steps 3.d. and 3.e instead of independently recommending a transition to 19111-C. 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. (K/A G2.1.20).

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 (K/A G2.1.20).

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(3) Applicant: [redacted] (RO)

Administrative Topic "a:" Perform AFD Monitoring. Satisfactory, no comments.
Administrative Topic "b:" K_{eff} Determination for Shutdown Banks Withdrawn. Satisfactory, no comments.
Administrative Topic "c:" Determine Tagging Requirements. ***Unsatisfactory, comments below.***
Administrative Topic "d:" Determine if Task Can Be Completed Without Exceeding any Radiological Limits. Satisfactory, no comments.

Systems: Control Room "a:" Perform Control Rod Operability Test.
Satisfactory, with comments below.
Systems: Control Room "f:" Dilute Containment with Service Air. Satisfactory, no comments.
Systems: Control Room "g:" Returning ESF Bus from Diesel Generator to Normal Supply. Satisfactory, no comments.

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-U4-034, CSP A Discharge to Eductor Isolation Valve, as a required isolation point to be tagged in the CLOSED position. Proper tagging of 1-1206-U4-034 was a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

When the applicant developed the tagout, the applicant incorrectly did not include 1-1206-U4-034 on the tagout in any position. The applicant did tag 1-1206-U4-116, a valve in the educator piping downstream of the CSP "A" discharge, in the CLOSED position. However, valve -116 is within the isolation boundary of valve -034 and does not provide pressure isolation for the piping from the spray additive tank, through valve -034 and the educator recirculation piping, and to the suction of the "A" CSP.

During post-JPM discussion with the examiner, the applicant incorrectly stated that the educator path was isolated by tagging valve -116 in CLOSED. 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. (K/A G2.2.13)

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).

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. (K/A G2.1.19)

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(4) Applicant: [redacted] (RO)

Administrative Topic "a:" Perform AFD Monitoring. Satisfactory, no comments.
Administrative Topic "b:" K_{eff} Determination for Shutdown Banks Withdrawn. Satisfactory, no comments.
Administrative Topic "c:" Determine Tagging Requirements. Satisfactory, no comments.
Administrative Topic "d:" Determine if Task Can Be Completed Without Exceeding any Radiological Limits. Satisfactory, no comments.

Systems: Control Room "a:" Perform Control Rod Operability Test. Satisfactory, no comments.
Systems: Control Room "f:" Dilute Containment with Service Air. Satisfactory, no comments.

(5) Applicant: [redacted] (RO)

Administrative Topic "a:" Perform AFD Monitoring. Satisfactory, no comments.
Administrative Topic "b:" K_{eff} Determination for Shutdown Banks Withdrawn.
Satisfactory, with comments below.
Administrative Topic "c:" Determine Tagging Requirements. Satisfactory, no comments.
Administrative Topic "d:" Determine if Task Can Be Completed Without Exceeding any Radiological Limits. Satisfactory, no comments.

Systems: Control Room "a:" Perform Control Rod Operability Test. Satisfactory, no comments.
Systems: Control Room "f:" Dilute Containment with Service Air. Satisfactory, no comments.

CROSS REFERENCE:

Administrative Topic "b"

JPM/TASK:

K_{eff} Determination for Shutdown Banks Withdrawn.

EXPECTED ACTION/RESPONSE:

Given the appropriate references, the applicant was expected to correctly determine the effective neutron multiplication factor (K_{eff}) with shutdown rod banks withdrawn in preparation for a reactor startup. The applicant was expected to use Data Sheet 3 of surveillance procedure 14005-1, "SHUTDOWN MARGIN AND KEFF CALCULATIONS," and determine that K_{eff} would be 0.974 and within acceptance criteria for withdrawing shutdown bank rods.

APPLICANT ACTION/RESPONSE:

When the applicant began working on the JPM, the applicant selected Data Sheet 2 of 14005-1 as the appropriate procedure section. Data Sheet 2 is designed to calculate the current K_{eff} in MODES 3, 4, or 5 with rods fully inserted. Before completing the JPM, the applicant asked the examiner if he was in the correct procedure section. The examiner referred the applicant to the initiating cue as given in the JPM handout sheet. At this point, the applicant corrected the mistake and correctly completed all steps of Data Sheet 3, as expected, including correctly calculating the K_{eff} value.

During post-JPM discussion with the examiner, the applicant stated that he had initially misunderstood the JPM task, and should not have completed Data Sheet 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 use procedures to determine the effects on reactivity of plant changes. (K/A G2.1.43).

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(6) Applicant: A. [redacted] (RO)

Administrative Topic "a:" Perform AFD Monitoring. Satisfactory, no comments.
Administrative Topic "b:" K_{eff} Determination for Shutdown Banks Withdrawn. Satisfactory, no comments.
Administrative Topic "c:" Determine Tagging Requirements. Satisfactory, no comments.
Administrative Topic "d:" Determine if Task Can Be Completed Without Exceeding any Radiological Limits. Satisfactory, no comments.

Systems: Control Room "a:" Perform Control Rod Operability Test. Satisfactory, no comments.
Systems: Control Room "b:" Transfer ECCS Pumps to Cold Leg Recirculation. Satisfactory, no comments.
Systems: Control Room "f:" Dilute Containment with Service Air. Satisfactory, no comments.
Systems: Control Room "g:" Returning ESF Bus from Diesel Generator to Normal Supply. Satisfactory, no comments.

(7) Applicant: [redacted] (RO)

Administrative Topic "a:" Perform AFD Monitoring. Satisfactory, no comments.
Administrative Topic "b:" K_{eff} Determination for Shutdown Banks Withdrawn. Satisfactory, no comments.
Administrative Topic "c:" Determine Tagging Requirements. ***Satisfactory, with comments below.***
Administrative Topic "d:" Determine if Task Can Be Completed Without Exceeding any Radiological Limits. Satisfactory, no comments.

Systems: Control Room "a:" Perform Control Rod Operability Test. Satisfactory, no comments.
Systems: Control Room "b:" Transfer ECCS Pumps to Cold Leg Recirculation. Unsatisfactory, comments below.
Systems: Control Room "f:" Dilute Containment with Service Air. Satisfactory, no comments.
Systems: Control Room "g:" Returning ESF Bus from Diesel Generator to Normal Supply. ***Satisfactory, with comments below.***

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. (K/A G2.2.13).

CROSS REFERENCE:

Systems: Control Room "b"

JPM/TASK:

Transfer ECCS Pumps to Cold Leg Recirculation.

EXPECTED ACTION/RESPONSE:

The applicant was directed to transfer ECCS pumps to cold leg recirculation using procedure 19013-C, "ES-1.3 TRANSFER TO COLD LEG RECIRCULATION." However, per the design of the JPM, "A" train RHR suction valve HV-8812A (RWST TO RHR PMP-A SUCTION) fails to close, and "B" train RHR suction valve HV-8811B (SNMT SUMP TO RHR PMP-B SUCTION) fails to open. Based on this system configuration, alignment for cold leg recirculation is not possible and a transition to 19111-C, "ECA-1.1 LOSS OF EMERGENCY COOLANT RECIRCULATION," is required at RNO step 3.e of Attachment A to 19013-C.

As the applicant worked through Attachment A of procedure 19013-C, it was a critical step in the JPM to secure the "A" RHR pump when it was determined that HV-8812A would not close. It was a critical step in the JPM to secure the "B" RHR pump at step RNO 3.b._1) of Attachment A at the first procedural check for HV-8811B being open, and it was a critical step in the JPM to not re-start the "B" RHR pump (which would not have a suction source) at step RNO 3.b._4). The applicant was expected to correctly follow procedural rules of usage and continue with step RNO 3.b._5), which directed the operator to perform step 3.d. The applicant was then expected to perform step 3.d and ultimately RNO step 3.e, which directed the required transition to 19111-C. Determining that a transition to 19111-C was required was also a critical step in the JPM.

APPLICANT ACTION/RESPONSE:

During the JPM, the applicant incorrectly read step 2.c of Attachment A, which states "Close RWST TO RHR PMP-A SUCTION HV-8812A," as "check OPEN HV-8812A." Because HV-8812A was open, the applicant did not secure the "A" RHR pump as required by a critical step in the JPM. Furthermore, although the applicant correctly secured the "B" RHR pump, he did not determine that a transition to 19111-C was required, which was another critical step in the JPM. As the applicant continued with follow-on steps in Attachment A of 19013-C, RWST EMPTY alarms were received, but the applicant did not correctly determine that these alarms were due to the abnormal alignment caused by his previous errors.

During post-JPM questions with the examiner, the examiner asked the applicant to go back over the procedural sequence of step 2 of Attachment A. During this discussion, the applicant recognized that he should have closed HV-8812A instead of checking the valve open and