

POINT BEACH

OCTOBER 2000

**NRC COMMENTS ON
OPERATING TEST**

NRC Comments on and Subsequent Changes to Facility Category A and B JPMs Point Beach October 2000

Please note that changes made to the JPMs are explained below. Working copies of minor changes such as editorials or typographical corrections were not retained; however, should be captured below. Working copies of substantive changes were retained and a brief explanation is provided below.

JPM Task	U/S/E	Notes
A1a	E	<p>NRC review: Two of the failures are selector switches, three are valves out of position. Discussed possibility of including an instrument failure (pegged high or out of tolerance). Licensee agreed.</p> <p>Validation week: Discussed grading. Facility stated 4/5 problems identified and "a majority of questions" answered correctly would result in a pass. Examination team did not agree with this grading since it was a bit arbitrary for follow-up type questions. Decided on 4/5 problems identified and removed follow-up questions. Agreed that candidate should mention that an RTO >1518.5 MWt was a concern but that the critical element was to identify the atmospheric dump was opened (the cause for the increase in power.)</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Removed rod selector switch problem and replaced with 1AF-4001 position indication problem. 2. Removed follow-up questions 3. Extended allowed time to 20 minutes. 4. RTO > 1518.5 MWt was not a critical item. <p>Working copy of changes not retained.</p>
A1b	U	<p>NRC review: Task standard states critical task is to determine "required SDM"; yet step 15 is not labeled as critical. Task standard states (-) 1100 to (-) 1140 pcm; doesn't match answer key of (-) 1100 to (-)1160 pcm. Because this JPM could not be graded 'as-submitted', it was evaluated as UNSATISFACTORY.</p> <p>Validation week: Discussed possibility of administering this JPM in the classroom instead of in the simulator. Necessary changes to facilitate this were made. Step 4 sequence 4 was changed to a critical step during validation week by our error.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Step 4 sequence 4 was changed to a critical step. 2. Task standard was changed to 1160 instead of 1140 pcm. 3. Step 15 sequence 15 was changed to a critical step. 4. Added the following to TOOLS/EQUIPMENT/REFERENCE: <ul style="list-style-type: none"> TS figure 15.3.10-2 Ruler Calculator with negative function. 5. Changes to cues as appropriate to facilitate classroom administration. <p>Working copy of changes not retained.</p>

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A2	E	<p>NRC review: There are no consequences of having 2CV-303D tagged out; therefore, it is not critical that applicant identifies this error. Editorial - page numbering is wrong</p> <p>Validation week: Discussed possibility of administering this JPM in a classroom instead of in the simulator. Necessary changes to facilitate this were made.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Added "OI-50, Charging Pump Isolation" to reference list. 2. Removed "simulator" references as this JPM was performed in a classroom setting. 3. Removed 2CV-303D, seal injection filter inlet valve, as an identified problem since it had no consequence. 4. Added correct position and sequence for missing valve 2CV-279C. 5. Completed uncompleted sentence in step 3 sequence 3 by adding 2CV-290 and CV-291 before the "." 6. Corrected page numbering. <p>Working copy of changes not retained.</p>
A3R	E	<p>NRC review: Eliminate "select North Emergency Intake"; the necessary information is in the initial conditions.</p> <p>Validation week: Discussed changing Step 2 Sequence 2 to non-critical as the switch was in the occupied position.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Changed Step 2 Sequence 2 to non-critical and included comment that this is a critical step if found in the non-occupied position. <p>Working copy of changes not retained.</p>
A3S	E	<p>NRC review: Initiating cue contains a cue that the applicant will find a problem in the task. Reword to state desire to restart the forced vent. Eliminate >8 hours criteria from critical task. Determining how much time has gone by is not an effective evaluation tool. Add step between 1 and 2 to read "completes steps 4.3.2 a-c. Step 2 should be renumbered to Step 3. Step 4 should be added to read "requests resampling of containment. The cue should read "Resampling will be done. This JPM is complete. The Note should contain steps 4.3.2 e - h of procedure in case the applicant does not identify the fault. (Anticipatory steps). Editorial - add "and" between permit and determine in the task standard.</p> <p>Validation week: No comments.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Changed procedure reference to rev 37 (vice rev 36) 2. Eliminated all references to 8 hours. Changed cue to 1200 instead of 1700 (to be within 8 hour period) 3. Added procedure steps 4.3.2 e - h to JPM as anticipatory steps. <p>Working copy of changes retained.</p>

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A4R	S	<p>NRC review: No comments.</p> <p>Validation week: Add an "x" to 'your assigned assembly area' on Attachment A of EPIP 6.1.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> Added the "X" to Attachment A. <p>Working copy of changes not retained.</p>
A4S	E	<p>NRC review: Initiating cue cues the applicant that the original classification is incorrect. Restate to have the applicant make the initial classification.</p> <p>Validation week: Initial conditions were confusing to validation operating crew. The reference to 5% caused operator to select wrong answer which could be argued in an appeal if a candidate made the same error. Decided to change initial condition.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> Changed "Crew actions in CSP-S.1 were successful in bringing reactor power <5%" to Reactro trip breakers were locally opened in accordance with CSP-S.1. <p>Working copy of changes not retained.</p>
B1a	E	<p>NRC review: No comments.</p> <p>Validation week: Enhancements were made due to comments from other examiners. Specifically, the examiners wanted the faulted condition to occur after the applicant performed some steps correctly - as written, the fault occurred immediately. The chief examiner agreed to the enhancements. The "new" JPM flow is as follows: The applicant begins inserting rods until a "non-urgent" rod control alarm is received. Instrument personnel report back that the +16.5 Vdc power supply failed and through time compression, is replaced. The unit supervisor requests additional rod movement. The applicant begins to insert rods once more; however, this time, the rods begin to move out (faulted and alternate path). The JPM then proceeds as originally written.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> Changed cue in step5/sequence 5 to rods are moving in (not out) Added a sequence of steps as described above: <p>Working copy of changes not retained.</p>

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B1b	E	<p>NRC review: The initiating cue directs the applicant to delay depletion of the RWST and "depressurize the RCS to minimize break." The JPM is cut off BEFORE the depressurization step. Add the steps or change the initiating cue.</p> <p>Validation week: Noted that the references to narrow and wide range instruments were incorrect in the JPM write up. Also, changed step 5 sequence 5 such that 150 gpm was required (instead of 100 gpm) This would cause the applicant to determine that charging flow was insufficient and that SI flow was required.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Changed narrow and wide range references. 2. Changed step5 to 150 gpm instead of 100 gpm. Added requirement that the applicant should start the SI pump to achieve remainder of desired flow. <p>Working copy of changes not retained. However, page 12 of 35 of Revision 23 of ECA-1.1 (step21) was retained - in reference to the discussion below.</p> <p>As Given:</p> <p>During administration of the exam, several applicants did not shut off the RHR pump as expected. The applicants stated that the RHR pump was needed for suction of the SI pump (piggy-back mode of operation.) The facility licensee reviewed the issue with engineering personnel and determined that the RHR pump must be in service; therefore, the procedure step which directed the operators to shut off the "unnecessary" pumps was incorrect. The examination team reviewed the issue with the branch chief and determined that the applicants should not be penalized for an incorrect procedure. Those who stopped the RHR pump were credited with a correct action even though this is technically an incorrect action. Those who stated that the RHR pump was needed for suction were also credited with a correct. This issue is discussed in the examination report.</p>
B1c	S	<p>NRC review: No comments.</p> <p>Validation week: Requested RCS pressure trend during this JPM.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Removed "start time" in front of each JPM step. <p>Working copy of changes not retained.</p> <p>As-Given:</p> <p>Changed initial cue to read RCS pressure is being maintained at about 400 psig instead of 800-1000 psig. It was unnecessary to observe the applicant reduce pressure from 800 psig to 350 psig. The original intent was to observe the applicant establish an acceptable cooldown rate (<100°F/ hr) - during validation week, this pressure drop occurred within a few minutes; however, due to the cautiousness the applicants demonstrated on other JPMs, the team felt that this JPM would take a significant amount of time without gain (i.e., just watching pressure decrease). Therefore, it was decided prior to the administration of this JPM to reduce the starting pressure to 400 psig. Validation week activities remained valid.</p>

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B1d	E	<p>NRC review: Not very challenging alternate path JPM. Step 15 states that the RCP No 1 seal leakoff is pegged high - the standard states that the applicant is to refer to the RNO (step 10 in AOP-18). With seal No 1 pegged high, doesn't this meet the RCP trip criteria - therefore, the applicant should perform step 18 of AOP-18? (Trip the reactor)? Also, Step 8 (ID that DP is < +20) is critical - then correcting the situation (Step 9) should also be critical.</p> <p>Validation week: To resolve our concern with step 15 and to enhance the challenge level, we suggested adding a vibration problem. This would require the applicant to demonstrate understanding of a continuous action step and fold out page information. The facility licensee agreed. The team suggested other administrative changes such as removing seal information from the initial conditions since the applicant should obtain this information from simulator indications.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Task standard changed to include recognition of the pump vibration problem. 2. Fault added to the simulator list. 3. RCP seal information removed from initial conditions. 4. Step 8 sequence 8 cue changed to require applicant to adjust labyrinth seal (This was used to cue the simulator operator to insert the vibration fault.) 5. Added new step 10. This step required the applicant to recognize the high vibration alarm and proceed to step 18 of AOP-18. Also provides note to examiner that applicant will continue with the JPM as written if s/he did not recognize significance of vibration alarm. 6. Renumbered steps accordingly. 7. Original steps 16 and 17 were eliminated as these steps were not longer applicable (the AOP required a reactor trip due to the high vibration - not a planned shutdown as required in original JPM step 16.) 8. New step 17 written to reflect required actions for high vibration (reactor trip) <p>Working copy of some changes retained.</p>
B1e	U	<p>NRC review: This was not an acceptable alternate path JPM. The applicant needed to recognize a valve did not open and direct local operation. Little discriminatory value. Suggested the facility change this to a non-alternate path and eliminate this one from SRO-U exam by exchanging with another JPM (B1g) alternate path</p> <p>Validation week: No comments.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Step 8 standard changed to "recognizes valve opened." (Eliminated fault condition) 2. Steps 9-11 removed - no longer needed since fault was removed. <p>Working copy of changes not retained.</p>

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B1f	S	<p>NRC review: No comments</p> <p>Validation week: Minor editorial comments as noted below.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Added "Blank Rod 14" to reference section. 2. Added "in the simulator" to the note in step 1. 3. Added cue in step 10 that examiner will provide a clean copy of rod 14 for each applicant. <p>Working copy of changes not retained.</p>
B1g	U	<p>NRC review: The applicant attempts to isolate the CC leak by performing Attachment A. This is unsuccessful - therefore, this JPM is an ALTERNATE path JPM because it requires the applicant to perform additional steps - trip the reactor in this case - the applicant is not successful in isolating the leak as indicating in the initial cue. Suggest making this an ALTERNATE path JPM Also, the corresponding RNO for Step 2/Sequence 6 is to make-up to the tank, NOT continue to step 3 as indicated in the JPM step.</p> <p>Validation week: Facility agreed this was an alternate path JPM and added this JPM to the SRO-Upgrade examination. Requested facility to trend CC surge tank level during administration. Clarify notes to step 2/sequence 6 and step 3/sequence 9</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Clarified note to step 2/sequence 6 that examiner should continue to step 3, sequence 9 when applicant identifies level is below 10% 2. Clarified note to step 3/sequence 9 to define the critical task - the applicant must identify level is below 10% and proceed to RNO step 3 of AOP 9B. Also, identified step as a continuous action step. <p>Working copy of changes not retained.</p>

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B2a	E	<p>NRC review: Several valves are manipulated yet none are critical steps - what are the consequences of not performing these manipulations? Should these be critical steps?</p> <p>Validation week: Verified which valve manipulations were critical. Modified JPM to start at step 2 instead of step 1. This will shorten the long JPM time and step 1 did not add quality to the JPM.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Added in initial conditions that AFW valves are gagged (step 1 of procedure) 2. Changed opening of aux charging line a critical step (Step 2/sequence 1) 3. Changed shutting the seal injection inlet valve to a critical step (Step5/sequence 1) <p>Working copy of changes not retained. A copy of page 2 of 11 of Attachment D, AOP 10-A was retained for clarity as discussed below.</p> <p>As Given:</p> <p>During the administration of this JPM, 10 of 12 applicants were given the cue that valves in the plant are as-found. 1CV-112B and 2CV-112B were as-found closed. Step 2a3 and 2c1 required the applicant to "verify" these valves were opened. When some of the applicants came to this step, they identified that the valves were closed and demonstrated how they would de-clutch the valves and open the valves manually. Since the valves needed to be manipulated for successful completion of the JPM, the step to verify open became a critical step for these individuals. Strict procedure adherence required the applicants to go to the "response not obtained" column to open 1CV-358 and 2CV-358 valves since 1CV-112B and 2CV-112B were not found open. (The definition of "verify" requires operators to follow the RNO when the expected action did not occur.) It was decided and agreed upon with the branch chief that manually opening the 1CV-112B and 2CV-112B valves was acceptable since this action aided in the successful completion of the task. However, for those applicants who did not perform the RNO steps, the examiners documented their failure to follow procedure in the applicable applicant's ES forms.</p>
B2b	S	<p>NRC review: No comments</p> <p>Validation week: Unit 2 was expected to be in an outage during the examination week. We requested the licensee to develop identical paperwork to use on Unit 1 AFW in case Unit 2 AFW is unavailable. We validated the JPM on both units.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. A JPM for Unit 1 was developed. <p>Working copy of changes not retained.</p>

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JPM Task	U/S/E	Notes
B2c	S	<p>NRC review: JPM consists of two faults - failure of manual start (needing to depress fast-start) and failure of the G03 breaker to auto close. May consider eliminating one failure.</p> <p>Validation week: Eliminated GO3 Breaker failure. Discussed critical steps - need to make placing the governor mode switch manipulation a critical step. Editorial corrections.</p> <p>Summary of changes:</p> <ol style="list-style-type: none"> 1. Eliminated Step 17 and 18 (breaker failure removed) and renumbered accordingly. 2. Made Step 11/Sequence 11 critical. 3. Added statement to Step 12/Sequence 12 that if governor switch was not placed in HYD then diesel should not start. When fast start pushbutton is pushed. 4. Changed 2A06 breaker and 2A5287 to 1AO6 breaker and 1A5286 to step 16/sequence 16 (Note, 1A5287 showed up in final paperwork - this was changed during examination week (as-given)). <p>Working copy of changes not retained.</p> <p>As Given: Changed additional steps to not critical - completion of these steps were not necessary to successfully complete the JPM task. These steps included Step 5/Sequence 5, Step 6?sequence 6, and Step 7/Sequence 7.</p>