Quad Cities 2023 Initial License Exam
Operating Test Outline Review Comments

JPM Outline Comments		
1.	**NRC:**	No Comments
	Facility:	N/A

Simulator Scenario Outline Comments		
•	**NRC:**	(Generic Scenario Comment) – Scenario Critical Tasks. ES-3.3, page 14 of 17, Item 2, lists the elements of a critical task. A Measurable Performance Standard is among the key attributes. Critical tasks need to be clearer. See the description in ES-3.3 for a more detailed description. Additionally, critical tasks are often clearer when written in active voice. As an example, Scenario 1, CT 1 could be stated as: 1a) With a reactor scram required AND the reactor not shutdown, INJECT boron BEFORE 110 °F Torus Temperature. -OR- 1b) With a reactor scram required AND the reactor not shutdown, INSERT enough Control Rods such that the reactor will REMAIN SHUTDOWN UNDER ALL CONDITIONS, BEFORE exceeding ANY Primary Containment design limit (include temperature & pressure limit values here). There is no need to include BWROG references as part of the critical task. If this information is needed or helpful for your internal processes, please relocate it to the summary page.
	Facility:	Revised as recommended.
•	**NRC:**	(Generic Scenario Comment) – Ensure that Reactivity and Manual Control of Automatic Function Event/Evolution Types are explicitly marked in the outline and identified/discussed in the summary section. E.g., Scenario 2, Event 7, should be marked as Major and Reactivity.
	Facility:	Corrected.

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Simulator Scenario Outline Comments		

•	**NRC:**	(Generic Scenario Comment) – Based on data from Form 3.4-1, it appears that the outline does not contain a spare scenario. E.g., the data shows that all four scenarios have been used. The exam submittal must contain a spare scenario. (Refer to ES-3.4, page 3 of 10.) Two potential solutions to this issue might be:
		• Create and validate a spare scenario
		  ○ If you chose this option, be sensitive to potential overlap issues with the written outline.
		• Run three of the scenarios for each crew and call the fourth scenario the spare.
		  ○ ES-3.4 (3rd major bullet on page 2 of 10), discusses reducing the number of scenarios required to administer the exam by running the same scenario multiple times in a single day.
		  ○ This would require that the data in Form 3.4-1 be updated.
		  ○ If you select this option, schedule to run 2 scenarios 4 times for each of the 4 crews for 2 days and then 1 scenario 3 times (for the non-surrogate, 3-person crews) on the 3rd day... Then ONLY 4 scenarios are required.

	Facility:	The 4th scenario is the spare. Scenarios 1 through 3 will be the primary scenarios run ensuring that no applicant has more than N+1 scenarios.
•	**NRC:**	(Form 3.4-1, SRO-I-1, Scenario 1 / Event #7) – Event #7 Manual Control of Automatic Function Event: The outline gives the applicant credit for this activity even though the applicant is acting in the SRO crew position. ES-3.4, Page 5 of 10, Item 2, states that manual control of an automatic function event must occur while the SRO-I is in the ATC/BOP position. Two potential solutions to this issue might be: • Create an activity for SRO-I-1 while he is in the BOP/ATC position. • Recognize that this issue may be resolved or affect a different candidate as a result of the resolution of the spare scenario.
	Facility:	Corrected.

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Written Outline vs. Operating Outline Potential Overlap Comments		
1.	**NRC:**	Written outline, (295025EA1.07) Ability to operate or monitor the following as they apply to (EPE 2) HIGH REACTOR PRESSURE: (CFR: 41.7 / 45.6) ARI/RPT/ATWS Operating outline has multiple ATWS items, will you be able to craft a question without overlap concerns?
	Facility:	This K/A was replaced. The new K/A is not ATWS-related.
2.	**NRC:**	Written outline, (262001) (SF6 AC) AC ELECTRICAL DISTRIBUTION (291008K1 .01) COMPONENTS: Breakers, Relays, and Disconnects Purpose for racking out breakers (deenergize components and associated control and indication circuits): (CFR: 41.7) Ensure that written question does not overlap with 480 VAC Bus 15 and / or BUS 16 Tie ACB which are used during JPM e.
	Facility:	The question was verified to have no overlap with JPM e.
3.	**NRC:**	Written outline, (215002K4.01) Knowledge of (SF7 RBMS) ROD BLOCK MONITOR SYSTEM design features and/or interlocks that provide for the following: (CFR: 41.7) Rod withdrawal blocks. AND JPM f, IRM Detector NOT FULL IN Position Rod Block Functional Test Will you be able to craft a question without overlap concerns?
	Facility:	The question was verified to have no overlap with JPM f.