38 amps). The applicant then continued to search for the correct indication and was able to correctly verify 60 Hz.

The applicant's performance was rated as satisfactory because he completed all critical steps correctly.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to locate local the inverter output frequency meter.

Ex 6

CROSS REFERENCE:

1.a: Interpretation/Diagnosis – Recognize & Attend

SCENARIO/EVENT:

Scenario 7, Event 3: Loss of Cooling to Letdown Heat Exchanger (TE-0130 Failed Low)

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to respond to ALB07-F04, LTDN HX HI TEMP DEMIN DIVERT, and recognize that TE-0130 had failed low.

APPLICANT ACTION/RESPONSE:

The applicant acknowledged ALB07-F04 and began monitoring the control boards in an attempt to diagnose the malfunction. Over 30 seconds elapsed, during which time the Senior Reactor Operator (SRO) directed him to check letdown on two different occasions. During the SRO's second communication, he instructed the applicant to specifically look at letdown temperature. The applicant, as he was looking at the alarm response procedures, stated to the SRO that he did not think ACCW had been lost to the letdown heat exchanger. The SRO then directed the applicant to take manual control of TE-0130 to restore letdown temperature. The applicant was downgraded in this competency because he was not able to recognize the TE-0130 failure.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to recognize a failure of TE-0130.

Ex 6

CROSS REFERENCE:

1.c: Interpretation/Diagnosis – Understanding

SCENARIO/EVENT:

Scenario 1, Event 2: NR Tcold Failed High Causing FCV-0121 to Open

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to understand that defeating the failed temperature channel would cause charging to rapidly lower due to the pressurizer level response to NR Tcold, TE-0413B, failing high. The applicant was expected to direct the Reactor Operator (RO) to manually control charging flow in accordance with the alarm response procedure for ALB011-D01, PRZR LO LEVEL, prior to defeating the failed channel.

APPLICANT ACTION/RESPONSE:

The applicant did not direct the crew to manually control charging prior to defeating the failed channel and as a result, charging flow was lost and the applicant unnecessarily entered procedure 18007-C, "Chemical and Volume Control System Malfunction." The applicant successfully directed the crew to regain charging using 18007-C. The applicant was asked to explain the plant response during this malfunction and after prompting by the examiner, he was able to correctly explain the cause of the loss of charging flow. The applicant was downgraded in this competency because during the scenario he did not understand how the Tcold failure and the associated actions would impact charging flow.

The applicant made three non-critical errors in this rating factor; therefore, a score of "1" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in understanding how plant systems and components interact.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

1.c: Interpretation/Diagnosis – Understanding

SCENARIO/EVENT:

Scenario 6, Events 2 & 6: RCS Loop 1 HL NR RTD Failed High & Power Reduction due to "B" MFPT High Vibrations

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to direct the crew to monitor proper automatic control rod response during the power reduction. In part, the applicant was expected to understand how the Loop 1 HL NR RTD failure earlier in the scenario would affect UT-0495, which was the computer point operators were directed to use by procedure 18013-C, "Rapid Power Reduction." The applicant was expected to monitor proper automatic control rod insertion using indications that were impacting the rod control system. The applicant was not expected to use UT-0495 to evaluate proper automatic control rod insertion because it was not an accurate indication due to the previous failure.

APPLICANT ACTION/RESPONSE:

The applicant and the other crew members were monitoring Tave/Tref deviations using UT-0495 for the first few minutes of the power reduction. The crew discussed that control rods should be inserting due to Tave being more than 3 °F above Tref. Shortly after that conversation began, control rods began to step into the core to lower Tave. After the scenario, the applicant was asked to explain the temperature indications that were being monitored during the power reduction. The applicant stated that they were incorrectly using UT-0495. He stated that UT-0495 was not an accurate indication due to the earlier Loop 1 NR RTD failure. The applicant was downgrade in this competency because he exhibited a weakness in understanding how the earlier RTD failure impacted his ability to accurately monitor automatic rod control.

The applicant made three non-critical errors in this rating factor; therefore, a score of "1" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in understanding how plant systems and components interact.

Ex 6

CROSS REFERENCE:

1.c: Interpretation/Diagnosis – Understanding

SCENARIO/EVENT:

Scenario 6, Event 4: Controlling Pressurizer Level Transmitter (LT-459) Failed Low

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to direct the crew to place the charging flow controller, FIC-0121, to manual prior to selecting an unaffected pressurizer level channel in accordance with procedure 18001-C, Section D, Failure of Pressurizer Level Instrumentation. Placing the charging flow controller to manual was necessary to avoid a total loss of charging because pressurizer level had been above setpoint for several minutes due to the LT-459 failure.

APPLICANT ACTION/RESPONSE:

The applicant did not direct placing the charging flow controller to manual prior to selecting an unaffected pressurizer level channel. Immediately after the applicant directed the RO to select an unaffected pressurizer level channel, charging flow rapidly lowered, at which time the applicant directed the Reactor Operator (RO) to place the charging flow controller back to manual. The crew discussed the plant response and verbalized that they thought FIC-0121 had failed. The applicant was downgraded in this competency because he did not understand that selecting an unaffected pressurizer level channel would cause charging flow to lower due to the controller's response to a high pressurizer level over several minutes.

The applicant made three non-critical errors in this rating factor; therefore, a score of "1" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in understanding how plant systems and components interact.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

3.a: Control Board Operations – Locate & Manipulate

SCENARIO/EVENT:

Scenario 7, Event 1: Raise Power per UOP-12004-C, Power Operation (Mode 1)

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to maintain Tave within 2 °F of Tref as determined by turbine first stage pressure and as directed by the Senior Reactor Operator (SRO). The applicant was expected to use a combination of dilutions and control rods to maintain Tave within the provided band.

APPLICANT ACTION/RESPONSE:

The applicant allowed Tave to deviate from Tref by 2.6 °F during the controlled power increase as determined by turbine first stage pressure. After the scenario, the applicant was asked to explain his temperature control as power was raised. He stated that he was using a Tref value from a table on the control board using a core delta-T power to determine the corresponding value for Tref.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to accurately manipulate controls to maintain Tave within the band directed by the SRO.

Ex 6

CROSS REFERENCE:

4.b: Communications – Crew & Others Informed

SCENARIO/EVENT:

Scenario 6, Event 2: RCS Loop 1 HL NR RTD Failed High

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to request Shift Manager permission prior to placing control rods back to automatic after defeating the failed channel temperature channel. Procedure NMP-OS-007-001, Version 9.0, "Conduct of Operations Standards and Expectations," Step 6.29.2.1, states, in part, "When a system or component has been placed in manual due to a transient caused by an automatic control malfunction, SM permission is required prior to returning the system or component to automatic control following stabilization from the transient and correction of the malfunction."

APPLICANT ACTION/RESPONSE:

The applicant incorrectly directed the Reactor Operator (RO) to place control rods back to automatic without first getting permission from the Shift Manager.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to keep other crew members informed by not getting permission from the shift manager prior to placing control rods back to automatic.

EX 6

CROSS REFERENCE:

6.a: Technical Specifications – Recognize and Locate

SCENARIO/EVENT:

Scenario 7, Event 5: Pressurizer Pressure Channel (PT-456) Failed High with PORV Block Valve Failure to Automatically Close

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to recognize that the failure of the PORV block valve did not result in the block valve being inoperable. The Basis for Technical Specification 3.4.11 states that the PORV block valve safety function may be accomplished manually.

APPLICANT ACTION/RESPONSE:

The applicant failed to recognize that the failure of the PORV block valve did not result in the block valve being inoperable.

After the scenario, the applicant was asked about the operability status of the PORV block valve that failed to automatically close. The applicant incorrectly informed the examiner that the PORV block valve was inoperable due to not automatically closing on low pressure as designed. The applicant was downgraded in this competency because of his incorrect understanding of PORV block valve operability requirements the associated impacts on LCO entry.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to recognize conditions which would require Technical Specification directed actions.

Ex 6

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: M. Meeks	RO/SRO/Total Exam Points 75 / 25 / 100
NRC Grader/Reviewer: M. Meeks	Applicant Points 66 / 21 / 87
Date Administered: April 20, 2012	Applicant Grade (%) 88.00 / 84.00 / 87.00

Operating Test Summary	
Administered by: M. Meeks	Date Administered: March 26– April 13, 2012
Walk-Through (Overall)	S
Administrative Topics	S
Simulator Operating Test	S

Examiner Recommendations					
Check Blocks	Pass	Fail	Waive	Signature	Date
Written Examination	X			Michael Meeks M. Meeks	05/10/2012
Operating Test	X			Michael Meeks M. Meeks	05/10/2012
Final Recommendation	X			Mark A. Bates M. Bates	10 MAY 2012

License Recommendation			
✓	Issue License	Supervisor's Signature Malcolm T. Widmann	Date 05/10/12
	Deny License		

[redacted]

Ex 6

Applicant Docket Number: [redacted]		
Walk-Through Grading Details	**Evaluation (S or U)**	**Comment Page Number**
Administrative Topics		
a. Perform AFD Monitoring	S	
b. K_{eff} Determination for Shutdown Banks Withdrawn	S	
c. Determine Tagging Requirements	S	
d. Determine if Task Can Be Completed Without Exceeding any Radiological Limits	S	
e. Emergency Plan Classification and Notification (Administered by M. Bates)	S	
Systems: Control Room		
a. Control Rod Operability Test	S*	4
b. Transfer ECCS Pumps to Cold Leg Recirc	S	
c. Depressurize RCS to Reduce Break Flow to Ruptured SG (Administered by M. Bates)	S	
d. Start an RCP with Subsequent Seal Failure (Administered by P. Capehart)	S*	5
e. Transfer AFW Suction Source to CST 2 (Administered by P. Capehart)	S	
f. Dilute Containment with Service Air	S	
g. Return ESF Bus from Diesel Generator to Normal Supply	S	
h. N/A	N/A	
Systems: In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps to HLs (Administered by M. Bates)	S*	6
j. Establish Local Control of 1E Switchgear (Administered by P. Capehart)	S	
k. Placing the RHR 25kVA Inverter 1DD116 in Service (Administered by M. Bates)	S	

Ex 6

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	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	**2.60**	7
b. EOP Entry	0.30	3	0.90		
c. Correct Use	0.40	**2**	**0.80**		
3. Control Board Operations					
a. Locate & Manipulate	0.34	3	1.02	**2.34**	8, 9
b. Understanding	0.33	**1**	**0.33**		
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	3	1.20	3.00	
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	**2**	**0.80**	**2.60**	10
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.]

EX 6

CROSS REFERENCE:

Systems: Control Room "a"

JPM/TASK:

Perform Control Rod Operability Test.

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly perform surveillance procedure 14410-1, "Control Rod Operability Test," for control banks A, B, C, and D. Step 5.1.7 of this procedure directs the operator to "**Record** the test IPC Bank Demand reading for the control bank being tested on Data Sheet 1." At this step, the applicant was expected to correctly determine IPC Bank Demand using the plant computer and record the appropriate value on the data sheet. However, properly determining the IPC Bank Demand was not a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

At step 5.1.7, the applicant called up IPC screen "ALLRODS" on the main control board, which displayed both IPC Bank Demand information and IPC individual rod position information. However, the applicant incorrectly recorded the IPC individual rod position information (which was at 216 steps) instead of the correct reading for IPC Bank Demand (which was at 218 steps).

During post-JPM questions, the examiner asked the applicant how to determine IPC bank demand. The applicant again incorrectly pointed to the IPC individual rod positions on the computer screen, and stated that these data points were IPC Bank Demand. Although the applicant did not correctly perform this specific portion of the surveillance, the applicant did correctly perform all of the critical steps in the JPM. In this case, incorrectly recording IPC Bank Demand did not impact any Technical Specification requirements. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to use plant computers to evaluate system or component status.

Ex 6

CROSS REFERENCE:

Systems – Control Room JPM "d"

JPM/TASK:

Start an RCP with Subsequent Seal Failure

EXPECTED ACTION/RESPONSE:

The applicant was expected to perform alarm panel checks as part of verifying no applicable alarms being lit prior to starting the RCP.

APPLICANT ACTION/RESPONSE:

The applicant did not perform alarm panel checks as part of verifying applicable alarms not lit.

The applicant's performance was rated as satisfactory because performing alarm panel checks was not a critical step.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in thoroughly performing a procedure step that required a verification of applicable alarms not being lit.

Ex 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Systems – In-Plant JPM "i"

JPM/TASK:

Establish RWST Gravity Drain Through RHR Pumps to HLs

EXPECTED ACTION/RESPONSE:

The applicant was expected to locate in a timely manner and locally close 2-HV-8809A, RHR PMP-A TO COLD LEG ISO VLV.

APPLICANT ACTION/RESPONSE:

The applicant spent approximately 20 minutes to locate 2-HV-8809A. He then correctly closed the valve. A comment was warranted due to the excessive amount of time to locate the valve.

The applicant's performance was rated as satisfactory because he completed all critical steps correctly.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to locate components in the plant.

Ex 6

CROSS REFERENCE:

2.c: Procedures – Correct Use

SCENARIO/EVENT:

Scenario 7, Event 1: Reactor Power Ascension From 29% In Accordance With UOP 12004-C, Power Operation (Mode 1)

EXPECTED ACTION/RESPONSE:

During the power ascension, the applicant, as Senior Reactor Operator (SRO), was expected to control Reactor Coolant System (RCS) average temperature (Tave) with control rods in manual based on the Tave deviation from measured Reference Temperature (Tref) as shown on control board instrument TI-412B. Measured Tref values as given on TI-412B would have become meaningful during the plant startup once the main turbine generator was synchronized to the electrical grid (at approximately 25% reactor power). When the applicants assumed the watch, the turbine was synchronized to the grid at approximately 29% power and TI-412B was correctly indicating Tref.

APPLICANT ACTION/RESPONSE:

When the operators began to raise power, instead of reading Tref from the TI-412B gage, the team incorrectly used program Tave based on an operator aid that gave reference values of Tave as a function of power. In this case, the team used delta-T power to determine the program Tave. The program Tave as determined by the Reactor Operator (RO) was higher than the actual Tref value, and the applicant accordingly directed multiple rod withdrawals to raise actual Tave to the determined program Tave value. At one point, the RO reported to the applicant that "Tave is less than program," when, in fact, Tave was 0.9 °F higher than Tref at that time. After the rod withdrawals, Tave stabilized at approximately 2.0 °F higher than Tref before the applicant directed the team to begin raising turbine load. Approximately one hour into the simulator scenario, the applicant recognized this error, and correctly directed the RO to use the Tref instrument (TI-412B) to calculate Tave-to-Tref deviation.

During post-scenario follow-up questions, the applicant stated that during the team's pre-scenario briefing, he had incorrectly applied step 4.1.15 of UOP 12004-C, which directs the operators to use program Tave as a substitute for Tref during the power ascension. However, step 4.1.15 is only valid for conditions before the turbine was placed in service and synchronized to the grid. The operators were briefed before the scenario that UOP 12004-C step 4.1.41 was the step in effect—with power at 29% and the turbine already on the grid. 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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps (K/A G2.1.20).

Ex 6

CROSS REFERENCE:

3.c: Control Board Operations – Understanding

SCENARIO/EVENT:

Scenario 6, Event 4: Pressurizer (PRZR) Level Channel LT-459 Slowly Failed Low

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to correctly understand the operational implications of selecting an unaffected PRZR level channel with the charging controller in automatic. The applicant was also expected to correctly understand the impacts of "saturation" on the PRZR level control system/charging flow controller when returning the charging flow controller (FIC-121) to automatic operation.

APPLICANT ACTION/RESPONSE:

At the direction of the Senior Reactor Operator (SRO), the applicant selected an unaffected PRZR level channel on LS-459D in accordance with AOP 18001-C. When the unaffected channel was selected, charging flow rapidly lowered due to the charging controller sensing actual PRZR levels greater than program. At this point, the applicant was directed by the SRO to take manual control of charging and restore charging to approximately 130 gpm (the previous value). The applicant was then directed by the SRO to return FIC-121 to automatic after approximately 7 minutes in manual. When the applicant agreed with the SRO and placed FIC-121 to auto, the valve -121 again went closed, again charging flow rapidly lowered, but the applicant was able to go back to manual on FIC-121 and re-open the valve before letdown had to be isolated. The applicant then stated that he believed that there was a failure in FIC-121.

During post-scenario follow-up questions, the applicant correctly stated that on the initial transient, the team did not discuss the effects of selecting a good channel and did not anticipate the plant response. The applicant further stated (incorrectly) that the team determined there was an additional problem with the FIC-121 controller. The applicant made two non-critical errors associated with this rating factor, and was therefore evaluated with a score of "1" for this rating factor.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation (K/A G2.1.7).

Ex 6

CROSS REFERENCE:

3.c: Control Board Operations – Understanding

SCENARIO/EVENT:

Scenario 6, Event 7: Following the ATWT, SG Safeties Lifted on all SGs and #4 SG Safety Failed to Close

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO) was expected to correctly understand that manual operation of the charging flow controller (FIC-121) after Safety Injection (SI) actuation would be ineffective in controlling emergency boration flow.

APPLICANT ACTION/RESPONSE:

At the direction of the Senior Reactor Operator (SRO), the applicant commenced emergency boration and verified boric acid flow rates greater than 30 GPM in accordance with procedure 19211-C, "FR-S.1 Response to Nuclear Power Generation/ATWT." After exiting the 19211-C procedure, a SI signal actuated, which realigned the output of the CCPs from the normal charging system to the ECCS cold leg injection flow path. During the subsequent actions of the EOPs, the applicant placed the charging flow controller to manual and attempted to raise charging flow to keep emergency boration flow rate above 30 gpm. However, based on the SI realignment, the only change that these actions accomplished was to increase seal injection flow rates to the RCP seal package. Furthermore, because the ECCS system was injecting highly borated water from the RWST at flow rates greater than 200 gpm, the previous 30 gpm emergency boration flow rate was no longer an operational concern.

During post-scenario follow-up questions, the applicant correctly stated that by manipulating the FIC-121 controller all he had done was change flow rates to the RCP seals, and that ultimately he did not need to manipulate the controller following the SI actuation. The applicant made two non-critical errors associated with this rating factor, and was therefore evaluated with a score of "1" for this rating factor.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation (K/A G2.1.7).

E+b

CROSS REFERENCE:

6.a: Technical Specifications – Recognize and Locate

SCENARIO/EVENT:

Scenario 7, Event 5: Pressurizer (PRZR) Pressure Channel PI-456 Failed High, PORV Block Valve HV-8000B Failed to Close in Automatic

EXPECTED ACTION/RESPONSE:

The LCO bases of Technical Specification (TS) 3.4.11, "Pressurizer PORVs," states the following:

> The LCO requires the PORVs and their associated block valves to be OPERABLE for manual operation to mitigate the effects associated with an SGTR, or loss of heat sink, and to achieve safety grade cold shutdown. The PORVs are considered OPERABLE in either the manual or automatic mode. [...] An OPERABLE PORV is required to be capable of manually opening and closing, and not experiencing excessive seat leakage. [...] An OPERABLE block valve may be either open and energized, or closed and energized with the capability to be opened, since the required safety function is accomplished by manual operation.

In accordance with the above, the applicant, as Senior Reactor Operator (SRO), was expected to correctly recognize that LCO 3.4.11 was met following the PI-456 failure and failure of the PORV block valve HV-8000B to close. Because both the PORV and the block valve were capable of being cycled in manual operation, both valves remained OPERABLE.

APPLICANT ACTION/RESPONSE:

When the applicant performed step C9 of AOP 18001-C, which directs placing the PORVs in AUTO, the applicant directed the Reactor Operator to maintain the PORV in manual and closed per the Tech Specs.

During post-scenario follow-up questions, the applicant incorrectly stated that he had entered Condition C of LCO 3.4.11 for an inoperable PORV block valve. 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.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to determine operability and/or availability of safety related equipment (K/A G2.2.37).

Ex. 6

U.S. Nuclear Regulatory Commission Individual Examination Report					
Applicant's [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: M. Meeks	RO/SRO/Total Exam Points 75 / 25 / 100
NRC Grader/Reviewer: M. Meeks	Applicant Points 70 / 18 / 88
Date Administered: April 20, 2012	Applicant Grade (%) 93.33 / 72.00 / 88.00

Operating Test Summary	
Administered by: M. Bates	Date Administered: March 26– April 13, 2012
Walk-Through (Overall)	S
Administrative Topics	S
Simulator Operating Test	S

Examiner Recommendations					
Check Blocks	Pass	Fail	Waive	Signature	Date
Written Examination	X			M. Meeks	05/10/2012
Operating Test	X			M. Bates	10 MAY 2012
Final Recommendation	X			M. Meeks	05/10/2012

License Recommendation			
✓	Issue License	Supervisor's Signature Malcolm T. Widmann	Date 05/10/12
	Deny License		

[redacted]

Ex. 6

Applicant Docket Number: [redacted]		
Walk-Through Grading Details	**Evaluation (S or U)**	**Comment Page Number**
Administrative Topics		
a. Perform AFD Monitoring (Administered by M. Meeks)	S	
b. K_{eff} Determination for Shutdown Banks Withdrawn (Administered by M. Meeks)	S	
c. Determine Tagging Requirements (Administered by M. Meeks)	U	4
d. Determine if Task Can Be Completed Without Exceeding any Radiological Limits (Administered by M. Meeks)	S	
e. Emergency Plan Classification and Notification (Administered by P. Capehart)	S*	5
Systems: Control Room		
a. Control Rod Operability Test (Administered by M. Meeks)	S*	6
b. Transfer ECCS Pumps to Cold Leg Recirc (Administered by M. Meeks)	S	
c. Depressurize RCS to Reduce Break Flow to Ruptured SG	S*	7
d. Start an RCP with Subsequent Seal Failure	S*	8
e. Transfer AFW Suction Source to CST 2	S	
f. Dilute Containment with Service Air (Administered by M. Meeks)	S	
g. Return ESF Bus from Diesel Generator to Normal Supply (Administered by M. Meeks)	S	
h. N/A	N/A	
Systems: In-Plant		
i. Establish RWST Gravity Drain Through RHR Pumps to HLs	S	
j. Establish Local Control of 1E Switchgear (Administered by P. Capehart)	S	
k. Placing the RHR 25kVA Inverter 1DD1I6 in Service	S	

Ex. 6

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	**2.50**	9
b. Ensure Accuracy	0.20	**2**	**0.40**		
c. Understanding	0.30	**2**	**0.60**		10
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**	**2.66**	11
b. Understanding	0.33	3	0.99		
c. Manual Control	0.33	3	0.99		
4. Communications					
a. Clarity	0.40	3	1.20	**2.60**	12
b. Crew & Others Informed	0.40	**2**	**0.80**		
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	**2**	**0.80**	**2.60**	13
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.]

Ex. 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

Administrative Topic "c"

JPM/TASK:

Determine Tagging Requirements.

EXPECTED ACTION/RESPONSE:

Given the appropriate references, the applicant was expected to correctly determine the appropriate boundary points and required positions of components to (1) isolate the fluid boundary and (2) drain the "A" Containment Spray Pump (CSP), 1-1206-P6-001, in preparation for maintenance on the pump seals. The applicant was expected to identify 1-1206-U4-108, CSP A Pump Casing Vent Valve, as a required vent path to be tagged in the UNFLANGE/OPEN or UNCAP/OPEN position. The other required vent path was via 1-1206-X4-108, CSP A Header Vent Valve, which was required to be tagged in the UNCAP/OPEN position. Proper tagging of both 1-1206-U4-108 and 1-1206-X4-108 were critical steps in the JPM, because both vents being open were required to completely drain the pump.

APPLICANT ACTION/RESPONSE:

When the applicant developed the tagout, the applicant incorrectly did not include 1-1206-U4-108 in any position on the tagout. The applicant did tag the other vent path, valve 1-1206-X4-108 in the OPEN position, but did not recognize that the –X4-108 valve was also required to be un-capped.

During post-JPM discussion with the examiner, the applicant incorrectly stated that 1-1206-X4-108 was the high point, and the only required vent path for the pump. The applicant did not correctly perform a critical step in the JPM. Therefore, the applicant was evaluated as not successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of knowledge of tagging and clearance procedures.

E4.6

CROSS REFERENCE:

Administrative Topic "e"

JPM/TASK:

Classify an Emergency Event, Complete EN Form

EXPECTED ACTION/RESPONSE:

The applicant was expected to complete Checklist 1 – Classification Determination of procedure NMP-EP-110, "Emergency Classification Determination and Initial Action," to the HIGHEST emergency level in accordance with the procedure steps. At step 1 of the Checklist, the applicant was expected to determine that the appropriate Initiating Condition Matrix for the classification of the event was the HOT IC/EAL Matrix Evaluation Chart and proceed to step 2 to evaluate the fission product barriers. At step 3 of the Checklist, the applicant was expected to enter the highest applicable IC/EAL determined from step 2.

APPLICANT ACTION/RESPONSE:

The applicant incorrectly completed Checklist 1. The applicant failed to enter the highest applicable IC/EAL in step 3 and checked the "None" block. Step 4 asked for this same information and the highest IC/EAL classification was correctly listed. Step 3 was not a critical step.

The applicant's performance was rated as satisfactory because he successfully completed all critical steps.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in completing the checklist as required by procedure.

Ex. 6

CROSS REFERENCE:

Systems: Control Room "a"

JPM/TASK:

Perform Control Rod Operability Test.

EXPECTED ACTION/RESPONSE:

The applicant was expected to correctly perform surveillance procedure 14410-1, "Control Room Operability Test," for control banks A, B, C, and D. Step 5.1.7 of this procedure directs the operator to record the test IPC Bank Demand reading for the control bank being tested on Data Sheet 1. At this step, the applicant was expected to correctly determine IPC Bank Demand using the plant computer and record the appropriate value on the data sheet. However, properly determining the IPC Bank Demand was not a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

At step 5.1.7, the applicant called up IPC screen "SHOW30" on the main control board, which displayed both IPC Bank Demand information and IPC individual rod position information. However, the applicant incorrectly recorded the IPC individual rod position information (which was at 216 steps) instead of the correct reading for IPC Bank Demand (which was at 218 steps).

Although the applicant did not correctly perform this specific portion of the surveillance, the applicant did correctly perform all of the critical steps in the JPM. In this case, incorrectly recording IPC Bank Demand did not impact any Technical Specification requirements. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to use plant computers to evaluate system or component status.

Ex. 6

CROSS REFERENCE:

Systems – Control Room "c"

JPM/TASK:

Depressurize RCS to Reduce Break Flow to Ruptured SG

EXPECTED ACTION/RESPONSE:

The applicant was expected to open a pressurizer PORV to depressurize the RCS in accordance with procedure 19030-C, "E-3 Steam Generator Tube Rupture," Revision 37.1, Step 34. The applicant was then expected to secure the depressurization when pressurizer pressure was less than the ruptured SG pressure. The JPM was designed for subcooling and pressurizer level to be satisfactory throughout the performance of the depressurization.

APPLICANT ACTION/RESPONSE:

The applicant correctly initiated the depressurization by opening a pressurizer PORV. The applicant then secured the depressurization because he thought that subcooling had lowered below 24°F, which was one of the alternate criteria to secure the depressurization. Subcooling remained above 50°F during the entire depressurization. Following completion of the JPM, the applicant was asked to explain the criteria which caused him to stop the depressurization. The applicant once again looked at his subcooling value and stated that he had looked at the value for cooldown rate, which was located directly above the subcooling value on the computer screen.

The applicant's performance was rated as satisfactory because when he terminated the depressurization based on an incorrect subcooling value, pressurizer pressure was 6 psig lower than the ruptured SG pressure, thereby resulting in successful completion of the task.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in the ability to locate control room instrumentation.

Ex. 6

CROSS REFERENCE:

Systems – Control Room "d"

JPM/TASK:

Start an RCP with Subsequent Seal Failure

EXPECTED ACTION/RESPONSE:

The applicant was expected to perform alarm panel checks as part of verifying no applicable alarms being lit prior to starting the RCP.

APPLICANT ACTION/RESPONSE:

The applicant did not perform alarm panel checks as part of verifying applicable alarms not lit.

The applicant's performance was rated as satisfactory because performing alarm panel checks was not a critical step.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in thoroughly performing a procedure step that required a verification of applicable alarms not being lit.

Ex. 6

CROSS REFERENCE:

1.b: Interpretation/Diagnosis – Ensure Accuracy

SCENARIO/EVENT:

Scenario 3, Event 5: Main Turbine EHC Pump Tripped and Standby Pump Failed to Auto Start

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to recognize that the standby EHC pump did not auto start several minutes after the running EHC pump tripped, and direct the standby pump to be manually started at that time. Alternatively, the applicant was expected to recognize shortly after the running EHC pump trip that the standby pump would be required and its automatic start was imminent, and thereby preemptively direct the standby EHC pump to be started prior to its automatic start setpoint being reached.

APPLICANT ACTION/RESPONSE:

The applicant incorrectly diagnosed that the EHC pressure had dropped below 1400 psig, which is the standby EHC pump automatic start setpoint. The applicant correctly directed the start of the standby pump, but the applicant provided this direction because he incorrectly believed the standby pump had failed to automatically start. The EHC pressure had not dropped below 1400 psig at the time the applicant directed the automatic start of the standby pump. The scenario was designed for the automatic start of the standby pump to fail, but EHC pressure had not yet lowered to the point where the automatic start would have been demanded. After the scenario, the applicant was asked to explain his directives. The applicant stated that EHC pressure had dropped to approximately 1250 psig, which was incorrect. The applicant was downgraded in this competency because he misdiagnosed the failure of the EHC pump to automatically start because he did not obtain accurate EHC pressure information on which to base his diagnosis.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to obtain accurate EHC pressure data on which to base his diagnosis.

Ex. 6

CROSS REFERENCE:

1.c: Interpretation/Diagnosis – Understanding

SCENARIO/EVENT:

Scenario 6, Event 4: Controlling Pressurizer Level Transmitter (LT-459) Failed Low

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to understand the impact of the LT-459 failure on charging flow and direct the crew to place the charging flow controller, FIC-0121, to manual prior to selecting an unaffected pressurizer level channel in accordance with procedure 18001-C, Section D, Failure of Pressurizer Level Instrumentation. Placing the charging flow controller to manual was necessary to avoid a total loss of charging because pressurizer level had been above setpoint for several minutes due to the LT-459 failure.

APPLICANT ACTION/RESPONSE:

The applicant did not direct placing the charging flow controller to manual prior to selecting an unaffected pressurizer level channel. Immediately after the applicant directed the RO to select an unaffected pressurizer level channel, charging flow rapidly lowered, at which time the applicant directed the Reactor Operator (RO) to place FIC-0121 back to manual. The crew discussed the plant response and through their conversation it was determined that they fully understood the plant response. The SRO was downgraded in this competency because, at the time he provided direction to the RO to select an unaffected channel, he did not understand that charging flow would lower to zero due to selecting that unaffected pressurizer level channel.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in providing the proper amount of direction and oversight when the crew was selecting an unaffected pressurizer level channel.

Ex. 6

[redacted]

APPLICANT DOCKET NUMBER [redacted]

CROSS REFERENCE:

3.a: Control Board Operations – Locate & Manipulate

SCENARIO/EVENT:

Scenario 7, Event 6: RWST Sludge Mixing Line Pipe Break with Auto Valve Closure Failure

EXPECTED ACTION/RESPONSE:

The applicant, as Reactor Operator (RO), was expected to ensure that the crew closed the sludge mixing isolation valves when ALB06-E04, RWST LO LEVEL, was received.

APPLICANT ACTION/RESPONSE:

The applicant allowed 11 minutes to elapse from the time the RWST LO LEVEL alarm annunciated to the time when the sludge mixing isolation valves were closed. This malfunction was originally designed for the Unit Operator (UO) to address the alarm; however, such a long time elapsed that all crew members had the opportunity to view the ARP and provide input to successfully isolate the leak by closing the isolation valves, both of which were located in the control room. After the scenario, the applicant was asked if he had ever been exposed to this failure during training or if he had ever had to operate those valves either in the plant or in the simulator. The applicant stated that he had not previously operated those valves and did not initially know where they were located. The applicant was downgraded in this competency due to not knowing the location of the sludge mixing isolation valves.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to locate the sludge mixing isolation valves in the control room.

Ex b

CROSS REFERENCE:

4.b: Communications – Crew & Others Informed

SCENARIO/EVENT:

Scenario 6, Event 2: RCP Loop 1 HL NR RTD Failed High

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to request Shift Manager permission prior to placing control rods back to automatic after defeating the failed temperature channel. Procedure NMP-OS-007-001, Version 9.0, "Conduct of Operations Standards and Expectations," Step 6.29.2.1, states, in part, "When a system or component has been placed in manual due to a transient caused by an automatic control malfunction, SM permission is required prior to returning the system or component to automatic control following stabilization from the transient and correction of the malfunction."

APPLICANT ACTION/RESPONSE:

The applicant incorrectly directed the Reactor Operator (RO) to place control rods back to automatic without first getting permission from the Shift Manager.

The applicant made one non-critical error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to keep other crew members informed by not getting permission from the shift manager prior to placing control rods back to automatic.

CROSS REFERENCE:

6.a: Technical Specifications – Recognize and Locate

SCENARIO/EVENT:

Scenario 6, Event 4: Controlling Pressurizer Level Transmitter (LT-459) Failed Low

EXPECTED ACTION/RESPONSE:

The applicant, as Senior Reactor Operator (SRO), was expected to identify Technical Specification (TS) 3.3.1, Reactor Trip System Instrumentation, Function 9, Condition M, for the loss of one required channel of Pressurizer Water Level – High.

The applicant was also expected to identify TS 3.3.4, Remote Shutdown System, Function 8, Condition A, for the loss of one required channel of pressurizer level instrumentation.

The applicant was not expected to identify TS 3.3.1, Reactor Trip System Instrumentation, Functions 8a and 8b, which pertained to pressurizer pressure.

APPLICANT ACTION/RESPONSE:

The applicant did not identify TS 3.3.1, Function 9, Condition M. The applicant also did not identify TS 3.3.4, Remote Shutdown System, Function 8, Condition A.

Furthermore, the applicant incorrectly identified TS 3.3.1, Functions 8a and 8b.

Correctly recognizing the Technical Specifications for this event was the only error in this rating factor; therefore, a score of "2" was assigned.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a weakness in his ability to recognize applicable Technical Specifications.