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 (A1)	S	2								E S	No key provided. What is the actual fatigue cycles for the unit now? Use that value if different than 20k cycles since more op valid. Licensee made recommended changes. JPM is now SAT.
RO (A2)	S	2								S	
RO (A3)	S	3								S	
RO (A4)	S	3								S	
SRO (A5)	S	2								E S	Need to review with the key. Licensee made recommended changes. JPM is now SAT.
SRO (A6)	S	2								E S	Need to review the key. Would need procedure, rod/core flow map, reactivity plan, etc. Once again-all steps are critical. Any other items in the JPM non-critical but part of this activity? No discussion on basis for why someone would or would not enter the AIA. Licensee made recommended changes. JPM is now SAT.
SRO (A7)	S	2								E S	For choices, don't cue them to the choices as if multiple choice answer (this is format for written questions), have them write down the choice for the two questions and reason why. Based on ABN step for loss of one Fw htr, taking rods below the 100% rodline is required, so applicants will already know that from procedure anyway. Licensee made recommended changes. JPM is now SAT.
SRO (A8)	S	2								E S	No key provided. JPMs have cueing when you don't balance the "no action required" with "action required" selections. Should use something like no actions required and explain why or actions required and explain what actions and why? No PPMs were sent in reference submittal. The reduction of power is right out of this ABN procedure, how is this SRO only? Maybe if you don't point the applicant to the ABN-OG procedure, it would be more discriminating at the SRO level. Licensee made recommended changes. JPM is now SAT.
SRO (A9)	S	2								S	

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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 any U or E rating in the explanation column.
7. Save initial review comments as normal black text; indicate how comments were resolved using blue text so that each JPM used on the exam is reflected by a (S)atisfactory resolution on this form.

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	
S2	D	3								E	This is not really an EN JPM. Outline was updated to reflect that it is not EN, still have 1 that is (C1) so it is okay.
											Step 26 is marked as an alternate path step but has no verifiable actions with the exception of informing the CRS. Informing the CRS completes the JPM. Need to remove the "Alternate Path Step" annotation on Step 26 of the JPM. Licensee agreed and made change to this step, still has other steps as Alt path therefore still good as Alt path JPM.
										S	Licensee made recommended changes. JPM is now SAT.
S3	D	2								E	Need to ensure that Steps 5.4.1 and 5.4.2 are marked completed on the procedure handed to the applicant. Licensee verified that they are marked up therefore okay on this comment.
											Rejected this JPM-during reviews of old CGS exams and discussions with licensee it was discovered that they have not written and do not have in their bank any Safety Function 4 JPMs that involve any of the ECCS equipment and its ability to remove heat from the core. All they have done for at least the past 15 years' NRC exams is Main Turbine, MSIV type JPMS. I am requiring them to write a new JPM on an ECCS system to replace this JPM.
										S	After discussion with licensee, it has been determined that additional investigation and analysis by licensee is needed to ensure an operationally valid JPM. Therefore, this JPM is being replaced with a LPCI JPM that is Alt path, EN function and is now Sat.
S4	D	2								E	This does not meet the spirit of an Alt Path JPM. The first Alt path step has no actions after decisions were required by the applicant. The later Alt path step – (step 8) If the breaker does not auto trip in step 5.4.7 then the applicant is required in the next step to trip it anyway so no diagnosis is involved here or transition to another section of the procedure or anything. The procedure does not have guidance for what to do with high amps anyway. Does an alarm response procedure get to these actions?
											Remove Alt path designator from outline and JPM standard and resubmit.
										S	Licensee made recommended changes. JPM is now SAT.
S5	D	2								E	Task standard needs editing because it is too broad. Step 2 of JPM should be to lower speed of RR P-1A not B, A is the running pump. Is there any time limit or power limit for this evolution? How far can the pump deviate before it is unacceptable and the applicant still hasn't tripped the pump? What about reactor trip criteria? If there are these items or reactor trips or go into AIA or in P/F regions not allowed then these should be in task standard and in contents of JPM.
											Step 2 has the wrong pump annotated.
											Are there any actions/notes in the start procedure about rising rpm without operator action during startup? No.
											Licensee edit JPM for wrong pump and edit JPM standard slightly to include runaway pump then stop the pump. On Step 23 in JPM standard include a comment that if the applicant does not catch the runaway pump issue and it reaches max RPM then JPM complete with failure to complete critical step to stop the pump.
										S	Licensee made recommended changes. JPM is now SAT.

DRAFT OPERATING TEST COMMENTS   CONTROL ROOM/IN-PLANT SYSTEMS JPMS

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		
S6	D	2								S	Notification following exam to update the procedure to the correct panel in steps 5.6.3e&f. Need copy of CR post exam to ensure captured.
S7	D	2								E S	Task standard needs editing. Licensee made recommended changes. JPM is now SAT.
C1/S8	D	2								S	
P1	S	3								E S	Need to specify what tools are expected to be in the tool bag. JPM Step 7 is annotated as a critical step but all the performance actions are specified in Steps 8-11. Licensee agreed with both comments and made changes for JPM standard step added for items in the tool bag. Need tweak done for step 7. Licensee made recommended changes. JPM is now SAT.
P2	S	2								S	
P3	S	2								S	

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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 any U or E rating in the explanation column.
7. Save initial review comments as normal black text; indicate how comments were resolved using blue text so that each JPM used on the exam is reflected by a (S)atisfactory resolution on this form.

Scenario 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									E	**General comments for all scenarios:** 1. need procedures listed for all events, including raising power, with steps by major operator actions 2. Put major annunciators for each event at the top, with window numbers, and applicable ARPs (nomenclature or name, such as ARP-31-214-301) with the board number as applicable (ie location). Sometimes they are there and sometimes not. 3. Use the same formatting for all events in the D-1 and D-2 forms. As an example, see scenario 4, page 14, which uses no step references and a bulleted format, and the next page, page 15, which uses step numbers from procedures for each operator action, which is the best format to have for the examiners. 4. Should have technical basis for each CT-example spray DW when pressure reaches 10 psig and prior ro exceeding PSP pressure limit (basis is to prevent damage and/or failure of DW). It seems obvious in this case but these are needed to justify why it is critical and the bounding condition is appropriate. If you can't come up with a simple statement for the basis, then it probably isn't really critical. These are important during appeals. 5. For LOCAs, steam breaks, leaks, etc, if helps the NRC if we know where the leak is, what the rate is, indications in CR to help operator determine these items, etc. 6. For each CT, need to guess at which board operator would get the CT, then try to ensure they are balanced. With two CTs, the BOP should get one and the ATC should get the other, if possible. This is done by putting next to the CT in the D-1 and D-2 forms which board you think should get it, understanding that it is an estimate only. Critical tasks must also be identified within the "Applicants Actions or Behavior" column to ensure examiner knows when a critical task is to be performed and who is expected to perform it. 7. Discuss triggers versus NRC initiated event sequencing. Most are setup as auto triggers for this exam. 8. Put controller names/numbers in the events where applicable 9. Need to include name and nomenclature for all components that are expected to be manipulated by the applicants. Descriptions such as "Stops drywell cooling fans" or "restarts CRD pump" or "Stops low pressure ECCS injection as required" are not sufficient. 10. When the D-2 states that actions will be performed "using the quick card," the verifiable actions to be performed by the crew must be laid out in the D-2 so examiners can follow the applicant's actions. Describing the expected actions with terms such as

"as directed" or "using the quick card" or "takes manual control of level" or "starts pump per ARP" is not sufficient. The actual switch manipulations need to be in the D-2 for examiners to follow.

In All scenario Event narratives:
1. Put in the TS and LCO entries
2. Put in major procedure transitions (ABNs and up)
3. Put in all CTs

For scenario1:
1. Is it operationally valid to expect both surveillances (DG-1 and Control Rod Exercise) to be conducted concurrently? I would imagine that applicants would expect to perform these steps as a reader/doer team on shift. Additionally, how do you plan on ensuring that the BOP does not get involved in the uncoupled rod event (the only component failure for the ATC). Is the EDG surveillance necessary when there is already a reactivity event? Run as Surveillance in P for val week and see how it goes.

2. Event 2 – Description states that event is initiated after TSW pump swap – this pump swap was deleted from the scenario during the outline comments. Are there any minimum Megavars or Megawatts during unloading that would cause damage to equipment? No. (Any procedural notes?) Licensee removed TSW from description.

3. Event 3 – Role-play has SNE direct rod insertion if it is not done. This is unnecessary cueing that should be deleted. Licensee removed it.

4. Event 6 – How long is "could be longer if power is reduced?" If it is going to take a significant amount of time, then a different approach is needed. 3-4 minutes is time.

5. Event 9 – Event description references an RHR B Spray line rupture. However, this is not discussed anywhere else in the D-2. The failure mechanism is RHR-V-16B failing to open. Needs to be changed or clarified. Fix typos.

6. Is there a procedure that the ATC uses to raise power in event 1? If so we need that in the D-2 forms. During reactivity brief review the procedure PPM 3.2.6 "Power maneuvering" not used during scenario.

7. It would help us if you put the actual TS and LCO's in the event narrative just after the D-1 page.

8. Are there any annunciators for event 3? If so need these in the D-2 for expected alarms.

9. No annunciators listed for event 4. These need to be at the top of the page of the D-2 for the corresponding event.

10. For event 5 are there any other alarms? What board does this alarm at? Does it have a window nomenclature?

											11. Why are there differences in formatting between events? Some events use bold for actual manipulations while others do not.
											12. What are the 16 amber lights on bd L in event 5? Axis lights for earthquake severity.
											13. Need to have more details for alarms as a whole-event X –RHR alarm is another example-need its nomenclature and location. Also, if other alarms come in we need those as well (the most important ones. If there are lots of them, then maybe the top 3-4 alarms need to be in the D-2 forms).
											14. Is there a procedure for scramming the reactor? PPM 3.3.1 "Reactor Scram" We need this in the D-2 form.
											15. What steps must be accomplished prior to transitioning to EOP for RPV level? At +13 inches, will put in the D-2 form.
											16. For event 7 where is OBE earthquake alarm located? Need to list ARP used in the D-2 guide. Board Sierra.
											17. In restart of CRD event, we need procedure used in the D-2 form.
											18. Put hard card names or procedure/page they are in for RCIC and HPCS starts in event 7.
											19. Is there a procedure for pressure control with SRVs when MSIVs go shut? Skill of the craft. So No.
											20. Any checks or procedure steps for ATC/BOP to recognize CAS not running? If so these need to be in D-2. Lights go out, skill of the craft a subsequent action.
											21. When BOP is verifying actions for high DW pressure, is this done with the PPM or another procedure? These actions need to be linked to the associated procedure. Quick card but they have them memorized.
											22. In Event 8, does the quick card for wetwell sprays have a proper name? Put in D-2 guide.
											23. Need quick card nomenclature for DW sprays.
											24. Spell out DSIL acronym the first time it is used (for examiners, not you guys-we know you know what is means but we need reminding).
										S	Licensee resolved all comments from draft submittal and validation week. Scenario is now SAT.
2										E	1. This scenario is too difficult as written. After discussion with HQ and Licensee, the licensee agreed to remove the inhibit ADS CT and stick rods out under all conditions so that removes the CT for inserting rods, which leaves this scenario with 4 CTs and HQ says that 4 CTs are okay since it is only slightly outside of target ranges on the QA form

											and is necessary to get to the ED-ATWS steps at the back of the EOPs. 2. Note that isolating RRC-P-1A needs to be added to the scenario guide as part of the response to the seal failure if there are any actions to perform to isolate this leak. If not, disregard this comment. If there are actions, would this be a CT?NO, add actions but doesn't affect the leak-also lose power to recirc pump valves at high DW dp. 3. What happens if they don't isolate RWCU with V-1? Would this be another CT? No 4. For event 3, what panels are these on, what are the window numbers and nomenclature for ARPs (three ARPs for this event)? 5. Event 6, align feed/cond per quick card, need nomenclature for it. 6. Please list ARP nomenclature as mentioned above in general comments. 7. Please add a note that a write-in CT may be necessary for event 5 if crew fails to manually scram prior to auto scram on high DW pressure if adequate time is available to perform it manually. 8. All CT are assigned to the SRO/ATC. Licensee assigns them on update (not all are on the ATC board position) 9. LOCA should be designated as another Major 10. Event 6 has no actions associated with the failure of the RWCU valve. Does it need them? Will add to guide that V-4 does not close and operator must close V-1.
										S	Licensee resolved all comments from draft submittal and validation week. Scenario is now SAT.
3										E	1.Rev 0 was replaced after submittal via e-mail with rev1. Rev 1 was reviewed as the draft submittal scenario due to minor tweaks found by licensee after submittal. 2. Is there a technical basis for the first CT for manual scram w/in 15 minutes of low DEH alarm? Need it in the guide. 3. 4. Is it acceptable to run two events in parallel? Event 1 and 2 in parallel between ATC and BOP (no peer checks too). Yes. 5. For event 2, notice format of annunciator, no bold or upper case as in some other scenario events, with no specific window name for the alarm(s) 6. The P-2 issue in event 3, is it an electrical trip of the pump due to overcurrent? If so, are there any control room alarms for this issue (such as HPCS trouble alarms)? These alarms would need to be in the D-2 form if so.

											7. Event 4-alarm window and ARP name missing. Also, for this event, it needs to annotate which rods are expected to be inserted and what order. 8. Are there procedure steps that alert the crew to no power on various buses for event 6 or just alarms and skill of craft? Need alarms as applicable and procedures as applicable if used for this event. Also for recognizing no CAS running…Put lock out procedure/alarms in the guide. Examiner note, there are too many alarms as a whole to put all in the guide for this event. 9. Is securing DW sprays when pressure goes to zero psig a CT? Yes if it did but fpor this scenario it does not. 10. Names/numbers for quick cards 11. Can put more detail in the D-2 for WW sprays and WW cooling in event 8 (what actions are required per hard card)? 12. Copy event description from D-1 for Event 9 into event 9 description in the D-2 form on page 20 and 21 (it is currently not exactly correct on either page and the D-1 is correct). Keep the trigger information as it is on these two pages.
										S	Licensee resolved all comments from draft submittal and validation week. Scenario is now SAT.
4										E	1. Need a bounding condition for CT for inserting control rods (before when, such as before ATC attempts any of the other activities not related to SF1 for reactivity, or before leaving the applicable EOP for this event, etc). 2. Put step numbers from procedures in D-2 forms (event 4 as example, like event 1). 3. Put two areas that exceed Max safe into event 9 description for top of page 19 (ie RWCU pipe area at 340 Deg F and main steam tunnel at 320 deg F).
										S	Licensee resolved all comments from draft submittal and validation week. Scenario is now SAT.
5										E	1.CT to trip MT is missing on D-1 form. 2 CTs also missing on event narrative. 2. For event 1, ARP nomenclature and procedure used to deal with this event are missing. 3. No controller name/number for event 3 4. D-1 has a different event 4 than its associated D-2 forms (the D-2 has an ARM-RIS-3 failure here, which also has no operator actions and can't be a bean as an I or C event. Licensee needs to fix typos. 5. Need procedure for event 5 in D-2 form 6. CT should be in bold on page 13.

										7. Need the procedure used for event 8 actions on page 13
										8, Need quick card names/numbers for event 10 (at least two of them
										9. Why is it a CT here to secure sprays prior to reaching 0 psig and in other scenarios it is not a CT? Different scenario with different end conditions so in the other scenario 0 psig is not reached.
										10. need a note for the lead examiner that can't secure the scenario at the end prior to sprays being secured by the crew to meet the 0 psig CT or we lose that CT.
									S	Licensee resolved all comments from draft submittal and validation week. Scenario is now SAT.

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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, rate the scenario set as (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.
11. Save initial review comments as normal black text; indicate how comments were resolved using blue text so that each JPM used on the exam is reflected by a (S)atisfactory resolution on this form.