PV-2016-10	DRAFT OPERATING TEST COMMENTS									ADMIN 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		
RO (A1)	S	2								S	Provide actual value range in task standard (all JPMs). **Done.** Take out instructions for in-plant JPMs on all non-in-plant JPMs. **Done.** Add to end of task standard: "… due to greater than 3% deviation between RCN-LI-103 and RCB-LI-110Y." **Done.** Include marked-up Appendix A and B graphs as key for examiner. **Done.** • Removed the interpolation formula from the cue sheet.
RO (A2)	S	2								S	Significant OE. Include actual required PPE in task standard and flash protection boundary. **Done.** Include reference to step where answer is being drawn from in examiner guide. **Done.** • Modified Task Standard as discussed.
RO (A3)	S	2								S	Include actual parameters affected in task standard. "Applicant determined that SG2 WR Level and RWT do not meet acceptance criteria, and all others do meet acceptance criteria." **Done.** • Modified Task Standard as discussed.
RO (A4)	S	3								S	For step 6 explanation, simplify to: • Dose Rate HV-4 + HV-7/-8 = 469 mrem/hr • Dose Rate HV-4 + HV-6 = 513 mrem/hr • Dose Rate HV-1/-2/-3 + HV-6 = 617 mrem/hr • Dose Rate HV-1/-2/-3 + HV-7/-8 = 573 mrem/hr **Done.**
SRO (A5)	S	3								S	Specify actual license status in task standard. **Done.** Specify to explain reason for inactive status, if any. **Done.** • Modified standard in step 2 as discussed.
SRO (A6)	S	2								S	Same as A2. **Done.** • Modified Task Standard as discussed.

PV-2016-10	DRAFT OPERATING TEST COMMENTS									ADMIN 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		
SRO (A7)	S	3								S	Make task standard more specific. Include filled-out vertical timeline key for quick reference: 0800 … 1000 … 1200… **Done.** Modified Task Standard as discussed. Modified Initiating Cue as discussed. Added note to steps 1 and 4 about examinees potentially listing TLCO 3.5.201.
SRO (A8)	S	3								S	Same as A4. **Done.** You can make this uniquely SRO-only by adding a requirement to select an operator to hang the tag, given dose histories. **Changed JPM to giving conditions for an AO who has discovered she is pregnant and asked to determine her remaining dose for the duration of the pregnancy as well as any required notifications to the NRC and associated notification times.** Changed JPM to only contain portions related to the pregnant AO. Changed KA for better match to new JPM.
SRO (A9)											Include filled out NAN Form EP-0541 as a key, and an excerpt from EAL chart. **Done.** Changed Task Standard from 13 minutes to 15 minutes as discussed.

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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.

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	2								S	Added information about how many steps is how many inches inserted on step 9.
S2	D	3								~~E~~ S	What is basis for time critical nature of closing CHB-HV-530/-531? **Closure of CHA-HV-531 and CHB-HV-530 are listed in the PVNGS Time Critical Action Program and are required to be closed within 5 minutes of the RAS actuation. This requirement comes from the UFSAR (Table 6.3.2-3 item 21) which states that timely operator action is required in the event these valves do not automatically close on a RAS to ensure HPSI flow is not degraded (air could be entrained in the line if these valves are not closed).** Consider making applicant close one of the valves in step 58.d as well, so that step is more than just verifying. **Added malfunction to fail SIB-UV-667 to auto close on the RAS.**
S3	D	2								S	Modified Task Standard as discussed, "Safety Injection Tank 1A pressure raised high enough to clear the non-class alarm, 2B12A – SIT PRESS HI-LO and class alarm, RKA-UA-2C – SIT 1A-1B PRESS LOW, without bringing in a SIT pressure high pressure alarm"
S4	D	3								S	May not want to tell applicant JPM is time critical because it cues the failure of NC Ctmt Isolation Valve. **I agree. Removed the "This is a time critical JPM" statement from the initiating cue.**
S5	D	3								S	-Step 3 standard, clarify that attempted to open AFN-P01 suction valves. -What guidance ensures that applicant will attempt to align AFN-P01 to feed SGs first? If applicant decides to align AFA-P01 first, it will not count as alternate path. **The initiating cue states that the CRS has directed using AFN-P01 to feed the SGs. Additionally, if AFN-P01 is available, it should be used prior to AFB-P01 (out of service in this JPM) or AFA-P01, except for LOOP events, per Operations EOP Expectations.** Changed step 6 to non-critical. Modified the Task Standard as discussed. Added the procedural enhancements as discussed. Added clarification about which valves are actually critical when isolating blowdown in step 2. Added note to step 5 explaining that use of both steam supply valves is preferred, however only one is required to meet the critical step.
S6	D	2								S	Added fans A and C to the task standard as discussed. Changed bullets to letters to align with procedure in steps 2 and 3. Indicated which ACUs are critical in step 6. Modified standard in step 8 for consistency with other steps.
S7	D	2								~~E~~ S	Fairly simple JPM with only 2 verifiable actions. Modify JPM step 4 such that applicant has to adjust DG voltage and/or speed to get within band. **Done.**

PV-2016-10			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		
											Modified Task Standard as discussed. Added "this is a time critical JPM" to the initiating cue. Added examiner note that the Spray Pond Pump should start 25 seconds after the EDG loads onto the bus. Added note that the examinee has 14 minutes to energize PBB-S04 from the 'B' EDG. Added time requirements to the applicable step standards.
S8	D	2								S	Modified Task Standard as discussed. Changed step 3 to non-critical. Added setup information to the initiating cue. Fixed typo on steps 2, 10 and 13. Changed standard on steps 14 and 15 to "marked step N/A"
P1	D	3								S	Added cue to step 3 in case the VPI is checked. Added note prior to step 4 that applicant and examinee will need to stop and frisk before continuing the JPM. Made laminated pictures of the left and right sides of ZAN-C01 as well as up close pictures of the applicable knife switches for JPM implementation.
P2	D	3								S	Recent OE. Step 15: "…IF CHE-P01, Charging Pump E, …" **Fixed.** Need to work on the phrasing of task standard; as currently written, none of the steps on pumps other than CHE-P01 are critical. **Not sure if the unaffected pumps are critical since they don't have a failure, however procedurally you would still check all three pumps to verify. I modified the task standard such that the applicant has to determine E is failed and is the ONLY failed pump. Not sure if that works but it's the best I could come up with.** Added appendix K to the handout (diagram referenced in procedure) per discussion. Added cue to steps 15 and 16 in case examinee checks the VPI.
P3	D	2								S	Modified cue on step 7 from "handswitch in the ON position" to "handswitch in the UP position"

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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?
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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			~~X~~	~~X~~					S	(TJF) Is the prevention of PZR safety valve operation on LOAF event a standard CE critical task? **(PV) Yes, CE LOAF-2, Establish RCS Heat Removal and CE LOAF-5, Establish RCS Pressure Control.** (TJF) Since this is a low power scenario, maximize the power history (i.e. decay heat) in the IC setup so that CT 3 can still be reached within a reasonable amount of time **(PV) We don't have an IC at low power during EOC conditions. Additionally, since the scenario is a low power (i.e. coming back up to power from being shutdown) time in core life wouldn't really matter, only how long the reactor has been shutdown. If you want to reduce the time until both SGs would reach dryout, we can move up the trip of the last feedwater pump.** **As discussed, changed the bounding criteria of CT-3 to "Restore power to Train 'B' Class 4kV bus PBB-S04 prior to exiting MVAC-2, DGs, and restore feed to at least one SG prior to exiting HR-1, SG with no SI"** **(TJF) Agree with revised CT-3 bounding criteria, pending validation.** **(PV) Validation successful.** **Post-Validation changes:** • Added "(input to Tave 1)" in the scenario overview, event 4. • Added "Due to full strength CEA 57 failing to insert" in the scenario overview, event 7. • Added discussion about the reasons it is necessary to start a charging pump during SPTAs to the Measureable Performance Indicator portion of CT-1. • Event 2 – Faded the N/A portions of step 3. • Event 3 – Added examiner note about Operations expectation to secure a pump following a sheared shaft. • Event 4 – Added steps from 40OP-9CH01, CVCS Normal Operations, for changing modes of operation of Pressurizer Level Controller, RCN-LIC-110, to the end of event 4. • Event 4 – Added "(Tave 2)" to the examiner note after step 11.

										• Event 4 – Faded the N/A portions of Appendix C. • Event 5 – Added examiner notes after steps 3 and 4 to describe the operation of ADVs and feeding with AFB-P01. • Event 5 – Added "attachment C-10, MSIS Train B)" to step 6.a. • Added procedural enhancement for Appendix 103-D for explicit direction to start a charging pump if no charging pumps are running.
2									S	(TJF) I'd still like to discuss availability of a parameter-based, objective bounding criteria for CT-3 other than just 30 minutes. **(PV) We looked for a valid parameter based CT bounding criteria and there really isn't one that makes sense for this situation. I would recommend the same strategy as CT-3 on scenario 1 and reword the bounding criteria as "Align LPSI for CS to restore the CTPC safety function prior to exiting CTPC-2, CS". Let me know if this is a better option for CT-3.** **(TJF) This recommendation sounds acceptable. Will validate.** **(PV) Validation successful.** (TJF) Steps in light gray font are N/A, is that correct? **(PV) Yes, all steps in light grey are steps not expected to be performed based on conditions at that time or are not applicable to the event in progress (true for all 3 scenarios)** **(TJF) Event 6: Why allow SIAS/CIAS to auto actuate on low RCS pressure, but not on P-ctmt or P-S/G? Why not block for all actuations?** **(PV) The actuation we are blocking is MSIS. It just so happens that SIAS and CIAS also actuate on high containment pressure. SIAS and CIAS do not actuate on low SG pressure. The wording in the D2 could be clearer on this. Since we were only trying to block MSIS, SIAS/CIAS would still actuate at 1837 psia in the RCS if they have not already been manually actuated.** **(TJF) I'm not enthusiastic about crediting CT-2 as a pre-identified CT – it's a standard part of the response to ESD. Write-in maybe. Will discuss onsite.** **(PV) Not sure I understand what you're saying. Manually tripping the reactor when it fails to trip is a standard response to an RPS failure but it's still a critical task. We'll discuss on site.** **As a result of the on-site validations, the ATWS event was removed. CTs have been modified as agreed upon on-site.**

										Post-validation changes: • Added the loss of NAN-S01 and NAN-S02 triggered on the reactor trip. • Changed Event 8 to a component malfunction with no "bean" on the ES-D-1 since no action is taken. • Added positions to each step of each event. • Added NAN-S01 and NAN-S02 malfunctions to the setup page. • Added alarm panels to the examiner note on page 12. • Event 3 – Separated the TS for evaluation from the "additional possible TS based on conditions" after step 18. • Event 4 – Moved examiner note about LCO 3.4.9 potentially being entered to the TS summary box after step 20. • Event 4 – Added LCO 3.1.7 condition D to the TS summary box. • SPTAs – Added note that there although there non-vital AC buses are deenergized, there is no contingency action for this in SPTAs. • SPTAs – Added note following the step regarding isolation of controlled bleedoff from the RCPs, "Due to the loss of non-vital power, controlled bleedoff will be isolated using the containment isolation valves, HV-505/506/507. Due to the loss of IA to containment (due to the CSAS), IAA-UV2, Instrument Air to Containment Isolation Valve, will have to be overridden and opened to maintain HV-507 closed as it fails open on a loss of IA". • FR – Changed bulleted list to "a – f" on page 31 to align with procedure.
3			~~X~~						~~E~~ S	(TJF) -This is intended to be the Spare, correct? **(PV) Yes, based on your desire to ensure each applicant receives a scenario using the Functional Recovery.** (TJF) -Event 5 is a component failure, event 6 is the Major (ATWS) **(PV) I believe the Seal Cooler leak is the major as it is an RCS leak and will drive the crew into the LOCA EOP. Event 6 is a component malfunction because the reactor fails to trip from the control room, however it is not an ATWS because there is no RPS signal which actuated in which the reactor did not trip. This may be semantics, but I think it is correct as is. We can discuss further and I can change if needed.**

(TJF) The leakrate is within the capacity of the makeup pumps to accommodate and is addressed by an AOP, although it does lead to a transition to an EOP post-trip. It is a component failure on an RCP which requires tripping of the RCP to protect that component, and consequently tripping the reactor due to the starting power level. Additionally, a failure of the reactor to trip when manually demanded is considered an ATWS for our purposes – the manual trip pushbutton is a part of RPS. Although there is no plant parameter requesting an automatic reactor trip, the moment the crew unsuccessfully attempts to manually trip the reactor, all 4 channels of Manual Trip are inoperable and TS 3.3.4.D requires immediately opening RTCBs. Categorize Event 5 as a Component failure and Event 6 as a Major. Alternately both 5 and 6 could be categorized as Majors, but that unnecessarily eliminates a credit for an I/C malfunction and is undesirable.

(PV) Due to scenario changes, the leak is now the major and the ATWS has been removed.

(TJF) Specify the leak rate for the examiners in the D-2 Event 5 Step 10.

(PV) Can't conclusively quantify the Leakrate, however with no charging pumps available, the Leakrate is > charging pump capacity and sufficient to require a SIAS actuation.

(TJF) I don't understand rationale that Appendix G, Isolating HPSC, is not performed in ILT due to having a crew of 3 (40AO-9ZZ02, Excessive RCS Leakrate, step 14). The PVNGS Conduct of Operations procedure specifies that the minimum crew staffing is 1 CRS and 2 ROs per unit, meaning that there is potential for operating in that condition. If an RCP HP seal cooler leak occurred while staffed at that allowed level, the crew would still be expected to implement the Excessive RCS Leakrate AOP as written, including isolating HPSC, else it would be considered a failure to follow procedure. Is there procedural direction specifying a deviation from 40AO-0ZZ02 when at minimum crew manning? Concerned about the negative training aspect of this.

(PV) Comment is documented for a CR to be generated following the exam.

(TJF) CT-1: Directing an outside operator to trip the reactor on an ATWS should be the Critical Task, not tripping the RCP.

(PV) Tripping the reactor is not actually listed as a critical task at PVNGS. Initiating a boration in response to the failure of the reactor to trip would be credited for shutting down the reactor. Additionally, the RCP should not be tripped prior to the reactor being tripped and since there is a valid bounding on tripping the RCP (30 minutes until the seal fails resulting in a 17 gpm RCS leak into containment), it seems like a better fit for the critical

										task. We can discuss further and can change the critical task to directing a local trip of the reactor if desired. (TJF) Station-specific Critical Task lists are helpful guides but are not the basis document for NRC Initial Exam critical task definition. Additionally, a failure of the reactor to trip when manually demanded is considered an ATWS for our purposes, and is probably the most commonly-used critical task on NRC exams. I can support the position that emergency borating would be credited for shutting down the reactor as well, IF sufficient boron was added to restore SDM with CEAs withdrawn -- define in the D-2 for examiners how much boration that needs to be. Recategorize CT-1 to be "Dispatch outside operator to open reactor trip breakers, or commence emergency boration to restore adequate TS-required SDM, prior to [completion of reactivity control acceptance criteria check / completion of SPTAs / station-expected time / etc.]." Treatment of the RCP 2B trip as a CT will be discussed below. (PV) Issue resolved by eliminating the ATWS from the scenario. (TJF) Ensure the grayed-out portions are the same shade of gray, and readable when printed. See Event 5. (PV) Changed to same shade of gray. Grayed out steps are readable when printed. (TJF) -I'd still like to discuss availability of a parameter-based, objective bounding criteria for CT-3 other than just 30 minutes. (PV) While reviewing scenario 3 and looking for a parameter based bounding criteria, we realized that CT-3 is technically inaccurate as written. CT-3 indicates that the intersystem LOCA is releasing to the environment when in actuality it is going to the cooling water hold up tank. With EW and NC cross-connected, the HP seal cooler leak is going to the EW surge tank and NOT to the NC surge tank. The relief will lift on the EW surge tank and send the contaminated EW water to the cooling water hold up tank. The cooling water hold up tank is located in the aux building 60 feet below ground level so this would not result in a release to the environment. A better CT-3 would essentially be an extension of CT-1. CT-1 requires tripping the 2B RCP within 30 minutes of the seal cooler leak since the RCS pressure will essentially dead head the cooling flow to the 2B RCP. When PBA-S03 faults 1 minute after the reactor trip, the cooling water to the other 3 RCPs is lost which will require them to be secured within 30 minutes to prevent a loss of the RCP seals and a subsequent ~ 17 gpm leak per RCP. Although CT-1 and CT-3 would be similar, they are distinctly different and may be a better way to go. Let me know what you think and I'll make the change if desired.

										(TJF) Whether you are releasing to the environment or releasing to the aux building, the major concern with an intersystem leak or LOCA is that you are bypassing containment and therefore reducing available inventory for sump recirc, correct? So I think you have to have this critical task as originally proposed based on stopping the intersystem leak and keeping that coolant in containment. But the bounding criteria needs to be refined as previously discussed. **(PV) Bounding criteria agreed on during on-site validation.** **Do you actually receive RCP TRBL alarms on a loss of PBA-S03, and subsequent seal failures? If so, then it probably does need to be a separate CT. I think we can roll the originally-proposed CT-1 (RCP 2B trip) into your revised proposal for CT-3 to create a single new CT-4, since the purpose is identical: trip RCPs on a loss of seal cooling to prevent seal degradation and failure. Phrase it as, "Trip RCPs within 30 minutes of individual TRBL ALARMs," or something similar** **(PV) RCP TRBL alarm is received on a HP Seal Cooler leak, however there is no way to conclusively tell if cooling water is still reaching (and cooling) the RCP. Revised the CT to have the start time for all 4 RCPs to be the RCP LO NCW FLOW alarms (come in on the reactor trip, ~ 1-2 minutes after the RCP TRBL alarm).** (TJF) Are there any verifiable actions the crew takes in the control room specific to the lockout on PBA-S03? If not, then it is a passive precursor setting up the actions for event 9, and should not be credited to any operators as a component failure. **(PV) Yes. Due to the 'A' EDG running unloaded with no cooling water (would be powered from the faulted bus), the crew will have to dispatch an area operator to emergency stop the 'A' EDG within 15 minutes to prevent damage to the EDG.** **(PV) Also, following on-site validation the start time for the associated CT is when cooling water flow is lost to the RCPs (occurs on the reactor trip)** **(TJF) This doesn't sound like it meets the "verifiable action" guidance of NUREG 1021 ES-301 Attachment 2, and therefore cannot be credited as a Component malfunction. Can the EDG be stopped in a satisfactory manner in the control room under these conditions?** **(PV) No. There is no satisfactory method of stopping the EDG from the control room.** **(TJF) Add "Step 10." To last page of D-2. Move CT-3 verbiage to last page where Step 10 is.** **(PV) Step 10 is on the last page of the D-2.**

										(TJF) EVENT 9: Why isn't the failure of Train B ESFAS sequencer to actuate, with a previous loss of PBA-S03, a critical task? There are not ESFAS components operating, correct? What checklist will the crew use to verify actuation – Std Appendix Attachment 24-A? Include a copy of that with the D-2 (can be a printout from procedure). (PV) Failure of the 'B' sequencer is now a CT. Crew will ensure adequate SI flow per step 5 of the LOCA EOP. Appendix 24 is performed at step 72 of the LOCA procedure. The crew will identify the inadequate SI flow using Appendix 2 (located on B02 as an operator aid) and the blue alarms on the SESS panel on B02. (TJF) It seems appropriate to include LOCA procedure step 11 in the D-2, since per your explanation this IS a LOCA outside containment. (PV) As discussed on-site, step 11 would be applicable in the event the LOCA was not isolated by steps 1-10, however since the leak is isolated by step 10, step 11 steps were not included in the D-2. SUMMARY OF SCENARIO 3 COMMENTS: (TJF) Based on the discussions above, there appear to be 4 critical tasks (possibly 5 if event 9 is a CT), which is more than the 3 CTs specified in the target quantitative attributes. NUREG 1021 ES-301 does allow deviation from these targets: "The quantitative attribute target ranges that are specified on the form are not absolute limitations; some scenarios may be an excellent evaluation tool, but may not fit within the ranges. A scenario that does not fit into these ranges shall be evaluated to ensure that the level of difficulty is appropriate." However, unless validation shows otherwise, my preference would be to eliminate the Event 6 ATWS, and credit event 5 as the Major as originally requested. That leaves 8 events, 7 of which can be credited towards the bean count. (PV) The RRS Tave failure and ATWS were both removed from the scenario. Scenario now has 3 CTs. **Post-Validation Changes:** • Added procedural enhancement regarding the guidance for substituting RU-2/3 for RU-6 in LOCA step 10 in the event EW and NC are cross tied during a seal cooler leak instead of having this guidance outside of the EOP.

										• Changed the driver cue and scenario triggers on events 4 and 5 to align (key 4 for event 4, key 5 for event 5). • Added TS block with all "cascading" LCOs for event 4 with explanations. • Modified CT-1 to have the start time be the receipt of the RCP LO NCW FLOW alarms for the RCPs. • Changed bounding criteria of CT-2 from < 24°F subcooled to < 0°F. • Updated the Measureable Performance Indicator on CT-3 to indicate that the closure of the two NC containment isolation valves which have power (UV-401 & UV-403) is sufficient to meet the CT. • Event 1 - Added TS for containment air temperature in case they exceed it (event 1 TS is not crediting containment air). • Event 2 – Added TS information for DNBR and LHR in case event goes long enough to evaluate. • Event 3 – Added a note indicating letdown may isolate to the "Indications Available" box. • Event 3 – Modified the cue from the field about the degraded charging flow to indicate that the 'B' Charging Pump appears to be running but sounds much quieter than the 'A' Charging Pump. • Event 3 – Added note that if letdown isolates, restoration is letdown is not necessary to proceed to the next event since the next event will make letdown unrecoverable. • Event 4 – Added cue to report that you are on station 1 minute after being dispatched to the 'A' EW HX. • Event 4 – Added steps from Appendix C, Extended Operations Without Letdown. • Event 4 – Grayed out N/A steps. • Updated CT-1 in the body of the scenario guide for start and stop times to be the same for all 4 RCPs. • Updated CT-3 in the body of the scenario guide to clarify either closing the NC containment isolation valves OR closing the HP Seal Cooler isolation valves results in successful completion of the CT.

PV-2016-10	DRAFT OPERATING TEST COMMENTS	SCENARIOS

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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.