

## DRAFT OUTLINE COMMENTS

Facility: RB-2015-05-Retake

First Exam Date: June 5, 2015

<b>Written Exam Outline</b> (4/20/2015)			
<b>K/A</b>		<b>Comment</b>	<b>Resolution</b>
1	N/A	NRC Generated Outline (Rev 0)	N/A – Noted for Record
2	T1/G1 – 295038 / EK1.03 High Off-site Release Rate / 9 Emer & Abn Plant Evolutions	Reason for Rejection not acceptable – K/A is knowledge of operational implications of meteorological effects during HIGH OFF-SITE RELEASE RATE. The fact that they make no decisions is not relevant to K/A.  Replacement K/A is subject to rejection due to GFES knowledge.	Retained original K/A (Q56).
3	T1/G2 – 295035 / EK2.01 Secondary Containment High Differential Pressure / 5 Emer & Abn Plant Evolutions	Reason for Rejection not acceptable as written. It seems reasonable to write an RO question using system knowledge of Secondary Containment Ventilation System and High D/P of secondary containment.  Provide clarification as to why an RO question cannot be written with randomly selected K/A.	Revised Reason for Rejection to clarify inability to write a psychometrically sound question was due to not being able to write 3 plausible distractors after considerable effort.  Randomly redrew EK2.03. (Q28)

<b>Written Exam Outline</b> (4/20/2015)		
K/A	Comment	Resolution
4  T2/G1 – 259002 / K5.07 Reactor Water Level Control SF 2 – Inventory Control	Reason for Rejection not acceptable – why was replacement K/A not selected from K5?	RBS has motor driven RFPs so turbine speed control (K5.07) is N/A. Remaining K5 K/A's were either not applicable to RBS or were < 2.5 (all were evaluated as not having a site-specific reason to be considered 2.5 or greater).  Randomly redrew K6.03 (Q23). Note - this system is sampled twice in T2/G1 (other K/A is K4.10, Q14).  After all K/A's were appropriately identified, ES-401-1, BWR Exam Outline, was updated.
5  T2/G2 – 201002 / K1.05 Reactor Manual Control System SF 1 – Reactivity Control	Reason for Rejection not acceptable – why was replacement K/A not selected from a T2/G2 system that hadn't been sampled?  The preferred system would be 201005 RCIS but it was already selected as Q29 so another T2/G2 system not yet selected should be randomly selected for replacement. See General comment below for guidance.  It doesn't look like this replacement was updated on the Page 1 summary.	Replacement system for RMCS at RBS is RC&IS. However, RC&IS was already sampled (Q29) so another system was randomly selected.  The sampling methodology, however, was not correct. With the guidance provided, another system was randomly selected. Replacement K/A is now 201003 – Control Rod Drive Mechanism, K1.01 (Q28).  After all K/A's were appropriately identified, ES-401-1, BWR Exam Outline, was updated.

<b>Written Exam Outline</b> (4/20/2015)		
K/A	Comment	Resolution
6	<p>T2/G2 – 214000 / G2.4.21 Rod Position Information System SF 7 – Instrumentation</p> <p>Reason for Rejection not acceptable – why was replacement K/A not selected from a T2/G2 system that performs this function at RBS? If not available in T2/G2 systems, then a system not yet selected should be randomly selected for replacement. See General comment below for guidance.</p> <p>It doesn't look like this replacement was updated on the Page 1 summary.</p>	<p>Replacement system for RMCS at RBS is RC&amp;IS. However, RC&amp;IS was already sampled (Q29) so another system was randomly selected.</p> <p>The sampling methodology, however, was not correct. With the guidance provided, another system was randomly selected. Replacement K/A is now 204000 – RWCU, G.2.4.31 (Q30).</p> <p>After all K/A's were appropriately identified, ES-401-1, BWR Exam Outline, was updated.</p>
7	<p>T2/G2 – 226001 / A3.01 RHR/LPCI: CTMT Spray Mode SF 5 – Containment Integrity</p> <p>219000 RHR/LPCI: Torus/Pool Cooling Mode is a T2/G2 system so replacement is acceptable.</p> <p>However, revise ES-401-4 to reflect "Redrew within T2/G2 to 219000 A3.01" or similar.</p>	<p>Revised ES-401-4 as directed (Q31).</p> <p>After all K/A's were appropriately identified, ES-401-1, BWR Exam Outline, was updated.</p>
8	<p>T2/G2 – 234000 / A2.01 Fuel Handling Equipment SF 8 – Plant Service Systems</p> <p>Reason for Rejection not acceptable as written. Add verbiage as to why randomly selected K/A has low operational validity for discriminatory RO question. (JTA for RO's at RBS does not include use of procedures for refueling system interlock failures).</p> <p>Replacement K/A (A2.03) is acceptable.</p>	<p>Revised ES-401-4 with more detail as to why the original K/A has low operational validity for RO's at RBS.</p>
9	<p>N/A</p> <p>Once correct K/A replacements are identified, ensure Page 1 summary is revised accordingly.</p>	<p>Updated Page 1.</p>

<b>Written Exam Outline</b> (4/20/2015)		
<b>K/A</b>	<b>Comment</b>	<b>Resolution</b>
10	N/A Ensure future revisions of ES-401-1 and 401-4 forms include a revision number and Facility and Date of Exam are filled out. Draft Outline submittal included: ES-401-1, Rev 1 ES-401-4, Rev 0	Noted.
11	N/A Additional review of the Draft Outline will be conducted by Chief Examiner if any changes are made (to Rev 1) in the docketed letter to NRC.	No changes were made to the outline (docketed letter submitted Outline Rev 1). No additional review required by Chief Examiner.
12	N/A Order of questions:  Q1-Q26      T2/G1 Q27-Q38      T2/G2 Q39-Q58      T1/G1 Q59-Q65      T1/G2 Q66-Q75      T3	N/A – Noted for Record
13	N/A RBS exam team identified 3 errors in Rev 0 of the NRC provided outline. All errors were in T1/G1 and included the “X” being placed in the wrong K/A Catalog column for Q55, 56 and 58. This resulted in the totals on Page 1 being incorrect.	Rev 0 was updated to Rev 0A. The corrected outline was used as the basis for changes made by RBS as documented on the ES-401-4 form.  After approved changes to all K/A’s were complete, the Page 1 totals were corrected and are included in Written Exam Outline Rev 3.

General

It is not within NUREG 1021 guidance to reselect from the Safety Function. When it is necessary to reselect a randomly selected K/A, the order in which the reselection is done is as follows:

- 1) the same randomly selected K/A category (K1.01 to K1.04), then
- 2) within the same system (K1 to K5), then
- 3) within the same Tier and Group (T2/G2: 201002 RMCS to 201005 RCIS) such that the new system is within the intent of the randomly selected K/A (performs the same function)
- 4) within the same Tier and Group (T2/G2: 201004 RSCS to 204000 RWCU) such that the new system is randomly selected from those systems not yet selected

In no circumstances is it allowed to reselect across Tiers and Groups, even if the same Safety Function is maintained.