

DRAFT OUTLINE COMMENTS

Facility: Grand Gulf

First Exam Date: 6/28-7/02/2010

Written Exam Outline	
(Date)	
	Comment
Resolution	
1	No Comments
2	
3	
4	
5	

Administrative JPM Outline	
(Date)	
	Comment
Resolution	
1	On the RO Conduct of Ops JPM, include the title (i.e. what is the JPM)
Title will be added on following revisions.	
2	
3	
4	
5	

Control Room / In-Plant System JPM Outline	
(Date)	
	Comment
Resolution	
1	ES-301-2 for SRO-I: The SRO-I's don't have anything to test Safety Function 6. It doesn't appear there is an opportunity to evaluate their ability to manipulate electrical distribution/controls. There is an extra JPM that could address this (Battery Charger lineup). The outline for the SRO-Is meets the 1021 safety function requirements.
No resolution needed.	
2	There are only 4 alternate path JPMs which is the minimum allowable. Add one alternate path JPM so there are a total of 5.
A fifth alternate path JPM will be added.	
3	JPM f involves transferring RPS power from normal to/from alternate. Confirm these actions can be performed in the simulator and not a "talk-through."
Facility will verify where these actions are taken, and make changes accordingly.	
4	It is not clear from the outline how JPM I
Per 1021 this is a safety function 7. No	

	is a safety function 7. Followup with the exam author.	further action needed.
5		

Simulator Scenario Outline Comments		
(Date)		
	Comment	Resolution
1	In Scenarios 1 and 2, the first event (Normal) give credit to RO 1 and 2 for shifting Recirc Pumps to Fast Speed and placing a Feed Pump on the Master Level Controller in their BOP position. The action following these is for the ATC to raise power with control rods. Is there any chance the SS will direct the ATC to do both actions in series? How do they train their SS for prioritization on this? Concern is that if the SS directs the ATC to do these, followed by pulling rods, the BOP will not get their Normal evolution credit per the ES-301-5.	Discussed with exam authors. Will review as part of the exam validation.
2	Any concerns with exposing operators to 2 ATWS scenarios? Are they dissimilar enough? Examples: SRO-I 2 in Scenarios 1 and 3, RO 2 in Scenarios 3 and 5, SRO-I 3 in Scenarios 3 and 5	The number of scenarios will be decreased to address overlap issues.
3	ES-301-5: If the sixth scenario is needed, it would put the applicants in a fourth scenario that may be unneeded. If it is needed for the applicants in addition to the five scenarios, are there surrogates in standby for support?	A surrogate will be provided.
4	With 5 candidates, only 3 scenarios plus a spare are needed to administer the exam.	The facility will review the content and see if the exam can be accomplished with 3 scenarios vice 5/6.
5	Scenario 1 comments/questions: <ol style="list-style-type: none"> 1. Is shifting RR pumps typically done by the BOP? 2. What operator actions are required for the FHA rad monitor failure? 3. Because SLC will fail to inject boron, it cannot be used to mitigate the ATWS event. Therefore, attempting to initiate SLC is not a critical task. 4. Change critical task 1 to "Insert control rods either by scram or via RC&IS." 	This scenario will not be used.

	<ol style="list-style-type: none"> 5. What actions are required in response the EHC fluid leak by the ACRO? 6. What actions are taken by the ACRO in response to the failure of the A FZ level indicator? 	
	<p>Scenario 2 comments/questions:</p> <ol style="list-style-type: none"> 1. What actions are taken by the ACRO for the rod drift? 2. Raising power 5% with control rods will take a long time. 3. The wording for event 4 implies the HPCS pump will trip without any operator actions. What actions will the BOP be required to take for event 4. 4. Change the first critical task to "Open at least 7 SRVs prior to RPV level reaching -210 inches on the FZ range." 5. Change the second critical task to "Manually initiate Division II ECCS prior to RPV pressure going below 300 psig." 6. What is the 300 psig limit in the second critical task based on? 7. What size LOCA is the main event? I.e., if there is a rapid depressurization then there is no need to ED and this would not be a critical task. If there is no rapid depressurization then RCIC and main feedwater should be available for maintaining level. 8. What actions is the ACRO expected to take in response to the Division II failure to auto start? 	<p>Text changes will be made. Questions resolved. Will be reviewed in validation.</p>
	<p>Scenario 3 comments/questions:</p> <ol style="list-style-type: none"> 1. What actions are required for the failure of the RHR Hx bypass valve? 2. Scenario 1 has the BOP operating the RR system and this scenario has the ACRO operating the same system. Which operator is responsible for RR? 3. Event 5 has the ACRO responding to the loss of heater drain pumps. What are the ACRO actions? 4. Is the FW rupture in the drywell 	<p>Text changes will be made. Questions resolved. Will be reviewed in validation.</p>

	<p>basically the same event as the LOCA in the drywell in scenario 2?</p> <ol style="list-style-type: none"> 5. With a FW rupture in the drywell, why is an ED necessary (since the rupture will depressurize the RPV)? 6. If the FW rupture does not rapidly depressurize the RPV then why can level not be maintained with HPCS? 	
	<p>Scenario 4 comments/questions:</p> <ol style="list-style-type: none"> 1. What are the actions for the ACRO on the control rod drifting out? 2. The control rod drift is basically the same event as event 3 in scenario 2 (just different directions). 3. It is not clear from the critical tasks as written, what the actual tasks are. Rewrite the critical tasks so they are specific and measurable. 4. With power initially at 5%, it would seem there would be no need to pull rods to increase RPV pressure – just increase the pressure setpoint for the bypass valves. 5. This scenario does not meet the minimum “bean count” for events for the BOP. 6. Can RCIC be manually isolated during event 4/5? 	<p>Scenario 4 will not be used.</p>
	<p>Scenario 5 comments/questions:</p> <ol style="list-style-type: none"> 1. What actions are required by the BOP for events 2, 3, and 8? 2. This scenario does not meet the minimum “bean count” for events for the BOP. 3. The main event for this scenario is basically the same as scenario 1. 4. Change critical task 1 to “Insert control rods either by scram or via RC&IS.” 5. The HPCS jockey pump event exercises the same TS as event 4 in scenario 2. 6. Events 6 and 7 are the same event – delete event 7. 	<p>Text changes will be made. Questions resolved. Will be reviewed in validation.</p>

	<p>7. From the wording, it appears SLC will fail to inject boron and cannot be used to mitigate the ATWS event. Therefore, attempting to initiate SLC is not a critical task.</p> <p>8. It does not seem like scrambling the reactor as a result of thermal hydraulic instabilities meets the critical task threshold. Discuss with exam author.</p>	
	<p>Scenario 6 comments/questions:</p> <ol style="list-style-type: none"> 1. What size LOCA is the main event? I.e., if there is a rapid depressurization then there is no need to ED and this would not be a critical task. If there is no rapid depressurization then HPCS should be available for maintaining level. 2. It is not clear what “reduced injection systems” in event 6 means. 3. Change the first critical task to “Open at least 7 SRVs prior to RPV level reaching -210 inches on the FZ range.” 4. Change the second critical task to “The crew restores RPV level to greater than -191 inches.” 5. The main event is basically the same as scenario 2 and probably scenario 3. 6. What would happen if the operators took no action for events 5, 6, and 7? 	<p>Text changes will be made. Questions resolved. Will be reviewed in validation.</p>