SONGS - 2011 - 11								DI	RAFT OF	PERAT	ING TEST COMMENTS ADMIN JPMS
JPM#	1. Dyn	2. LOD	3. Attributes						4. Job Content Errors		6. Explanation
U	(D/S)	(1-5)	IC Focus	Cues	Critical Steps	Scope (N/B)	Over- lap	Job- Link	Minutia	U/E/S	(See below for instructions)
RA1										E	1. RA1 type codes went from C,M to R,M. What were the changes made to this document from Rev a to Rev c? (Same comment for 301-2) 2. JPM step 6: acceptable range should be 19,100-19,250 (not 18,900-19,300) 3. JPM Classroom Setup page: why provide Attachments 4 and 10? 4. Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES
RA2										E	JPM step 7: acceptable range should be 27 +/- 0.5 hrs (not +/- 1 hr). Also update Answer Key.      JPM step 9: acceptable range should be 3.4 – 3.6. Also update Answer Key.      Answer Key states minimum cooldown rate is 3.3-3.7 (step 8.b) but JPM step 9 states rate is 3.6 +/- 0.2 (which is 3.4-3.8).      Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES
RA3										Е	1. Answer Key: should step 2 be circled slashed (placekeeping) 2. JPM steps 5-8: acceptable ranges? How did you determine +/- 0.2? 3. JPM step 9: acceptable ranges should be +/- 500 (not 1,000). Thus, total is +/- 2,000 (not 4,000) 4. JPM step 9: Pump 2 flow is 100,500, not 101,000. (Answer Key is correct) 5. JPM step 10: update acceptable range to +/- 2,000 6. Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES
RA4										S	1. What is the impact if the applicant actually selects "NRC Connection?" SEE ATTACHED SUMMARY OF OP TEST CHANGES
SA1										Е	1. RA1 type codes went from C,M to R,M. What were the changes made to this document from Rev a to Rev c? 2. JPM step 6: acceptable range should be 19,100-19,250 (not 18,900-19,300) 3. Answer Key 2 is missing Attachment 4 pages 1 and 2. (Could submit a PEO on this attachment to record data (2.1.2 and SWC flow rate.) 4. JPM is missing Attachment 4, step 2.1.3. 5. Initial Conditions Cue Sheet #2: second bullet – should be Spent Fuel Pool, not just Spent. 7. Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES
SA2										Е	1. JPM step 8: acceptable range should be 27 +/- 0.5 hrs (not +/- 1 hr). Also update Answer Key. 2. JPM step 10: acceptable range should be 3.4 – 3.6. Also update Answer Key 3. Answer Key states minimum cooldown rate is 3.3-3.7 (step 8.b) but JPM step 10 states rate is 3.6 +/- 0.2 (which is 3.4-3.8). 4. Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES

SONGS -	2011 –	11						DI	RAFT OF	PERAT	ING TEST COMMENTS ADMIN JPMS
	1.	2.		3	3. Attribut	es		4. Job Content Errors		5.	6.
JPM#	Dyn (D/S)	LOD (1-5)	IC Focus	Cues	Critical Steps	Scope (N/B)	Over- lap	Job- Link	Minutia	U/E/S	Explanation (See below for instructions)
SA3											1. JPM steps 5-8: acceptable ranges? How did you determine +/- 0.2? 2. JPM step 9: acceptable ranges should be +/- 500 (not 1,000). Thus, total is +/- 2,000 (not 4,000). Also, 3P-002 should be 96,500, not 97000. Thus, total is 381k. 3. Need copy of original JPM SEE ATTACHED SUMMARY OF OP TEST CHANGES
SA4										Е	Do Initial Conditions need a statement that the Plant Computer is not available?     JPM step 3: add to Standard "and entered on Step 2.2.3.2."     SEE ATTACHED SUMMARY OF OP TEST CHANGES
SA5										E	JPM step 1: Standard – why does applicant need to refer to SONGS EAL Hot and Cold to make this determination?     JPM step 3: Standard – the EAL numerical designator is 1.1, not AA1.1.  SEE ATTACHED SUMMARY OF OP TEST CHANGES

#### Instructions for Completing Matrix

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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.

SONGS - 2	2011 – 1	11						D	RAFT O	PERAT	ING TEST COMMENTS CONTROL ROOM/IN-PLANT SYSTEMS JPMS
JPM#	1. Dyn	2. LOD			3. Attribut		ı	E	Content	5.	6. Explanation
	(D/S)	(1-5)	IC Focus	Cues	Critical Steps	Scope (N/B)	Over- lap	Job- Link	Minutia	U/E/S	(See below for instructions)
S1										S	
S2										E	Does SONGS have an expectation for place keeping Cautions/Notes? Yes     Attachment 18, step 1.4: should this be marked N/A since SIAS was not actuated?     Need copy of original JPM     SEE ATTACHED SUMMARY OF OP TEST CHANGES
S3										S	JPM step 4: Standard – why is PZR PRESS HI annunciator in? Is this a combined annunciator? Yes     SEE ATTACHED SUMMARY OF OP TEST CHANGES
S4										Е	1. How can procedure step 6.1.4 be applicable but step 6.1.5 be marked N/A?  2. Which PCS points are selected per procedure step 6.1.9? Should they be marked on Attachment 1 so the applicant can complete step 6.1.25? Or should there be a cue that another operator has checked the points and reports none are in alarm?  3. JPM step 15: what does "ARO is at 2L-194 verifying alarm" mean?  4. JPM step 16: Perform Step and Standard – state RCP P002 OC, not P003.  5. JPM step 18: where is the procedure guidance for this step? Should the Examiner Note on step 17 be on step 18 instead?  6. Need copy of original JPM  SEE ATTACHED SUMMARY OF OP TEST CHANGES
S5										Е	Should procedure step 6.5.1 be place kept per the Initial Conditions?     Need copy of original JPM     SEE ATTACHED SUMMARY OF OP TEST CHANGES
S6				X						U	Should procedure step 6.1.1 be marked as N/A?     Delete fourth bullet out of Initial Conditions (CCW loops) as applicant should be able to determine this without cueing (as stated in JPM step 1 Standard).     JPM step 5: Standard – pushbuttons on CR56 OR CR53 are depressed, not AND.     Alternate Path JPMs are to be designed for the applicant to identify the alternate path without direction. JPM step 7 has the CRS provide the alternate success path – UNSAT.     Need copy of original JPM     SEE ATTACHED SUMMARY OF OP TEST CHANGES
S7				X						U	Alternate Path JPMs are to be designed for the applicant to identify the alternate path without direction. JPM step 5 has the CRS provide the alternate success path – UNSAT.     Who is the SRO Ops Supervisor? CRS     SEE ATTACHED SUMMARY OF OP TEST CHANGES
S8										E	Check marks not made in Section 2 of procedure as required by step 1.2.1.     Why is procedure step 1.5 marked N/A? Is it common practice to mark a procedure step as N/A and place keep it?     Is the second bullet in Initial Conditions required given procedure step 2.1.4?     SEE ATTACHED SUMMARY OF OP TEST CHANGES
P1											Procedures need placekept. Operationally valid to not place keep.

Attachment 10 Page 3 of 6 OBDI 202 – IOLE Process

SONGS -	11						D	RAFT OI	PERAT	ING TEST COMMENTS CONTROL ROOM/IN-PLANT SYSTEMS JPMS	
IDM#	1.	2.	3. Attributes						4. Job Content Errors		6.
JPM#	Dyn (D/S)	LOD (1-5)	IC Focus	Cues	Critical Steps	Scope (N/B)	Over- lap	Job- Link	Minutia	U/E/S	Explanation (See below for instructions)
										E	2. Need copy of original JPM - provided 3. Any reason we can't open the panel instead of using a picture? Reactor trip hazard 4. Unit 3 JPM, step 3: what are the procedure enhancements? EPPM Panel is identified as 2L411 vice 3L411 SEE ATTACHED SUMMARY OF OP TEST CHANGES
P2										Е	1. Procedures need placekept. Fixed 2. Nothing in the Initial Conditions states the Control Room is lost don't understand why we're doing this section of the procedure. Revised Initiating Cue 3. Should 2.2.2.3 and 2.2.2.4 be place kept as N/A? Yes for Unit 2 - fixed 4. Unit 2 and 3 JPMs step 14: Standard – is Exposure Fire Isolation Panel B2L-413 the same as Fire Isolation Panel 2L-413? 5. Similar comment as #4 above for both JPMs step 16. 6. Should identify in submittal that these procedures are to be withheld from public. Noted 7. Unit 3 JPM step 13: Examiner cue should state Unit 2 operator Fixed SEE ATTACHED SUMMARY OF OP TEST CHANGES
P3										Е	Need to check boxes in Section 2 as required by Attachment 16, step 1.3.1. Fixed     Provide an electrical drawing depicting battery charger and associated breakers for reference – Provided     SEE ATTACHED SUMMARY OF OP TEST CHANGES

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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	SONGS – 2011 – 11 DRAFT OPERATING TEST COMMENTS								G TEST COMMENTS SCENARIOS	
information in parentheses following each of the Critical Tasks. This was not done. 2. Event 1: Step 3a, 2 and 3g - Shouldn't they be answered NO? 3. Event 2: protein step 14 a RNO states to use Attachment 12, not skill of the craft. RNO direct so to step 14c when standby SWC pump is in service, not to steps 14a1 and 14a2? Is step 14 a enswer NO (affected train is A)? 4. Event 3: Add TS LCO 3.2.3 Cond C to TS list. When is SO23-13-13, Attach 1 performed and whom? Where is it directed to use SO23-13-28, RPR? SO23-3-1.10? SO23-3-2.2? SO23-5-1.7. Sect 6.3? SO23-3-2-1.92? 5. Events 4-9. Fever sec Critical Task statements to include details. The answer to steps 1.a. 2.a. 7.a. 8.a. 8.c. 11.a and 11.b is NO (thus transition to RNO). 6. Actions for SO23-12-7. step 5. Verify CCW Configuration, are missing in D-2 (page 25) SEE ATTACHED SUMMARY OF OP TEST CHANGES  2. SEE ATTACHED SUMMARY OF OP TEST CHANGES  3. SEE ATTACHED SUMMARY OF OP TEST CHANGES  4. Add SRO to Event 1 on D-1. 2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5:60 Suscs Critical Task for tripping the reactor within one minute after entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7:60 Suscs Critical Task is depressing the start button for Train A HPSI pump but Summary states events auto initiated or upon Lead Examiner cuc? 7. D-2s state a feedware NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedware not available? 9. SPTA step 8. a - D-2s state Feedware NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedware not available? 9. SPTA step 8. SPTA step 8. a - D-2s state Feedware NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedware not available?							-			10. Explanation (See below for instructions)
SEE ATTACHED SUMMARY OF OP TEST CHANGES  1. Add SRO to Event 1 on D-1. 2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5/6: Discuss Critical Task for tripping the reactor within one minute after entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have no steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7-9: Summary states events are initiated upon reactor trip but D-2s state "when directed." Are these events auto initiated or upon Lead Examiner cue? 7. D-2s state a Critical Task is depressing the start button for Train A HPSI pump but Summary states this pump will overcurrent trip upon SIAS? 8. SPTA step 8.a - D-2s state Feedwater NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedwater not available? 9. SPTA step 9.a, RNO 9.a.1) is not on D-2s. SEE ATTACHED SUMMARY OF OP TEST CHANGES	1									information in parentheses following each of the Critical Tasks. This was not done.  2. Event 1: Step 3a, 3c and 3g – shouldn't they be answered NO (vice YES) in order to get to the RNO column? Why is step 3i answered NO?  3. Event 2: procedure step 14a RNO states to use Attachment 12, not skill of the craft. RNO directs go to step 14c when standby SWC pump is in service, not to steps 14a1 and 14a2? Is step 14 e answer NO (affected train is A)?  4. Event 3: Add TS LCO 3.2.3 Cond C to TS list. When is SO23-13-13, Attach 1 performed and by whom? Where is it directed to use SO23-13-28, RPR? SO23-3-1.10? SO23-3-2.2? SO23-5-1.7, Sect 6.3? SO23-3-2.19?  5. Events 4-9: Revise Critical Task statements to include details. The answer to steps 1.a, 2.a, 7.a, 8.a, 8.c, 11.a and 11.b is NO (thus transition to RNO).  6. Actions for SO23-12-7, step 5, Verify CCW Configuration, are missing in D-2 (page 25)
SEE ATTACHED SUMMARY OF OP TEST CHANGES  1. Add SRO to Event 1 on D-1. 2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5/6: Discuss Critical Task for tripping the reactor within one minute after entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have no steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7-9: Summary states events are initiated upon reactor trip but D-2s state "when directed." Are these events auto initiated or upon Lead Examiner cue? 7. D-2s state a Critical Task is depressing the start button for Train A HPSI pump but Summary states this pump will overcurrent trip upon SIAS? 8. SPTA step 8.a - D-2s state Feedwater NOTa variable and therefore transition to RNO to verify EFAS initiated. Why is feedwater not available? 9. SPTA step 9.a, RNO 9.a.1) is not on D-2s. SEE ATTACHED SUMMARY OF OP TEST CHANGES	2									SEE ATTACHED SUMMARY OF OP TEST CHANGES
1. Add SRO to Event 1 on D-1. 2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5/6: Discuss Critical Task for tripping the reactor within one minute after entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have no steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7-9: Summary states events are initiated upon reactor trip but D-2s state "when directed." Are these events auto initiated or upon Lead Examiner cue? 7. D-2s state a Critical Task is depressing the start button for Train A HPSI pump but Summary states this pump will overcurrent trip upon SIAS? 8. SPTA step 8.a – D-2s state Feedwater NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedwater not available? 9. SPTA step 9.a, RNO 9.a.1) is not on D-2s.  SEE ATTACHED SUMMARY OF OP TEST CHANGES	3									SEE ATTACHED SUMMARY OF OP TEST CHANGES
2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5/6: Discuss Critical Task for tripping the reactor within one minute after entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have no steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7-9: Summary states events are initiated upon reactor trip but D-2s state "when directed." Are these events auto initiated or upon Lead Examiner cue? 7. D-2s state a Critical Task is depressing the start button for Train A HPSI pump but Summary states this pump will overcurrent trip upon SIAS? 8. SPTA step 8.a – D-2s state Feedwater NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedwater not available? 9. SPTA step 9.a, RNO 9.a.1) is not on D-2s.  SEE ATTACHED SUMMARY OF OP TEST CHANGES	4									SEE ATTACHED SUMMARY OF OP TEST CHANGES
6 SEE ATTACHED SUMMARY OF OP TEST CHANGES	5									2. How does crew know to pump approx. 10% of sump for testing? (not in turnover) 3. Event 2: step 3.d is NO (thus RNO) 4. Event 3: steps 2.e and 2.h.6 are NO (thus RNO) 5. Events 5/6: Discuss Critical Task for tripping the reactor within one minute <u>after</u> entering SPTAs. What if SRO doesn't "enter" SPTAs for 2 minutes after turbine trip? Also, D-2s have no steps from SO23-13-3: consider longer than 30 sec delay for inadvertent turbine trip. 6. Events 7-9: Summary states events are initiated upon reactor trip but D-2s state "when directed." Are these events auto initiated or upon Lead Examiner cue? 7. D-2s state a Critical Task is depressing the start button for Train A HPSI pump but Summary states this pump will overcurrent trip upon SIAS? 8. SPTA step 8.a – D-2s state Feedwater NOT available and therefore transition to RNO to verify EFAS initiated. Why is feedwater not available? 9. SPTA step 9.a, RNO 9.a.1) is not on D-2s.
	6									SEE ATTACHED SUMMARY OF OP TEST CHANGES

### Instructions for Completing Matrix

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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.

(From NRC and SONGS Validation)

### **Admin JPM General Comments:**

- Incorporated NRC Draft Operating Test comments as appropriate.
- Incorporated NRC validation comments as appropriate.
- Updated Form ES-301-1 for RO (removed "C" Type Code from RA4).
- Provided hard and electronic original copies of Admin JPMs that were modified.
- 1. **RA1** Reported to CE that Type Codes were changed (C, M to R, M) to allow JPM to be performed in the Classroom vice Plant (time constraints).

Removed Attachment 4 (not required) from Procedure and JPM and retained Attachment 10, Limitations and Specifics (provided as L&S they may be referenced).

Changed Answer Key to red ink where applicable.

Changed Acceptable Range at Perform Step 2.6 now 19,000 GPM to 19,250 GPM.

- 2. **RA2** Corrected JPM and Answer Key at Perform Steps 7 & 9. Changed Answer Key to red ink where applicable.
- 3. **RA3** Added place keeping to Procedure Step 2.1.

Arrived at  $\pm$  0.2 for Perform Steps 5 to 8 to accommodate any rounding done by the applicant.

Changed acceptable range for pump flows at Perform Step 9 from ± 1000 to ± 500 GPM.

Corrected flow value for 2P-002 at Perform Step 9 to 101,500 100,500 GPM.

Changed acceptable range for total flow at Perform Steps 9 and 10 from  $\pm$  4000 to  $\pm$  2000 GPM.

Changed Answer Key to red ink where applicable.

4. **RA4** Removed Control Room from Testing Method to avoid inadvertent activation of ERDS. Modified Examine Note in Simulator Setup.

Removed Examiner Cues to simulate the NRC connection at Perform Steps 4 and 6 (Simulator cannot connect to ERDS, therefore, this action can be performed).

Reworded Standard in Perform Steps 4 and 6 to reflect ERDS screen.

Reworded Standards for Perform Steps 2 through 6 to reflect critical versus non-critical part of task.

5. **SA1** Reported to CE that Type Codes were changed (C, M to R, M) to allow JPM to be performed in the Classroom vice Plant (time constraints).

Changed Acceptable Range at Perform Step 2.6 now 19,000 GPM to 19,250 GPM.

Changed Answer Key to red ink where applicable.

Corrected wording in Initial Conditions on JPM Cue Sheet #2 (Spent Fuel Pool).

Added Pages 1 and 2 to Answer Key #2 and inserted place keeping.

Made Perform Step 13 a Critical Step to reflect OPERABILITY of Saltwater Cooling System.

Deleted 3<sup>rd</sup> bullet from JPM Cue Sheet #2 as it was not necessary.

6. **SA2** JPM Cue Sheet #1 is the precursor for having to perform Cue Sheet #2.

Corrected JPM and Answer Key at Perform Steps 8 & 10.

Changed Answer Key to red ink where applicable.

(From NRC and SONGS Validation)

7. **SA3** Added place keeping to Procedure Step 2.1.

Arrived at  $\pm$  0.2 for Perform Steps 5 to 8 to accommodate any rounding done by the applicant.

Changed acceptable range for pump flows at Perform Step 9 from  $\pm$  1000 to  $\pm$  500 GPM. Corrected flow value for 3P-002 at Perform Step 9 to 96,500 GPM.

Changed acceptable range for total flow at Perform Steps 9 and 10 from  $\pm$  4000 to  $\pm$  2000 GPM and changed answer to 381,000 GPM.

Changed Answer Key to red ink where applicable.

8. **SA4** Reworded Task Standard.

Initial Conditions do <u>not</u> need to state that the Plant Computer System is unavailable since this information is annotated in SO23-8-15, Attachment 4, Step 2.1.

Changed Answer Key to red ink where applicable.

9. **SA5** Modified Initial Conditions by removing the bullet for duration of the release and adding unisolable as a prefix to the piping.

Removed Cold from Standard at Perform Step 1.

Reworded Standard in Perform Step 3 to reflect critical versus non-critical part of task.

(From NRC and SONGS Validation)

#### Plant / Simulator JPM General Comments:

- Incorporated NRC Draft Operating Test comments as appropriate.
- Incorporated NRC validation comments as appropriate.
- Provided hard and electronic original copies of Plant / Simulator JPMs that were modified.
- Updated Form ES-301-2 (removed "A" Type Code from S-6).
- 1. **S-1** Recorded Procedure Enhancement Opportunity (PEO) for SO23-13-11, Emergency Boration of the RCS, in 2011 NRC PEO document (pump nomenclature).
- 2. **S-2** Modified Examiner Cue at Perform Step 3.

Added place keeping to CAUTION box in Attachment 18 and Step 2.3. Changed place keeping in Attachment 18, Step 1.4, to N/A since SIAS was not actuated.

- 3. **S-3** Modified Standard at Perform Step 3 to differentiate between critical and non-critical part of task.
- 4. **S-4** Added place keeping to beginning of SO23-3-1.7 and corrected place keeping at Step 6.1.4. Changed Alternate Path from RCP Overcurrent (OC) to Thrust Bearing High Temperature. Re-snapped Simulator after removing Reactor Coolant Pump alarms that were present during verification of Perform Step 6.

Added Examiner Cue at Perform Step 17 that another operator will complete Standard Post Trip Actions.

Verified PEO already documented for SO23-15.56C, Reactor Coolant Pump OC alarms (incorrect listing of steps for tripping RCP & Reactor).

Added PEO that RCP Oil Lift & AARD pushbuttons in SIM do not respond as the plants do.

5. **S-5** Corrected 2<sup>nd</sup> bullet in Initial Conditions.

Verified place keeping for SO23-9-6, Step 6.5.1 is not required.

Moved Examiner Note from Perform Steps 3 and 4 to Perform Steps 1 and 2.

Modified Standard at Perform Steps 1 and 2 to differentiate between critical and non-critical part of task.

Added wording to Terminating Cue.

6. **S-6** Removed Alternate Path designation.

Deleted 4<sup>th</sup> bullet from Initial Conditions.

Reworded Task Standard.

Modified place keeping at beginning of Procedure 1.

Modified Standard at Perform Step 5 from "and" to "and/or."

Expanded Standard in Perform Step 2 to allow tracking of Train A and B components.

7. **S-7** Added breaker nomenclature to Standard in Perform Step 1.

Modified Standard at Perform Step 11.

Added band for Emergency Diesel Generator output voltage to Perform Step 15.

Moved Alternate Path designation from Perform Step 6 to Perform Step 15.

Removed Critical Step designation from Perform Step 16.

Recorded PEO for SO23-6-2, Transferring of 4 kV Buses, Steps 6.17.6 and 6.17.7 in 2011 NRC PEO document (these steps should be NOTES / CAUTIONS).

(From NRC and SONGS Validation)

8. S-8 Moved 2<sup>nd</sup> bullet in Initial Conditions to Initiating Cue.
 Added place keeping checkmark into Procedure 1 at Step 2.1.1.
 Added Examiner Cue at Perform Step 4 Procedure 2.
 Changed color of dot for 2R-7804 from green to blue in Standard of Perform Step 14.

9. P-1 Added note to Plant Setup to provide a color copy of the power supply inside the EPPM. Recorded PEO for labeling (procedure vs. actual) on the power supply inside the EPPM. Verified that the Control Room Supervisor is the point of contact when the headset is connected in Perform Step 2. [Refer to SO23-13-2, Attachment 2(3), Step 7.0 for Unit 2(3).] Added plant temperatures to Examiner Cues as required. Moved Examiner Cue for oscillating indication and added Examiner Cue once handswitches were cycled. Separated out critical from non-critical portions of Standards.

10. **P-2** Added Note to bottom of 1<sup>st</sup> page to withhold from public disclosure per 10 CFR 2.390. Added place keeping as required in SO23-13-25, Attachment 3. Inserted place keeping and N/A for Unit 3 portion of Unit 2 actions and vice versa. Recorded PEO to add list of Unit 2 and Unit 3 LOCAL/CONTROL Room Switches from SO23-13-2, Attachment 1, to SO23-13-25, Attachment 3. Reworded Initial Conditions and Initiating Cue so that JPM would start at Step 2.2.2. Corrected Examiner Cue at Perform Step 12 (previously Perform Step 13) for Unit 3 JPM.

11. **P-3** Added place keeping checkmarks where appropriate.
Electrical drawing is provided within the procedure (Attachment 18).
Modified Examiner Cue at Perform Step 5.
Added Examiner Note at Perform Step 7 for breaker location.
Modified Examiner Cues at Perform Steps 8, 9, 11, 12, 13, 15 and 16.
Recorded PEO for SO23-6-15, Attachment 16, Step 2.1.13.3 does not list a desired band (i.e., 125 to 135 VDC) for Battery Charger voltage.

(From NRC and SONGS Validation)

#### **Simulator Scenario General Comments:**

- Incorporated NRC comments as appropriate.
- Modified RNO statements throughout the scenarios (NO vs. YES).
- Added additional Technical Specifications as identified.
- Added additional Examiner Notes where appropriate.
- Corrected typos (procedure steps/wording) throughout.
- Reworded Critical Safety Function criteria during Standard Post Trip Actions.
- Aligned Emergency Chillers to Unit 3 throughout.

#### 1. Scenario #1

Changed wording on all 3 CT statements.

Added steps and changed wording as required in Event 3.

Added explanations to facilitate understanding of procedures in use (Examiner Notes).

Rearranged steps for both CTs in Events 4 and 5.

### 2. Scenario #2

Changed wording on first two CT statements.

Added A.2 and B.2 REQUIRED ACTIONS to Event 2 Technical Specifications.

Requested TV-0224B, Demineralizer Temperature Control Valve, be added as a new malfunction to Procedure Enhancement Opportunity (PEO) List.

Added Examiner Note to explain why placing Train A EDG in Maintenance Lockout was not a CT (SONGS to provide Annunciator Response Procedure SO23-5-2.35.1, Local Diesel Alarm Panel). Added steps for SO23-12-11, Attachment 8 prior to transitioning to SO23-12-11, Attachment 24.

### 3. Scenario #3

Changed wording on 1<sup>st</sup> CT statement.

Added wording from SO23-3-2.13, Attachment 1, to identify Core Protection Calculator nomenclature (Event 2).

Added Floor Cues to Event 3 to clarify required actions and/or SRO recommendations.

Added steps for Emergent Manual CEA Positioning per SO23-3-2.19 and Turbine Operation per SO23-5-1.7, Section 6.4 to Event 3.

Added Examiner Note to explain why manually actuating the Main Steam Isolation Signal was not a CT.

### 4. Scenario #4

Changed wording on 1<sup>st</sup> CT statement.

Added Examiner Note to Event 2 about shortening length if desired.

Corrected Unit 2 and Unit 3 wording in Event 2.

### 5. Scenario #5

Added SRO as a NORMAL to Event 1.

Identified CCW Swing Pump (P-025) HPSI Swing Pump (P-018) in the scenario summary.

Added Examiner Note explaining difference between Low Pressure and High Pressure Nuclear Service Water Pumps.

Added place keeping to procedure SO23-2-16 for Event 1.

Added A.2 REQUIRED ACTIONS to Event 2 Technical Specifications.

Added final step when bypassing Feedwater Control System instrument in Event 2.

## 6. Scenario #6 (spare)

Corrected typo wording on 2<sup>nd</sup> CT statement.

Reworded plants status on Shift Turnover Sheet.

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