

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
R1	F	2											✓		U	KA mismatch; stem wording (lit twice procedure name needed)
R2	H	4													S	
R3	H	4											✓		U	KA mismatch
R4	F	3													S	
R5	H	4											✓		U	KA mismatch
R6	H	3													E	KA CE/A11 EK2.2 ???
R7	F	2													S	
R8	F	2													S	
R9	F	2													S	
R10	F	3											✓		U	KA mismatch

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
  - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
  - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
  - The answer choices are a collection of unrelated true/false statements.
  - More than one distractor is not credible.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).











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)	Overlap	Job-Link	Minutia		
RO A1a	S	3								S	
RO A1b	S	3								E	Step 9 of the JPM listed the answer as 8.8 DK/K. The key has the answer as 8.2 DK/K using Fig 4.3. We get 8.2 DK/K using Fig 4.3. Which is correct? In addition, there is no tolerance for this answer - Why?
RO A2	S	3								E	Prints provided to applicant have different valve designations than those documented in the JPM. Step 2 refers to the casing vent valve - Why?
RO A3	S	3	X							E	IC does not provide designate drain valve to be opened. Step 1 listed as critical for applicant to determine applicable survey map from handouts provided. Only survey map provided is the applicable one.
RO A4	S	2								S	

APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX (COMMENT RESOLUTION)											
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 A1a	S	3								S	
RO A1b	S	3								S	Will determine correct answer and revise JPM. Will also add a tolerance for this value.
RO A2	S	3								S	Will revise JPM to include valve numbers as shown on print. Valve designations in JPM are the designations that will be recorded in the tag out.
RO A3	S	3								S	Will check on the drain valve (there may be only one). If there are more than one, will designate what valve to go to. Will revise the JPM to state to find the correct page of the provided survey map.
RO A4	S	2								S	

**Instructions for Completing Matrix**  
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- 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 an system reconfiguration or realignment.
- 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.
- 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.
- 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.
- 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?
- 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 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		
SRO A1a	S	2								S	
SRO A1b	S	2								U	JPM task is to review Shutdown Margin Calculation and direct appropriate actions, JPM provided. SAME as RO JPM has applicant calculate SDM and nothing else. While there are some errors in the calculations, the result is the same - need to change. Low discrimination.
SRO A2	S	2								E	Couldn't find in procedure requirement for discharge valve to be shut before suction valve - does such a requirement exist?
SRO A3	S	3	X							E	IC does not provide designate drain valve to be opened. Step 1 listed as critical for applicant to determine applicable survey map from handouts provided. Only survey map provided is the applicable one.
SRO A4	S	2								S	

APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX (COMMENT RESOLUTION)											
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		
SRO A1a	S	2								S	
SRO A1b	S	2								S	Will revise the JPM such that the result is also incorrect.
SRO A2	S	2								S	Will check if a procedure requirement for the discharge valve to be shut before the suction valve is closed exists. If it does exist will insure that the JPM is correct.
SRO A3	S	3								S	Will check on the drain valve (there may be only one). If ther are more than one, will designate what valve to go to. Will revise the JPM to state to find the correct page of the provided survey map.
SRO A4	S	2								S	

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- 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.
- 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.
- 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.
- 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?
- 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 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		
S1	D	3		X						E	Procedure states insertion limit of 115" for PLCEA's, JPM cue only gives 112.5" Tech. Spec. limit. How do we know it is an alternate path?
S2	D	3		X						E	Need prerequisite information (e.g., mode). Closing HV 9352 is not marked as critical. What is effect on system if left open?
S3	D	3	X					X		E	JPM transitions to Procedure SO23-3-2.18 and starts at step 6.3.7. The JPM does not provide this information for the examiner. Need procedure steps and number. Also need termination point for this JPM (procedure step).
S4	D	2						X		E	JPM has reactor shutdown, therefore why do they trip the reactor after the shaft sheer? If the reactor trip is required by the ARP, what about the 5 second limit imposed by the ARP?
S5	D	3								S	Do we need a note for examiner at beginning of JPM that keys # 8 and 23 required to complete task?
S7	D	3								S	Do we need a note for examiner at beginning of JPM that key 52 required to complete task? Need procedure steps in JPM because JPM starts at step 6.3.9 page 7 of procedure.
S6 (C1)	S	3								E	Attachment 1 of Procedure SO23-6-2 does not list a 2A06 bus to 2XR1 transformer connection as stated in the JPM.
P1	S	3								E	Procedure gives L-85 (L-86) vice L-45 (L-46) given in JPM. Procedure has step to open Neutral Breaker, this step is not in JPM.
P2	S	3								S	What is the purpose of the cue "Atmospheric Dump Valve HV-8419 has been selected."?
P3	S	2								E	Need to add that steps completed up to 3.4 to I.C. JPM references different procedure for Diesel shutdown, procedure refers to SO23-2-13, JPM refers to SO23-3-3.23. Steps for diesel shutdown are not consistent with the steps listed in Procedure SO-3-3.23.

**APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX (COMMENT RESOLUTION)**

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		
S1	D	3								S	Will revise the JPM to state the correct insertion limit.
S2	D	3								S	Leaving HV-9352 open will have no effect because it is in series with another valve that is closed.
S3	D	3								S	Procedure steps will be added to the JPM. The candidate will not have Procedure SO23-3-2.18 (steps will be done by memory.
S4	D	2								S	This JPM is not a RCP Shaft Sheer event, only a thrust bearing overheating event. Tripping of the reactor is a requirement of the procedure for an overheated thrust bearing. Will check on the 5 second limit. If required by the ARP, they will revise the JPM accordingly.
S5	D	3								S	They will provide the keys to the examiner who will than give them to the candidate when requested.
S7	D	3								S	Will provide Key 53 to the examiner to give to the candidate when requested.
S6 (C1)	S	3								S	The designation of 2XR1 in the JPM (should be 2XR2) is a typographical error that will be corrected.
P1	S	3								S	The L-85 (L-86) designation is for the MG sets while the L-45 (L-46) designation is the panel designation, therefore the JPM is correct. The candidates are not expected to open the Neutral breakers (it is not necessary).
P2	S	3								S	The cue will be deleted.
P3	S	2								S	The JPM will be revised to match the procedure. That will make the JPM steps consistent with the procedure.

**GENERIC COMMENTS FOR ALL JPMS:**

- **ADD PROCEDURE STEPS TO THE JPMS**
- **DESIGNATE ON THE JPM COVER SHEETS IF THE JPM IS AN “ALTERNATE” JPM.**

**APPENDIX E - REGION IV OPERATING TEST JOB PERFORMANCE MEASURE QUALITY REVIEW MATRIX (COMMENT RESOLUTION)**

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		
S1	D	3								S	Will revise the JPM to state the correct insertion limit.
S2	D	3								S	Leaving HV-9352 open will have no effect because it is in series with another valve that is closed.
S3	D	3								S	Procedure steps will be added to the JPM. The candidate will not have Procedure SO23-3-2.18 (steps will be done by memory.
S4	D	2								S	This JPM is not a RCP Shaft Sheer event, only a thrust bearing overheating event. Tripping of the reactor is a requirement of the procedure for an overheated thrust bearing. Will check on the 5 second limit. If required by the ARP, they will revise the JPM accordingly.
S5	D	3								S	They will provide the keys to the examiner who will than give them to the candidate when requested.
S7	D	3								S	Will provide Key 53 to the examiner to give to the candidate when requested.
S6 (C1)	S	3								S	The designation of 2XR1 in the JPM (should be 2XR2) is a typographical error that will be corrected.
P1	S	3								S	The L-85 (L-86) designation is for the MG sets while the L-45 (L-46) designation is the panel designation, therefore the JPM is correct. The candidates are not expected to open the Neutral breakers (it is not necessary).
P2	S	3								S	The cue will be deleted.
P3	S	2								S	The JPM will be revised to match the procedure. That will make the JPM steps consistent with the procedure.

**GENERIC COMMENTS FOR ALL JPMS:**

- **ADD PROCEDURE STEPS TO THE JPMS**
- **DESIGNATE ON THE JPM COVER SHEETS IF THE JPM IS AN “ALTERNATE” JPM.**

**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	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Needs a time line.
2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Needs a time line.
3	No	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Needs a time line.

**Instructions for Completing Matrix**

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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

<b>APPENDIX N - REGION IV OPERATING TEST SCENARIO REVIEW MATRIX (COMMENT RESOLUTION)</b>										
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	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Will provide a time line.
2	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Will provide a time line.
3	No	Yes	Yes	Yes	Yes	No	Yes	Yes	E	Will provide a time line.
<p><b>Instructions for Completing Matrix</b></p> <p>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 test scenario sets. 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.</p> <ol style="list-style-type: none"> <li>ES: ES-301 checklists 4, 5, &amp; 6 satisfied.</li> <li>TS: Set includes SRO TS actions for each SRO, with required actions explicitly detailed.</li> <li>Crit: Each manipulation or evolution has explicit success criteria documented in Form ES-D-2.</li> <li>IC: Out of service equipment and other initial conditions reasonably consistent between scenarios and not predictive of scenario events and actions.</li> <li>Pred: Scenario sequence and other factors avoid predictability issues.</li> <li>TL: Time line constructed, including event and process triggered conditions, such that scenario can run without routine examiner cuing.</li> <li>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.</li> <li>Eff: Sequence of events is reasonably efficient for examination purposes, especially with respect to long delays or interactions.</li> <li>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?</li> <li>Provide a brief description of problem in the explanation column</li> </ol>										