

JAF 2010 NRC Written Exam Changes from draft Submittal to Final Submittal.

Question	Resolution
1	<p>1. Revised question to state a recirc malfunction had occurred. Did not use suggested resolution because it did not affect the question or answers. Changed Choice C from <i>Perform a normal plant shutdown per AOP-8 to Shutdown per OP-65, "Startup and Shutdown"</i>. Also, added <i>per AOP-8, "Loss or Reduction of Reactor Coolant Flow"</i> to the stem. Changes to ensure procedure titles included in choices, while maintaining comparable choice lengths.</p> <p>2. Accepted editorial comment</p>
2	Accepted editorial comment
3	Accepted editorial comment
4	<p>Changed distracters 'A' for 1st stage pressure. Removed as sensed reactor power above 29% and added 'actuated by 1st stage pressure. JAF verified that jumpers are used when conducting shell warming to prevent an auto scram</p>
5	Accepted editorial comment
6	<p>1. Accepted editorial comment</p> <p>2. Modified wording of Choices A, C and D to include procedure noun names. Modified wording of stem to include procedure noun name.</p> <p>3. Changed distracter 'B' to place the Reactor mode switch in Shutdown. Need check with Fitz for AOP-43 note 1. Rewrote question changed to immediate actions</p>
7	Accepted editorial comment
8	Accepted editorial comment
9	Accepted editorial comment
10	Provide RAP-7.1.04C. Remove all references to SRM counts for operability and minimum number of SRMs
11	Accepted editorial comment
12	Accepted editorial comment
13	<p>1. Accepted editorial comment</p> <p>2. JAF has provided a clearer RHR NPSH limit curve.</p>
14	<p>1. Accepted. Changed question from 'the following' to 'above indications'</p> <p>2. NRC shortened the stem. Changed D/W temp 'A' and 'B' readings to prevent misinterpretation on High D/W temperature entry into EOP-4.</p>
15	<p>1. Changed "A" distracter. Reworded B, C and D for better symmetry.</p> <p>2. Removed the word 'rising' from the stem for torus water temperature to avoid confusion with graph reading and provided EOP-11 as a reference. Changed Torus temperature to 150 degs.</p> <p>3. Added to stem CST level of 57 inches. Removed wording for torus from distracters 'A' and 'D' CST level of 59.5 results in an auto swap of RCIC suction to the Torus.</p>

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16	<p>1. Accepted editorial comment. However, upon further NRC review answer A and C were subsets of each other. Moved answer C to A and created a new C distracter. Need question to be re-reviewed.</p> <p>2. NRC made the change and both Fitz and the NRC accepted the change. This improved the clarity of the question.</p>
17	<p>1. Accepted editorial comments</p> <p>2. Changed stem level for SLC tank to 84% and changed distracters to 38% or 48% to avoid confusion.</p>
18	<p>1. Accepted editorial comments</p> <p>2. Minor stem formatting.</p> <p>3. NRC made changes to the question based on the recommendation to add clarity to the question. NRC and Fitz accepted the changes.</p>
19	<p>1. NRC accepted proposed question with a change to 'C' distracter to add the word 'only. Question was a better K/A match.</p>
20	<p>1. Accepted editorial comments</p> <p>2. Changed stem from 100% to 87% per JAF recommendation.</p> <p>3. Added 1 bullet in the stem for generator terminal voltage of 24.4 kV and added Scriba to 5th bullet for breaker R935. This added clarity to the stem of the question for Mn gen capability curve.</p> <p>4. Changed "325 MVAR" in choice 'c' to '175 MVAR' such that only choice 'a' will be correct.</p> <p>5. NRC accepted proposed change.</p>
21	<p>1. Accepted editorial comments</p> <p>2. -When main turbine and RFPT trips, there is no feed water injection into the RPV. Reactor power should remain stable at 25%. IAW AOP-2, guidance provided if reactor power \geq 29%, then insert a manual scram on a turbine trip. If reactor power is $<$ 29%, then reduce reactor power. NRC and Fitz agreed to change reactor power to 23%.</p> <p>3. NRC removed 4 bullets from the stem of the question. Added assume no operator actions to the stem and modified all 4 distracters to align the question with the correct technical information for high RPV level response. These changes greatly improved this question and is now technically accurate.</p>
22	<p>1. Agree with the issue; however do not agree with recommended fix. Will need to rewrite this question. Question has been re-written. Need to inform JAF of new question.</p> <p>2. Question was re-written</p> <p>3. Added the following to the stem. 'The following annunciator is received: 09-4-3-31 RWR MG A SPEED CNTRL SIG FAILED'</p> <p>4. Re-arranged stem information for clarity, reformatted.</p> <p>5. Keep control board in stem of question</p>
23	<p>1. Accepted editorial comment</p> <p>2. Minor editorial. Added titles to all procedure references. Replaced RMCS with Reactor Manual Control System.</p>

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24	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Accepted editorial comment
25	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor stem formatting. Added titles to all procedure references. 3. Stem 7th bullet was changed and question was changed as described to added clarity to the question.
26	<ol style="list-style-type: none"> 1. Editorial corrected. Will not insert all of eop-5 but will insert max normal and max safe for these channels. Accepted 2. Reformatted embedded table to fit onto page. Added titles to all procedure references. 3. Changed bullet 1 to Rx Bldg sample ARM and changed question to describe what is occurring and what action is required. This adds plausibility to the stem of the question and avoid confusion the high Rad areas not in close proximity to each other.
27	Accepted editorial comment
28	Accepted editorial comment
29	<ol style="list-style-type: none"> 1.Changed the 'A' Distracter to loss of 71MCC-262-OB2 and changed justification for distracter. 2. Accepted editorial comment.
30	Accepted editorial comment
31	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Accepted editorial comment - These changes added clarity to the question and the stem
33	<ol style="list-style-type: none"> 1.Accepted editorial comment 2. NRC added AOP-46 as a reference. Fitz and NRC agreed to the change. 3. Accepted editorial comment
34	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. NRC changed the 'then' to 'when' Fitz and NRC agreed to the change.
35	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Accepted editorial comment
36	Accepted editorial comment
37	<ol style="list-style-type: none"> 1. Editorial - NRC added AOP-46 and procedure title into stem of question. 2. Editorial – Accepted editorial comment.
38	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Added to the stem time set to T=0. Made changes to add T=10 seconds. Removed bullet for ADS timers actuated. Added bullet for all ECCS pumps fail to start. Changed question to ask status of all ADS valves at T=190 seconds. Modified distracters 'A' and 'C'. These changes improved the clarity of the ADS question. 3. Changed the correct answer to "C". Changed stem for 'A' C/S pump discharge pressure to 130 psig. 4. NRC accepted change
39	Accepted editorial comment

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40	<ol style="list-style-type: none"> 1. Question 40 has been re-written. Need to inform JAF of new question. Changed RPV pressure band from 950-1050 psig to 800-1000 psig for SRV operation. 2. Accepted editorial comments.
41	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor stem format changes.
42	Accepted editorial comment
43	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor wording, format changes in choices. 3. Removed bullets from stem and changed question to ask on bus 10500 which would cause a trip of bus 10300-10500 4KV tie breaker 10304? Changed distracters degraded voltages from % to voltage numbers and changed times for dragged voltage trips. JAF stated applicant do not know voltage as a percent but as a number. The change in the question added clarity to the question.
44	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. NRC accepted new Q-44 for UPS MG set. New question is much improved with clear stem and distracters 3. Added spacing between the bullets
45	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor stem, choice format changes.
46	<ol style="list-style-type: none"> 1. NRC accepted Q-46 for new EDG ESW cooling. New question is much improved with clear stem and distracters
47	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Set point for filter D/P is not required to be committed to memory. Applicant is told in the stem of the question that service air pressure is degrading and 2 alarms are in. to D/P of 10 psid is not normal.
48	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor stem, choice format changes.
49	Found that question 49 was similar to question 28 then wrote a new question 49.
50	Accepted editorial comment
51	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor choice format changes.
52	Accepted editorial comment
53	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Clarified in stem that leak is in EDG air header and EDG air receivers. B and C took and out of answer. 3. The changes the NRC made to Q-53 change the question from a complicated stem and incorrect distracters to a smaller stem and better distracters adding clarity and improved plausibility to the question.
54	No changes
55	Accepted editorial comment

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56	<ol style="list-style-type: none"> 1. Minor reformatting 2. Accepted editorial comment 3. Made changes to this question stem to improve clarity of the question for rod drift indication.
57	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
58	NRC accepted reformatted question
59	<ol style="list-style-type: none"> 1. NRC accepted replacement question with the following proposed changes. <ol style="list-style-type: none"> a. Added "downscale failure of D Flow unit" in the stem. b. Changed APRMs in distracters. 'B' distracter is now 'F' and 'C' distracter is now 'D'.
60	<ol style="list-style-type: none"> 1. Changed all distracters for this question to avoid confusion. 2. NRC recommends replacing load imbalance with 'turbine power'. Fitz agreed with the replacement.
61	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
62	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
63	During NRC review of proposed changes to question, determined that the question did not match the K/A as it applied to Siros only, 234000 Fuel Handling Equipment K5.02. K/A was changed to 201002 RMCS K1.03 Control rod block interlock/refueling (3.4)
64	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
65	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Replaced with HC question from 07 NRC exams. JAF reviewed and concurred with change.
66	<p>Recommend replacing question. NRC accepted replacement question with the following proposed changes.</p> <ol style="list-style-type: none"> 1. Revised distracter 'D' to make choice more plausible. 2. Added 'IAW EN-OP-115' in the stem of the question
67	1. During NRC review of proposed changes to question, determined that the question did not match the K/A. K/A was changed to G.2.1.32. And replacement question was accepted.
68	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Clarified distracter wording. 3. During NRC review of proposed changes to question, determined that the question did not match the K/A. K/A was changed to G.2.1.20.
69	Accepted editorial comment
70	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
71	Accepted editorial comment
72	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
73	Accepted editorial comment

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74	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
75	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
76	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting 3. Changed 3rd bullet to Mn gen on line. Added bearing header pressure drops to 16 psig. Replaced distracter A3 with AOP-2 Turbine trip without a scram. This change mimic startup conditions and added clarity to the question and plausibility to the correct answer.
77	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Reference - TS 3.0.3 only provided.
78	Accepted editorial comment
79	Accepted editorial comment
80	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Reference - NRC will provide T/S 3.6.4.3
81	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Removed 's' from SRV in C & D. Changed A & B to delete mechanical. 3. Choice 2 of distracters were changed to avoid subsets and now only 1 correct answer for this questions 4. NRC agrees to add decay heat generation to the stem of this question.
82	Will give EOP-11 as a reference. References do not change question into a direct lookup.
83	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. 4th bullet deleted extra "is". 3. NRC incorporated this suggestion. This suggestion stream lined the question and added clarity to the question. Added core map to the question for SRM locations.
84	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Will provide EOP-11 as a reference. References do not change question into a direct lookup.
85	<ol style="list-style-type: none"> 1.) Question 85 is similar to RO question 42. Will need to update SRO outline and write a new SRO question on Drywell temperature. Informed Mike Needles and Matt Emrich of this change. New question 85 has been written and approved. 2.) Accepted 3.) Question 85 to be replaced 2/4/10 4.) Question 85 was replaced on 2/18/10 due to oversampling of T/S questions. 5.) Minor reformatting.

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86	<ol style="list-style-type: none"> 1. Editorial changes accepted. 2. Feel that general structure should know 7 day lco for 1 eccs train out. Denied. With T/S provided this question would be a direct lookup. NRC new position is to create ILOT exams with limited references. CE has already spoken with JAF ILOT lead about limited references on NRC exams. 3. JAF states there is no pull to lock position n the CS pump switch. Referenced CS lesson plan and replaced PTL with 'STOP' 4. NRC position is that general structure SROs should know 7 day lco for 1 eccs train out. Denied. With T/S provided this question would be a direct lookup. NRC new position is to create ILOT exams with limited references. CE has already spoken with JAF ILOT lead about limited references on NRC exams. 5. Accepted editorial change on 2/4/10. 6. Minor reformatting.
87	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Adjusted word wrap on transmitters. Added noun name to transmitters. 3. References - Added the following references to question 87. TS 3.3.6.1, TS 3.3.1.1, Bases Pg B 3.3.1.1-24, Bases Pg B 3.3.6.1-26 Bases Pg B 3.3.6.1-27, OP-27A Pgs 79 and 80. References do not change question into a direct lookup.
88	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. EOP-3 overrides –Denied 3. Minor reformatting 4. Recommended changes were change torus level to 11.95 ft. torus temp to 180 degs. Changes were reviewed and accepted by NRC. The change in torus temp and level avoid confusion with the reading of HCTL curve. 5. Will provide EOP-11. References do not change question into a direct lookup. 6. Understand and agree with the issue. The original question had a Higher Torus temperature and Lower Torus temperature. Changed back to 14 feet and 175 F to maintain answer 'C' as the correct answer.
89	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting 3. NRC reviewed the replacement question and accepted the new question. This question was much improved in clarity of the question.

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90	<p>1. NRC accepted the proposed question with the following changes.</p> <ol style="list-style-type: none"> 1. Remove 'unexpectedly' from stem, unnecessary because the stem bullet states plant conditions are normal with no other alarms in. 2. AOP-39 is not a plausible entry given all other plant conditions is normal. NRC suggests the AOP-9; Loss of primary containment be used since it appears to be more plausible for choice 'A' and 'C'.
91	<ol style="list-style-type: none"> 1. Accepted editorial comment. 2. Question time line was changed to reflect seconds. 3. References – Added TS 3.1.3 and 3.1.4 as a reference. References do not change question into a direct lookup.
92	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting 3. Reference – NRC accepts TS 3.0.4 only.
93	Accepted editorial comment
94	<ol style="list-style-type: none"> 1. on 2/18/10 question 94 has been replaced due to oversampling of T/S questions 2. Removed bottom 2 bullets from stem of question. This improved the clarity of the question.
95	Accepted editorial comment
96	<ol style="list-style-type: none"> 1. On 2/16/10 question 96 has been replaced due to oversampling of T/S questions. 2. Distracter 'B' added redundant. Distracter 'C' added fix a setpoint range that is justified by other steps. This added plausibility to the distracters. 3. Editorial – Accepted editorial comment
97	NRC accepted the proposed question on main turbine vibration. Removed EDG T/S question from the exam and TS 3.8.3 from exam reference document and exam reference.
98	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting
99	<ol style="list-style-type: none"> 1. Accepted. Discussed with Mike Needle will not bold distracters 2. Minor reformatting 3. Editorial- Added learning objectives EP-12.6; 1.10, EP-12.5.4.2; 2.05
100	<ol style="list-style-type: none"> 1. Accepted editorial comment 2. Minor reformatting 3. Changed torus temperature of 135 to maintain plausibility.

Summary of changes for the Operating Exam

Scenario Comment resolutions

Scenario/Comment	Comment	Submitted by	Resolution	Resolved by
1-1	Scenario script was enhanced.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-2	Changed event #4 to 06LT-52A as this transmitter is normally in service.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-3	Added defeat auto scram function to event 6.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-4	Added 'C' EDG output breaker failure to close to event 8.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-5	Deleted event #9. Sufficient component and instrumentation failures remain.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-6	Combined event 7 and 8 for LOP and EDGs breaker failures.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-7	Replaced EHC malfunction event #5 with 'B' RFPT trip and recirc runback.	Litkett <i>NRC</i> <i>Richard</i> <i>JH</i>	Incorporated comments	Litkett

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Scenario Comment resolutions

1-8	Added scripting to support RFPT trip and power reduction	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-9	Added ADS auto initiation failure.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-10	Added loss of 10500; AOP-18 to scenario on the failure of 'A' and 'C' EDG breakers to close.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-11	Changed LOCA malfunction RR15:A severity initial severity 2% with 20 minute ramp and final severity to 40%.	Emrich <i>Lucensell</i>	Incorporated comments	Emrich
1-12	Delete manual closure of 'A' EDG output breaker from critical task. 2 critical tasks remain.	Litkett <i>NRC</i>	Incorporated comments	Litkett
1-13	Updated simulator setup.	Emrich <i>Lucensell</i>	Incorporated comments	Emrich
1-14	Enhanced initial simulator setup.	Emrich <i>Lucensell</i>	Incorporated comments	Emrich
2-1	Scenario script was enhanced.	Litkett <i>NRC</i>	Incorporated comments	Litkett

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2-2	Deleted event 3 malfunction. With HPCI inoperable and Drywell pressure transmitter failure was a similar T/S call with a SRO admin JPM for print reading.	Litkett <i>NRC</i>	Incorporated comments	Litkett
2-3	Event 4 power guidance changed. Procedure change for OP-3A; feedwater heaters changed power guidance to reduce power to 25% when isolating a feedwater heater. However AOP-62 for loss of feedwater heating had not been revised.	Litkett <i>NRC</i>	Incorporated comments	Litkett
2-4	Combined events 8 and 9 into a single component failure.	Litkett <i>NRC</i>	Incorporated comments	Litkett
2-5	Deleted event 10. Sufficient component and instrumentation failures remain.	Litkett <i>NRC</i>	Incorporated comments	Litkett

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2-6	Changed success path from de-energizing scram solenoids to vent the scram air header.	Litkett <i>NRC</i>	Incorporated comments	Litkett
2-7	Updated simulator setup. Page 3, Remotes Section; add IA07 and IA01 on Trigger #9 (when Trigger #9 is activated, 03CRD-123 will shut and after 5 minutes, IA01 will activate in order to depressurize the scram air header).	Emrich <i>Emrich</i>	Incorporated comments	Emrich
2-8	Added SBTG shutdown steps from OP-20 section F.	Litkett <i>NRC</i>	Incorporated comments	Litkett
2-9	Added Simulator booth instructions for scram solenoid door unable to open.	Litkett <i>NRC</i>	Incorporated comments	Litkett
4-1	Scenario script was enhanced.	Hedigan <i>NRC</i>	Incorporated comments	Litkett
4-2	Updated simulator setup.	Hedigan <i>NRC</i>	Incorporated comments	Emrich
4-3	Added TS call for 02-3LT-101A	Hedigan <i>NRC</i>	Incorporated comments	Litkett

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Scenario Comment resolutions

4-4	Added examiner note for Fuel failure to simulator booth operator to raise radiation levels to GE level if fuel failure is not large enough.	Hedigan <i>WRC</i>	Incorporated comments	Litkett
4-5	Deleted event 8 for turbine building ventilation trip. Simulator does not have this malfunction or override capability.	Emrich <i>licensee</i>	Incorporated comments	Litkett
4-6	Page 3, deleted time delay on Trigger 5.	Emrich <i>licensee</i>	Incorporated comments	Emrich
4-7	Page 3; Add IC-45 as part of the Simulator Setup	Emrich <i>licensee</i>	Incorporated comments	Emrich
4-8	Page 3; 3rd bullet, replace "operatot" with "operator"	Emrich <i>licensee</i>	Incorporated comments	Emrich

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4-9	Page 3; change ED12 and ED13 under remote functions to be setup on Trigger 10 and 11 respectively (should not be necessary since we discussed during validation that we would not allow the crew to restore these buses?)	Emrich <i>Licensee</i>	Incorporated comments	Emrich
4-10	Page 3, Trigger Section: change Trigger 3 to Trigger 9 for RD11:18:15	Emrich	Incorporated comments	Emrich
4-11	Page 3, Trigger Section: add the following malfunctions to Trigger 7 for Turbine Building Exhaust Rad Levels:	Emrich	Incorporated comments	Emrich
4-12	RM01:15 PRM 17-RM-434A, 27% severity, 9:20 delay, 6:40 ramp	Emrich	Incorporated comments	Emrich
4-13	RM01:16 PRM 17-RM-434B, 27% severity, 9:20 delay, 6:40 ramp	Emrich	Incorporated comments	Emrich

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4-14	RM01:23 PRM 17-RIS-431, 99% severity, 3:00 delay, 10:00 ramp	Emrich <i>license</i>	Incorporated comments	Emrich
4-15	RM01:24 PRM 17-RES-432, 99% severity, 3:00 delay, 10:00 ramp	Emrich	Incorporated comments	Emrich
4-16	Page 4, Event #2 Section; change Trigger 3 in second bullet to Trigger 9	Emrich	Incorporated comments	Emrich
4-17	Added malfunction for uncoupled control rod 18:15.	Hedigan <i>NRC</i>	Incorporated comments	Litkett
4-18	Added scripting for uncoupled control rod	Hedigan <i>NRC</i>	Incorporated comments	Litkett
4-19	Added scripting for Control room and Relay room ventilation manual isolation steps.	Litkett <i>NRC</i>	Incorporated comments	Litkett
4-20	Split major malfunction for fuel failure into a separate event for Main steam line isolation since the MSL isolation would come after the fuel failure.	Hedigan <i>NRC</i>	Incorporated comments	Litkett
4-21	Added text for ECG calling dose for Simulator booth operator.	Hedigan <i>NRC</i>	Incorporated comments	Litkett

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Simulator JPM Comment Resolution

JPM	Comment	Submitted By	Resolution	Resolved By
S-1	Changed validation time from 15 minutes to 20 minutes.	Litkett <i>NRC</i>	Incorporated comments	Litkett
S-1	Changed initiating cue from posted attachment to OP-19; RCIC procedure and changed cue to state maximize heat removal with RCIC to minimize SRV operations	Emrich <i>Litkett</i>	Incorporated comments	Litkett
S-1	On page 6, change Item #1 to state that the operator can use Posted Attachment at the 09-4 panel OR OP-19, D.2.	Emrich	Incorporated comments	Litkett
S-1	Page 8, guidance for the Evaluator needs to clearly state whether or not it is acceptable for the applicant to trip RCIC due to the speed controller malfunction (it would not be incorrect to trip RCIC in this situation; so if they do trip RCIC they should not fail the JPM) AND if the candidate is not to be allowed to trip RCIC, the evaluator note should state that the candidate should be stopped prior to tripping RCIC.	Emrich	Incorporated comments	Litkett
S-1	Change IC to IC-48.	Emrich	Incorporated comments	Litkett
S-2	Updated JPM simulator setup instructions.	Emrich	Incorporated comments	Litkett
S-2	Updated K/A number.	Litkett <i>NRC</i>	Incorporated comments	Litkett

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Simulator JPM Comment Resolution

S-2	Changed validation time from 10 minutes to 15 minutes.	Litkett <i>NRC</i>	Incorporated comments	Litkett
S-2	Page 3, change ZD123A59 in item 6 to ZD123AS9. Page 3,	Emrich <i>licensee</i>	Incorporated comments	Litkett
S-2	change ZD123A58 in item 7 to ZD123AS8	Emrich ↓	Incorporated comments	Litkett
S-3	Updated JPM simulator setup instructions..	Emrich ↓	Incorporated comments	Litkett
S-3	Added note that since Rx power is low, IRMs are already inserted.	Litkett <i>NRC</i>	Incorporated comments	Litkett
S-3	Minor editorial changes	Litkett <i>NRC</i>	Incorporated comments	Litkett
S-3	Ensure the page numbers are correct in the JPM.	Emrich <i>licensee</i>	Incorporated comments	Litkett
S-3	Changed IC to IC-48.	Emrich ↓	Incorporated comments	Litkett
S-4	Updated simulator JPM setup instructions.	Emrich ↓	Incorporated comments	Litkett

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Simulator JPM Comment Resolution

S-4	Updated task conditions. Evaluator cue changed for RO applicant. (What alternate methods are available to spray the drywell; RHRSW and Fire Protection). For SRO what recommendation would you make?	Litkett NRC	Incorporated comments	Litkett
S-4	Flow of JPM steps is confusing; recommend placing actions between steps #11 and #12 (as currently written) that script actions for securing DW spray (closing 10MOV-31B and securing the RHR pumps)	Emrich LICENSEE ↓	Incorporated comments	Litkett
S-4	Added evaluator cue for applicant to use 'B' RHRSW to spray the drywell if requested.	Emrich ↓	Incorporated comments	Litkett
S-5	Minor editorial changes only.	Litkett NRC	Incorporated comments	Litkett
S-5	Page 4 reference section; change Revision for OP-51A from 47 to Rev. 48.	Emrich licensee ↓	Incorporated comments	Litkett
S-6	Updated simulator JPM setup instructions.	Emrich ↓	Incorporated comments	Litkett
S-6	Changed validation time to 30 minutes.	Litkett NRC	Incorporated comments	Litkett
S-6	Updated scripting of JPM, added additional cues to JPM if applicant decides to use single EDG shutdown method which secures the ESW pump with 'D' EDG still running., added guidance from OP-22 section G.17.	Litkett ↓	Incorporated comments	Litkett
S-6	Change IC from IC-39 to IC-41 (this JPM is setup to run out of the same set of IC's as S-2)	Emrich LICENSEE ↓	Incorporated comments	Litkett
S-6	Place the override for the ESW pump strainer D/P alarm on Trigger #1	Emrich ↓	Incorporated comments	Litkett

Summary of changes for the Operating Exam

Simulator JPM Comment Resolution

S-6	<p>Place the remotes for placing the B and D EDG LOCAL-MAINTENANCE switches in</p> <ul style="list-style-type: none"> • “MAINT” on Trigger #2. Page 10, item #21; delete “THEN” from first line, add • “THEN” between paralleled and balance. Page 11, item #30; delete “THEN” from • first line, add “THEN” between paralleled and balance. Step OP-22, G.6.1 contradicts a critical step in the JPM (the operator, if using OP-22 cannot shut down the EDG until after 10 minutes have elapsed (cylinder cooldown time)) → add Evaluator note and cue that (if asked for by the candidate) allows the candidate to bypass the 10 minute wait in the procedure and shut down the EDG to prevent damage. 	Emrich <i>LICENSEE</i>	Incorporated comments	Litkett
S-6	<p>Reduced scripting of JPM, added additional cues to JPM if applicant decides to use single EDG shutdown method which secures the ESW pump with ‘D’ EDG still running., added guidance from OP-22 section G.17.</p>	Litkett <i>NRC</i> ↓	Incorporated comments	Litkett
S-7	<p>Added note the driving in ‘A’ SRM takes 3.5 minutes and driving out ‘A’ SRM takes 3.5 minutes</p>	Litkett ↓	Incorporated comments	Litkett

Summary of changes for the Operating Exam

Simulator JPM Comment Resolution

S-7	Add "Steps 4.1 through 4.8 of ST-5H are complete" to the initiating cue.	Litkett <i>NRC</i>	Incorporated comments	Litkett
S-7	Is the question in step 13 part of the critical step?.	Emrich <i>LICENSEE</i>	NO Incorporated comments	Litkett
S-7	Changed IC to IC- 48.	Emrich	Incorporated comments	Litkett
S-8	Update JPM based on new procedure revision. Change IC to IC-48	Emrich	Incorporated comments	Litkett
S-8	Add M:CU10, RWCU 12MOV-18 Auto Isolation Failure to Setup instructions (as a Preset); this will cause the applicant to have to manually shut this valve as part of the AOP-28 actions Page 6, Item #4; 23MOV-16 is normally closed, therefore the applicant will only need to verify the valve SHUT (should not be a critical step since no physical action performed) Page 6, Item #7; 13MOV-16 can be closed from the 09-4 panel, therefore dispatching an operator to close the valve locally is not necessary Add notes in step 1 of JPM describing how the candidate selects Attachment 2 of AOP-28 (i.e. using Attachments 27, 28, and 29 which refer the candidate to Attachment 2)	Emrich	Incorporated comments	Litkett

Summary of changes for the Operating Exam

Plant JPM Comment Resolution

JPM	Comment	Submitted By	Resolution	Resolved By
P-1	Change OP-25 to Rev.79.	Emrich LICENSEE	Incorporated comments	Litkett
P-2	Change ISPP-3.8 to EN-IS-123.	Emrich	Incorporated comments	Litkett
P-2	The step(s) in the EP that provide guidance to initial the respective steps for lifting leads should be properly place kept in the EP (i.e. in addition to initialing for the lifted lead, the step should also be "circle-slashed".	Emrich	Incorporated comments	Litkett
P-2	Added need key to access equipment cabinet and minor editorial changes only.	Litkett NRC	Incorporated comments	Litkett
P-3	Consider adding a condition to the initiating cue and/or step 11 that states "no SRVs were opened from the Control Room". This will ensure that the applicant knows to open 7 valves from the 02ADS-71 panel.	Emrich LICENSEE	Incorporated comments	Litkett

Summary of changes for the Operating Exam

RO Admin JPM Comment Resolution

JPM	Comment	Submitted By	Resolution	Resolved By
A-1-1	A-1-1 Page 5, changed Revision for RAP 7.3.16 to Revision 46	Emrich <i>LICENSEE</i>	Incorporated comments	Litkett
A-1-2	Removed 1 RO from JPM	Litkett <i>NRC</i>	Incorporated comments	Litkett
A-1-2	Changed shift schedule and procedure to EN-OM-123, Rev.2 Change cover sheet "Revision Number" to Revision 1	Litkett	Incorporated comments	Litkett
A-2	Revised blocking points IAW standard tagout for 'B' RHR pump Page 3, change Revision Number to "1"	Litkett	Incorporated comments	Litkett
A-2	Page 3, References Section; add Rev. 12 to EN-OP-102; add EN-OP-102-01, Rev. 6; add Rev. 94 to OP-13; add Rev. 68 to FM-20B Page 4, change Revision Number to "1"	Litkett	Incorporated comments	Litkett
A-2	Page 5, Initiating Cue Section; after internals add "per WR 123456789";	Litkett	Incorporated comments	Litkett
A-2	replace Shift Operations Management System with "eSOMs"; add "the" between "and" and "SM"; add "the" between "for" and "required" (also make these changes to the Handout Page)	Litkett	Incorporated comments	Litkett
A-2	Updated JPM to have only 1 vent and drain valve as critical	Litkett	Incorporated comments	Litkett
A-3	Task Conditions Section; change 100% power to 70% power (we would not expect to be at 100% power with only 2 CW pumps running)	Emrich <i>LICENSEE</i>	Incorporated comments	Litkett
A-3	change "36-1A/B" to "36P-1A/B"; change "46-1A/B" to "46P-1A/B" (these items should be changed on the Handout Page as well)	Emrich	Incorporated comments	Litkett

Summary of changes for the Operating Exam

SRO Admin JPM Comment Resolution

JPM	Comment	Submitted By	Resolution	Resolved By
A-1-1	Page 5, change Revision Number to "1".Page 5, change Revision for RAP 7.3.16 to Revision 46	Emrich <i>LICENSEE</i>	Incorporated comments	Litkett
A-1-2	Updated references, added step 5 in JPM for applicant to determine corporate notifications per AP-12.11 added procedures and updated revision numbers. Cover sheet, change Revision Number to "1". Page 3, change Revision Number to "1".Page 5, change Revision Number to "1"; add Rev. 11 to AOP-70 Security Threat; change Revision for EAP-1.1 to Rev. 65; add Rev. 39 to IAP-1; add Rev. 10 to AP-12.11; add Rev. 25 to EAP-3. Page 3, 2 nd bullet under the T = 8 minute conditions, add "from the East Electric Bay" after the word reports (this should also be added to the Handout Page).Page 7, Step 1, change AOP-18 to AOP-28.Page 7, Step 2, Site Area Emergency should be the classification EAL 8.1.9 (due to vital area entry).Page 8, step 5 should not be a critical step as this action is also performed by the personnel in the EOF (see EAP-1.1)	Emrich 	Incorporated comments	Litkett

Summary of changes for the Operating Exam

SRO Admin JPM Comment Resolution

JPM	Comment	Submitted By	Resolution	Resolved By
A-2	Task Standard section; change "23-57 and 23-58" to "23MOV-57 and 23MOV-58" (bullets #1 and #2; also change on Page 6).Page 5, References Section; add "Process, Rev. 4" after "Operability Determination" (3rd bullet).Page 5, References Section; add "FM-25A, Rev. 71 and FM-25B, Rev. 33" after "HPCI Plant Piping Drawings"	Emrich <i>LICENSEE</i>	Incorporated comments	Litkett
A-3	Removed from task conditions Emergency exposure controls have not been implemented. Added 3 new workers. Formatted information in a table format. Split JPM into 2 parts. Part 1 is to calculate dose and Part 2 is to determine the emergency dose and fill out attachment 4. Page 3, capitalize the word "control" in the 3rd bullet under JPM Setup Instructions. Page 4, the 5th bullet under #4 should read "The job will take 1.5 hours at the job site with both workers working the job full time." (change on Handout Page as well).Page 6, Change Revision Number to "2"	Hedigan <i>NRC</i>	Incorporated comments	Litkett
A-4	Updated procedure references and attachments; updated plant conditions. Attached EPIC rad release screen for offsite release rates and Meteorological conditions in the EDAMS report. Updated procedure references and attachments; updated plant conditions. Page 3, change Revision Number to "1". Page 3, change Revision Number for EAP-1.1 to "65". Page 7, change Revision Number to "1". Page 7, change Revision Number for EAP-1.1 to "65".	Presby/Emrich <i>Both</i>	Incorporated comments	Litkett