

## Memorandum

- To: Todd Fish (USNRC Chief Examiner)
- From: Greg Schrad (SSES Exam Group)
- Date: 11/4/2016

Re: Incorporated comments for the Operating Exam and modified questions

## **Simulator Revisions**

- A. Scenario #1
  - Alarm Window AR-112-G04 is overridden for the spurious alarm for 'B' CRM.
  - Turnover sheet has a step to perform all briefings prior to taking the shift. This is to have all the crews ready to start when they take the shift.
  - Turnover sheet has steps 6 and 7 incorporated into one step and labeled to perform step 6 first and then step 7.
  - The RMR step 4 has the rate of "1% power per minute" added to the manipulation.
  - Revised the Scenario files in the guide to reflect the above changes.
- B. Scenario #2
  - Alarm Window AR-112-G04 is overridden for the spurious alarm for 'B' CRM.
  - Turnover sheet has a step to perform all briefings prior to taking the shift. This is to have all the crews ready to start when they take the shift.
  - Turnover sheet remark 5 revised to "RFP lube oil conditioner aligned to 'B' RFP" to remove confusion.
  - Revised the Scenario Overview to reflect all the actions in the scenario guide.
  - Revised the Scenario files in the guide to reflect all changes.
  - Removed the inbedded ATWS due to low level RPS failures in Event 6.
  - Removed the Instructor note on page 27 that discussed the potential ATWS.
  - Added and cue in the guide if the crew does not persue restoration of the 'B' ESS Bus.

- Removed the F016A valve failure for Div 1 Drywell sprays. This failure added no value, was not mentioned in the outlines, and was not needed for movement of the scenario.
- Added the ability to use Manual valve manipulations after the ED has started.
- C. Scenario #3
  - Alarm Window AR-112-G04 is overridden for the spurious alarm for 'B' CRM.
  - Turnover sheet has a step to perform all briefings prior to taking the shift. This is to have all the crews ready to start when they take the shift.
  - Revised the Scenario files in the guide to reflect all changes.
  - Revised the Scenario Overview to reflect all the actions within the guide.
  - Add the requirement of a flashlight to the setup instructions.
  - Revised an Event 3 role play to incorporate dump valve positions.
  - In Event 4, added cooling for the Diesels as an action.
  - Changed the ARI slow insertion rate to allow all rods to insert ~1 minute after ARI is initiated. This initially took ~3 minutes.
  - Changed the delay for Fuel failure and RCIC steam leak to start 1 minute and 30 seconds after rods drift in. This initially happened immediately after rods drifted.
  - Changed the HPCI steam leak. The leak now ramps in over a longer period of time (twice the time period) and delays reaching the second max safe.
- D. Scenario #4
  - Alarm Window AR-112-G04 is overridden for the spurious alarm for 'B' CRM.
  - Turnover sheet has a step to perform all briefings prior to taking the shift. This is to have all the crews ready to start when they take the shift.
  - Revised the Scenario files in the guide to reflect all changes.
  - Revised the Scenario Overview to reflect all the actions within the guide.
  - Adjusted the setup to start at 80% power to better setup the Events

## JPM Revisions

- A. JPM A
  - Title of scenario changed due to NOT being alternate path.
  - IC resnapped due to being in the restricted region of the power/flow map.

- B. JPM B
  - Removed crital step for #2. It is an ensure step.
  - Removed the note above step #2.
- C. JPM C
  - Matched the setup to the initial conditions. We are not at the POAH.
  - Removed the alternate path with EHC.
  - Ensured isolation logic has to be reset.
- D. JPM D
  - Swapped the running ESW pumps for the setup
  - Added a cue when bumping the 048B closed, to use a 60 second bump instead of 30 seconds.
  - Placed in task conditions that section 2.22 has not been performed.
  - Placed in initiating cue to start at attachment E step 6.
  - Added a cue to help direct performance of AOP-149-001 Att A
  - Added a cue for another operator will perform ON-SDC-101 for F009 closure.
  - Added that the failure was a spurious closure and is corrected.
  - Added steps for Attachment A
  - Added criteria to step 13
- E. JPM E
  - Resnapped the IC after the Standby Gas alarms came in to prevent any confusion of alarms.
  - Added to initiating cue to start at step 6
  - Added to task conditions that Attachment A is complete.
- F. JPM F
  - Adjusted the cue after step 21 for direction of another operator will perform the AR, they are to continue with the current AOP.
  - Adjusted steps 22 and 23 to more accurately match the AOP.
- G. JPM H
  - Added cue that another operator will perform Attachment A.
- H. JPM K
  - Changed the JPM to the Remote Shutdown Panel in the simulator
  - Changed to a Unit 1 JPM
- I. JPM RO COO1
  - Adjusted Initiating Cue to document actions on Attachment B.

- J. JPM SRO COO1
  - Changed JPM to remove the RO portion. The paperwork that would be finished by a RO is now completed.
- K. JPM COO2
  - Changed to have Attachments A & B prefilled out with the previous data only.
  - Provided a blank Attachment C.
- L. JPM RO EC
  - Adjusted Initiating Cue to document anybody who would be notified.
- M. JPM SRO EC
  - Adjusted Initiating Cue to use the provided answer key.
  - Removed redundant sections of the answer key.
- N. JPM RO EP
  - Swapped steps 4 and 5 IAW the procedure.
  - Addd a cue that the fire brigade is reporting.
- O. JPM SRO EP
  - Changed coversheet to mark as time critical.
  - Added initial ATWS power >5% for scenario #1
  - Added drywell pressure >1.72# for scenario #2
  - Added drywell pressure >1.72# for scenario #4
  - Removed RPV flooding from scenario #4
- P. JPM SRO RC
  - Changed Reactor Coolant Temperature to 208F
  - Changed the standard in steps 5 and 6 to answer correctly with the change in temperature.
  - Removed Step 7

## <u>Written</u>

A. Copies of the original questions for modified questions 8, 30, 34, 52, 53, and 88 are included in this package.