Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A1.1 ADM 31SRO	A	N	3				~~X~~				~~E~~ S	NRC: Performance Standard for JPM Step 3 incorrectly calls out Jacob P. should be Jacob E. Response: Corrected Performance Standard for JPM Step 3 to Jacob E. **Validation Comment: Remove note "15 from operations" in instructor note in JPM Step 1.** **Response:** **Deleted note "15 from operations" in instructor note in JPM Step 1.**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A1.2 ADM 25SRO	A	N	3						~~X~~		~~E~~ S	NRC: Based on the wording of the Task Standard which states, in part, "Verify proper placement of in-core components…" A RBG is an in-core component and as a result JPM Step 4 should be critical. There are 2 valid critical steps in the JPM already so this is an enhancement, but the Task Standard should be made clear that only fuel movements are critical or if this step is made critical the RBG should be added to the Task Standard statement. Since incorrect placement of the RBG will affect future fuel movements, this step should be critical. Response: Agree that the incorrect placement of the full blade guide would affect future fuel movements. While this is not a fuel movement error, it is a consequential error that could contribute to future movement errors or delays in refueling. Made JPM Step 4 a Critical Step and modified Task Standard to include the misorientation of the FBG.

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A2 ADM 36SRO	A	N	2								S	**From Validation:** **For JPM Step 2; added 2 Instructor Cues as follows:** **If Applicant says they are looking for a PBD (Plant Data Book), provide them a copy of PDB-G001** **If Applicant asks for a picture of the Isolation Matrix, provide them with Isolation Matrix picture.**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A3 ADM 35SRO	A	N	2			~~X~~			~~X~~		~~E~~ S	NRC: The word "in" is inadvertently repeated on the cue sheet for both the examiner and the applicant in the initial conditions statement. – Corrected. If the applicant uses the OAI-1703 Hard Card to determine if core damage has occurred, we are cued to ask which category has been met. If the candidate does not properly assess which conditions are met will that be a critical step failure? Must be explicit as to what means failure and what would result only in a comment. – Clarification has been added to Step 2 of the JPM. **Validation Comment: Update performance standard for JPM Step 1 to TSG 2 instead of TSG 3.8.** **Response:** **Updated Performance Standard for JPM Step1, 3rd bullet to TSG-2**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A4 ADM 323SRO	A	N	2								~~E~~ S	**TIME CRITICAL** **Validation Comments: Have rad monitors indicate a release in the simulator.** **Have contingent hand out if applicant finds wrong EAL but misses PAR.** **Response:** **Incorporated picture of U1 Plant vent rad monitor indicating a release in progress.** **Created contingent hand out if applicant finds EAL error but misses PAR error.**

Early Look	Unsat	Enhancement	Satisfactory

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
RO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A1.1 ADM 21RO	A	N	3								~~E~~ S	**Validation comment: Remove JPM Step 7 (not needed).** **Response:** **Deleted JPM Step #7.**
A1.2 ADM 34RO	A	N	2								S	
A2 ADM 36RO	A	N	3								S	

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
RO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
A3 ADM 37RO	A	N	3		~~X~~						~~U~~ S	NRC: RWP 220102 is not indicated in the support documents provided. It is not clear this is the correct RWP. RWP 220103 could be correct. Also, the references provided did not identify Task 6 nor was there a reference with required PPE listed. Response: Added clarification on Step 3 of the JPM that RWP 22101 is required to be used. This is based on the Cue that the operator is an extra off-shift RO. The Ops RWP is 22101. Each workgroup (Ops, RP, Maint. Etc) is generally assigned a unique RWP number for routine work. Added RWP 22102, 22103, and 22111 to the JPM package to demonstrate the Candidate can determine the appropriate RWP to use. Added images to the JPM including Survey Map to use and RWP pages that are applicable. The included support package for this JPM includes the RWPs and Survey Maps for the JPM.

Early Look	Unsat	Enhancement	Satisfactory

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
a. Restart FCV B HPU	S	Y	3		~~X~~			~~X~~			~~E~~ S	NRC: Hard copy reference provided was revision 44 of SOI-B33. The electronic copy was revision 45. Ensure students get correct revision. In addition, hard copy of revision 44 did not include all pages which include section 4.3 actions since it starts on page 30 of that revision. – Fixed hard copy. Please add an annotation to JPM Step 10 to indicate that this is where the Alternate Path begins. – This has been added. Additionally, Step numbering has been corrected and this step is now Step 11. Correct the terminating cue to indicate that Subloop B2 not B1 was placed in service. – Corrected. **Validation Comment: Add cue, "As you see it" to JPM Step 2** **Response:** **Added Instructor Cue to indicate the lights are as indicated, if asked.**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
b. Reinitiate RCIC	S	Y	3				~~X~~	~~X~~			~~E~~ S	NRC: Please add an annotation to JPM Step 4 to indicate that this is where the Alternate Path begins. Procedure Step 8.2 is not discussed in the JPM. Steps 8.1, 8.3, and 8.4 are discussed. Response: Added annotation to JPM Step 4 to show start of Alternate Path. Added JPM Step (Standard) to evaluate Step 8.2 as N/A since the controller should have been placed in Manual. **Validation Comment: Add cue that NO abnormal noise can be heard from the pump/turbine if asked.** **Response:** **Added Instructor Cue stating no abnormal noise is heard locally.**
c. Slow Close MSIV	S	N	2								S	

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
d. Shift RHR Loop A	S	Y	3			~~X~~		~~X~~			~~E~~ S	NRC: Please add an annotation prior to JPM Step 5 to indicate that this is where the Alternate Path begins. Please add that a SDV leak is occurring in containment to the Initial Conditions provided to the applicant. Response: Added annotation to JPM Step 4 to show start of Alternate Path. Added that a leak in the SDV is causing the rising Containment temperature to the Initial Conditions. **Validation Comments: Procedure listed in Setup instructions should be EOP-SPI 3.1.** **Add Emergency Depressurization is in progress to the Initial Conditions.** **Response:** **Corrected Setup Instructions to show EOP-SPI 3.1 vs. EOP-SPI 3.2.** **Changed Initial Conditions to show Emergency Depressurization in progress vs. was performed.**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
e. Initiate SPMU	S	N	2					~~X~~			~~E~~ S	NRC: JPM Step 1, specifically procedure step 2, is associated with Makeup B Logic and G43-S8 and G43-S7. The JPM performance standard/cue incorrectly references A logic and components. Response: Corrected JPM Step 1 to identify correct EOP-SPI 3.2 Step 2.0 reference and SPMU B Logic components. **Validation Comment: Add evaluator note that the critical nature of the JPM Step concerning the operation of SPMU Manual Initiations Switches G43-S5 and G43-S7 only requires one of the switches be operated.** **Response:** **Added Note to JPM Step 5 stating, "Arming and Depressing either G43-S5 or G43-S7 will satisfy the Critical Step."**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
f. Energize Buses L10 and TH21	S	N	2	~~X~~							~~E~~ S	NRC: Reference has all of section 2 marked up. JPM summary page indicates only step 2.4 marked up. Response: Marked up ONI-SPI F1 Sections 1.0 and 2.0 in the handout. Also updated JPM Setup Instructions on Page 1 to align with what is provided. **Validation Comment: Add photo of Unit 1 board showing energized white light.** **Response:** **Added photo of 1H13-P877 with TH21 light illuminated.** **Added item in Setup Instructions to ensure doors between Unit 1 and Unit 2 Control Room are closed.**
g. Bypass RPS	S	N	2					~~X~~			~~E~~ S	NRC: Procedure Step 7.7.8 in JPM Step 10 incorrectly calls out CH A and RPS A and C. Should be CH B and RPS B and D. Response: Corrected procedure reference for Step 7.7.8 in JPM Step 10 to reflect RPS B and Channels B and D.

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
h. Shift Control Room Vent	S	Y	3					~~X~~			~~E~~ S	NRC: JPM step 3 incorrectly lists procedure step number 7.6.1 when it should list step number 7.6.5. JPM Step 7 incorrectly lists procedure step 7.5.4. This step does not exist in revision 27 of the procedure. Response: JPM Step 3 corrected to identify SOI-M25/26 step number as 7.6.5. Second JPM Step 7 was corrected to Step 8 and SOI-M25/26 Step 7.5.4 reference was removed from Step 8

Early Look	Unsat	Enhancement	Satisfactory

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
INPLANT				LOD	REF	IC	TSK	CUE	CS	TL		
i. Alt Boron Injection	P	N	3			~~X~~					~~E~~ S	NRC: Initial Condition statement "The Plant operating in EOP-1-5…" is awkward. Perhaps add "is" before operating or indicate the crew is performing EOP-1-5. Response: Added "is" before "performing" on both JPM Setup Sheet and JPM Cue Sheet.

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											**Exam Date: December 2022**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
INPLANT				LOD	REF	IC	TSK	CUE	CS	TL		
j. Div 3 Starting Air in Single Compr	P	N	2			~~X~~		~~X~~	~~X~~		~~E~~ S	NRC: Initiating Cue statement is awkward. Add the word "to" between "you" and "place". In addition, the applicant is directed to perform the "Operation With One Air Compressor Inoperable" which is the title of SOI-R44 Step 7.2 but no mention of the procedure number and title is made. Add SOI-R44, Step 7.2…. to the cue for the applicant. In JPM Step 5, make it clear that reinstalling the restraining cable is not required to complete the critical step. In JPM Step 6, procedure step 7.2.3.e is called out for IV, should be procedure step 7.2.3.f. Response: Corrected Initiating Cue on JPM Setup and JPM Cue Sheets. Added word "to" between "you" and "place" and added "SOI-R44 Section 7.2," before "Operation." Added statement that reinstalling the restraining device is not part of the critical step to the Notes for JPM Step 5. Corrected procedure step number to 7.2.3.f for JPM Step 6.

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Perry											Exam Date: December 2022
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
INPLANT				LOD	REF	IC	TSK	CUE	CS	TL		
k. Manual Initiate CO2	**P**	**Y**	**3**								~~E~~ **S**	NRC: This is an ALT PATH JPM. The JPM summary page correctly lists it as such. The Form 3.2-2 does NOT. Outline forms should be updated to indicate this is an ALT PATH JPM. Please add an annotation prior to JPM Step 4 to indicate that this is where the Alternate Path begins. Response: Updated RO and SRO-I Form 3.2-2 to indicate this is an Alternate Path JPM. Verified number of Alternate Path JPMs remains within allowed amount. Annotated JPM Step 4 to indicate start of Alternate Path. **Validation Comment: Add an instructor cue in last step of JPM that "Another operator will perform procedure step 7.2.8.f." (We don't want the applicant to have to go back outside the RCA to close CO2 valve back in Diesel corridor.)** **Response:** **Added Instructor Cue to JPM Step 6 to indicate that "Another operator will perform Step 7.2.8.f."**

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Early Look	Unsat	Enhancement	Satisfactory

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Form 2.3-3 Instructions for Completing the JPM Table

1. Enter the JPM number and/or title.

2. Enter the type of JPM—(S)imulator, (P)lant, or (A)dministrative.

3. Enter (Y)es or (N)o for an Alternate Path JPM.

4. Rate the level of difficulty (LOD) of each JPM using a scale of 1–5 (easy–difficult). A JPM containing less than two critical steps, a JPM that tests solely for recall or memorization, or a JPM that involves directly looking up a single correct answer is likely LOD = 1 (too easy). Conversely, a JPM with over 30 steps or a JPM that takes more than 45 minutes to complete is likely LOD = 5 (too difficult).

5. Check the appropriate block for each JPM error type, using the following criteria:

   - LOD = 1 or 5 is unsatisfactory (U).
   - REF: The JPM lacks required references, tools, or procedures (U).
   - IC: The JPM initial conditions are missing or the JPM lacks an adequate initial cue (U).
   - CUE: The JPM lacks adequate evaluator cues to allow the applicant to complete the task, or the evaluator cues are subjective or leading (U).
   - TSK: The JPM lacks a task standard or lacks completion criteria for a task standard (U).
   - CS: The JPM contains errors in designating critical steps, or the JPM lacks an adequate performance standard for a critical step (U).
   - TL: The JPM validation times are unreasonable, or a time-critical JPM lacks a completion time (U).

6. Mark the JPM as unsatisfactory (U), satisfactory (S), or needs enhancements (E). A JPM is (U) if it has one or more (U) errors as determined in step 5. Examples of enhancements include formatting, spelling, or other minor changes.

7. Briefly describe any JPM determined to be unsatisfactory (U) or needing enhancement (E). Save initial review comments and detail subsequent comment resolution so that each exam-bound JPM is marked by a satisfactory (S) resolution on this form.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 1 100% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
1. Shift MG to AVR						S	Normal Event
2. Ext Steam Isolated to 6A Htr						S	Reactivity Event **Validation Comment: Confirm expected operation of check valve N36-F140A.** **Response:** **An error was discovered in the simulator code for the PACV N36-F140. For this scenario, the PACV will indicate as it does in the plant. The simulator code will be corrected following this exam.**
3. Cond Booster Pump A Trip						S	
4. RCIC SP Level Inst Fail High					X	~~E~~ S	BOP manual control of RCIC suction swap (CST suction valve) NRC: Annotate Function 4 applicable for TS 3.3.5.3 on Form 3.3-2. Response: Added parenthetical note in Applicant Action/Behavior for SRO TS Evaluation on Page 7 of Form 3.3-2 to state that Function 4 of Table 3.3.5.3-1 is applicable to determine Condition D must be referenced.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 1 100% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
5. Leak in RWCU				X	X	~~E~~ S	BOP manual control of RWCU PCIVs NRC: Annotate Function 4d applicable for TS 3.3.6.1 on Form 3.3-2. Response: Added parenthetical note in Applicant Action/Behavior for SRO TS Evaluation on Page 9 of Form 3.3-2 to state that Function 4d of Table 3.3.6.1-1 is applicable to determine Conditions/Required Actions. **Validation Comment: Add "May enter ONI N11"** **Response:** **Added "May" to enter ONI-N11.** **Verified Perry has no "Operational Leakage" Tech Spec.**
6. Loss of Feedwater						S	
7. RPS Fail in AUTO and MAN ARI works in MAN						~~E~~ S	ATC manual control of ARI NRC: This event overlaps Scenario 2 Event 8. I do not see a purpose for it with regards to the flow of the scenario. In both cases manual ARI works to insert rods. The sequence of events works better for Scenario 2. CT 1 and 3 will suffice as the 2 required CTs if this event is removed.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 1 100% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Response: CT removed from this event.
8. MG BKR Fails to Open						S	ATC manual control of generator breaker
9. Loss of High Press Injection				X		S	
10. ED if required for RPV Level						~~U~~ S	NRC: There is no boundary condition to measure contingency CT-4 by. Starting and aligning a low-pressure injection source before when? In addition, LPCS/LPI will auto align and start for injection when L1 is reached. What manual action to start and align a low-pressure system needs to be done if the crew does not anticipate blowdown and allows level to go below L1 (16.5") down to -25"? Response: CT4 removed from this event. **Validation Comment: Remove all references to CT3 and CT4. Ensure CT2 action are properly marked for what is now being called CT2.** **Response:**

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 1 100% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Deleted all references to CT-3 & CT-4. Verified all CT-2 actions are properly marked.
							Procedures to verify clean list seems to miss some procedures like ONI-N11 and calls out TS not in scenario like 3.3.1.1 and 3.6.1.3. TS 3.3.6.1 should be listed.
							Added ONI-N11 and corrected Tech Spec numbers

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 2 80% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		NRC: General Comment, at the top of the Form 3.3-2 throughout the scenario, the event is always recorded as Event 1. Should correspond to the event being described. Response: Corrected.
1. Shift MFP to RFPT						~~E~~ S	Normal Event NRC: Marked up copy of SOI-C34 provided to applicants should make it clear that the appropriates steps of section 4.4 are completed up to 4.4.17. Response: A copy of SOI-C34 will be marked up to Step 4.4.17 and provided to the crew during the pre-scenario briefing. **Validation Comment: Clarify feedwater pump status in turnover brief (the validators seemed a little confused by what was presented).** **Response:** **Changed "RFPT B is in AUTO and the MFP is in MANUAL" to "RFPTs A & B are in AUTO and the MFP is in MANUAL"**
2. Raise Power to 85%						S	Reactivity Event

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 2 80% Rx. Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		NRC: General Comment, at the top of the Form 3.3-2 throughout the scenario, the event is always recorded as Event 1. Should correspond to the event being described. Response: Corrected.
3. Uncoupled Control Rod					X	S	
4. ESW Pump House Fan Fail						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

5. HST Level CV Closed			~~X~~			~~E~~ S	ATC manual control of HST Level NRC: The Form 3.3-2 indicates that the BOP will be responsible for alternate HST level control. This is counter to the Form 3.3-1 which indicates that this is a component failure and manual control event for the ATC. Response: The ATC will perform the required actions for this event. Form 3.3-2 has been corrected.
6. Comb Gas Mix Comp Fail					X	S	
7. RR Pump Down Shift						S	
8. Power Oscillations				X		~~U~~ ~~E~~ S	NRC: There must be a boundary condition to grade this critical task against (CT#1). Identify a procedure transition or parameter which must not be exceeded without ARI manually initiated with which to grade this CT by. Response: Bounding criteria is "**ARI is manually initiated within 2 minutes of receiving annunciators H13-P680-06-B5 (C5, D5, & E5) APRM X/Y UPSC INOP/TRIP OPRM X/Y TRIP**". This is based on discussions in EOP-01-5 and Perry Simulator System Level Failure Cause and Effects manual. These annunciators indicate that the OPRMs have generated a Scram signal based on the severity of thermo-hydraulic neutron flux oscillations. EOP-01-5 states, "power oscillations can grow very rapidly, reaching 25%

							peak-to-peak in approximately 60 seconds and resulting in some fuel damage within 120 seconds of a significant reduction in recirculation flow" The Perry Simulator System Level Failure Cause and Effects manual states that Malfunction TH21A, Power/Flow Instability Oscillations, when set to 100% severity will cause oscillations of ±45/125 (40% peak to peak) within 60 seconds. Therefore, once the OPRMs have initiated a Scram signal core damage could start occurring within 2 minutes. NRC: Please make this statement "**ARI is manually initiated within 2 minutes of receiving annunciators H13-P680-06-B5 (C5, D5, & E5) APRM X/Y UPSC INOP/TRIP OPRM X/Y TRIP**" clear in the 3.3-2. You can add it to the body of the 3.3.-2 on page 14 or in the measured by section of the CT-1 outline on page 20. Response: Added "within 2 minutes of receiving annunciators H13-P680-06-B5 (C5, D5, & E5) APRM X/Y UPSC INOP/TRIP OPRM X/Y TRIP" to end of measured by section of CT-1 outline on page 20.
9. SDV Leak						S	
10. Cont Spray Valve Fail						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

11. SRV A Fails to Open				X		~~E~~ S	NRC: Include reactor water level controlled/restored as part of the scenario termination criteria. Done I will have to see the timeline on Containment Temperature rise with regards to CT#2 boundary criteria. Also, ED is required when <185F cannot be maintained. Based on the rate of rise and how this is determined, this may be a challenging boundary criterion to meet. Response: From the insertion of the Scram, Containment Temperature will reach 185 °F in 10.5 minutes.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 3 96% Rx Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
1. Raise Power to 100%						~~E~~ S	Reactivity Event **Validation Comment: Remove step 7.7.4 (N/A for plant conditions)** **Response:** **Removed Step 7.7.4 from Event 1.**
2. Start HPCS in Test Mode					X	~~E~~ S	Normal Event **Validation Comment: Add step to contact maintenance for vibe testing when HPCS pump is started.** **Response:** **Added step to contact Maintenance Engineer following HPCS pump start.**
3. NCC A Pump Trip						S	
4. APRM H Fail Upscale						~~E~~ S	NRC: Steps 7.4.4. & 7.4.5 have changed per the latest revision of SOI-C51(APRM). Update Form 3.3-2 for this Event. For consistency, Step 7.4.3, from SOI-C71, should be included on Form 3.3-2 for this Event. Response: Updated SOI-C51(APRM) Section 7.4 steps to reflect current revision on Form 3.3-2.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 3 96% Rx Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Added SOI-C71 Step 7.4.3 (paraphrased) on Form 3.3-2.
5. HPCS Test Valve Loses Power					X	~~E~~ S	NRC: Should include SOI-E22A, Step 7.9.16 VERIFY the HPCS PUMP MIN FLOW VALVE closes. Also consider recommendation to shutdown HPCS ESW. (Preclude anticipating OBE event.) Response: Added SOI-E22A Step 7.9.16 to BOP Actions at bottom of page 8 of Form 3.3-2. Added recommendation for SRO to direct BOP to complete shutdown of HPCS Room Cooler and HPCS ESW per SOI-E22A Section 7.19 as time permits on Page 9 of Form 3.3-2. **Validation Comment: Add Shift Manager inject to shutdown HPCS if they chose not to.** **Response:** **Added SM Inject to S/D HPCS pump if necessary.**
6. Earthquake				X		~~E~~ S	Reactivity Event NRC: The last bullet of BOP/ATC actions listed on page 9 of 17, under Event 6, should be combined with the preceding bullet (Airborne, Process and Area Radiation Monitors).

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 3 96% Rx Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Is there a specific power reduction activity required prior to moving to the next event? Response: Combined last bullet with previous bullet for ONI-D51 Step 4.5.3 actions on page 11 (previously page 9) of Form 3.3-2. No specific power reduction required. Added Evaluator note that no power reduction is required to be observed prior to proceeding with Event 7 on Page 11 of Form 3.3-2. Reviewed Form 3.4-1 to verify reactivity manipulation not required. **Validation Comment: Add CT to start ESW pumps on degraded SW system pressure. Add degraded SW pressure conditions following earthquake.** **Response:** **Added CT (now CT-1) to start ESW (A & B) pumps on degraded SW pressure. Added degraded SW pressure and flow indications following earthquake.**
7. SLC Tank Leak					X	S	
8. Loss of FW						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 3 96% Rx Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
9. ATWS						~~U~~ S	ATC manual control of Rod Insertion NRC: There must be a boundary condition to grade this critical task against (CT#1). Is inserting control rods the only procedurally allowed action to shutdown the reactor? Identify a procedure transition point or parameter which must not be exceeded if action is not taken to reduce power by inserting control rods to permit grading this CT. Response: CT was removed.
10. RCIC Auto Start Failure				X		~~E~~ S	BOP manual control of RCIC NRC: If RCIC is not manually started, will CRD and SLC be able to maintain level if there is not a LOCA in progress? Is starting RCIC the only procedurally allowed action to preclude a required Emergency Depressurization? Identify a parameter which must not be exceeded if action is not taken to start RCIC to permit grading this CT. Response: The SLC failure will preclude its use as a long-term level control method. Decay heat and status of the reactor will cause RPV water level to lower with CRD injection only. Although

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 3 96% Rx Power**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							pressure is allowed to be lowered to 350 psig to allow injection of LPCS, LPCS will be failed to prevent its use as a level control method. LPCI shutoff head is below 350 psig, precluding its use as a level control method. Therefore, the scenario requires RCIC to be manually initiated for RPV water level control. The boundary condition for RPV water level in this scenario is -25 inches. CT-2 measured by criterion updated to note -25" RPV water level boundary condition. Scenario updated to fail LPCS. This ok as is

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 4 Spare Rx Startup**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
1. Continue S/U						~~E~~ S	Reactivity Event **Validation Comment: Lower turbine warming pressure.** **Response:** **Lowered Main Turbine 1st stage pressure to indicate Rx power < LPSP.**
2. Shift RFPT to Low Flow CTLR						S	Normal Event
3. Inadvertent HPCS Initiation			~~X~~		X	~~U~~ S	NRC: There does not appear to be a verifiable action on the part of the BOP operator for this event. Simply assessing which channels have failed would not meet the standard. This event as written would be a TS call for the SRO only. List Function 3.a for TS 3.3.5.1 on Form 3.3.-2. Response: Removed component failure event from 3.3-1 form for BOP/SRO. Added parenthetical note in Applicant Action/Behavior for SRO TS Evaluation on Page 7 of Form 3.3-2 to state that Function 3.a of Table 3.3.5.1-1 is applicable to determine Condition B must be referenced

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 4 Spare Rx Startup**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
4. HPCS ESW Valve Fail					X	S	BOP manual control of HPCS ESW
5. Bypass Jack Fail				X		S	
6. CRD Suction Filter Clog						S	
7. One Rod Fails to Insert						S	ATC manual control of CRD
8. Sup Pool Leak				X		~~E~~ S	NRC: Add SPMU valve numbers/names that are confirmed open in SPI 3.2 Step 4.6 to the Form 3.3-2. Response: SPMU Valves will not open; however, valve numbers added to EOP-SPI 3.2 Step 4.6 in BOP Actions on Form 3.3-2 Page 15. Information that SPMU injection valves will not open added to Evaluator Note on For 3.3-2 Page 15. **Validation Comment: Ensure field communications about location of leak is accurate for the RHR C room(s).** **Response:**

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Perry			**Scenario: # 4 Spare Rx Startup**			**Exam Date: December 2022**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Clarified field communications regarding details of the leak in RHR C Pump room.
9. Water-tight door will not close						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Form 2.3-3 Instructions for Completing the Scenario Table

1. For each scenario, enter the scenario event names and descriptions.

2. Review the individual events contained in each scenario, and identify and mark event errors:

    - The scenario guide event description is not realistic/credible—unsatisfactory (U).

    - The scenario guide event description lacks adequate crew/operator performance standards—needs enhancement (E).

    - The scenario guide event description lacks verifiable actions for a credited normal event, reactivity event instrument/component malfunction, or technical specification (TS) event (or a combination of these) (U).

    - The scenario guide event description incorrectly designates an event as a critical task (i.e., a noncritical task labeled as critical or a critical task labeled as noncritical). This includes critical tasks that do not meet the critical task criteria (i.e., the critical task does not have a measurable performance standard) (U).

    - The scenario guide event description incorrectly designates entry into TS actions when not required or does not designate entry into TS actions when required (U).

3. Based on the outcome in step 2, mark the scenario event as unsatisfactory (U), satisfactory (S), or needs enhancements (E). An event is (U) if it has one or more (U) errors as determined in step 2. Examples of enhancements include formatting, spelling, or other minor changes.

4. Briefly describe any scenario event determined to be unsatisfactory (U) or needing enhancement (E). Save initial review comments and detail subsequent comment resolution so that each exam-bound scenario event is marked by a satisfactory (S) resolution on this form.