

APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX											
JPM#	1. Dyn (D/S)	2. LOD (1-5)	3. Attributes					4. Job Content Errors		5. U/E/S	6. Explanation (See below for instructions)
			IC Focus	Cues	Critical Steps	Scope (N/B)	Over-lap	Job-Link	Minutia		
RO A.1a	S	2			X					E	What is the critical task? Seems to me the critical task is the technical spec limit, not the administrative limit. If the critical task consists of the administrative limits, then Step 3 should be the critical step. How will Step 115 of Data Sheet 1 be completed? Resol: Revised per comments.
RO A.1b	S	4 or 5								S	Unable to verify answers with prints given. Need to verify with licensee. I thought this was difficult. Resol: Completely revised.
RO A.2	S	3	X							S	What is the expected tag placement? Not sure how they are going to verify the tags hung. Wouldn't the cue be better to say verify the preparation of the tagout verses independent verification of "hung" tags? Resol: Accept as is.
RO A.3	S	2	X		X					U	What is the critical task? Initiating cue needs to be modified - include valve number and what position does it need to be - ie, "The CRS directs you to close SFP-0020, SFP HX 1 inlet isolation valve." Where is the donning of PCs in the Standard? What JPM is this being done in conjunction with? The JPM needs to be rewritten. Resol: Reworked and revised.
RO A.4	S	2			X					E	Are Steps 3 and 4 critical tasks? Normally, would you click "Drill Status"? If no, what would they click on? We need to verify the correct action with the candidate. Provide a cue to tell the candidate to select "Drill Status." Where are these steps in Procedure EIP-2-006? Resol: Clarified during Prep.
SRO A.1a	S	1			X				X	U	Not SRO level. For Step 4 - what is the expected value of specific volume? Need a range of acceptable answers. How does this address the K/A? Where is the operational judgement? What happens if core flow >33 kgpm? Low discriminatory value because it is basically an arithmetic question. Resol: Revision acceptable.
SRO A.1b	S	2								S	
SRO A.2	S	3								E	Only one critical task. Step 2 Standard is incorrect (I think). The standard should say "Does not authorize tagout based on LPCS inoperability." Since this K/A is about the tagging and clearance procedures, should there be a problem with the tagout itself? What T.S. would prevent the tagging of HPCS? Resol: Clarified during Prep.
SRO A.3	S	2			X					U	What is the critical task? Initiating cue needs to be modified - include valve number and what position does it need to be - ie, "The CRS directs you to close SFP-0020, SFP HX 1 inlet isolation valve." Where is the donning of PCs in the Standard? What JPM is this being done in conjunction with? The JPM needs to be rewritten. Resol: Reworked and revised.
SRO A.4	S	2								E	What does Scenario 19 require? Have the candidates specify the required actions associated with Scenario 19 - what sectors to evacuate and shelter - no computers allowed. This is what needs to be determined - this is what is important. Resol: Enhanced for Examiner's use.
B.1.1	D	3								S	Since the pump tripped, the breakers (3A and 4A) must be reset by depressing trip pushbutton on H13-P680. We need a cue to give to the candidates when asked if breaker has been reset - I assume the H13-P680 is located in the plant. Check Step 3 during validation - appears breaker should already be closed, only resetting trip logic. Is there an annunciator associated with the trip logic? For Performance Step 11.1 and 11.2 - what are the expected values? Include the values in the standard.

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			IC Focus	Cues	Critical Steps	Scope (N/B)	Over-lap	Job-Link	Minutia		
B.1.2	D	2								S	
B.1.3	D	2			X					E	Steps 1 and 2 are not critical tasks - simply verifying positions. If they don't perform them, it won't change the outcome of the JPM. Resol: Revision acceptable.
B.1.4	D	3			X					E	Step 3 is not a critical task - simply verifying valve positions. Step 8 - what us the water leg pump discharge pressure on E22-PISN650? Resol: Revision acceptable
B.1.5	D	2								S	
B.1.6	S	3								E	Step 2 & 3 - how are the Ident Select Switches labeled? Steps 2 & 3 need cue to tell candidate X and Y coordinate as entered. Also need to include note in comments that when switch is to the "Right" this is a 1 and when switch is to the "Left" this is a 0 Step 4 - what is the effected card labeled? Resol: Clarified during prep.
B.1.7	S	2								S	Step 1, comments - no cue should be needed, the candidate had better be able to tell what mode the plant is in. Step 2 Standard - should say "red light on and green light off for each damper." Step 3 Standard - each of the substeps need a standard - ie, "GTS-AOD1A - red light on and green light off." Step 5 - don't understand the Standard - not consistent with Performance Step. Step 6 Cue - need to supply differential press indication - a value and let candidate determine if it is normal. Resol: Revised and clarified during prep.
B.2.8	D	3								E	Step 1 Comments - simulate getting kit. Do not remove from emergency locker. Step 3 & 4 - can the candidate open Bay E & A and show the examiner the affected terminal boards/relays and terminal locations? Step 5 Standard should read - "At P863, candidate takes !HVR*AOV 128 to the open position(hold or release switch?) - red light on and green light off." Step 6 - where in the procedure does it have your take the "Bypass Switch to Bypass?" (This is the cue for Step 6). Step 7 Standard - include a description of how you verify Annulus mixing with SGTS. Step 8 Standard - how/where is SGTS flow to the main stack verified and what is the flow value - include in the standard. Step 11 and 12 Standard - takes control switch to open position (hold or release switch?) And verifies valves open - red light on and green light off. Resol: Clarified during prep.
B2.9	D	3								S	Step 1 comments - include "Procedure AOP 31, starting at Step 5.9.4" reference in case candidate can't identify procedure. Step 2 - would a second start attempt be allowed or expected? Step 5, 6 Standard - takes control switch to open or closed (hold or release switch?) And verifies valve open or closed. Step 7 Performance Step - needs a step. Step 7 Standard - how is this leakage checked?
B.2.10	D	3								S	Step 1 Comments - include "Procedure SOP-37, starting at Step 4.2.2.3" reference in case candidate can't identify procedure. Step 3 Standard - what indications are there that SOV19A is open or do you turn the knurled knob until it stops? This is what the cue needs to say. Step 4 - do both valves have to be throttled open?

#### Instructions for Completing Matrix

This form is not contained in or required by NUREG-1021. Utilities are not required or encouraged to use it. The purpose of this form is to enhance regional consistency in reviewing operating tests. Additional information on these areas may be found in Examination Good Practices Appendix D. Check or mark any item(s) requiring comment and explain the issue in the space provided.

1. Determine whether the task is dynamic (D) or static (S). A dynamic task is one that involves continuous monitoring and response to varying parameters. A static task is basically a system reconfiguration or realignment.
2. Determine level of difficulty (LOD) using established 1-5 rating scale. Levels 1 and 5 represent inappropriate (low or high) discriminatory level for the license being tested.
3. Check the appropriate box when an attribute weakness is identified:
  - The initiating cue is not sufficiently clear to ensure the operator understands the task and how to begin.
  - The JPM does not contain sufficient cues that are objective (not leading).
  - All critical steps (elements) have not been properly identified.
  - Scope of the task is either too narrow (N) or too broad (B).
  - Excessive overlap with other part of operating test or written examination.
4. Check the appropriate box when a job content error is identified:
  - Topics not linked to job content (e.g., disguised task, not required in real job).
  - Task is trivial and without safety significance.
5. Based on the reviewer's judgment, is the JPM as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
6. Provide a brief description of problem in the explanation column. Provide conclusion on whether JPM SET criteria satisfied (i.e., number/distribution of safety functions, A.3 and A.4 integrated with parts B/C, Admin topics per section meet ES).

APPENDIX N - REGION IV OPERATING TEST SCENARIO REVIEW MATRIX										
Scen Set	1 ES	2 TS	3 Crit	4 IC	5 Pred	6 TL	7 L/C	8 Eff	9 U/E/S	10 Explanation (See below for instructions)
1									S	For Event 6 - Expected Operator Actions starting on pg 15 to top of page 16 appear to be a repeat (very close) of Event 5 Expected Operator Actions. Time between Event 6 and 7 needs to be lengthened, recommend 3-5 minutes between these events. Quantitative Summary - Malfunctions after EOP entry - should read Steam Line Break and failure of HPCS to auto start. Also, under Total Malfunctions, the last failure should read - HPCS fails to auto start. Resol: Required changes made post validation.
2									S	Total malfunctions description - should include heater drain pump failure. Resol: Revised post validation.
3										For Event 6 and 7 extend times by 2 minutes per event - too condensed, could prevent examiner from properly observing candidate response to malfunctions and major transient. For Event 4 - is it possible that the crew could choose to scram the reactor verses down power? How rapid of a condenser pressure increase would you get with loss of 2 circ water pumps? For Event 4 - under Expected Operator Action - why perform Step 3 - AOP-0009, Loss Of Normal Service Water? For Event 5 under Expected Operator Actions - please provide expected responses and who would be expected to perform those actions. Only 2 critical tasks identified verses the 3 the licensee identified. <b>NOT USED!</b>
Spare									S	For Total Malfunction description - did not include APRM F flow reference failure. Event 7 - what are the immediate and subsequent operator actions for AOP 1 and 2. Resol: Revised post validation.

**APPENDIX N - REGION IV OPERATING TEST SCENARIO REVIEW MATRIX**

										<p><b>General comment - all of the initial conditions are significantly different, could this tip the candidates as to the scenario being run? What scenarios are new and/or modified? Does the licensee have other scenarios with same initial conditions that would not give hint as to what scenario is being run? May want licensee to change initial conditions to be similar for scenarios, with exception of power levels. Resol: Revised post validation.</b></p>
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1. ES: ES-301 checklists 4, 5, & 6 satisfied.
2. TS: Set includes SRO TS actions for each SRO, with required actions explicitly detailed.
3. Crit: Each manipulation or evolution has explicit success criteria documented in Form ES-D-2.
4. IC: Out of service equipment and other initial conditions reasonably consistent between scenarios and not predictive of scenario events and actions.
5. Pred: Scenario sequence and other factors avoid predictability issues.
6. TL: Time line constructed, including event and process triggered conditions, such that scenario can run without routine examiner cuing.
7. L/C: Length and complexity for each scenario in the set is reasonable for the crew mix being examined, such that all applicants have reasonably similar exposure and events are needed for evaluation purposes.
8. Eff: Sequence of events is reasonably efficient for examination purposes, especially with respect to long delays or interactions.
9. Based on the reviewer's judgment, is the scenario set as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
10. Provide a brief description of problem in the explanation column