

Facility:		Comanche Peak Nuclear Power Plant										Exam Date: September 20, 2021	
Admin	JPMs	1 ADMIN Topic and K/A	2 LOD (1-5)	3 Attributes						4 Job Content		5 U/E/S	6 Explanation
				I/C Focus	Cues	Critical Steps	Scope (N/B)	Overlap	Perf. Std.	Key	Minutia		
	RA1	Determine Loss of RHR Impact on Indication (2.1.25)	3										S  Include a marked copy of Attachment 5 and Attachment 16 from ABN-104 as part of the answer key. Fixed as directed. Key is now Rev. 1. Accepted.  Changed validation time to 15 mins based on validation with an RO on 9/14/21. JPM is now Rev. 1. Accepted.
	RA2	Determine Licensed Operator Status (2.1.4)	3										S  Put the handout in the same format as the cue sheet (C-2). Not sure exactly what you mean by this comment but I went ahead and deleted the Handout from the JPM Cue Sheet as it was redundant. JPM is now Rev. 1. I also had to change the Key to Rev. 1 due to the footers Accepted
	RA3	Perform Control Room Air Conditioning System Surveillance (2.2.12)	2										S
	RA4	Determine Escorted Radiation Worker Allowable Dose (2.3.4)	3										S
	SA1	Determine Chemistry Limitations and Required Actions (2.1.34)	3										S  On the answer portion of the JPM include the Name of the applicable section 6.2.2.B and of Attachment 8.A. Fixed as directed. JPM is now Rev. 1. I also had to change the Key to Rev. 1 due to the footers. Accepted  Removed words "and referenced procedures from 1 <sup>st</sup> bullet of initiating cue. This was done on 9/14/21 based on comments from SRO validator stating it was confusing him during validation. Also updated key to reflect this change. JPM and Key are now Rev. 2 Accepted

SA2	Perform a Shutdown Margin Calculation	3										S	<p>Are steps 13-19 critical steps? After looking at the Task Standard a little closer I believe Steps 18 and 19 should be critical. The task Standard states: "CALCULATED SDM Boron Concentration." Steps 18 and 19 are where this calculation is performed. However, if the examinee performs steps 13-17 incorrectly, they will get steps 18 and 19 wrong as well so I believe we are covered adequately by just making Steps 18 and 19 critical. For now, I made just those steps 18 and 19 critical on JPM unless you tell me you want 13-17 critical as well. JPM is now Rev. 1. I also had to change the Key to Rev. 1 due to the footers Accepted</p>
SA3	Determine Loss of RHR Impact on Indication and Adequate Hot Leg Vent Path (2.2.44)	3										S	<p>Is step 2 critical? Yes, step 2 should have been critical. This has been corrected on the JPM. JPM is now Rev. 1. I also had to change the Key to Rev. 1 due to the footers. Accepted</p> <p>Made slight changes to the wording of the Initiating Cue based on validator comments on 9/14/21. This also affected the Key. Both the Key and the JPM are now Rev. 2. Also changed validation time to 15 minutes. Accepted</p>
SA4	Review a Containment Release Permit (2.3.6)	2										S	
SA5	Classify an Emergency Plan Event (2.4.41)	2										S	<p>Are steps 1-3 critical? I do not believe they are critical as these are not steps you can actually evaluate as an examiner. These are more like mental processes the examinee must go through to come up with the correct classification. Left JPM alone for now unless you disagree. Accepted</p> <p>On the answer key, write out the noun name of SU8.1. The examinees are only going to write SU8.1 on their Cue Sheets but I went ahead and added the information. I just want to make sure you guys aren't going to fail the examinees if they don't write all the info on the key. Key is now Rev. 1 Accepted</p>
Simulator/In-Plant JPMs	1 Safety Function and K/A												

P-1	Startup One Rod Drive MG Set (001 A4.08)	2									S	<p>Based on initial validation, made the following changes on 9-15-2021:</p> <ul style="list-style-type: none"> <li>Added Examiner Note before Perform Step 1 to remind examinee to simulate all steps of the JPM and provide warning that area has high ambient noise. <a href="#">Accepted</a></li> <li>Modified Examiner Cue before Perform Step 2 to clarify when cue should be given. <a href="#">Accepted</a></li> <li>Eliminated "The" from second Examiner Cue on Perform Step 2. <a href="#">Accepted</a></li> <li>Deleted "#" from "MG Set #1" ammeter and voltmeter descriptions in Perform Step 4 and Perform Step 5 since local cabinet labels do not have "#" as part of description. <a href="#">Accepted</a></li> <li>Changed nomenclature from "Generator 1 Voltmeter" to "MG Set 1 Voltmeter" in Perform Step 5 to match local cabinet labels. <a href="#">Accepted</a></li> <li>Deleted "#" from "Generator #2 Control Panel Door" in Perform Step 7 Examiner Note to match local cabinet labels. <a href="#">Accepted</a></li> <li>Changed nomenclature from "Motor Circuit Breaker flags" to "MG Set 1 relays" in Perform Step 9 Examiner Cue to match local cabinet labels. <a href="#">Accepted</a></li> <li>Changed Standard on Perform Step 11 to correct nomenclature for GEN FIELD FLASH pushbutton and added "until voltage stabilizes" to be consistent with instructional step. <a href="#">Accepted</a></li> </ul>
P-2	Align Alternate Cooling to Emergency Diesel Generators (062 AA1.06)	3									S	<p>Mark Attachment 1 as JPM material (similar to markings on Attachment 2) Attachment 1 had same marking as Attachment 2 but they were hard to see. I went ahead and added the same markings to the top and bottom of each Attachment so it is easier to identify. <a href="#">Accepted</a></p>
P-3	Align Alternate Cooling to Emergency Diesel Generators (033 A2.02)	3									S	<p>Based on initial validation, made the following changes on 9-15-2021:</p> <ul style="list-style-type: none"> <li>Changed "Examiner Cue" to "Examiner Note" for both notes above Perform Step 1 to accurately reflect content. <a href="#">Accepted</a></li> <li>Corrected all Perform Step reference numbers for the associated procedure steps due to cloning error [P3 (X-02) only]. <a href="#">Accepted</a></li> </ul>

													<ul style="list-style-type: none"> <li>Deleted requirement for examinee to go from Fuel Building Elev. 810 to Auxiliary Building Elev. 852 twice to perform actions at the same MCC. Modified Examiner Note and Examiner Cues to allow first action at the MCC to be performed by another operator and changed Perform Step 2 to not critical. This change also reduced Validation Time from 25 minutes to 20 minutes. <a href="#">Accepted</a></li> <li>Changed Examiner Note to Examiner Cue and added information to address examinee hesitation during validation at Perform Step 4 to start the pump at the MCC with the discharge valve closed. <a href="#">Accepted</a></li> <li>Added additional Examiner Cue at Perform Step 5 to indicate flow noise would increase as the pump discharge valve is opened. <a href="#">Accepted</a></li> <li>Modified Examiner Note above Perform Step 6 to alert Examiner that another operator must be available to monitor flow since flow indicators are located two floors above the discharge valve. <a href="#">Accepted</a></li> </ul>
S-1	Respond to Rod Misalignment (003 AA1.02)	3										S	
S-2	Place RHR System in Standby Readiness (006 A4.07)	3										S	
S-3	Transfer Residual Heat Removal Pumps and Safety Injection Pumps to Hot Leg Recirculation (011 EA1.11)	3										S	
S-4	Perform Pre-Startup Turbine Trip Checks (045 A4.01)	3										S	
S-5	Transfer from Preferred to	3										S	

	Alternate Power (6.9KV Bus) – Swap Power from XST2 to XST1 (062 A4.01)												
S-6	Respond to Feedwater Flow Instrument Failure (059 A2.11)	2										S	
S-7	Respond to a Fire in the Safeguards Building (067 AA2.16)	2										S	
S-8	Respond to Control Room Ventilation Radiation Alarms (060 AA1.02)	3										S	

**Instructions for Completing This Table:**

Check or mark any item(s) requiring a comment and explain the issue in the space provided using the guide below.

1. Check each JPM for appropriate administrative topic requirements (COO, EC, Rad, and EP) or safety function requirements and corresponding K/A. Mark in column 1. (ES-301, D.3 and D.4)
2. Determine the level of difficulty (LOD) using an established 1–5 rating scale. Levels 1 and 5 represent an inappropriate (low or high) discriminatory level for the license that is being tested. Mark in column 2 (Appendix D, C.1.f)
3. In column 3, “Attributes,” check the appropriate box when an attribute is **not met**:
  - The initial conditions and/or initiating cue is clear to ensure the operator understands the task and how to begin. (Appendix C, B.4)
  - The JPM contains appropriate cues that clearly indicate when they should be provided to the examinee. Cues are objective and not leading. (Appendix C, D.1)
  - All critical steps (elements) are properly identified.
  - The scope of the task is not too narrow (N) or too broad (B).
  - Excessive overlap does not occur with other parts of the operating test or written examination. (ES-301, D.1.a, and ES-301, D.2.a)
  - The task performance standard clearly describes the expected outcome (i.e., end state). Each performance step identifies a standard for successful completion of the step.
  - A valid marked up key was provided (e.g., graph interpretation, initialed steps for handouts).
4. For column 4, “Job Content,” check the appropriate box if the job content flaw **does not meet** the following elements:
  - Topics are linked to the job content (e.g., not a disguised task, task required in real job).
  - The JPM has meaningful performance requirements that will provide a legitimate basis for evaluating the applicant's understanding and ability to safely operate the plant. (ES-301, D.2.c)
5. Based on the reviewer's judgment, is the JPM as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 5.
6. In column 6, provide a brief description of any (U)nacceptable or (E)nhancement rating from column 5.

Save initial review comments and detail subsequent comment resolution so that each exam-bound JPM is marked by a (S)atisfactory resolution on this form.

Facility:		CPNPP			Scenario:			1		Exam Date: September 22, 2021	
1	2	3	4	5	6	7	8	9	10		
Event	Realism/Cred.	Required Actions	Verifiable actions	LOD	TS	CTs	Scen. Overlap	U/E/S	Explanation		
1					✓			S			
2					✓			S			
3								S			
4					✓			S			
5								S			
6								E	Bold face on page 30 for the transition to EOP-2.0 and again on page 31 for the transition to EOP-3.0A. <b>Fixed as directed. Scenario is now Rev. 1.</b> Accepted		
7						✓		S			
8						✓		S			
									General – this scenario has 5 abnormal events. Can we alter it to have 4? <b>We can discuss during validation.</b> Accepted		
									Editorial corrections made to Scenario 1 on 9/15/21 based on initial validation. <b>Scenario 1 is now Rev. 2</b> Accepted		
					3	2					

Facility:		CPNPP			Scenario:			3		Exam Date: September 22, 2021	
1	2	3	4	5	6	7	8	9	10		
Event	Realism/Cred.	Required Actions	Verifiable actions	LOD	TS	CTs	Scen. Overlap	U/E/S	Explanation		
1								S			
2								S			
3					✓			S			
4					✓			S			
5					✓			S			
6						✓		E	On the examiner note on page 24, add the word "BOP" to just before "Yellow OBE." This indication may be better simulated with a photo than a verbal cue. Please discuss this cue during validation. <b>Fixed as directed.</b> Accepted		
7						✓		E	Placing the Critical Task #2 statement on both pages 27 and 31 seems redundant or the first one seems out of place. Discuss during validation. <b>Will discuss during validation.</b> Accepted		
									General: on page 3, event 3 write out Technical Specifications. <b>Fixed as directed. Scenario is now Rev. 1</b> Accepted		
					3	2					



**Instructions for Completing This Table:**

- 1 Use this table for each scenario for evaluation.
- 2 Check this box if the events are not related (e.g., seismic event followed by a pipe rupture) **OR** if the events do not obey the laws of physics and thermodynamics.
- 3, 4 In columns 3 and 4, check the box if there is **no** verifiable or required action, as applicable. Examples of required actions are as follows: (ES-301, D.5f)
  - opening, closing, and throttling valves
  - starting and stopping equipment
  - raising and lowering level, flow, and pressure
  - making decisions and giving directions
  - acknowledging or verifying key alarms and automatic actions (Uncomplicated events that require no operator action beyond this should **not** be included on the operating test unless they are necessary to set the stage for subsequent events. (Appendix D, B.3).)
- 5 Check this box if the level of difficulty is **not** appropriate.
- 6 Check this box if the event has a TS.
- 7 Check this box if the event has a critical task (CT). If the same CT covers more than one event, check the event where the CT started **only**.
- 8 Check this box if the event overlaps with another event on any of the last two NRC examinations. (Appendix D, C.1.f)
- 9 Based on the reviewer's judgment, is the event as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 9.
- 10 Record any explanations of the events here.

In the shaded boxes, sum the number of check marks in each column.

- In column 1, sum the number of events.
- In columns 2–4, record the total number of check marks for each column.
- In column 5, based on the reviewer's judgement, place a checkmark only if the scenario's LOD is not appropriate.
- In column 6, TS are required to be  $\geq 2$  for each scenario. (ES-301, D.5.d)
- In column 7, preidentified CTs should be  $\geq 2$  for each scenario. (Appendix D; ES-301, D.5.d; ES-301-4)
- In column 8, record the number of events not used on the two previous NRC initial licensing exams. A scenario is considered unsatisfactory if there is  $< 2$  new events. (ES-301, D.5.b; Appendix D, C.1.f)
- In column 9, record whether the scenario as written (U)nacceptable, in need of (E)nhancement, or (S)atisfactory from column 11 of the simulator scenario table.

Facility:		Exam Date:								
Scenario	1 Event Totals	2 Events Unsat.	3 TS Total	4 TS Unsat.	5 CT Total	6 CT Unsat.	7 % Unsat. Scenario Elements	8 U/E/S	11 Explanation	

**Instructions for Completing This Table:**

Check or mark any item(s) requiring comment and explain the issue in the space provided.

1, 3, 5 For each simulator scenario, enter the **total** number of events (column 1), TS entries/actions (column 3), and CTs (column 5).

This number should match the respective scenario from the event-based scenario tables (the sum from columns 1, 6, and 7, respectively).

2, 4, 6 For each simulator scenario, evaluate each event, TS, and CT as (S)atisfactory, (E)nhance, or (U)nsatisfactory based on the following criteria:

- a. Events. Each event is described on a Form ES-D-2, including all switch manipulations, pertinent alarms, and verifiable actions. Event actions are balanced between at-the-controls and balance-of-plant applicants during the scenario. All event-related attributes on Form ES-301-4 are met. Enter the total number of unsatisfactory events in column 2.
- b. TS. A scenario includes at least two TS entries/actions across at least two different events. TS entries and actions are detailed on Form ES-D-2. Enter the total number of unsatisfactory TS entries/actions in column 4. (ES-301, D.5d)
- c. CT. Check that a scenario includes at least two preidentified CTs. This criterion is a target quantitative attribute, not an absolute minimum requirement. Check that each CT is explicitly bounded on Form ES-D-2 with measurable performance standards (see Appendix D). Enter the total number of unsatisfactory CTs in column 6.

7 In column 7, calculate the percentage of unsatisfactory scenario elements:  $\left(\frac{2 + 4 + 6}{1 + 3 + 5}\right) 100\%$

8 If the value in column 7 is > 20%, mark the scenario as (U)nsatisfactory in column 8. If column 7 is ≤ 20%, annotate with (E)nhancement or (S)atisfactory.

9 In column 9, explain each unsatisfactory event, TS, and CT. Editorial comments can also be added here.

Save initial review comments and detail subsequent comment resolution so that each exam-bound scenario is marked by a (S)atisfactory resolution on this form.

<b>Site name:</b>		<b>Exam Date:</b>				
<b>OPERATING TEST TOTALS</b>						
	Total	Total Unsat.	Total Edits	Total Sat.	% Unsat.	Explanation
Admin. JPMs	9	0	7	9		7 enhancements were made, all JPMs were SAT.
Sim./In-Plant JPMs						
Scenarios						
<b>Op. Test Totals:</b>						

**Instructions for Completing This Table:**

Update data for this table from quality reviews and totals in the previous tables and then calculate the percentage of total items that are unsatisfactory and give an explanation in the space provided.

1. Enter the total number of items submitted for the operating test in the "Total" column. For example, if nine administrative JPMs were submitted, enter "9" in the "Total" items column for administrative JPMs. For scenarios, enter the total number of simulator scenarios.
2. Enter the total number of (U)nsatisfactory JPMs and scenarios from the two JPMs column 5 and simulator scenarios column 8 in the previous tables. Provide an explanation in the space provided.
3. Enter totals for (E)nhancements needed and (S)atisfactory JPMs and scenarios from the previous tables. This task is for tracking only.
4. Total each column and enter the amounts in the "Op. Test Totals" row.
5. Calculate the percentage of the operating test that is (U)nsatisfactory (Op. Test Total Unsat.)/(Op. Test Total) and place this value in the bolded "% Unsat." cell.  
  
Refer to ES-501, E.3.a, to rate the overall operating test as follows:
  - satisfactory, if the "Op. Test Total" "% Unsat." is ≤ 20%
  - unsatisfactory, if "Op. Test Total" "% Unsat." is > 20%
6. Update this table and the tables above with post-exam changes if the "as-administered" operating test required content changes, including the following:
  - The JPM performance standards were incorrect.
  - The administrative JPM tasks/keys were incorrect.
  - CTs were incorrect in the scenarios (not including postscenario critical tasks defined in Appendix D).
  - The EOP strategy was incorrect in a scenario(s).
  - TS entries/actions were determined to be incorrect in a scenario(s).