3/14/13

OPERATING TEST SUBMITTAL REVIEW COMMENTS

Scenario 1

Typo in executive summary, second to last paragraph, "The crew will enter **re-**EO-100-104…"

The wrong procedure reference is listed in executive summary. It should be ON-164-002 for change in recirc flow.

Critical task 3 does not appear to be justifiable as there are no power oscillations or potential core damage in this case with only 10 rods stuck. This CT would be more appropriate as a high power ATWS scenario.

Event 3 - TS only, not an Instrument malfunction and should not be counted in the total malfunctions – no operator actions required to mitigate.

Event 4 - 1) the feed pump automatic trip should be disabled in the scenario to ensure the crew that takes the pump out of service, not the plant? If you allow the plant to take auto action this would not be a legitimate malfunction –i.e., operators can keep hands in pockets. 2) Also you could also consider failing the auto recirc runback on the trip of the RFP to give the ATC another malfunction since this scenario is light on ATC malfunctions.

Event 6&7 - This malfunction is overlaps with Sim JPM F. This will precondition applicants for JPM F or simulator malfunction will precondition for JPM F depending on which one is administered first. Modify JPM F to change alternate path to avoid overlap.

Scenario 2

Event 3 - The power reduction for min gen emergency 50MWe is a reactivity manipulation but it is a small reactivity change for normal consideration (nominal 5-10% is expected). Also it should not be listed as one of the 5-8 required malfunctions.

Event 5 - Recirc pump hi temp should be C-ATC/TS-SRO most likely. It doesn't look like the BOP has any actions that would warrant credit.

Event 9 - HPCI trip is more of a setup item, requiring them to ED. I can see giving credit for this because then they have to ED. But if credit is granted for this for the ED, credit should probably not be given for the ADS auto initiation failure (event 10)

Only 2 critical tasks, possibly add third critical task to scram plant when no recirc pumps are running? Not sure if they have one for that. Fail the auto scram so that tripping recirc pumps is CT.

Scenario 3

Event 5 – may need to delay start of event 6 to allow time to start SP cooling

Event 8 - CRD flow control valve failure is more of a setup item, as nothing can be done to rectify it, since once they swap to the other flow control valve, CRD pumps will trip once they begin to raise CRD pressure. Modify malfunction to allow driving rods to get power down 10-15% and then tell both to allow them to pull fuses or vent scram air header.

Event 9 – make sure that 2nd failure does not occur until the operator walks away from SBLC.

Scenario 4

Event 2- Refuel rad monitor should be TS-SRO, not I-SRO. TS only, not an Instrument malfunction and should not be counted in the total malfunctions – no operator actions required to mitigate.

Event 3 - Control rod pattern adjustment may be satisfactory to meet our requirements, hard to tell though. Moving 4 rods from 08 to 16 may raise power several percent. This appears to be a small reactivity change for normal consideration (nominal 5-10% is expected). *Confirm with licensee.*

Only 2 critical tasks, could potentially add one for level control, as this is the main focus of the scenario once the steam line break is isolated.

This scenario appears to be pretty easy overall especially once the MSIVs are closed. Not a lot of post-EOP entry or contingency actions required at all besides possibly lowering pressure and injecting with condensate. This scenario may need to be beefed up.

Scenario 5

Event 1 - looks insufficient to raise power 4-5%, but should provide adequate demonstration of reactivity controls.

Event 3 - TS-SRO, not I-SRO. TS only, not an Instrument malfunction and should not be counted in the total malfunctions – no operator actions required to mitigate.

No real ATC malfunctions – there should be at least 2 for the ATC

Event 8 is really a setup item (all the failures) since none of the attempts to inject to the suppression pool will result in level rising. This really only sets them up for the ED. Without this and Event 3 you are at the minimum number of malfunctions. Should add 2 malfunctions for the ATC.

Sim JPM A

Should steps 10 and 11 voltage and freq adjustments be critical as well? Also add a key for symbols on JPM "*" (Critical step) and "#" (Critical sequence).

Sim JPM B

SRO version of initiating cue should not give them procedure number or section in the procedure.

Sim JPM C

Wrong K/A, should be 209001, not 209000

Sim JPM D

None

Sim JPM E

None

Sim JPM F

Overlaps with Scenario 1, events 6&7 modify alternate path on JPM to avoid overlap with scenario.

Sim JPM G

Incorrect procedure referenced. Correct procedure is ON-100-009, not ON-100-109.

This overlaps with the ATWS scenario 1. Need to replace with a different alternate path.

In addition very weak as an alternate path JPM is just immediate scram actions if more than one rod greater than position 00 after mode switch taken to s/d.

Sim JPM H

Should probably be 0.4 psig and rising slowly to be more operationally relevant

In Plant JPM I

Very similar in part to 2012 in plant JPM that vented the scram air header. This JPM is on the opposite unit and also adds in steps to attempt removal of scram fuses first. Similar but different enough to not be considered from previous exams.

In Plant JPM J

Very similar to the in plant JPM from 2011 exam, only subtle difference being that the 2013 version has the recombiner starting up in automatic, vice manual in the 2011 exam.

In Plant JPM K

JPM steps 5, 6, 8 and 9 if these valves need to be repositioned shouldn't these steps be marked critical?

Admin A1.1 (common on RO & SRO)

Given task conditions pretty much give away what the outcome of the JPM will be. JPM should be re-written with more subtle numbers to hit a different part of the TS, instead of the 25gpm portion. 4400% change is glaring, and they would be blind not to see it

Admin A.1.2 (common on RO & SRO)

Evaluate possibly adding more RO work hours to this JPM to increase LOD a little bit

SRO should not be directed to fill out a form. They should instead be asked, "if RO #2 is the only available operator and required to work, what actions are required?" Once SRO gives correct response of processing waiver, provide them with the form.

RO Admin A.2

None

SRO Admin A.2

None

SRO Admin A.3

None

RO Admin A.4

None

SRO Admin A.4

No real intricacies for the EAL call, it is a very straightforward GE call, increase LOD. As written can make the GE call off -210" and venting per EP-DS-004, all the other stuff is somewhat extraneous. Discussed with Andy maybe increasing LOD and adding more subtlety making the emphasis more electrical and at an SAE level also adding possible challenges to Unit 2 as well.