Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
~~**SA-1 Review Offsite Power Availability Surveillance**~~ **SA-1** **Review Reactivity Calculation**	**A**	**N**									~~**U**~~ **S**	NRC: 1) JPM is UNSAT due to K/A mismatch. K/A is 2.1.31, Ability to locate control room switches, controls, indications and to determine whether they correctly reflect the desired plant lineup. 2) JPM is to conduct a review of a surveillance and determine that it was incorrectly performed and AC Sources Verification is not Sat. 3) Facility informed of UNSAT and requested to replace this JPM with a Conduct of Ops Related JPM. Facility: *1) agreed* *2) agreed* 3) *Replaced with Evaluate RX change calc* OSV: 1) Changed ETC to 10 minutes 2) Added correct final boration value to JPM
SA-2 Perform a Manual Safety Assessment (Shutdown)	**A**	**N**	**3**								~~**E**~~ **S**	NRC: 1) 6th bullet on IC change to “Preparations *are* in progress” 2) Step 8 Task Standard is bolded for Safety Assessment: Shutdown cooling but the step is not marked as a Critical Step. Is this supposed to be critical? 3) **NOTE prior to Critical Step 11 states that applicant only needs to identify ONE of the Orange Safety Function Status in Step 11 or 15 to satisfy the Task Standard. The task Standard states, “…determines no Red status**

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SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
												exists, that *two* [emphasis added] safety functions are orange per the key…" and the key does not state that only one is required. The note as written invalidates the Task Standard and would make the overall JPM UNSAT. Suggestion is to remove the note from the JPM and require that the applicant's determine BOTH Orange Safety Functions. 4) Estimated completion time is **40 minutes. Suggested change** is to have applicants be given the information that Reactivity Control, Fuel Pool Cooling, and Containment have recently been determined to be Green, and Electric Power Control is Yellow; and have them complete Safety Function Status determination for Shutdown Cooling, Inventory Control, and Vital Support Systems and determine Overall Unit Status. Facility: *1) Done* *2) No, the BOLD type merely indicates the start of an assessment section. Critical steps are the final determination in each section with an orange rating and are starred in the first column (11, 15, 36)* *3) Deleted note. Included both as critical steps* 4) ~~*For now, we are leaving the JPM as is. We have reduced the estimated time to 20 minutes, to better align with the performance we saw during validation.*~~

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1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
												OSV: *1) Changed as suggested after OSV. Reduced time to 30 minutes* *2) Modified bullet in IC to read 'head is installed, preps to lift…"*
~~SA-3 Determine Post-Maintenance Testing Requirements~~ **SA-3 Review Offsite AC Power Availability Surveillance**	**A**	**N**	**3**								**~~E~~** **S**	NRC: 1) Original JPM determined to be too lengthy. Swapped with the JPM that was originally proposed for SA-1 as originally proposed SA-1 JPM meets Equipment Control Requirements using K/A: 2.2.12, Knowledge of Surveillance Procedures. New JPM Comments: - None OSV: 1) Changed picture to reflect open disconnect on SAT 242-2
SA-4 Review Containment Release Package in Preparation for Unit 1 Containment Release	**A**	**N**	**3**								**~~E~~** **S**	NRC: 1) The last sentence of the NOTE prior to step 1 has examinee misspelled. Add an 'e'. 2) Step 3 has different values for the transposition numbers than the handout. Step 3 of JPM Standard states: 8.56 E-4 versus 5.86 E-4 and the handout has 8.55 E-4 versus 5.85E-4. Facility: *1) Changed to 'candidate'* 2) *Changed JPM to match handout* OSV:

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1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
SRO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
												1) Deleted cue for NSO placing the placard
SA-5 Perform Follow-up PARS for a General Emergency	**A**	**N**	**3**								**S**	NRC: 1) Task standard on Page 6 has ≤ and task standard on page 10 has <. Change the page 10 task standard to reflect ≤. Facility: *1) The symbol is there, but masked by the underlining. Changed to <= for clarity* *OSV:* *1) Set validation time to 15 minutes, Removed unnecessary references*

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
RO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
RA-1 Complete 2BGP 100-7T1, RRD	**A**	**N**	**3**								**S**	
RA-2 Perform QPTR without Process Computer	**A**	**N**	**3**								~~**E**~~ **S**	NRC: 1) My concern is that the NI's will be too difficult to read the current from the images. Are they clear enough for the applicants to properly determine the values such that they will not exceed 1.02? Will have to validate during OSV week. 2) JPM has many calculations included without acceptance ranges. Each calculation should have an acceptable range to account for potential errors that may be carried forward from initial current calculations. 3) Acceptance ranges should be included in the highlighted key such that the Task Standard can be met. Facility: *1) Facility will attempt to get a better picture* *2) JPM contains a note limiting margin to +/- 3.5 . Annotated on key.* 3) *Since margin is on key, the task standard is accurate.*
RA-3 Determine Expected Plant Configuration	**A**	**N**	**2**								~~**E**~~ **S**	NRC: 1) JPM tests the applicants ability to locate components on the given electrical print and then go to the procedures, given to

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											Exam Date: October 16-21, 2023	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
RO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
												them, and look up the appropriate component to determine the required position. 2) LOD is not very high as items are borderline direct lookup. In order to remedy this, provide the applicants the procedures for all of the different components that are listed on 134V bus. 3) Task Standard meets requirements of NUREG. Could be more specific stating each component identified but this is accomplished through the Critical Steps identified in the JPM and therefore the Task Standard is SAT. 4) See editorial changes in JPM document and update accordingly. NRC (new comments): 1) Editorial changes not fixed from early look items: 2) Delete “that” from the first bulleted IC following “poles” 3) Provide 134V1 nomenclature if possible 4) Steps 1 and 2 state to use computer such as HPI. Given that we tell them Passport is OOS, does this need to be a proper grading technique to include into the JPM summary? Facility: *1) Fixed* *2) Deleted* *3) 134V1 is the nomenclature. The EPN is 1AP39E. Annotated on the key.* 4) *Removed all references to using HPI*

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1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
RO ADMIN				LOD	REF	IC	TSK	CUE	CS	TL		
RA-4 Change Setpoints in Preparation for a Containment Release	**A**	**N**	**3**								**S**	NRC: 1) Is spelling on Gaseous Pre-Release Permit Report supposed to be this way?: 1(2)PB111 In Service ..... Current Manitor Reading (uCi/cc) ..... Calculated Setpoint (uCi/cc)..... 1(2)PB101 High Setpoint (uCi/cc)..... Facility: *1) Changed spelling to monitor to avoid candidate confusion*
N/A												

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Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
a. Respond to Uncontrolled Rod Motion (CR-a)	**S**	**Y**	**2**								~~E~~ **S**	NRC: 1) Formatting for the "STANDARD"s have different bullets being used. We are used to seeing closed bullets as required actions and open bullets as optional steps. Please format bullets this way consistently for all JPMs 2) Provide Ann Number and nomenclature in Task Standard that will result in failure if received. 3) Good Task Standard! The Task Standard provides enough specific information (apart from not having the Ann. Number) required per NUREG-1021 to support proper grading of the JPM. 4) I suspect that 15 minutes for this JPM estimated time to complete is a bit long. We will wait until onsite validation and probably change this to 10 minutes. 5) See JPM form for typo and editorial changes. Correct accordingly. UPDATE: Editorial comments have not been incorporated as given on early look feedback response. Facility: *1) That is our standard for bullet use.* *2) Done* *3) Feedback assimilated* *4) Agreed* *5) From free look:* *a. Alternate path is triggered by bank select switch going to auto*

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
												b. D and Delta are used interchangeably. c. *Hard cards are not permitted to be performed from memory*
b. Transfer to HL Recirc	**S**	**Y**	**3**								**S**	
c. Increase SI Accum. Pressure (1SI8875B fails to close)	**S**	**Y**	**3**								**S**	
d. ~~Respond to CD/CB Pump Trip~~ Perform 1BOSR MS-Q1 Steam Dump Valve Operability Quarterly Surveillance	**S**	**N**	**2**								**S**	NRC: - Previous JPM was replaced with current JPM due to overlap with Scenario. - Replacement JPM is SAT.
e. Start RCFC in Low Speed (SX Valves Not Open)	**S**	**N**									**~~E~~ S**	NRC: 1) JPM title is Start RCFC's in Low Speed. The Task Standard and ICs both state that the RCFCs will be started and ran in Accident Mode. Is Accident Mode slow speed? Consistency should be maintained throughout. 2) Starting a JPM out in the RNO column does not constitute and Alternate Path JPM in accordance to the NUREG. In

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
												order to be considered alt path, something must be done by candidate that does not go as expected. There are currently 6 ALT PATH JPMs out of a requirement to have 4-6 for RO and SRO-I, therefore the total number of Alt Path JPMs is considered at 5. 3) Remove all references to Alt. Path in the JPM. Facility: *1) Changed to 'Accident Mode"* *2) Agreed, as discussed* *3) Removed alt path designation and updated outlines*
f. Reclose U1 345Kv Ring Bus	**S**	**N**									**S**	NRC: 1) Note prior to Step 2 states that checking all three phases is required per L&A, and step 2 is marked as a critical step. **Therefore, if an applicant does not check all three phases, does this make it a critical step failure to the JPM?** 2) If so, then ensure the remaining bulleted items are closed bullets. 3) Synchroscope on page 6 in Step 2 is spelled incorrectly (last bulleted item). Facility: *1) No, closed bullet is the critical portion* *2) Not a critical portion of the step* 3) *Fixed*
g. Remove an Area Rad Monitor	**S**	**N**									~~**E**~~ **S**	NRC: 1) Task standard has typo following 4AS303. There is a run-on with "Cndiddate"

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Facility: Byron Station											**Exam Date: October 16-21, 2023**
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
CONTROL ROOM/SIM				LOD	REF	IC	TSK	CUE	CS	TL		
from Service (RO ONLY)												following. Add a period and fix candidate spelling. 2) Step 9 has two embedded steps in the Standard as they are embedded as part of the procedure step. It is preferred to split this out with two separate bullet items in the Standard for Step 9. Second bullet can be “SELECT Save in RMS” to satisfy this request. Facility: *1)* Fixed *2) Fixed*
h. Start 1B CW Pump – 1CW001B fails to open	**S**	**Y**									**S**	

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Facility: Byron Station											**Exam Date: October 16-21, 2023**	
1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
INPLANT				LOD	REF	IC	TSK	CUE	CS	TL		
i. Manually Operate _MS-018A (S/G PORV) per BOP MS-6 due to S/G Overpressure	**P**	**N**									**S**	
j. Energize Instrument Bus_11 by the CVT	**P**	**Y**									~~**E**~~ **S**	NRC: 1) Alternate path appears to start after applicant attempts the start of the 1B AF pump per step 7, NOT at step 12 as indicated on JPM standards. Facility: *1) Moved Alt Path Start to after Step 7*
k. Purge the Main Control Room from the Remote Shutdown Panel (0B Train)	**P**	**N**									~~**E**~~ **S**	NRC: 1) Task standard appears to be missing some information based on the statement, "…when the MCR has been purged by taking the HVAC control switch to local, *the system taken to purge.* (it appears that there needs to be a "control switch" included in the italicized section) 2) Step 4 Cue is incorrect for 0VC03Y: The Procedure step is to ensure damper position indicates CLOSED. Cue indications are same as other dampers which are open. Cue needs to state RED light is EXTINGUISHED and GREEN light is LIT. Facility: *1) Added switch descriptors to task standard*

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1 JPM # or title	2 Type (S/P/A)	3 ALT (Y/N)	4 LOD (1–5)	5 JPM Errors							6 U/E/S	7 Explanation
INPLANT				LOD	REF	IC	TSK	CUE	CS	TL		
												2) 0VC03Y is a normally open damper. Its green light indicates OPEN, red indicates CLOSED. See photo

Form 2.3-3 Operating Test Review Worksheet (JPMs)

Form 2.3-3 Instructions for Completing the JPM Table

1. Enter the JPM number and/or title.

2. Enter the type of JPM—(S)imulator, (P)lant, or (A)dministrative.

3. Enter (Y)es or (N)o for an Alternate Path JPM.

4. Rate the level of difficulty (LOD) of each JPM using a scale of 1–5 (easy–difficult). A JPM containing less than two critical steps, a JPM that tests solely for recall or memorization, or a JPM that involves directly looking up a single correct answer is likely LOD = 1 (too easy). Conversely, a JPM with over 30 steps or a JPM that takes more than 45 minutes to complete is likely LOD = 5 (too difficult).

5. Check the appropriate block for each JPM error type, using the following criteria:

   - LOD = 1 or 5 is unsatisfactory (U).
   - REF: The JPM lacks required references, tools, or procedures (U).
   - IC: The JPM initial conditions are missing or the JPM lacks an adequate initial cue (U).
   - CUE: The JPM lacks adequate evaluator cues to allow the applicant to complete the task, or the evaluator cues are subjective or leading (U).
   - TSK: The JPM lacks a task standard or lacks completion criteria for a task standard (U).
   - CS: The JPM contains errors in designating critical steps, or the JPM lacks an adequate performance standard for a critical step (U).
   - TL: The JPM validation times are unreasonable, or a time-critical JPM lacks a completion time (U).

6. Mark the JPM as unsatisfactory (U), satisfactory (S), or needs enhancements (E). A JPM is (U) if it has one or more (U) errors as determined in step 5. Examples of enhancements include formatting, spelling, or other minor changes.

7. Briefly describe any JPM determined to be unsatisfactory (U) or needing enhancement (E). Save initial review comments and detail subsequent comment resolution so that each exam-bound JPM is marked by a satisfactory (S) resolution on this form.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

<table>
<tr><td colspan="3">Facility: Byron Station</td><td colspan="3">Scenario: # 1 54% Rx. Power
1A FW & 1A HD Pps OOS</td><td colspan="2">Exam Date: October 16-21, 2023</td></tr>
<tr><td>1
Scenario Event ID/Name</td><td colspan="5">2
Scenario Event Errors</td><td>3
U/E/S</td><td>4
Explanation</td></tr>
<tr><td></td><td>Realism/ Credibility</td><td>Performance Standards</td><td>Verifiable Actions</td><td>Critical Task</td><td>TS</td><td></td><td></td></tr>
<tr><td></td><td colspan="7">CTs:
- Comments provided and discussed with Barry over the phone regarding bounding criteria for the CTs.
- Both CTs meet NUREG-1021 requirements and have SAT bounding criteria.
Overall:
- See Scenario document for editorial changes throughout.
~~- IC provided states 55% RTP, MOL. Scenario 23-1 Summary states the same. However, Simulator Setup Guide and Crew Turnover sheets state 54% BOL with Equilibrium Xenon. Fix to whichever IC is required and make consistent throughout the guide.~~ (CORRECTED)
~~- Bullet formatting: Solid bullets are known to be items that must be performed. Open bullets are optional items to be performed. Format bulleting throughout to align with this format~~. CORRECTED
~~- It appears that each event has a different order for the US, BOP, and ATC. Please arrange them all to be consistent for easier reference when using during the administration. Recommend the order of ATC, BOP and then US. Also include all positions for each event, even if the position is not actively involved in the event. Add verbiage for that position similar to "Monitor panels and provide support to event."~~ CORRECTED
NRC:
1) Scenario 21-1 Summary: Event 2 sufficient is misspelled. Add space after 'scenario.' and prior to The.
2) Scenario 21-1 Summary: Event 4 misspelled 'receive' (4th word)
3) Initial conditions state 1A FW Pump is OOS. Is this the 1A MFP or 1A AFW Pump?
4) For ALL Scenarios, Include the CT # that appears on the Form 3.3-1 cover page with all [CT] markings throughout all of the Scenario Guides and where they appear on the event for best reference back to the CT summaries.
5) CT-14: Is there performance feedback per ES-3.3, Section C.2 such that there is indications that plant conditions are degrading, such as radiation monitors indicating uncontrolled release is in progress while CIVs are open?
6) Add a NOTE prior to first step of ALL Scenario Guides to Ensure that Simulator Data (SBT) is being recorded prior to starting the event. This ensures that in the case of a scenario failure, proper data is recorded for the exam team to evaluate afterwards. Preference is to have a time-interval of 1 second for proper analysis.
Facility:
1) Corrected
2) Corrected</td></tr>
</table>

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 1 54% Rx. Power 1A FW & 1A HD Pps OOS**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
	3) Clarified to 1A MFP 4) Modified as recommended 5) Added in rad monitor indications related to the event 6) Modified as recommended						
~~1. Swap GC Pumps per BOP GC-5~~ Initiate Containment Vent Release per BCB 400-ECNMT/ROUTINE						S	~~- Any opposition to using time compression to eliminate standing around for 5 minutes with pumps in parallel?~~ ~~- See doc for editorial changes.~~ NRC: - New event due to development issues identified prior to 75-day target. - New Event is SAT.
2. Ramp up to 75% power at 1.6 MW/Min						S	
3. 1B CC Pump Trip 1A CC Pump does not auto start (LCO 3.7.7)						~~E~~ S	~~- Is it expected that the crew stops the power ascension by taking the Turbine out of ramp and stopping dilution of primary? IF so, please add steps to watch for when these actions are taken~~. Discussed with lead evaluator and no need to add ramp stop actions. ~~- See Scenario document for TS editorial changes.~~ Completed.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 1 54% Rx. Power 1A FW & 1A HD Pps OOS**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							~~- Add ATC section to this event.~~ Completed.
4. 1A RCP thermal barrier leak into CC 1CC685 does not close in manual or auto (LCO 3.6.3)						~~E~~ S	~~- Same comment applies to this event regarding the TS edits from the Scenario document, and all other TS events moving forward.~~ TS Info Added. NRC: 1) "Inoperable" is misspelled under US TS 3.6.3 Section for Condition A. Facility: 1) Corrected
5. PZR Control Group C SCR firing circuit error						~~E~~ S	~~- Add BOP section for this event~~. Completed
6 (MAJOR). Seal Injection Filter Plug (manual RX trip required) First RX Trip switch does not work						S	NRC: 1) ATC section has "directed" misspelled following "After" 2) "Verify Reactor Trip" is not in same formatting as other words, different font. Facility: 1) Corrected 2) Corrected
7. LOCA in Containment						~~E~~ S	~~- Duplicate page with final actions for ES-1.3 on page 23 and 24 being the~~

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 1 54% Rx. Power 1A FW & 1A HD Pps OOS**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario Event Errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							~~same. Remove one of the pages.~~ CORRECTED ~~- Expected to perform step 6 of ES-1.3?~~ Discussed with lead evaluator. NRC: 1) Page 25 of 30: Add "RWST Level:___" under the **[CT]** in the Position column. Facility: 1) NOTE Added
~~8. Both CS PPs Fail to start~~ Fail signal to trip 1VQ05A/B/C						S	NRC: - New event due to development issues identified prior to 75-day target. Event is SAT.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 2 29% RX Power 1B HD pp OOS. 0G SX and 0H SX Fans OOS.**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
	CTs: 1) Form 3.3-1 Scenario Outline, CT-9 is not descriptive enough. The description on the Critical Task Page that follows should mimic closely. Change it to, "Manually start SW pumps for safeguards equipment cooling ***prior to exiting 1BEP 0*****.** 2) Form 3.3-1 Scenario Outline, CT-33 does not appear to match the CT summary page. One says prior to exiting CA 2.1 and the other is prior to receiving Orange Path to Integrity CSF. **Which one is it?** **Overall:** 3) It does not appear that the 1B HD pump being out of service has any implication for the event. Swap to the 1A HD PP being out of service so that the conditions are mimicked more closely to scenario 1. Update turnover sheets and all other locations in the scenario guide that reference the 1B HD pump being OOS. Facility: 1) Updated to match the CT Page 2) Both now state CSF 3) Changed to 1A HD PP						
1B AF PP will not auto start but can be manually started 1A AF PP auto starts and trips after 5 seconds							
1. Swap bus 156 from UAT to SAT						S	
2. Ramp down to 25% power						S	NRC: - Good description of actions expected for ATC for ramp and failure in event 3.
3. 1CV110B, Boric Acid Blender to						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 2 29% RX Power 1B HD pp OOS. 0G SX and 0H SX Fans OOS.**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
Charging PPs fails closed							
4. CNMT Hatch Door Seal Supply Air Press Alarm (TS only)						~~E~~ S	NRC: 1) Due to TS in this event having two separate 1-hour actions. There needs to be a “Crew” block following the SRO block in which the crew sends the order out to the WEC or an EO to take the actions required. The scenario will more than likely last an additional hour following this event and if the crew fails to take the actions it could result in being a PD for the SRO and potentially the ROs. Facility: 1) One of the 1 hour action statements was in error and should have been a 24 statement. NOTE added to describe what is needed to meet the 1 hour action.
5. SX Cooling fan vibration alarm						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 2 29% RX Power 1B HD pp OOS. 0G SX and 0H SX Fans OOS.**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
6. 1CV8401A, 1A Ltdn HX Inlet Valve Fail closed						S	
7. Only running TDFW PP trips, manual start of 1A MDFW PP						S	NRC: 1) Title of Event on page ### does not include need to start 1A MDFW PP, update the title. Facility: 1) Corrected
8 (MAJOR). 1A SG Fault inserted when the 1A PP is manually started or if plant trips (EP-2)						S	
9. All MSIVs fail to close and cannot be manually closed (CA 2.1)						S	
10. 1A SX PP trips and 1B SX PP fails to auto start						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

<table>
<tr><td colspan="3">Facility: Byron Station</td><td colspan="3">Scenario: # 3 100% Rx Power</td><td colspan="2">Exam Date: October 16-21, 2023</td></tr>
<tr><td>1
Scenario Event ID/Name</td><td colspan="5">2
Scenario event errors</td><td>3
U/E/S</td><td>4
Explanation</td></tr>
<tr><td></td><td>Realism/ Credibility</td><td>Performance Standards</td><td>Verifiable Actions</td><td>Critical Task</td><td>TS</td><td></td><td></td></tr>
<tr><td></td><td colspan="7">CTs:
Form 3.1-1 Scenario Outline:
1) CT-4 is not descriptive enough compared to CT description page that follows. What is the basis for the bound of exiting E-0? Please include basis in the CT description page
2) CT-24 is not descriptive enough compared to CT description page that follows. What is the basis for the 10 min bound? The UFSAR is referenced in this CT, suggest putting the relevant data into the CT explanation.

Overall:
3) The turnover mentions that a storm front is moving into the area but may move south of the plant. What is the reason for “may move south of the plant”? Also, include a storm in at least one other scenario or more for initial conditions.
4) Turnover on Form 3.3-1, refueling is spelled incorrectly
5) Scenario 23-3 Summary Page has U-2 in refiling outage not refueling as well.
6) Turnover Information also has refiling not refueling
Facility:
1) Change bounding to Red path on heat sink CSF
2) Left the CT as written but enhanced the reason to include more detail from the USFAR – clarified that the analysis credits operator action within 10 minutes of the event and failure to meet that would put us outside our analysis.
3) Removed the storm aspect from the turnover, summary and changed the SY event to state that a microburst storm hits the switchyard which will be transparent to the applicants – it’s only in case someone asks why after the exam or something similar.
4) Corrected
5) Corrected
6) Corrected</td></tr>
<tr><td>1. 1BOSR FW-M1</td><td></td><td></td><td></td><td></td><td></td><td>S</td><td></td></tr>
<tr><td>2. N-43 Fails Low</td><td></td><td></td><td></td><td></td><td></td><td>S</td><td></td></tr>
</table>

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 3 100% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
3. 1A CD/CB PP Trip, 1 D fails to auto start						S	
4. Master PZR Press Controller Fails High						~~E~~ S	NRC: 1) Provide a normal pressurizer pressure band that should be considered “normal.” 2) Pg. 18, under the EVALUATOR NOTE: “the” in the last sentence is mis-spelled. Facility: 1) Added 2) Corrected
5. Containment Press 1PT-CS935 fails to 10 psig						S	NRC: 1) US Section pertaining to TS Required Action has “Require Action” and not Require**d** under A.1, and D.1 Facility: 1) Corrected
6. 1B CD/CB PP Trip requiring runback						S	NRC: 1) What is typical time into event, or conditions that the applicants are trained to, which will determine that they can no longer keep up with the runback? Will there be enough reactivity

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 3 100% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							manipulations prior to making this determination or will they trip the reactor right away? Facility: 1) They are not trained to trip the reactor right away but if they go that route then this would be a missed reactivity opportunity. We estimate about 3 minutes until they reach their established trip criteria (per placard on the panel)
7. Rods will not move in Auto Rods will move in Manual						S	
8 (MAJOR).LOOP/Unit Trip 1B DG fails to start						S	
9. Loss of 1A DG						S	
10. Bus 141 fault, feed breaker trips, transition to BCA 0.0						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

<table>
<tr><td colspan="2">Facility: Byron Station</td><td colspan="5">Scenario: # 4 85% Rx Power</td><td colspan="2">Exam Date: October 16-21, 2023</td></tr>
<tr><td>1
Scenario Event ID/Name</td><td colspan="5">2
Scenario event errors</td><td>3
U/E/S</td><td>4
Explanation</td></tr>
<tr><td></td><td>Realism/ Credibility</td><td>Performance Standards</td><td>Verifiable Actions</td><td>Critical Task</td><td>TS</td><td></td><td></td></tr>
<tr><td></td><td colspan="7">CTs:
1) CT described on Form 3.3-1 needs the bounding criteria for CT-13 included on this cover page.
2) For CT-13, there are three (3) different bounds and the procedure transition bound is not explained. Orange path for Subcriticality and Integrity are good bounding criteria. I am not sure why or where BCA-2.1 transition comes into play with this scenario. The crew will be transitioning to H.1 eventually, but I do not think that BCA-2.1 should be a bounding criteria. If the transition to H.1 is desired to be a bounding criteria, then provide description as to why it should be bounding criteria in CT description.
3) Recommend a more definitive, and explainable bound of 100°F from the temp at the trip.
4) CT-43: Spell out minimum in the CT description page, and provide a brief description of what it means to have minimum feedwater or condensate flow (i.e. a Feedwater pump or condensate pump running and feeding the SGs, flowrate is not necessarily required for this condition).

Overall:
5) Bullets are not consistent throughout (open and closed circle bullets, some items not bulleted). Recommend making all bullets the same style to match other scenario guides. Formatting for this guide appears rushed.

6) Scenario 23-4 Summary page:
Event 2: “The crew will take make control…” Should read ‘crew will take manual control’?
7) Event 5: “…the BAR is utilized, will direct the ATC to maintain VTC level…” change VTC to VCT.
8) Event 5: “…If the TC takes the 1CV11A switch to the “VCT”…” 1CV11A should be 1CV112A?
9) Event 5: Event description on Scenario 23-4 describes a situation in which the ATC takes 1CV112A to the VCT position and a “second failure” will not occur. What is the second failure? If this is describing the failure of the VCT to auto make-up, then this is not really a second failure as it is built into the failure of 1LT-112 failing High. Please re-word the description for this event to eliminate the description of a second failure and more accurately describe the failure of the VCT to auto makeup due to given event failure.
10) Event 9: We will have to validate this when we get to the OV week. However, having the 1A AF pump trip 10 seconds after the reactor trip is a VERY quick time to have this trip occur. I highly doubt the crew will even have time to diagnose that the 1B AF pump failed to auto-start during this time. Is the intention to have the crew diagnose both pumps failing right away and transitioning to H.1 immediately, or have them attempt to start the 1B AF pump trip while performing E-0 actions? No changes are needed at this time, but please consider these comments and</td></tr>
</table>

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 4 85% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
	have an answer available for discussion prior to and during OV week. I am fine with the trip occurring very quickly but I am curious as to what the intent of the scenario flowpath is and how it is expected to grade the applicants. Facility: 1) Corrected 2) BCA 2.1 removed from bounding criteria 3) No change needed – CSF has temperature guidance. 4) Spelled out and added SG level requirement and percentages 5) Corrected 6) Corrected 7) Corrected 8) Corrected 9) Extra information related to a previous revision to this event removed. 10) No change at this time. Intent stems from not wanting multiple equipment to fail together but to cascade the failures to make them more plausible like the sudden loading of a pump caused it to trip instead of multiple unrelated items not starting at the same time for some reason.						
1. Swap RCFCs						S	
2. Inadvertent Phase A (A Train Only)						~~E~~ S	NRC: 1) Line that separates the Symptoms and Time Position Applicant Actions is not consistent with the rest of the guide, make sure it is across entire page for consistency. 2) Pg. 11, there is a random semi-colon on the line with the 5th bullet. 3) Indent the bullet for 1CV8105 and 8106 in similar fashion to other items in this step when actions are to be taken with

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 4 85% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							components listed below. This is true for components after "Determine actuated Train" step as well. 4) Add a space after Function 3a and prior to the (2). Facility: 1) Corrected 2) Corrected 3) Corrected 4) Corrected
3. 1A CW Pp Trip and Disch Valve does not auto close						~~E~~ S	NRC: 1) BOP action, "Take action to close the discharge valve using the switch" should be changed to using handswitch component ID and nomenclature for evaluators to properly assess the event. Facility: 1) Clarification added
4. 1C Loop Flow (434) fails high						S	
5. 1LT-112 fails high						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 4 85% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
6. 1A HD (shaft shear) and 1C HD PP will not start requiring a HD runback						~~U~~ S	NRC: 1) ATC actions to "handle the reactivity aspects for the HD runback" is not sufficient to properly assess an applicant's performance. More information needs to be provided here describing what is expected by the applicant. 2) BOP actions after initial ATC actions are the same actions from Event 1 and should not be included here. 3) **Event 6 has no verifiable actions for the BOP pertaining to the HD runback. This coupled with the additional lack of verifiable actions to grade the ATC makes this event UNSAT.** 4) **Making this Event SAT will require verifiable actions to be included for the ATC and the BOP that provide enough information for the evaluators to properly assess the applicants.** Facility: 1) Clarified expected actions 2) Copy / Paste Error - corrected

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 4 85% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							3) See 2. Corrected 4) All items needed to make this event Sat have been addressed.
7 (Major). Inadvertent Safety Injection (1A AF Pp Starts, 1B AF cannot be started)						S	
8. Main Turbine Does not trip Automatically						S	
9. 1A AF Pump Trips (BFR H.1)						~~E~~ S	NRC: 1) ATC step to check if feed and bleed is required provides the information to check if any 3 SGs is LESS THAN 43% (adverse cnmt). What would cause an adverse containment condition during this event if the SI actuation is inadvertent and there is no LOCA occurring inside containment? I suspect that this should read NARROW RANGE LESS THAN 27% in accordance with Step 2 of 1BFR H.1.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 4 85% Rx Power**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							Facility: 1) Agreed. Corrected

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 5 10% Rx Power (SPARE)**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

	CTs: 1) **CT-17 bounding criteria of isolating prior to exiting BEP-2 is not an acceptable bounding criteria for this situation. Information provided states that it will affect the Critical Safety Functions. Let the scenario play out and find out which CSF goes ORANGE first and incorporate this as the bounding criteria.** 2) CT-12 description on Form 3.3-1 is inadequate and does not include bounding criteria. 3) CT Summary Page has CT-17 listed first and then CT-12 which is contrary to Form 3.3-1. It appears that CT-12 occurs first during the scenario so ensure that these are documented in order of appearance during administration. **Overall:** 4) The status of U2 is not in the turnover. **Insert status of Unit 2 on ALL scenario turnover sheets for consistency.** 5) Scenario does not have reactivity manipulation. Not a requirement per NUREG quantitative assessments per ES-3.4, however, if it is determined that a previous scenario or by some other cause that other scenarios do not have a creditable Rx Manipulation, this scenario will not provide a "back up" reactivity manipulation to complete the exam requirements. Scenario 23-5 Summary of Events: 6) Event 5 does not list the specific TS that the SRO applicant will address. 7) Event 7 has two exit paths from BEP-2 to either ES-1.1 or BEP-1. Which is the transition that the applicants are expected to take to be assessed as proper procedure use and adherence by the SRO? Step 7.e of BEP-2 transition to ES-1.1 occurs prior to Step 8, therefore correct transition appears to be ES-1.1 Facility: 1) Orange CSF used to bound CT-17 2) Updated Form 3.3-1 3) Corrected. CT-12 is tricky as it can be completed by 2 different people from 2 different procedures both running in parallel. Ordered them correctly and added clarifying notes prior to each location providing additional guidance for the evaluator. 4) U-2 is only included if it's not in Mode 1 with a normal full power lineup OR there is something that would impact U-1 electrical or mechanical cross tie ability. 5) Not required in all guides. Contingency plan, per the Chief Evaluator, will be to add in a minor ramp prior to administration if needed. 6) No formal T.S. action is required for this event. Action listed is TRM and is provided for reference only. 7) The correct transition would be 1BEP ES-1.1 if all of the items in step 7 are met. The guide states that the crew will transition to ES-1.1 and the Note gives the evaluation team the ability to end the set regardless of the direction the crew ends up transitioning. The guide is the grading and the note is for clarifying guidance.						
1. Place Reheat Temperature controller in Auto						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 5 10% Rx Power (SPARE)**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
2. Vent PRT to GW system, PRT HI Press Alarm, 1RY469 does not auto close						S	
3. Seismic Event						S	NRC: 1) TRM actions are generally not counted as TS determination calls. This is information only for tracking as Form 3.3-1 has N/A for Position actions.
4. Aftershock results in 1LT558 (1C SG Lvl Ch) Failing Low						S	
5. Trip of Instrument Bus 112						S	
6. Trip 1B RCP and Manual Reactor Trip						~~E~~ S	NRC: 1) BOP actions simply state “Perform Immediate actions of 1BEP-0.” This is unacceptable in terms of being able to grade the applicant for proper performance. Provide E-0 actions as provided in other E-0 events for all other scenarios.

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 5 10% Rx Power (SPARE)**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
							2) Event given an evaluation of ENHANCEMENT versus UNSAT due to the actions that the BOP will perform are simply checks due to no failures that require the BOP's action. If actions were to be taken by the BOP, then this event would be graded as UNSAT. Facility: 1) Corrected. Oversight on my part – since nothing was faulted, I'd planned on pasting in the BOP actions from a different guide and missed it. 2) Agreed.
7. Large Earthquake results in 1B SG Fault inside Containment (BEP-2)						~~E~~ S	NRC: 1) Provide information at beginning of the event in Evaluator Note stating that the 1B SG Fault will result in SI Actuation and that the crew will transition from ES-0.1 to BEP-1 based on the Caution in ES-0.1 prior to Step 1. Facility: 1) Added
8. MSIVs fail to close in auto will						S	

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Facility: Byron Station			**Scenario: # 5 10% Rx Power (SPARE)**			**Exam Date: October 16-21, 2023**	
1 Scenario Event ID/Name	2 Scenario event errors					3 U/E/S	4 Explanation
	Realism/ Credibility	Performance Standards	Verifiable Actions	Critical Task	TS		
close with the Main Steam Isolate switch or at the valves.							

Form 2.3-3 Operating Test Review Worksheet (Scenarios)

Form 2.3-3 Instructions for Completing the Scenario Table

1. For each scenario, enter the scenario event names and descriptions.

2. Review the individual events contained in each scenario, and identify and mark event errors:

   - The scenario guide event description is not realistic/credible—unsatisfactory (U).

   - The scenario guide event description lacks adequate crew/operator performance standards—needs enhancement (E).

   - The scenario guide event description lacks verifiable actions for a credited normal event, reactivity event instrument/component malfunction, or technical specification (TS) event (or a combination of these) (U).

   - The scenario guide event description incorrectly designates an event as a critical task (i.e., a noncritical task labeled as critical or a critical task labeled as noncritical). This includes critical tasks that do not meet the critical task criteria (i.e., the critical task does not have a measurable performance standard) (U).

   - The scenario guide event description incorrectly designates entry into TS actions when not required or does not designate entry into TS actions when required (U).

3. Based on the outcome in step 2, mark the scenario event as unsatisfactory (U), satisfactory (S), or needs enhancements (E). An event is (U) if it has one or more (U) errors as determined in step 2. Examples of enhancements include formatting, spelling, or other minor changes.

4. Briefly describe any scenario event determined to be unsatisfactory (U) or needing enhancement (E). Save initial review comments and detail subsequent comment resolution so that each exam-bound scenario event is marked by a satisfactory (S) resolution on this form.