

**Perry**  
**January 2001**

**NRC COMMENTS ON  
OPERATING TEST**

NRC Comments on Facility Category A and B JPMs  
PERRY/January 2001

JPM Task	U/S/E	Notes
A1a	U	<p><u>NRC Review:</u> Originally, the Chief Examiner categorized this JPM as a LOD of 1; however, the facility was able to show that obtaining correct procedure revisions has been a problem at the plant. The Chief Examiner accepted the concept of this JPM.</p> <p>There is no consequence to obtaining the incorrect revision. The surveillance was revised to correct a column line. Also, the initiating cue directs the candidate to verify proper revision - this should be an automatic action. Step 3 accomplishes the same action as step 2.</p> <p>Suggestion: Find a procedure with consequence or "revise" this one to make it with consequence. Ask candidate to perform surveillance and stop if candidate notes wrong revision or stop at some step if candidate performs incorrect revision.</p> <p><u>Validation Week:</u> The licensee agreed that there was no consequence if the candidates performed this incorrectly revised procedure. The licensee agreed to make a "mock" procedure with incorrect acceptance criteria so that there would be consequence.</p> <p><u>Summary of Changes:</u> The licensee "revised" a jet pump procedure.</p>
A1b	S	<p><u>NRC Review:</u> No comments</p> <p><u>Validation Week:</u> Determined that the initial cue was too vague and would not elicit the total answer. Suggested that the facility change "effect(s) on system" to "effect on components". Also noted that the E12-037B valve was expected to be closed; therefore, there would be no consequence if the candidate failed to identify this valve is affected. However, determined that E12-053B needs to be identified as it would close (containment isolation valve)</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Changed "system" to "component" in Initiating Cue.</li> <li>2. Eliminated the identification of E12-037B as critical, made the identification of E12-053B and E12-F009 valves critical.</li> </ol>

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A2R	U	<p><u>NRC Review:</u> Concept of JPM good <u>but</u> will not fail someone if they forget to date surveillance or use tape to correct number or other errors which are included in this JPM.</p> <p>Suggest:</p> <ol style="list-style-type: none"> <li>1. Keep error in DPCS or mark it unsat because of pump (wrong reason)</li> <li>2. Valve stroke time - keep as is.</li> <li>3. Step 8.b - make math error (110-48 =72) 72 is outside of range and mark unsat. This will result in pump being declared inoperable when it is not.</li> </ol> <p>Candidate <u>must</u> identify both errors.</p> <p><u>Validation Week:</u> The licensee believed the administrative faults introduced in this JPM were acceptable because the JPM is an administrative JPM. The Chief Examiner explained that as written, it would be possible to pass someone if they identify the admin errors but did not identify the component operability problem (valve stroke time). The licensee agreed to keep the valve stroke time problem and eliminate the others. The licensee did not want to introduce the pump problem as this would result in other administrative concerns (i.e. writing a condition report, etc.) which would cue the candidate into the math error. The Chief Examiner agreed.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Eliminated all errors except the excessive valve stroke time.</li> </ol>
A2S	E	<p><u>NRC Review:</u> JPM is too easy when compared to revised RO A2. Suggest using RO A2.</p> <p>Delete "at appropriate time frequency" from cue.</p> <p><u>Validation Week:</u> Decided to eliminate this JPM and use RO A2 as SRO A2 also.</p> <p><u>Summary of Changes:</u> Eliminated.</p>
A3	E	<p><u>NRC Review:</u> Need to work out details of administering this JPM (no involvement from HP, where to obtain, etc.)</p> <p><u>Validation Week:</u> Decided to run this in-plant and requiring the candidate to start in the OSC. A Bicon tech instrument will be available at the OSC.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added realism in the initiating cue by stating that the candidate is part of a team working on the HPCS injection valve.</li> <li>2. Eliminated critical step that the candidate physically inspect the instrument (can't verify).</li> <li>3. Added critical step for the candidate to identify the correct setting for a 50 mrem field. Added comment that evaluator should cue this discussion if not brought up by the candidate.</li> </ol>

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A4R	U  S	<p><u>NRC Review:</u> Both questions are direct look-ups and for that reason are unsatisfactory.</p> <p><u>Validation Week:</u> The licensee intended these questions to be closed reference. Acceptable.</p> <p><u>Summary of Changes:</u> Added "Closed Reference" to each question.</p>
A4S	S	<p><u>NRC Review:</u> Event classification (not licensed task but task for SRO, plant manager) Task is listed in NUREG 1021.</p> <p><u>Validation Week:</u> Need more information on where terrorists gained entry and eliminate assumption on form EPI-B1 (terrorists are attempting to gain entry into control room)</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added statement that terrorists entered service building and are trapped on third floor.</li> <li>2. Eliminated assumption on form EPI-B1 regarding control room entry.</li> </ol>
B1a	S	<p><u>NRC Review:</u> Is it possible to coordinate with sim operator such that examiner will play role of NLO? If so, need additional cues.</p> <p><u>Validation Week:</u> Determined that sim operator needs to play role of plant operator.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added note that sim operator will roleplay plant operators.</li> </ol>
B1b	S	<p><u>NRC Review:</u> Is it possible to coordinate with sim operator such that examiner will play role of NLO? If so, need additional cues.</p> <p>Need more information on step 9 - is it critical to adjust flow or adjust flow <u>and</u> be within precautions and limitations?</p> <p><u>Validation Week:</u> Determined that evaluator will roleplay the NLO during this JPM. Determined that the candidate needs to follow the precaution statement referred to in step 9 (loading EDG).</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Removed sim operator and replaced evaluator to roleplay NLO.</li> <li>2. Loaded fault at 0.95Mw to support removing the sim operator involvement in this JPM.</li> <li>3. Added note that candidate may identify high jacket water temperature annunciator in Step 11.</li> </ol>

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B1c	E	<p><u>NRC Review:</u> The JPM is 40 minutes long - possible to shorten? Step 4c is critical, not 4a and 4b. Step 5 needs to be broken up - as written the step is 3 pages long!</p> <p><u>Validation Week:</u> JPM cannot be logically shortened - decided to keep as is. Requested the licensee to split steps 4 and 5 so that the candidate's actions and evaluator's comments fall on same page. Also, licensee agreed that only step 4c was critical.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Divided step 4 into steps 4a through 4c.</li> <li>2. Made step 4c critical, eliminated "critical" from steps 4a and 4b</li> <li>3. Divided step 5 into steps 5a through 5d.</li> </ol>
B1d	E	<p><u>NRC Review:</u> The JPM is 40 minutes long - possible to shorten? Steps 4 and 10 require candidate to press/hold turbine reset until lights go out (critical step) The comments state that if this is not done, it is not critical and examiner needs to prompt. Either the step is critical or it is not. Suggest keeping it critical, the simulator will behave appropriately.</p> <p>Some additional comments within.</p> <p><u>Validation Week:</u> JPM cannot be logically shortened. Decided to keep as is. Discussed comment on Steps 4 and 10 - step will be critical but the candidate will be allowed to re-perform when he identifies it was not done correctly (simulator response).</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Comments for steps 4 and 10 clarified to allow candidate to re-perform steps. Licensee misunderstood and did not remove the "as Unit Supervisor, direct the candidate to re-perform the step and continue to press and hold the turbine reset button until the lights remain on" comment. It is acceptable to keep - if the candidate mis-performed the step, the evaluator would ask a follow-up question to ascertain the knowledge/action deficiency.</li> <li>2. Comment 2 for step 19 clarified - directs the evaluator to proceed to step 30 if the candidate trips the turbine.</li> <li>3. Clarified expectation for comment 2 in Step 29 - requires the candidate to make recommendation to trip turbine in accordance with the ARP instead of having the evaluator (as the unit supervisor) directing this action.</li> </ol>

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JPM Task	U/S/ E	Notes
B1e	E	<p><u>NRC Review:</u> Is it possible to coordinate with sim operator such that examiner will play role of NLO? If so, need additional cues. Assume that simulator will provide &gt;50 °F outside temperature. Some additional comments within.</p> <p><u>Validation Week:</u> Determined that the evaluator will role-play plant personnel. Operations personnel requested current time be added to initial conditions. An examiner requested the facility to remove unnecessary JPM steps (steps that will not be performed by the candidates). Also, initial condition states using train A - therefore, only allow the candidate to use train A (JPM does not differentiate between trains).</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added comment on first page that the evaluator will role play plant personnel.</li> <li>2. Added current time is 1300 to the initial conditions.</li> <li>3. Original steps 2 and 9 were removed since the actions of this step will not be performed. Renumbered accordingly. Removed other unnecessary information from comment sections also.</li> <li>4. Added "train A" specific references as appropriate to new steps 6, 8, and 9.</li> </ol>
B1f	S  U	<p><u>NRC Review:</u> No comments.</p> <p><u>Validation Week:</u> Determined that step 3 should be marked as critical - the candidate should identify which fuse (different amperages) will be replaced where.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Made step 3 critical. Added comment that the candidate should put in a 20 amp fuse in the scram valve location. The evaluator may need to ask a followup question to complete this step.</li> <li>2. Made step 4 critical. Added comment that the candidate should put in a 5 amp fuse in the SDV valve location. The evaluator may need to ask a follow-up question to complete this critical step.</li> <li>3. Facility provided electrical drawing references for these steps.</li> </ol>
B1g	E	<p><u>NRC Review:</u> Alternate path is a bit weak - perhaps this can be modified during validation week.</p> <p><u>Validation Week:</u> Need trend on water level in initial conditions. Determined that the evaluator will role-play plant personnel.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added "and slowly lowering" to the initial conditions. (Water level trend)</li> <li>2. Added comment that the evaluator will role-play plant personnel.</li> </ol>

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B2a	S	<p><u>NRC Review:</u> Why can't we open cabinet? Possible to get photo instead of computer generated pictures?</p> <p><u>Validation Week:</u> Can not open panel - breaker will need to be racked out (inop equipment) Cannot get actual photo - computer generated pictures were determined to be acceptable.</p> <p><u>Summary of Changes:</u> - no changes.</p>
B2b	U	<p><u>NRC Review:</u> Step 4 is critical - as written, the examiner tells the candidate what is wrong and leaves no diagnosis for the candidate. Suggest obtaining a CLEAR picture of the overspeed mechanism in the tripped condition - tell candidate this is what it looks like OR picture in non-tripped condition and verify that candidate knows what he/she is looking at or will be manipulating. Step 5 needs to be broken up - as written the step is 2 pages long!</p> <p><u>Validation Week:</u> Determined that pictures were unnecessary since the candidate can view the trip mechanism and valve position/location from the ground level. The evaluators were comfortable with keeping this JPM - a competent candidate will be able to complete the task without the pictures. Also, validated the JPM on the #1 and #2 EDG in case one of the EDGs become inoperable during the examination.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Added clarifying comments to step 3b (old step 4) describing the trip mechanism. A mechanical drawing will be on hand if needed for the candidate to describe the trip lever position.</li> <li>2. Facility added comment that climbing will not be allowed. This will be at the discretion of the evaluator - NLOs climb the EDGs each shift.</li> <li>3. Separated step 5 into 4 substeps for easier reading. Added description of butterfly positions and appropriate cues (air flow stops, etc.)</li> </ol>
B2c	S	<p><u>NRC Review:</u> No comments.</p> <p><u>Validation Week:</u> No comments.</p> <p><u>Summary of Changes:</u> No changes.</p>

NRC Comments on Facility Category C Scenarios  
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Scenario #	U/S/E	Notes
1a	8-S	<p><u>NRC Review:</u> Credit for c/i failures after major TBD - need to see who will actually respond. May not have enough to credit BOP in event #2. (Examiner tells BOP what the failure is) Need to separate APRM failures and single rod scram as two events - this will ensure RO gets credit for both. Rx briefing - need to determine when to hold this.</p> <p><u>Validation Week:</u> Component failures appear to be adequate. Determined Rx briefings will be held prior to entry into the simulator.</p> <p><u>Summary of Changes:</u> Changed step reference in turnover (procedure change - now starting on step 78 instead of step 79).</p>
1b		<p><u>NRC Review:</u> See letter dated May 4, 2001 concerning withholding this scenario from public disclosure.</p> <p><u>Validation Week:</u> Determined that we did not need to run this scenario. The candidates decided to run one scenario each day - requiring only 3 scenarios + 1 backup.</p>
1c	8-S	<p><u>NRC Review:</u> Credit for c/i failure in event #4 TBD - need to see who will actually respond. Rx briefing - need to determine when to hold this.</p> <p><u>Validation Week:</u> Determined that actions for event #6 were not substantive; therefore, no credit would be granted for this component failure. Also, the candidates decided to run one scenario each day - requiring only 3 scenarios + 1 backup. This scenario is considered the back-up.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Changed event #6 to a suction valve closure instead of a pump trip. This required more diagnosis to determine why the pump tripped and additional recovery actions to make the pump operable again.</li> </ol>

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Scenario #	U/S/E	Notes
2a	7-S 1-? 1-E	<p><u>NRC Review:</u> Credit for c/i failures after major TBD - need to see who will actually respond. Rx briefing - need to determine when to hold this. Event #1 is not needed. Need to confirm that event #2 not similar to JPM</p> <p><u>Validation Week:</u> Event #2 was too similar to JPMs and we requested the facility remove this event. Also, scenario was weak on TS calls - made recommendations for additional component failure (ECCS waterleg pump) and changes to initial conditions (LPRM string out). Scenario was revalidated after all of the changes were made.</p> <p><u>Summary of Changes:</u></p> <ol style="list-style-type: none"> <li>1. Eliminated event #1 - not needed. Renumbered events accordingly.</li> <li>2. Added additional LPRM failure in initial conditions resulting in a more challenging TS call.</li> <li>3. Eliminated the EDG failure and replaced with hotwell emergency dump level controller failure (Event #4 of scenario 2b). This removes the similarity with JPMs.</li> <li>4. Added ECCS waterleg failure (Event #6 of scenario 3) for SRO - Needed additional TS calls.</li> <li>5. Changed IC to 75% power instead of 68% due to the removal of event #1.</li> <li>6. Added required Form ES-D-2 pages to reflect these changes.</li> </ol>
2b	8-S	<p><u>NRC Review:</u> See letter dated May 4, 2001 concerning withholding this scenario from public disclosure.</p> <p><u>Validation Week:</u> Determined that we did not need to run this scenario. The candidates decided to run one scenario each day - requiring only 3 scenarios + 1 backup.</p>
2c	9-S	<p><u>NRC Review:</u> Scenario has numerous component/instrument failures and associated TS calls. This scenario will be used with 2b for the upgraded candidates. Difficulty level is high due to the number of EOP entries and concurrent entries into AOP - will require good coordination from the SRO. Some events may or may not be counted as a c/i failure - diagnosis but little activity. This does not impact the grade on the scenario since scenario contains excess amount of faults.</p> <p><u>Validation Week:</u> Scenario acceptable as is. May need to modify event #5 during administration (oscillation instead of failure downscale) as the downscale failure may be difficult to detect under current conditions. Validated oscillation and downscale failure.</p> <p><u>Summary of Changes:</u> Changed initial conditions to reflect new procedure revision (new step numbers)</p>
3		<p><u>NRC Review:</u> See letter dated May 4, 2001 concerning withholding this scenario from public disclosure.</p> <p><u>Validation Week:</u> Determined that we did not need to run this scenario. The candidates decided to run one scenario each day - requiring only 3 scenarios + 1 backup.</p>