

Admin JPMs

1. Appears excessive overlap/repetition on RO Admins from previous two operating exams (2009 & 2005).
 - Time to boil on loss of SDC – used on 2009 exam.
 - Review survey map for SI-306 manual operation – used on 2005 exam
 - Determine SDM – used on 2009 exam

Two of these are flagged as Modified (time to boil, survey map) and one flagged as New (SDM). To meet the intent of NUREG for “not previously tested”, JPMs should not test the same knowledges and skills. Are the SDM and the Time to Boil JPMs sufficiently modified that they are testing different skills? If testing use of the same curves and formulas, should probably not count these as significantly modified. Per ES-301 Page 10, “a significant modification means that at least one condition has been substantively changed **in a manner that alters the course of action of the JPM.**”

2. Proposed RO spare (shutdown safety assessment) is the same topic that was tested as an SRO admin item on the 2009 exam. Is this an SRO or an RO topic?

Control Room/In-plant JPMs

3. On the combined RO/SROI ES-301-2 form, need to identify which control room JPM is RO only.

Simulator Scenarios

4. For all scenarios, what are the Critical Tasks.
5. L12 and L14 are both 2% power scenarios. Change one of them to 50%-75% power range.
6. Scn L11 is essentially the same as ES08L13, CEA slips 35 steps, downpwr to 70%, 2nd dropped rod, manual reactor trip, lose a safeguards bus and other facility AFW pump (TDAFW OOS in setup), leads to loss of all feedwater, recovery with condensate (ES08L13 went to once through cooling).

Looks like double counting CEA slip for RO as first - a component failure and second - a reactivity manipulation. Does not look like an RO component since mitigative action taken by BOP to reduce turbine load.

Bus 24D fault is not a component failure. It is part of the major (loss of all feedwater).

Recommend do not have TDAFW OOS in setup, trip it upon start signal.

Recommend replace CEA slip and 2nd dropped with something else.

7. Scn L12 very similar to ES08L12.

Recommend change Circ Wtr Screen D/P to another screen, used D CW Screen in

ES08L12.

Recommend add to A RBCCW Pump malfunction that B RBCCW fails to start if demanded – forcing crew to stop remaining RCPs and perform C/D and SG isolation on natural circulation.

8. Scn L14, recommend change W/B leak to another shell, used C W/B in ES08L11.

What mitigative actions are required by board operators for loss of PPC? Can this qualify as an instrument failure?

Written

9. Tier 2, Group 2 totals do not match between ES-401-2 cover sheet and body of ES-401-2. Cover shows 1,0,1,1,2,1,1,1,1,0, where body shows **2,0,0,1,2,1,1,1,1,0**.
10. Tier 1, Group 1 totals do not match between ES-401-2 cover sheet and body of ES-401-2 **ON THE SRO EXAM**. Cover shows 1,5,6, where body shows only 4 generics with an **X** beside them. Should there be an **X** beside 2.1.32, Ability to explain and apply system limits and precautions?

Millstone Unit 2 Operating Exam Comments

Admin JPMs

RO-A1.1R: Just provide the required drawings instead of having the applicant ask for them. JPM opens drains first whereas the key has the vents opened first.

RO-A2R: Need to specify an EOC offload or an emergency offload in the initial conditions in order to use Table 1 of Attachment 3 in the procedure.

Should the applicant interpolate the heat up rate for 12 days after shutdown?

RO-A3R: Couldn't open the survey map to confirm answers.

RO-A4R: No comment. (Just need to verify during prep week.)

SRO-A1.1S: 4th bullet initial conditions typo – add “and” (has been entered into...)

The second bullet of Step 3 of the JPM asks about Identified Leakage yet the standard refers to unidentified leakage.

Second and fourth spread sheets are entitle “Identified Leakage” yet the data is unidentified leakage.

Not sure what the “baseline mean” is? (90 day average?)

SRO-A1.2S: No comment.

SRO-spare: Don't need cue in JPM step 2 as it has already been provided.

JPM steps 1 & 2 conflict as to which operator (1 or 2) can come in.

SRO-A2S: 4th bullet in initial conditions typo – add “be”

Ask “What TS required actions are necessary?” to avoid an open-ended task.

Include entry into TS 3.1.3.6.D as an expected response.

SRO-A3S: No comment.

SRO-A4S: What is the purpose of the two times (14 & 21 minutes)?

Simulator JPMs

3.1: No comment.

S1.1: No comment.

S2.1: No comment

S4s.1: No comment. (Where is the Hot Shutdown Panel – C-21?)

S5.1: JPM step 6 – Is this verified (then not critical) or performed?

S6.1: Is this an alternate path JPM? It seems that this is not procedurally driven. (See JPM step 14 – asking for a recommendation.)

S7.1: JPM Step 2 – Is SWP “A” to be running or not?

JPM Steps 12 & 15 are not critical. (Check/observe light lit.)

S9.1: No comment.

In-Plant JPMs

Why four JPMs?

JPM-013: No comment.

JPM-124: No comment.

JPM-P2.2: No comment.

JPM-P4.1: No Comment.

Simulator Scenarios

Scenario 1: The RO appears to only get credit for a p manipulation.

CT -1 does not appear to meet requirements since an auto trip will protect the plant and public.

Still counting CEA slip as a component failure for RO, but BOP is only operator taking compensatory actions. CEA is never recovered. Scenario only has one component failure for the RO.

Scenario 2: It appears that the BOP only gets two beans in this one – N & C.

There is no p unless we a post-trip emergency boration.

CT-1 does not appear to meet requirements since 2 stuck rods on a tube rupture not likely to result in inadvertent return to criticality and therefore no significant public safety impact

Scenario 3: I have never seen a post-LOCA cooldown designated as a critical task (CT1). What is the safety significance of failing to start the cooldown w/in one hour?

General: Scenarios do not explain when to initiate the next event in the scenario as expected by Item 3 of ES-301-4, "Qualitative Attributes". Should state something to the effect of "initiate next event when x, y, z completed or at lead examiner's discretion".