DRAFT OUTLINE COMMENTS

Facility: CNS First Exam Date: 11/30/15

Written Exam Outline 9/23/15		
	Comment	**Resolution**
1	NRC Generated	
2	When updated outline submitted with draft exam, no need to include lined-out, replaced K/As on the ES-401-1 Form.	Deleted line outs.
3	When updated outline submitted, identify which questions test plant-specific priorities (including PRA and IPE insights). Example: System X is number 2 risk-significant system, etc.	Updated outline with PRA insights as applicable and attached CNS PSA Summary.
4	When systems are selected twice in a group, include them in separate columns (e.g. Q#30/31)	Separated rows

Administrative JPM Outline 9/23/15		
	Comment	**Resolution**
1	Number the Admin JPMs A1 through A9.	Renumbered JPMs as requested. RO's are A1 through A4, SRO's are A5 through A9.
2	For MODIFIED JPMs, when draft JPM submitted specify the modifications that were made.	Added revision statement to modified and new JPMs explaining differences.
3	All 4 RO Admin JPM topics have appeared on one of the previous 2 exams (2014 or 2012). Replace the "Suppression Pool temperature calculation" JPM with a different topic, and justify how the RadCon and E-Plan JPMs will be sufficiently modified from previous to allow re-use. 1 direct bank from previous 2 exams allowed.	Replaced RO JPM Supp Pool Temp calculation with Perform Thermal Limits checks for Daily Ops Log. The RO RadCon JPM is appropriately catagorized as "P", repeat JPM. The RO E-Plan JPM to calculate total curies released from a leaking tank was modified to involve a different tank, which has a different volumetric conversion factor, and a different total level that was drained. Validation proved this modification was discriminatory, because the wrong conversion factor was used by at least one validator.
4	SRO Equipment Control JPM, "Perform CRS Review of Jet Pump/Recirc daily operability checks" appeared on 2012 exam. Choose a different topic or Justify how sufficiently modified to allow re-use.	The SRO Jet Pump Surveillance JPM was replaced with SRO Review of Pre-start Checklist for Recirc Pump, which contains errors.

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Control Room / In-Plant System JPM Outline 9/23/15		
	Comment	**Resolution**
1	Rename JPMs "S1, S2, … S8, and P1, P2, P3."	Renamed JPMs as requested.
2	Type Code "E" is for emergency or abnormal in-plant, and should not be used to code simulator JPMs.	Removed "E" from simulator JPMs on ES-301-2
3	In-Plant JPMs: Safety Function 6 (JPM "j") has been sampled on the last 3 exams (2015 included); replace with a Safety Function that has not been sampled in that time (SF 3, 4, or 5) to reduce predictability.	Replaced Safety Function 6 in-plant JPM with Safety Function 4 new JPM, Local Isolation of RCIC Turbine.
4	In the quantitative attributes table, include the actual values in parentheses.	On ES-301-1 and ES-301-2 forms, added the actual attribute count in parenthesis beside each category in the attribute tables.

Simulator Scenario Outline Comments 9/23/15		
	Comment	**Resolution**
1	The CRS should get credit for all events (I, C, N, R).	The ES-301-5 form reflects the SRO is getting credit for all events.
2	Scenario 1 Event 6: An event can be counted as an Instrument/component malfunction or a Major but not both (applies to all scenarios – See ES-301 D.5.d).	Removed individual credits for component failures for all events credited as major events. ES-301-5 has been revised accordingly.
3	Scenario 1 Events 2 and 3: also count as "Abnormals" if significant and verifiable actions are required by an alarm response procedure. (applies to all scenarios, pre-Major events only. See Appendix D)	Per our discussion, credit is not taken for abnormal event for simplistic events where AOP entry is not required or where lack of crew response could not result in "significant", shorter-term degradation. Credit for abnormal events will not be taken for scenario 1 events 2 and 3. Credit for an abnormal event is still sometimes taken where expected operator response only involves ARP actions.

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Simulator Scenario Outline Comments 9/23/15		
4	Scenario 1 Event 4: "(RPS MG Set B trip) with (failure of SGT A Exhaust Fan)" … are these 2 separate malfunctions requiring independent responses, or are they necessary to each other and interrelated?	These are separate malfunctions that require independent responses. RPS B MG Set loss results de-energization of Group 6 logic, causing an isolation and SGT initiation. This requires response to energize RPS B from its alternate source and then recover from the half scram and isolation signals. The SGT A fan trip was added as a separate, recognizable malfunction to provide a TS opportunity for the SRO.
5	Scenario 1: Quantitative Attributes Table. "Total Malfunctions" is calculated on an event basis, and includes only those for which the crew takes verifiable actions and get credit for on Form 301-5. Same goes for Instrument/Component failures. For example, "Failure of RCIC auto isolation and RCIC isolation valve breaker trip" are a single malfunction.	Deleted "Total Malfunctions" row from the quantitative attribute tables that had been added for reference to the ES-D-1 forms. Also ensured the "Instrument/Component Malfunctions" count in those tables did not include malfunctions causing Major Events. The ES-301-5 submitted were not constructed from the "Total Malfunction" count and were correct for the scenarios submitted, except for the Component Malfunctions credited for Major Events, as previously noted.
6	Scenario 2 Event 5: Loss of Offsite Power with trip of RHR Pumps A and C should be considered a separate major event.	Listed Event 5 in scenario 2 as a separate major event.
7	Scenario 3 Event 5: Major event is a hydraulic block ATWS, same as Scenario 1. Justify how the response is sufficiently different to allow repetition, or modify the major on one of the scenarios.	In scenario 1, the ATWS results in power below 3%. In scenario 3, the ATWS results in power ~20%. Scenario 3 requires a much different response per EOPs, specifically Level/Power control per EOP-7A. Also, scenario 1 results in Emergency Depressurization due to secondary containment parameters per EOP-5A. Scenario 2 does not require Emergency Depressurization. The ATWS malfunction in Scenario 1 serves two purposes. First, it maintains reactor pressure during the RCIC steam line break so that Emergency Depressurization will be required. Second, it makes the actions required for Emergency Depressurization different than non-ATWS EDs in scenarios 2 and 4.

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Simulator Scenario Outline Comments 9/23/15		
8	Scenario 3 Event 5: Does SLC failure to initiate have independent crew response, or is it integral to the ATWS? Separate event?	SLC failure in scenario 3 is to keep reactor power higher, to provide more challenge to the crew to exercise Level/Power Control. No additional component malfunction credit is taken for SLC failure, since there are no additional verifiable actions related to SLC failure.
9	Scenario 4: Add a normal event to start this scenario. Even though spare, needs to stand alone in case it needs to be used.	Added normal event to place the Main Generator Voltage Regulator in automatic at the beginning of the scenario.
10	Scenario 4 Event 4: Is the intention that the ARI automatically initiates or that operators manually initiate? If automatic, is this part of the event necessary?	This was originally intended to be an RPS failure event with automatic ARI functional, requiring no additional verifiable operator action. As discussed, there is no value in this, so the RPS failure has been removed.
11	Scenario 4 Event 4: Is the Turbine Trip necessary or can the FW line break be the sole major event initiator? Already have a Turbine Trip-initiated major in Scenario 3.	As discussed, removed the spurious turbine trip, since it added no additional verifiable operator action and because the goal is for operator diagnosis of the Feedwater line break. Therefore, the Feedwater line break will be the initiator.

General Comments 9/29/15		
	Comment	**Resolution**
1	Schedule: We prefer to run scenarios back-to-back, rather than run 1 scenario, then run JPMs, then run a second scenario. More efficient turnaround time.	Schedule changed to reflect scenarios will be run back-to-back, one per day.
2	Schedule: Our intent is to fly out Sunday Nov 29 in order to start exam activities Monday morning.	Schedule changed to reflect Monday morning exam start.