Re: FOIA/PA 2013-0100

APPENDIX B
RECORDS BEING WITHHELD IN PART

NO.	DATE	DESCRIPTION/(PAGE COUNT) EXEMPTIONS
1.	02/04/2013	Email from Michael Meeks to Janet Vincent cc: Malcolm Widmann Subject: FW: C. Smith Preliminary Form 398 (89pgs) EX6
2.	02/04/2013	Email from Mark Bates to Janet Vincent, Malcolm Widmann cc: Michael Meeks, Phillip Capehart, Frank Ehrhardt in August 2012 w/ attachment Fairness Questions Submitted to Ehrhardt10AUG2012 (89 pgs) EX6

Vincent, Janet

From: Bates, Mark
Sent: Monday, February 04, 2013 3:45 PM
To: Vincent, Janet; Widmann, Malcolm
Cc: Meeks, Michael; Capehart, Phillip; Franke, Mark
Subject: Fairness Question Submitted to Frank Ehrhardt in August 2012
Attachments: Fairness Questions Submitted to Ehrhardt 10AUG2012.PDF

Attached

Mark A. Bates
Senior Operations Engineer
Division of Reactor Safety
United States Nuclear Regulatory Commission - Region II
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257
404-997-4612

1. *Was a waiver or waivers of the operating test granted for other applicants who took the most recent examination? (Capehart, Bates, Meeks)*
   a. *If so, what was the basis and threshold for granting the waiver(s)?*

Operating test waivers were granted for other applicants who passed the operating test portion of the Vogtle 2011-301 exam. Those waivers were granted based on input from the previous exam team members. I was not involved with the Vogtle 2011-301 exam; therefore, it is part of my personal process to request a recommendation from the previous exam team concerning waiver requests. Typical practice is to employ the recommendation from the previous exam team. I had no knowledge of the previous exam; therefore, I had no grounds to make any waiver decisions without a recommendation from the Vogtle 2011-301 exam team. I simply followed their recommendation.

Furthermore, because I was the only Vogtle 2012-301 exam team member not on the previous Vogtle 2011-301 exam team, it was imperative that I remain as independent as possible to evaluate any applicants that could potentially be denied a waiver of the operating test. This is the second reason for me relying on, and employing, waiver recommendations from members of the previous Vogtle 2011-301 exam team.

2. *How did the applicant's performance on the previous examination operating test differ from any applicants who were granted waivers? (Capehart, Bates, Meeks)*

I cannot answer this question in detail because I do not have detailed knowledge of any performances on the Vogtle 2011-301 operating test. To this day, I have not read the details of any of the applicant's Form 303-1s from the Vogtle 2011-301 exam. My only exposure to any of the Form 303-1s from the Vogtle 2011-301 exam took place only after the denied applicant's appeal of the operating test was received. When compiling material to respond to the appeal, I did construct a table to compare Carla Smith's operating test performance with [redacted] operating test performance simply to help explain why the previous Vogtle 2011-301 exam team decided that approval of an operating test waiver would be unlikely for Carla Smith. Even when constructing that table, I did not read the detailed documentation of the individual errors that were made. I only consulted pages 2 and 3 of those two Form 303-1s.

Ex 6

Because I did construct the above referenced table, I have included it as **EXHIBIT 1** at the end of this document.

3. *What did you discuss with the applicant and/or licensee regarding submitting a waiver for the operating test? (Capehart, Bates, Meeks)*

I did not discuss waivers with the facility licensee or the applicant (Carla Smith) before exam administration. However, I received an email (cc'ed) on August 2, 2011 that was sent from Michael Meeks to [redacted] (Southern Co), which stated that most

Ex 6

applicants would likely receive a routine waiver if requested, but Carla Smith would likely have a waiver denied if one was requested. This email is included as **EXHIBIT 2** at the end of this document.

4. *Did you review the applicant's docket file, including ES-303, prior to administering the operating test to her? (Bates, Meeks)*
    a. *Why or why not?*

I did not review the applicant's docket file for reasons discussed in the earlier questions. To reiterate, it was imperative that I remain independent and able to administer the operating test to any applicants who were retaking the operating test. I was the only exam team member who was not a part of the Vogtle 2011-301 exam team due to an exam team change that was made due to schedule demands. I also had no reason to review the docket file for purposes of approving and denying waivers because I was simply going to follow the waiver recommendation of the previous exam team members. The people most able to make a quality waiver recommendation based on any performance on the Vogtle 2011-301 exam were those examiners that witnessed those performances. It appears valid to employ those recommendations unless there is an over-riding reason to make a different decision. In summary, not reviewing any of the docket files before exam administration was performed to maintain independence, and review of the docket files was not necessary for approving and/or denying waivers.

5. *Did you review the docket files, including ES-303s, of any other applicants that were granted waivers prior to administering the operating test? (Bates, Meeks)*
    a. *Why or why not?*

I did not review docket files of any other applicant's docket files prior to administering the operating test. I based waiver decisions on recommendations from the previous examination team. Michael Meeks was the Chief Examiner-Under Instruction for the Vogtle 2012-301 exam and was also a member of the Vogtle 2011-301 exam team. Michael, in consultation with Phil Capehart and Jay Hopkins (via historical emails) agreed that operating test waiver should be approved for those that passed the 2011-301 exam, with the exception of Carla Smith. Therefore, I had no reason to review the docket files because I had decided to use the recommendation of the previous exam team.

6. *What criteria or process was used to determine examiner assignments? (Bates, Meeks)*

As always, I constructed a skeleton schedule for exam teams. This skeleton is shown in EXHIBIT 3, but did not initially have applicants and examiners assigned to the variables (I.E.: I1, I2, R1, R2, E1, E2, etc.). The skeleton was designed to minimize the number of scenarios that needed to be developed and administered, as well as minimizing the number of scenario sets that would require a surrogate operator. These goals are in keeping with requirements of NUREG-1021.

Once the skeleton was created, we assigned applicant names to the variable using a reverse alphabetical process using last names. This can be seen by looking at EXHIBIT 3. Examiner names were assigned to E1, E2, E3, with the exception of ensuring that I was assigned to Carla Smith because I had no detailed knowledge of her previous operating test performance.

7. *What criteria or process was used to determine the number of scenarios to administer to each applicant? (Bates, Meeks)*

   See my response to question 6 above. The skeleton schedule was constructed and then names were assigned to the variables using a reverse alphabetical order using the applicant's last name. The number of scenarios for the skeleton schedule was driven by NUREG-1021 guidance to minimize the use of surrogates. Therefore, we minimized the number of scenarios with the overriding constraint of minimizing the use of surrogates, which complies with NUREG-1021. NUREG-1021 provides guidance to have applicants perform one scenario beyond the minimum required number of scenarios if doing so will reduce the use of surrogates.

8. *What steps, if any, did you take to mitigate any potential bias (predisposition based on knowledge of past performance) when administering the examination? (Bates, Meeks)*

   Please reference my responses to the above questions. To summarize, I ensured that I did not discuss or consult written documentation to gain knowledge of the details of any of the applicant's performances on the previous exam. This was necessary because I was the only one that had no detailed knowledge of that exam. Potential bias was minimized when approving waivers, constructing the schedule, and making examiner assignments.

9. *What threshold was used to determine whether or not to document an error committed by the applicant during administration of the operating test (simulator scenarios and JPMs)? (Bates, Meeks)*

   <u>JPMs:</u>
   JPM comments were made using a similar threshold for all applicants. If the applicant made an error that prevented the successful completion of the task, or placed the plant in a less safe condition, then the applicant normally received an unsatisfactory score. If the applicant simply made an error then self-corrected, made an error that did not hinder the completion of the task and did not result in the plant being in a less safe condition, then the applicant typically received a comment on Form 303-1, but received a score of satisfactory for that JPM.

   <u>Dynamic Simulator Scenarios:</u>

NUREG-1021 provides pertinent guidance that was used as a basis for the exam team's evaluation of the applicant's performance in the various Competencies. ES-303, section D.2.b, states:

a. Using Form ES-303-3 or ES-303-4, depending on the applicant's license level, and the following generic guidance, evaluate any deficiencies coded for the simulator test to determine a grade for every applicable rating factor (RF) and competency. Keep in mind that the simulator test is generally graded based on competencies rather than consequences; every error that reflects on an operator's competence is considered equal unless it is related to the performance of a critical task (as determined in accordance with ES-301 and Appendix D).

Therefore, errors that reflected an operator's competence in any of the rating factors were documented as required by NUREG-1021.

10. *Please provide any evidence (written comments) that show that a similar threshold was used to document errors committed by other applicants. (Bates, Meeks)*

JPMs

EXHIBIT 4 contains a table of cross-referenced comments for those JPMs on which Carla received comments. It should be noted that Carla Smith did not receive an unsatisfactory score on any JPM, but she did receive comments on four JPMs. The table will reflect that in all cases, similar comments were made for similar mistakes by other applicants. Attachment 1 contains the supporting pages from the various Form 303-1s.

Dynamic Simulator Scenarios:

There are numerous examples of applying a similar threshold for what was considered to be an error. **EXHIBIT 5** displays a cross-reference of Carla's errors to other applicant's errors where a similar threshold was used. In many cases the exact same error was documented in the exact same rating factor. Small differences may be seen for some examples due to the applicant standing in a different position when the error was made, or due to the other applicant displaying a different root cause for making the error. The intent of this table is not to show every example and all similarities. The purpose is to show a pattern of fairness by showing several examples where a similar threshold was applied. It is also worth noting that Carla made more errors than the other applicants, therefore there was not a one-for-one comparison to be made for all of the comments in documented for her performance in the simulator.
Attachment 2 contains the supporting pages from the various Form 303-1s.

EXHIBIT 1: Carla Smith and [redacted] 2011-301 Comparison

The following table was constructed in response to Carla Smith's appeal of the operating test.

Operating Test Portion	Carla Smith	[redacted]
Total Number of Simulator Scenario Comments	12	3
Number of Administrative JPM Failures	0	2
Number of System/In-Plant JPM Failures	0	1
Number of Administrative JPMs with Comments	1	1
Number of System/In-Plant JPMs with Comments	5	2

EXHIBIT 2: EMAIL FROM MEEKS TO [redacted]

RE: Vogtle NRC Exam Waiver Questions

Meeks, Michael

Sent: Tue 8/2/2011 10:18 AM

To: [redacted]

Cc: Widmann, Malcolm; [redacted] Bates, Mark; Franke, Mark

[redacted]

Sorry to be so long getting back to you. I have checked with Mark Bates and Malcolm and have preliminary answers for you:

1. For [redacted] these would be routine waivers approved by Region II. These individuals would have the operating test portion of the exam waived, and would only need to take the written exam. When their applications are submitted, they would need to specify deficiencies (i.e. as noted in the last NRC exam) and the remedial training they did to correct these deficiencies.

2. For C. Smith, Region II would likely deny a waiver of the operating test portion of the exam. However, she could re-take the entire exam (both a complete operating exam and the written).

3. For the individual in the March 2013 class, we need some additional information. ES-204 D.1.i allows the region to approve a routine waiver of "up to 6 months of the 3 years of (responsible nuclear) power plant experience for an RO (or an SRO), but not to exceed 2 months of the year of onsite experience for an RO and 1 month of the 6 for an SRO." Therefore, if the applicant meets this criteria, Region II could approve a routine waiver. If the applicant does not meet this criteria, we would need to receive authorization from the IOLB program office (NRC Headquarters) to grant the waiver. In either case, after the

applicant passed the NRC exam, we would issue a "pass" letter stating that the applicant passed the exam, and that the license would be issued once the applicant completes the required experience.

Please let me know if you have any further questions—

Best regards,

Michael Meeks

Operations Examiner/Operations Engineer

U.S. Nuclear Regulatory Commission (Region II)

245 Peachtree Center Ave. NE (Suite 1200)

Atlanta, GA 30303-1257

office: 404.997.4467

email: Michael.Meeks@nrc.gov

From: [redacted]
Sent: Tuesday, June 07, 2011 7:24 AM
To: Meeks, Michael
Cc: Widmann, Malcolm; [redacted]
Subject: Vogtle NRC Exam Waiver Questions

Michael,

We are in the process of identifying individuals in which we plan on requesting a waiver for the March 2012 Operating Exam in accordance with ES-204, Section D.1.a. The individuals in which we are confident that we will request an Operating Exam waiver are:

[redacted]

Three other individuals from that class also passed the March 2011 Operating Exam; however, we are presently evaluating their status and are inquiring as to whether or not Region II would approve an Operating Exam waiver for the individuals below:

[redacted] and [redacted]

If I understand ES-204, these waiver requests should be documented on Form 398 when the license applications are submitted and would be considered routine waivers with review/approval through the Region II office. I also understand that the requirements of D.1.k must also be met to waive the 24 month GFE requirement. However, in order to allow us to develop an appropriate recovery plan, I am asking if Region II would evaluate the status of the individuals listed above and indicate whether or not a waiver would be approved. If I need to follow up with a formal request (i.e. letter), please let me know so I may submit it in a timely manner.

In addition, I understand that you may not be the Chief Examiner for our March 2013 exam, however, I am asking for some assistance as to how I should proceed with a similar issue. There is one individual that will be enrolled in the LOIT program this fall and is scheduled to take an Initial Operating Exam in March 2013 that is about 2 months shy of the prerequisite 36 month eligibility requirement. We currently plan on requesting a waiver for this individual as well but I do not believe this would be considered a routine waiver as described in ES-204; thus requiring NRR approval. As you might expect, we would like to know whether or not this waiver request would be accepted. My question, how should I proceed? Should I submit a formal letter (signed by our VP) requesting evaluation of this request prior to submitting the Form 398 application? If so, when would submittal of a request be considered timely?

Any assistance on these issues would be greatly appreciated.

[redacted]

Nuclear Operations Training Supervisor

Vogtle Electric Generating Plant

[redacted]

Pager: 750

EXHIBIT 3: DYNAMIC SIMULATOR SCHEDULE

Below is the exam schedule that was developed for the simulator portion of the Vogtle 2012-301 operating test.

WEEK 1

	MONDAY (3/26)	TUESDAY (3/27)	WEDNESDAY (3/28)	THURSDAY (3/29)	FRIDAY (3/30)
0700-1000	Scenario #6 CRS: I2 / E2 OATC: I1 / E1 BOP: R1 / E3	Scenario 7 CRS: I1 / E1 OATC: I2 / E2 BOP: R1 / E3	Scenario #2 CRS: U1 / E1 OATC: R7 / E2 BOP: R8 / E3	Scenario #3 CRS: I4 / E2 OATC: R2 / E3 BOP: Surrogate E1: A3 & A1-1 (U1, I8, R4, R3, R5, R6, R7)	Scenario #1 CRS: U1 / E1 OATC: R8 / E3 BOP: R7 / E2
1000-1300	Scenario #6 CRS: I4 / E2 OATC: I3 / E1 BOP: R2 / E3	Scenario 7 CRS: I3 / E1 OATC: I4 / E2 BOP: R2 / E3	Scenario #2 CRS: I5 / E1 OATC: R5 / E2 BOP: R6 / E3	Scenario #3 CRS: I2 / E2 OATC: R1 / E3 BOP: Surrogate E1: A3 & A1-1 (I1, I3, I5, I6, I7, R8)	Scenario #1 CRS: I1 / E1 OATC: R6 / E3 BOP: R5 / E2
1300-1600	Scenario #6 CRS: I6 / E2 OATC: I5 / E1 BOP: R3 / E3	Scenario 7 CRS: I5 / E1 OATC: I6 / E2 BOP: R3 / E3	Scenario #2 CRS: I8 / E2 OATC: I7 / E1 BOP: R4 / E3	Scenario #3 CRS: I8 / E2 OATC: R4 / E3 BOP: Surrogate E1: A3 & A1-1 (I2, R1, I4, R2)	Scenario #1 CRS: I6 / E2 OATC: R3 / E3 BOP: Surrogate
1600-1800		Scenario 7 CRS: I7 / E1 OATC: I8 / E2 BOP: R4 / E3			

I1: [redacted]
I2:
I3:
I4:
I5:
I6:
I7:
I8:

U1: [redacted]

R1: [redacted]
R2:
R3:
R4:
R5:
R6:
R7:
R8:

E1: Michael Meeks (Chief – Under Instruction)
E2: Mark Bates (Chief)
E3: Phil Capehart

I_1: V
I_2: T
I_3: U
I_4: S
I_5: R
I_6: Q
I_7: P
I_8: O
U_1: W

R_1: N
R_2: M
R_3: L
R_4: K
R_5: J
R_6: I
R_7: H
R_8: G

EXHIBIT 4: JPM COMPARISON TABLE

Applicant	Admin JPM c	Systems JPM a	Systems JPM d	Systems JPM g
[redacted]	Pass w/ Comment	Pass w/ Comment	Pass w/ Comment	Pass w/ Comment
H	Pass w/ Comment		Pass w/ Comment	Pass w/ Comment
G		Pass w/ Comment		Pass w/ Comment
M	Pass w/ Comment		Pass w/ Comment	Pass w/ Comment
N			Pass w/ Comment	Pass w/ Comment
U			Pass w/ Comment	Pass w/ Comment
O			Pass w/ Comment	
S		Pass w/ Comment	Pass w/ Comment	
Q		Pass w/ Comment	Pass w/ Comment	
J			Pass w/ Comment	
R		Pass w/ Comment	Pass w/ Comment	
L		Pass w/ Comment		

EXHIBIT 5: DYNAMIC SCENARIO COMPARISON TABLE

Rating Factor	Form 303-1 Pg # for Carla's Comment	Applicant and Form 303-1 Pg # for Similar Comment using Similar Threshold / Examiner of Record for Similar Comment
1.b	8	[redacted] Pg 9 / Bates S Pg 11 / Capehart M
1.b	10	[redacted] Pg 17 / Capehart N
1.c	12	Similar threshold can be seen generally via other comments in this table.
1.c	14	[redacted] Pg 13 / Bates Q Pg 10 / Bates S Pg 10 / Meeks V Pg 8 / Meeks R [redacted] Pg 9 / Capehart L
1.d	16	[redacted] Pg 12 / Bates Q Pg 11 / Meeks V
3.a	18	[redacted] Pg 14 / Bates Q Pg 14 / Meeks V
3.a	19	Similar threshold can be seen generally via other comments in this table.
3.a	20	[redacted] Pg 11 / Bates S Pg 15 / Capehart N Pg 7 / Meeks V Pg 10 / Capehart M [redacted] Pg 7 / Meeks U
3.c	21	[redacted] Pg 10 / Bates O
4.a	23	[redacted] Pg 13 / Capehart L
4.a	24	[redacted] Pg 12 / Meeks V
4.a	25	Similar threshold can be seen generally via other comments in this table.
4.b	26	[redacted] Pg 15 / Bates Q [redacted] Pg 12 / Bates S
4.b	27	[redacted] Pg 15 / Bates Q [redacted] Pg 12 / Bates S
4.c	28	[redacted] Pg 18 / Capehart N [redacted] Pg 13 / Meeks V
6.a	29	[redacted] Pg 14 / Meeks P Pg 15 / Meeks P
6.a	30	[redacted] Pg 13 / Bates S
6.a	31	[redacted] Pg 16 / Bates Q Pg 15 / Meeks V Pg 10 / Meeks R

ATTACHMENT 1: JPM COMPARISON SUPPORTING DOCUMENTS

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 work on the pump seals. The applicant was 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 incorrectly stated that 1-1206-U4-002 should be tagged in the CLOSED position.

During post-JPM discussion with the examiner, the applicant incorrectly stated that valve -002 was an isolation boundary that was required to be tagged in a closed configuration. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

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

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 work on the pump seals. The applicant was 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 incorrectly stated that 1-1206-U4-002 should be tagged in the CLOSED position.

During post-JPM discussion with the examiner, the applicant incorrectly stated that valve "-002" was an isolation boundary that was required to be tagged in a closed configuration. The applicant correctly performed all critical steps in the JPM; therefore, the applicant's performance was rated as satisfactory.

LACK OF ABILITY/KNOWLEDGE:

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

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-U4-002, 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 incorrectly stated that 1-1206-U4-002 should be tagged in the CLOSED position.

During post-JPM discussion with the examiner, the applicant incorrectly stated that valve -002 was an isolation boundary that was required to be tagged in a closed configuration. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

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

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.

S
Examiner Meel

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.

Q
Examiner: M

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.

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).

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.

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 directed 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).

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.

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.

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.

The applicant was also expected to recognize the ALB08-B05, RCP 2 CONTROLLED LKG HI/LO FLOW, alarm in a timely manner.

APPLICANT ACTION/RESPONSE:

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

The applicant started RCP #2 and secured the associated lift pump. Approximately two minutes after the RCP 2 CONTROLLED LKG HI/LO FLOW alarm annunciated, she recognized the alarm and correctly completed the task. The delay in recognizing the alarm warranted a comment.

The applicant's performance was rated as satisfactory because performing alarm panel checks was not a critical step. Also, the task did not contain time critical acceptance criteria; therefore, the applicant's correct completion of all critical steps was evaluated as satisfactory.

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. The applicant also displayed a weakness in recognizing an alarm, in a timely manner, that was directly associated with her task.

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.

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.

NRC-043 [redacted] Q
Submitted May 31, 2013
Examiner: Bates

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.

CROSS REFERENCE:

Systems – Control Room "d"

JPM/TASK:

Start an RCP with subsequent Seal Failure

EXPECTED ACTION/RESPONSE:

The applicant was expected to complete step 4.1.2.10 of procedure 13003-1, "Reactor Coolant Pump Operation," Revision 45, which directed the operator to establish conditions for starting an RCP as described in Table 1, RCP Prestart Conditions.

APPLICANT ACTION/RESPONSE:

The applicant did not perform step 4.1.2.10 to verify establishment of RCP Prestart Conditions.

The applicant's performance was rated as satisfactory because RCP Prestart Conditions were already met; therefore, verification of these conditions 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 RCP Prestart Conditions.

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.

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.

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.

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.

The applicant was also expected to recognize the ALB08-B05, RCP 2 CONTROLLED LKG HI/LO FLOW, alarm in a timely manner.

APPLICANT ACTION/RESPONSE:

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

The applicant started RCP #2 and secured the associated lift pump. Approximately two minutes after the RCP 2 CONTROLLED LKG HI/LO FLOW alarm annunciated, he recognized the alarm and correctly completed the task.

The applicant's performance was rated as satisfactory because performing alarm panel checks was not a critical step. Also, the task did not contain time critical acceptance criteria; therefore, the applicant's correct completion of all critical steps was evaluated as satisfactory.

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. The applicant also displayed a weakness in recognizing an alarm, in a timely manner, that was directly associated with his task.

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.

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator (DG) to Normal Supply

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel Reserve Auxiliary Transformer (RAT) "B" to bus 1BA03, and then remove DG 1B from bus 1BA03, in accordance with procedure 13427B-1, "4160V AC Bus 1BA03 1E Electrical Distribution System." At step 4.2.5.1 of this procedure, the applicant was expected to lower DG 1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. The next step (4.2.5.2) of the procedure directs the operator to concurrently unload the DG to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, when the applicant performed step 4.2.5.1 of the procedure to unload the diesel, she incorrectly lowered load from ~3200 kW to ~2100 kW and waited 5 minutes, then again incorrectly lowered load to ~1000 kW and waited an additional 5 minutes. These actions were incorrect because diesel load was not stabilized at 3000 kW for 5 minutes, and the DG was unloaded below 3000 kW more slowly than expected.

During post-JPM questions with the examiner, the examiner asked the applicant to go back through the procedural steps 4.2.5.1 and 4.2.5.2. At this time, the applicant [correctly] stated that a better way to perform the procedure would have been to stabilize load at 3000 kW for 5 minutes, and then to lower load all the way to minimum per step 4.2.5.2. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps.

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator to Normal Supply.

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel Reserve Auxiliary Transformer (RAT) "B" to bus 1BA03, and then remove DG 1B from bus 1BA03 in accordance with procedure 13427B-1, "4160V AC Bus 1BA03 1E Electrical Distribution System." At step 4.2.5.1 of this procedure, the applicant was expected to lower DG 1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. The next step (4.2.5.2) of the procedure directed the operator to concurrently unload the D/G to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, when the applicant performed step 4.2.5.1 of the procedure to unload the diesel, he lowered load from ~3200 kW to ~2100 kW and then waited 5 minutes. This was incorrect because diesel load was lowered below ~3000 kW.

During post-JPM questions with the examiner, the examiner asked the applicant to go back through the procedural steps of 4.2.5.1 and 4.2.5.2. At this time, the applicant stated that he should have only lowered load to 3000 kW instead of 2100 kW, and that he realized the mistake when he turned the page and read step 4.2.5.2. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps.

[redacted] NRC-045 (G)
Submitted: May 31, 2013
Examiner: Meeks

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator (DG) to Normal Supply

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel Reserve Auxiliary Transformer (RAT) "B" to bus 1BA03, and then remove DG1B from bus 1BA03 in accordance with procedure 13427B-1, "4160V AC Bus 1BA03 1E Electrical Distribution System." At step 4.2.5.1 of this procedure, the applicant was expected to lower DG1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. Step 4.2.5.2 of the procedure directed the operator to concurrently unload the DG to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, when the applicant performed step 4.2.5.1 of the procedure to unload the diesel, he lowered load from ~3200 kW to ~2100 kW and then waited 5 minutes. This was incorrect because diesel load was lowered below ~3000 kW.

During post-JPM questions with the examiner, the examiner asked the applicant to go back through the procedural steps of 4.2.5.1 and 4.2.5.2. At this time, the applicant stated that he should have only lowered load to 3000 kW instead of 2100 kW, and that he realized the mistake when he turned the page and read step 4.2.5.2. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps.

(M)
Examiner: Mee

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator to Normal Supply.

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel RAT "B" to bus 1BA03, and then remove DG1B from bus 1BA03 in accordance with procedure 13427B-1, "4160V AC BUS 1BA03 1E ELECTRICAL DISTRIBUTION SYSTEM." At step 4.2.5.1 of this procedure, the applicant was expected to lower DG1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. Step 4.2.5.2 of the procedure directs the operator to concurrently unload the D/G to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, when the applicant performed step 4.2.5.1 of the procedure to unload the diesel, he lowered load from ~3200 kW to ~2100 kW and then waited 5 minutes. This was incorrect because diesel load was lowered below ~3000 kW.

During post-JPM questions with the examiner, the examiner asked the applicant to go back through the procedural steps of 4.2.5.1 and 4.2.5.2. At this time, the applicant stated that he should have only lowered load to 3000 kW instead of 2100 kW, and that he realized the mistake when he turned the page and read step 4.2.5.2. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps.

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator (DG) to Normal Supply

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel Reserve Auxiliary Transformer (RAT) "B" to bus 1BA03, and then remove DG1B from bus 1BA03 in accordance with procedure 13427B-1, "4160V AC BUS 1BA03 1E ELECTRICAL DISTRIBUTION SYSTEM." At step 4.2.2.10 of this procedure, with the DG loaded to approximately 3250 kW, the applicant was expected to properly set the DSL GEN 1B LOADING SET PT CONTROL to the current DG load as follows:

$$\frac{Diesel\ Load\ [kW]}{700} = LOAD\ POT\ SETTING$$

$$\therefore \frac{\sim 3250\ kW}{700} = \sim 4.6$$

The purpose of this step was to ensure the D/G does not pick up excess load when RAT "B" was paralleled to bus 1BA03. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. At step 4.2.5.1, the applicant was expected to lower DG1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. Step 4.2.5.2 of the procedure directs the operator to concurrently unload the D/G to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, at step 4.2.2.10 of the procedure the applicant incorrectly read the load on the DG1B as ~4250 kW, instead of the correct reading of ~3250 kW, and accordingly set the potentiometer as follows:

$$\therefore \frac{\sim 4250\ kW}{700} = \sim 6.0.$$

Therefore, when the applicant paralleled RAT "B" with the D/G an excessively large transient was placed on the diesel, which went to ~4600 kW loading nearly instantaneously. When the applicant performed step 4.2.5.1 of the procedure to unload the diesel, he lowered load from 4600 kW-4000 kW-3000 kW-2000 kW in 5 minute increments, which was incorrect as he continued to lower load past 3000 kW.

During post-JPM questions with the examiner, the examiner asked the applicant to go back over the calculation for the pot setting. The applicant [incorrectly] stated that DG load had been ~4200 kW, and the pot setting of 6.0 was correct. When the examiner asked the applicant to go back through the procedural steps of 4.2.5.1 and 4.2.5.2, the applicant again [incorrectly] stated

that he had performed the sequence correctly. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps, and a lack of ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions affect plant and system conditions.

CROSS REFERENCE:

Systems: Control Room "g"

JPM/TASK:

Returning ESF Bus from Diesel Generator (DG) to Normal Supply.

EXPECTED ACTION/RESPONSE:

The applicant was directed to parallel Reserve Auxiliary Transformer (RAT) "B" to bus 1BA03, and then remove DG1B from bus 1BA03 in accordance with procedure 13427B-1, "4160V AC Bus 1BA03 1E Electrical Distribution System." At step 4.2.5.1 of this procedure, the applicant was expected to lower DG1B load to 3000 kW in maximum increments of 1000 kW and 500 kVAR in time increments of 5 minutes. When the applicant reached step 4.2.5.1, the diesel would be running with ~3250 kW load and ~300 kVARs lagging. Step 4.2.5.2 of the procedure directs the operator to concurrently unload the DG to 700 kW and 200-300 kVARs lagging after the diesel load has been stable at 3000 kW for a 5 minute period. None of the above-mentioned steps in the procedure were critical steps in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, when the applicant performed step 4.2.5.1 of the procedure to unload the diesel, he lowered load from ~3200 kW to ~2100 kW and then waited 5 minutes. This was incorrect because diesel load was lowered below ~3000 kW.

During post-JPM questions with the examiner, the examiner asked the applicant to go back through the procedural steps of 4.2.5.1 and 4.2.5.2. At this time, the applicant stated that he should have only lowered load to 3000 kW instead of 2100 kW, and that he realized the mistake when he turned the page and read step 4.2.5.2. However, the applicant correctly performed all critical steps in the JPM. Therefore, the applicant was evaluated as successfully completing the JPM.

LACK OF ABILITY/KNOWLEDGE:

The applicant demonstrated a lack of ability to interpret and execute procedure steps.

ATTACHMENT 2: DYNAMIC SIMULATOR SCENARIO COMPARISON SUPPORTING DOCUMENTS

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 automatically start after the running EHC pump tripped and EHC pressure reached 1400 psig, at which time the applicant was expected to direct a manual start of the standby EHC pump. Alternatively, the applicant was expected to recognize shortly after the running EHC pump tripped 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 (1400 psig) being reached.

APPLICANT ACTION/RESPONSE:

The applicant incorrectly diagnosed that 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 she 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 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 1400 psig where the automatic start would have been demanded. During the scenario, the applicant directed C&T to investigate the automatic start feature on the standby EHC pump. After the scenario, the applicant was asked to explain her directives. The applicant stated that the standby EHC pump should have automatically started, which was incorrect. The applicant was downgraded in this competency because she misdiagnosed the failure of the automatic start of the standby EHC pump when pressure had not yet decayed to less than 1400 psig, which is when an automatic start of the standby pump would have been demanded.

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

LACK OF ABILITY/KNOWLEDGE:

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

POTENTIAL CONSEQUENCES:

The potential consequences of this error are related to an operator's ability to obtain accurate and complete information on which to base a diagnosis that subsequently requires an operator action based on that diagnosis. Potential consequences include starting equipment unnecessarily before it is demanded to start, as well as not starting equipment when a demand is present.

T

K/A (SRO IMPORTANCE RATING): 045G2.1.7 (4.7)

10CFR55.45(a)(4): Identify the instrumentation systems and the significance of facility instrument readings.

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.