Palo Verde 2021-04 Draft Operating Test Comments

NOTE: This summary is being provided in lieu of Form 301-7, "Operating Test Review Worksheet," because the licensee's operating test submittal was reviewed and overall deemed SATISFACTORY.

Scenario 1:

- Enter event 2 as soon as level >70 for event 1
- Event 3: BOLD RCB-PI-101B in second block (page 10)
- Event 3: PPS bypass procedure needs to be evaluated to remove TS 3.3.5
- Event 4: Add note that B CEDM ACU cannot be overridden
- Event 4: include Appendix C steps that could affect TS
- Event 5: Change bounding criteria; restore power to FSAR time limit (1 hour)
- Event 5: Add information about how the crew will handle the Main Generator Output Breakers in SPTAs since the generator is not synched to the grid
- Event 5: Add examiner note indicating how Controlled Bleedoff is isolated following the loss of power (SPTAs)

Scenario 2:

- Event 2: add steps to lower turbine load if needed
- Event 4: add time limits for loss of NC water (10 min. to trip RCPs; 3 min. if no NC + no CHV)
- Event 4: Fix order of steps on page 13 (if cross-connecting… and Ensure that no more than one…)
- Event 4: Add note about the crew not stopping the last Charging Pump until cooling water has been restored to the RCPs
- Event 4: add not to initiate event 5 if reactor is manually tripped in event 4
- Event 5: add alternate success path for CT-2
- Event 5: Add note for driver not to energize HPSC isolation valves (if directed during SPTAs) until SIAS/CIAS actuated to ensure CT-1 is valid
- Event 5: Add HPSC isolation valve numbers for CT-2
- Event 5: add CT-3; 30 min. time limit to trip RCPs on loss of NC

Scenario 3:

- Event 1: make note for examiner to follow up if TS 3.6.3 is "conservatively" entered
- Event 2: add steps to place CEDMCS and SBCS in auto (may need SM prompt)
- Event 6: Delete trip of RCPs as a CT (not critical for this event)
- Event 7: Delete 5 min. delay on CS pump trip
- Add start/stop times for CS CT

Scenario 4:

- Event 3: Add note NOT to transition to event 4 until procedural step to address DNBR is entered
- Delete the three blocks on page 13 (unnecessary)
- Event 4: add note - don't go to event 5 until boron equalization terminated (page 14)
- Event 5: add list of components that could be realigned due to sequencer failure
- Terminate scenario when Thot is at 540°
- Make spare scenario

JPM S-1:

- Step 13: add examiner note to supply applicant with alternate path procedure
- Step 16-18: possible cues from outside operator that HPSI pump UC fuses are ON
- Step 22: add which valves are applicable

JPM S-2:

- Initial Conditions should say "tripped ON overcurrent" instead of tripped IN overcurrent
- Step 10 should list the valve numbers
- Step 12 – Does it need some sort of minimum flow (Figure 2)? Is there a high limit on flow?
- Validation time 8 minutes

JPM S-3:

- Add in task standard: secure aux spray before reaching low Rx trip setpoint (app. 1960)
- Make step 1 non-critical
- Add step 10 to secure aux spray prior to reaching low pressure Rx trip setpoint
- Make JPM non time critical (time bounded by potential automatic reactor trips)

JPM S-4:

- JPM Step 6 and JPM Step 11 procedure note is wrong (copy and paste error)
- Add "except where specified" at the end of the task standard

JPM S-5:

- Steps to start AFN-P01 need to include downcomer valves
- Need to ensure the SG is actually being fed prior to initiating Key 1

- Consider adding information about potentially going to AFB with degraded performance/sheared shaft
- Add "what do you recommend" cues as appropriate during the alternate path
- Examinee may ensure the downcomers are closed prior to attempting to restart AFN
- Insert inadvertent SIAS after MFP's are secured

JPM S-6:

- Change validation time to 8 minutes

JPM S-7:

- Add note to Step 10 that the synch key may have been placed in ON during Step 7 to restore frequency indication for the 'B' EDG
- In Step 5 task standard add (skill of the craft)

JPM S-8:

- In initiating cue, add "time permits all procedurally directed actions prior to exiting the control room"

JPM P-1:

- RCA JPM
- Not time critical. Time critical tasks bounded by twice validation time
- Terminate JPM after step 7 (inform CRS)

JPM P-2:

- Revise to ensure the trip throttle valve is manually closed, reset, and opened by using Appendix 40

JPM P-3:

- Step 1 cue should be "light is lit"
- Steps 2-7 need to indicate valve handles are in line with the pipe for task standard
- Step 11 cue "as you see it"
- Step 14 cue "all annunciators extinguished and EDG is rumbling"

GENERAL ADMIN JPM COMMENT

- For all applicable JPM's, add answer key that can easily be compared to applicant's submittal

<u>JPM A-1</u>:

<u>JPM A-2</u>:

<u>JPM A-3</u>:

<u>JPM A-4</u>:

- Change validation time to 10 minutes

<u>JPM A-5</u>:

<u>JPM A-6</u>:

<u>JPM A-7</u>:

<u>JPM A-8</u>:

<u>JPM A-9</u>:

- Update cover sheet to indicate time critical JPM