Facility: **McGuire**		Date of Examination:	**4/2018**
Examination Level:	**RO**	Operating Test Number:	**N18-1**

Administrative Topic (see Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	M, R	2.1.25 (3.9)	Ability to interpret reference materials, such as graphs, curves, tables, etc.
		JPM:	Perform an Estimated Critical Boron Concentration
Conduct of Operations	D, R	2.1.7 (4.4)	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation.
		JPM:	Calculate QPTR with an Inoperable Power Range Instrument
Equipment Control	N, R	2.2.41 (3.5)	Ability to obtain and interpret station electrical and mechanical drawings.
		JPM:	Determine Leak Isolation Boundaries
Radiation Control	N, R	2.3.4 (3.2)	Knowledge of radiation exposure limits under normal or emergency conditions.
		JPM:	Determine Allowable Exposure

NOTE: All items (5 total) are required for SROs. RO applicants require only four items unless they are retaking only the administrative topics (which would require all five items).

*Type Codes & Criteria:
(C)ontrol room, **(0)** (S)imulator, **(0)** or Class(R)oom **(4)**
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) **(1)**
(N)ew or (M)odified from bank (≥ 1) **(3)**
(P)revious 2 exams (≤ 1; randomly selected) **(0)**

RO Admin JPM Summary

A1a This is a modified JPM. The operator will be told that a Unit 1 startup in progress per OP/1/A/6100/001 (Controlling Procedure for Unit Startup), that all steps are complete up to determining the desired estimated critical rod height, and that the performance of the estimated critical rod height determination has resulted in the need to perform Enclose 4.1 (Estimated Critical Boron Concentration) of OP/0/A/6100/006 (Reactivity Balance Calculation). The operator will be provided with an initial set of plant /reactor conditions; and directed to perform an Estimated Critical Boron Concentration per Enclosure 4.1 of OP/0/A/6100/006 (Reactivity Balance Calculation). Additionally, the operator will be directed to determine if the ECP is valid if there is a delay of 1.5 hours past the current anticipated time of criticality. The operator will be expected to determine that the Measured Critical Boron is 1839 PPM (See attached KEY); and then identify that the delay will not invalidate the ECP.

A1b This is a Bank JPM. With the plant at 74% power, the operator will be told that the Unit 1 OAC failed and is not operating, and that PR-41 has been removed from service. The operator will be directed to calculate QPTR in accordance with PT/1/A/4600/21A (Loss of Operator Aid Computer while in Mode 1) and to identify all additional Technical Specification LCOs, if any, that are NOT met. The operator will be expected to calculate the QPTR (Per Attached Key) and determine that Technical Specification LCO 3.2.4 is not met.

A2 This is a new JPM. The operator will be told that Unit 1 is operating at 100% power, that the A Train of KC is operating, that suspecting a KC System leak the crew entered AP/1/A/5500/21, Loss of KC or KC System Leakage, and that an AO has just reported that there is a piping leak on the pressure side of 1KC-858 (Train A Surge Tank Riser Line Vent). The operator will be directed to (1) identify the closest leak isolation boundary valves for this leak, (2) identify which, if any, of these valves need to be re-positioned from their current position, and (3) identify the Breaker for any electrically operated leak isolation boundary valve that may need to be operated. The operator will be expected to review the Flow Diagram of Component Cooling System (KC) and determine the closest leak isolation boundary valves for this leak, locate and review OP/1/A/6400/005A and determine the boundary valves that need to be re-positioned and identify the Breaker for 1KC-1A and 3A in accordance with the Attached KEY.

A3 This is a new JPM. The operator will be told that the plant is on Cold Leg Recirculation following a LOCA, that they are an available operator assigned to the Operational Support Center, given an annual TEDE, and told that some of the dose that they have received this year has been at another nuclear facility. The operator will also be given a repetitive task to perform, a general area doserate, the expected dose to be received transiting to and from the area, and an amount of time that the task is expected to take. The operator will then be directed to (1) determine the estimated exposure each time the repetitive task is performed, including estimated transit exposure; (2) based on their answer, determine the maximum number of times that they can perform the task without requiring either an exposure extension or use of emergency exposure limits, and (3) determine who is required to approve a dose extension to 4500 mrem. The operator will be expected to determine that 26.66 [+0.33, -0] mrem will be obtained each time the task is performed and predict that the assigned task can be performed no more than 9 times without

requiring an exposure limit extension. Then, the operator will determine that an extension to 4500 mrem must be approved by the Shift Manager and the RPM.

Facility: **McGuire**		Date of Examination:	**4/2018**
Examination Level:	**SRO**	Operating Test Number:	**N18-1**

Administrative Topic (see Note)	Type Code*	Describe activity to be performed	
Conduct of Operations	D, P, R	2.1.25 (4.2)	Ability to interpret reference materials, such as graphs, curves, tables, etc.
		JPM:	Perform/Review a Manual NC Leakage Calculation
Conduct of Operations	M, R	2.2.41 (3.8)	Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, “no-solo” operation, maintenance of active license status, 10CFR55, etc.
		JPM:	Determine License Status
Equipment Control	N, R	2.2.41 (3.5)	Ability to obtain and interpret station electrical and mechanical drawings.
		JPM:	Determine Leak Isolation Boundaries
Radiation Control	D, R	2.3.6 (3.8)	Ability to approve release permits.
		JPM:	Approve a Liquid Release Permit
Emergency Procedures/Plan	M, R	2.4.44 (4.4)	Knowledge of emergency plan protective action recommendations.
		JPM:	Provide an Updated PAR

NOTE: All items (5 total) are required for SROs. RO applicants require only four items unless they are retaking only the administrative topics (which would require all five items).

*Type Codes & Criteria:
(C)ontrol room, **(0)** (S)imulator, **(0)** or Class(R)oom **(5)**
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) **(2)**
(N)ew or (M)odified from bank (≥ 1) **(3)**
(P)revious 2 exams (≤ 1; randomly selected) **(1)**

SRO Admin JPM Summary

A1a This is a Bank JPM. The operator will be told that Unit 1 is at 100% power, the Unit 1 OAC point M1L4554 is out of service, and that PT/1/A/4200/040 (Reactor Coolant Leakage Detection) has been completed showing that total NCS Leakage is 1.6 gpm. The operator will be given Enclosure 13.2 (NC Leakage Determination Using Manual Calculations) of PT/1/A/4150/001B (Reactor Coolant Leakage Calculation) with the necessary raw data compiled on a Data Sheet; and directed to complete the calculations within the Enclosure. The operator will be expected to complete all calculations in accordance with the provided Key, identify any Technical Specification Limits that have been exceeded, and identify with all Technical Specification ACTION. This JPM appeared on the 2015 Initial License Exam and was randomly selected for the 2018 Exam.

A1b This is a modified Bank JPM. The operator will be provided with the work histories and qualifications of three Senior Reactor Operators that have not stood a Control Room shift in the current quarter. The operator will be directed to determine whether or not any of these SROs can be assigned to an upcoming shift as the CRS. The operator will be expected to determine that two SROs are eligible to work the CRS position on the designated work day; while a third SRO is NOT eligible because he did NOT work the required 5 complete twelve hour shifts in a qualifying license position during the previous quarter.

A2 This is a new JPM. The operator will be told that Unit 1 is operating at 100% power, that the A Train of KC is operating, that suspecting a KC System leak the crew entered AP/1/A/5500/21, Loss of KC or KC System Leakage, and that an AO has just reported that there is a piping leak on the pressure side of 1KC-858 (Train A Surge Tank Riser Line Vent). The operator will be directed to (1) identify the closest leak isolation boundary valves for this leak, (2) identify which, if any, of these valves need to be re-positioned from their current position, (3) identify the Breaker for any electrically operated leak isolation boundary valve that may need to be operated, and (4) assuming the leak has been isolated, identify any required Technical Specification ACTION. The operator will be expected to review the Flow Diagram of Component Cooling System (KC) and determine the closest leak isolation boundary valves for this leak, locate and review OP/1/A/6400/005A and determine the boundary valves that need to be re-positioned, identify the Breaker for 1KC-1A and 3A, and identify that ACTION A.1 of Technical Specification LCO 3.7.6 must be taken in accordance with the Attached KEY.

A3 This is a Bank JPM. The operator will be provided with a list of equipment that is Out-of-Service (OOS) which will include some Liquid Radwaste monitoring equipment. The operator will be told that Unit 1 and Unit 2 are in Mode 1 at 100% power, that there are no on-going liquid radiation releases, that Attachment 1 ('B' WMT Release Using 'B' WMT Pump) of OP/0/B/6200/607 (Liquid Waste Release – WMT ‘B’ with WMT Pump ‘B’) is in progress in preparation for release of the B Waste Monitor Tank, that Attachment 10 ('B' WMT Release Authorization) has been initiated, that RP has just delivered the LWR package # 2018067 to the Control Room, and that all available RC Pumps are running. The operator will be directed to review and approve LWR Package # 2018067 by performing Steps 9-12 of Attachment 10 (‘B’ WMT Release Authorization) of OP/0/B/6200/607; and if LWR Package # 2018067 cannot be approved, identify why not. The operator will be expected to determine that LWR Package # 2018067 cannot be

approved because the recommended Release Rate is GREATER THAN the Allowable Release Rate and 0EMF49 has NOT been source checked.

A4 This is a modified JPM. The operator will be placed in a post-accident condition with a Large Break LOCA with a release from the Containment. The operator will be told that a General Emergency has been declared, and provided with the initial Protective Action Recommendation (PAR). The operator will be given a subsequent set of plant conditions and meteorological data, and asked to prepare an EXPANDED PAR and submit the Emergency Notification Form to the Emergency Coordinator for approval. The operator will be expected to determine the EXPANDED PAR for the current conditions and complete the Emergency Power Plant Emergency Notification Form per the provided KEY within 15 minutes.

Facility: **McGuire**		Date of Examination:	**4/2018**
Exam Level (circle one):	*RO (only)* / SRO(I) **/ SRO (U)**	Operating Test No.:	**N18-1**

Control Room Systems@ (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)			
	System / JPM Title	Type Code*	Safety Function
A.	**APE 026 Loss of Component Cooling Water [APE 026 AA1.02 (3.2/3.3)]** **Respond to High VCT Temperature**	**S, P, D, A**	**8**
B.	**026 Containment Spray System [026 A4.01 (4.5/4.3)]** **Align the Containment Spray System to Cold Leg Recirculation**	**S, D, A, EN, L**	**5**
C.	**APE 024 Emergency Boration [APE 024 AA1.17 (3.9/3.9)]** **Emergency Borate in Mode 6**	**S, N, A, L**	**1**
D.	010 Pressurizer Pressure Control System [010 A4.02 (3.6/3.4)] Remove Pressurizer Heaters from Service	S, D, P, A	3
E.	006 Emergency Core Cooling System [006 A4.02 (4.0/3.8)] Isolate the SI Accumulators during Degraded Core Cooling	S, N, A, EN, L	2
F.	APE 061 ARM System Alarms [061 AA2.01 (3.5/3.7)] Control Room Air Intake High Radiation Alarms	S, D	7
G.	045 Main Turbine Generator System [045 A4.02 (2.7/2.6)] Synchronize the Main Turbine Generator to the Grid	S, D	4S
H.	*EPE 074 Inadequate Core Cooling [074 EA1.09 (3.7/3.8)]* *Align Alternate Makeup During Inadequate Core Cooling Conditions*	*S, M, L*	*4P*
In-Plant Systems:* 3 for RO; 3 for SRO-I; 3 or 2 for **SRO-U**			
I.	**APE 058 Loss of DC Power [APE 058 AA1.03 (3.1/3.3)]** **Swap Battery Charger EVCA Power Supply from Unit 1 to Unit 2**	**D, R, E, L**	**6**
J.	**061 Auxiliary/Emergency Feedwater System [061 A2.04 (3.4/3.8)]** **Start # 1 Turbine Driven CA Pump**	**D, R**	**4S**
K.	008 Component Cooling Water System [008 A2.02 (3.2/3.5)] Makeup to the Unit 1 KC Surge Tanks	D, R, E	8

*	All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions, all five SRO-U systems must serve different safety functions, and in-plant systems and functions may overlap those tested in the control room.
* Type Codes	Criteria for R / SRO-I / SRO-U
(A)lternate path	4-6 (5) /4-6 (5) / 2-3 (3)
(C)ontrol room	
(D)irect from bank	≤ 9 (8) /≤ 8 (8) / ≤ 4 (4)
(E)mergency or abnormal in-plant	≥ 1 (2) /≥ 1 (2) / ≥ 1 (1)
(EN)gineered Safety Feature	≥ 1 (2) /≥ 1 (2)/ ≥ 1 (1) (Control Room System)
(L)ow-Power / Shutdown	≥ 1 (5) /≥ 1 (4) / ≥ 1 (3)
(N)ew or (M)odified from bank including 1(A)	≥ 2 (3) / ≥ 2 (2) / ≥ 1 (1)
(P)revious 2 exams	≤ 3 (2) / ≤ 3 (2)/ ≤ 2 (1) (Randomly Selected)
(R)CA	≥ 1 (3)/≥ 1 (3) / ≥ 1 (2)
(S)imulator	

JPM Summary

JPM A This is a Bank JPM. The operator will be told that Unit 1 was at 100% power when a leak developed in the KC System, that the crew has entered AP/1/A/5500/21 (Loss of KC or KC System Leakage) and has completed actions through Step 12. They will be told that MCB Annunciator 1AD-7, D1, VCT HI TEMP, has just alarmed, making Foldout Page item #5 applicable. The operator will be directed to perform the actions of Enclosure 4.6 of AP/1/A/5500/21 (Loss of KC or KC System Leakage), while the crew continues with the AOP. The operator will be expected to isolate Letdown, and attempt to start the PD Pump. When the PD Pump fails to start **(Alternate Path)**, the operator will align the suction of the NV Pumps to the FWST. This JPM appeared on the 2015 Initial License Exam and was randomly selected for the 2018 Exam.

JPM B This is a Bank JPM. The operator will be told that a High Energy Line Break has occurred inside Containment, that EP/1/A/5000/ES-1.3 (Transfer To Cold Leg Recirc) has been implemented and completed through step 6, and that the FWST Level is approximately 80 inches and lowering. The operator will be directed to perform Steps 7 and 8 of EP/1/A/5000/ES-1.3 (Transfer To Cold Leg Recirc). The operator will be expected to attempt to align the 1A NS Pump for operation until it is observed that 1NS-18A has failed to open **(Alternate Path)**. The operator will then be expected to align the 1B NS Train for operation, and secure the 1A NS Train operation.

JPM C This is a new JPM. The operator will be told that the plant is in Mode 6 with Core Alterations in progress, that Chemistry has just reported that a boron sample taken 30 minutes ago indicates that the RCS boron concentration is less than that required for Mode 6 indicating an NCS boron dilution may be occurring, and that MCB Annunciator 1AD-2/D3, S/R HI FLUX AT SHUTDOWN, has just alarmed. The operator will also be told that the 1B BA Transfer Pump is available, however, due to elevated vibration levels, the 1A BA Transfer Pump is preferred. The operator will be directed to perform AP/1/A/5500/38, (Emergency Boration and Response to Inadvertent Dilution). The operator will be expected to perform steps 1-12 of AP/1/A5500/38, initiate emergency boration using the 1A BA Transfer Pump, and reinitiate emergency boration using the 1B BA Transfer Pump when 1ELXA de-energizes **(Alternate Path)**.

JPM D This is a Bank JPM. The operator will be told that plant power has just been raised to 100% per OP/1/A/6100/003 (Controlling Procedure for Unit Operation). The operator will be directed to remove Pzr Heater Groups A, B and D from service per Enclosure 4.6 (Operation of Pzr Heaters) of OP/1/A/6100/003. The operator will be expected to remove the A, B and D Pzr Heater Groups from service in accordance with the Enclosure. After the Pzr Pressure Master has been placed in MANUAL and its output has been adjusted, the Pzr Variable Heaters (Group C) will fail **(Alternate Path)**. The operator will operate Pzr Heater Group(s) as needed before MCB Annunciator 1AD-6, C6 alarms. This JPM appeared on the 2016 Initial License Exam and was randomly selected for the 2018 Exam.

JPM E This is a new JPM. The operator will be told that a loss of coolant accident has occurred, that multiple equipment failures resulted in an ORANGE Path on CORE COOLING, and that the crew has completed Steps 1 through 16 of EP/1/A/5000/FR-C.2 (Response to Degraded Core Cooling). The operator will be directed to perform Step 17 of EP/1/A/5000/FR-C.2 to isolate the Cold Leg Accumulators. The operator will be expected to isolate Accumulator A, B and C and vent Accumulator D per Step 17 of FR-C.2 when it is determined that it cannot be isolated **(Alternate Path)**.

JPM F This is a Bank JPM. The operator will be told that Units 1 and 2 are operating at 100% power, that Annunciator 1RAD-2 B2, EMF 43B CR AIR INTAKE B HI RAD, alarmed 45 seconds ago; and that Annunciator 1RAD-1 B2, EMF 43A CR AIR INTAKE A HI RAD, alarmed 15 seconds ago. The operator will be directed to perform the Annunciator Response Procedures for both alarms. The operator will be expected to determine that the Unit 2 intake presents a greater threat than Unit 1, and align the VC inlet to take suction on Unit 1 only; and then pressurize the Control Room from the B Train Outside Air Pressure Fan.

JPM G This is a Bank JPM. The operator will be told that Unit 1 is at 15% power, that a plant startup is in progress in accordance with Enclosure 4.1 (Power Increase) of OP/1/A/6100/003 (Controlling Procedure For Unit Operation), that the crew is currently at Step 3.32.17, and that all Clearances have been evaluated and will NOT impact Turbine Generator startup. The operator will also be told that the Main Turbine is operating at 1800 RPM, the crew is implementing OP/1/A/6300/001 (Turbine Generator Startup/Shutdown), and is currently at Step 3.16, and that the System Operation Center has been notified that Unit 1 will be paralleled to the grid. The operator will be given a surrogate to push and hold the SYNC pushbutton under their direction, and directed to synchronize the Main Turbine Generator with the Electrical Grid via the 1A Generator Breaker, and load it to 50 MWe per Step 3.16 of Enclosure 4.1 (Startup with Turbine Control in "Operator Auto") of OP/1/A/6300/001 (Turbine Generator Startup/Shutdown), and then complete Step 3.16. The operator will be expected to adjust the controls of the Turbine Generator and synchronize it to the Electrical Grid, load it to 50 MWe in Operator Auto, and complete Step 3.16 of Enclosure 4.1 (Startup with Turbine Control in "Operator Auto") of OP/1/A/6300/001 (Turbine Generator Startup/Shutdown).

JPM H This is a modified Bank JPM. The operator will be told that Unit 1 has had a LOCA, that all NV, NI and ND Pumps are either OOS, unavailable or have failed, that a Red Path exists on the Core Cooling Critical Safety Function, that the crew has entered EP/1/A/5000/FR-C.1, Response to Inadequate Core Cooling, and that they are an available operator in the Control Room. The operator will be directed to try to establish flow from all available sources per Enclosure 3 (Alternate Makeup Sources) of FR-C.1, while the crew continues in the body of the procedure. The operator will be expected to

initiate Enclosure 3 of FR-C.1 and start the Standby Makeup Pump per Enclosure 6 of FR-C.1.

JPM I This is a Bank JPM. The operator will be told that Unit 1 has just experienced a Loss of Offsite Power, that the 1A D/G will not start, and that 1ETA is de-energized. AP/1/A/5500/07, "Loss of Electrical Power," Case 1 has been implemented. The operator will be directed to swap power supplies to the EVCA Battery Charger from Unit 1 to Unit 2 in accordance with Enclosure 22 (Swapping Battery Charger Power Supplies) of AP/1/A/5500/07, (Loss of Electrical Power). The operator will be expected to place Battery Charger EVCA in service with power being supplied from Unit 2 within 15 minutes of dispatch. This is a Time Critical JPM.

JPM J This is a Bank JPM. The operator will be told that Unit 1 is at 100% power when the OAC alarm M1A1276 (U1 CA Temp at Chk Vlv 1CA-37) is received, that the temperature in the TD CA Pump discharge to the 1D S/G is 223°F, and that the CRS has determined the #1 Turbine Driven CA Pump should be started to cool the piping to the 1D S/G. The operator will be directed to locally start the Unit 1 Turbine Driven CA Pump per OP/1/A/6250/002 (Auxiliary Feedwater System), Enclosure 4.4 (Manual Operation of #1 TD CA Pump). The operator will be expected to locally start the #1 TD CA Pump and align the CA System valves to provide the required cooling.

JPM K This is a Bank JPM. The operator will be told that Unit 1 is operating at 100% power when the KC Surge Tank A and B lo level computer alarms are received, that the surge tank levels are 3.9 feet and decreasing, and that AP/1/A/5500/21 (Loss of KC or KC System Leakage) has been implemented. Since the YM System will be out of service, the operator will be directed to initiate makeup to both Unit 1 KC Surge Tanks per AP/1/A/5500/21 (Loss of KC or KC System Leakage), Enclosure 3 (Aligning RN Makeup to KC Surge Tank). The operator will be expected to manipulate valves and communicate with the Control Room to restore KC Surge Tank level to the allowable band in accordance with Enclosure 3 of AP/1/A/5500/21 within 10 minutes. This is a Time Critical JPM.

ES-301 **Operating Test Review Worksheet** **Form ES-301-7**

Facility: McGuire												**Exam Date: 2018-301**	
Admin JPMs	1 ADMIN Topic and K/A	2 LOD (1-5)	3 Attributes							4 Job Content		5 U/E/S	6 Explanation
			I/C Focus	Cues	Critical Steps	Scope (N/B)	Overlap	Perf. Std.	Key	Minutia	Job Link		
RO Exam													
A1a	2.1.25	2										S	
A1b	2.1.7	2										E	Task bounding
A2	2.2.12	1									x	U	Task is insufficient to evaluate applicant competency
A3	2.3.14	1									x	U	Task is insufficient to evaluate applicant competency
SRO Exam													
A1a	2.1.25	2										E	CT acceptance bands
A1b	2.1.4	2										E	Applicant will need to determine reference
A2	2.2.12	1									x	U	Task is insufficient to evaluate applicant competency
A3	2.3.6	2										S	
A4	2.4.44	2										S	
Simulator/In-Plant JPMs	1 Safety Function and K/A												
A (U)	8	2										S	
B (U)	5	2										S	
C (U)	1	2										S	
D	3	2										S	
E	2	2										S	
F	7	2										S	
G	4S	2										S	
H (RO only)	4P	2										S	
I (U)	6	2										S	
J (U)	4S	2										S	
K	8	2										S	

Instructions for Completing This Table:

Check or mark any item(s) requiring a comment and explain the issue in the space provided using the guide below.

1. Check each JPM for appropriate administrative topic requirements (COO, EC, Rad, and EP) or safety function requirements and corresponding K/A. Mark in column 1. (ES-301, D.3 and D.4)

2. Determine the level of difficulty (LOD) using an established 1–5 rating scale. Levels 1 and 5 represent an inappropriate (low or high) discriminatory level for the license that is being tested. Mark in column 2 (Appendix D, C.1.f)

3. In column 3, "Attributes," check the appropriate box when an attribute is **not met**:
   - ☐ The initial conditions and/or initiating cue is clear to ensure the operator understands the task and how to begin. (Appendix C, B.4)
   - ☐ The JPM contains appropriate cues that clearly indicate when they should be provided to the examinee. Cues are objective and not leading. (Appendix C, D.1)
   - ☐ All critical steps (elements) are properly identified.
   - ☐ The scope of the task is not too narrow (N) or too broad (B).
   - ☐ Excessive overlap does not occur with other parts of the operating test or written examination. (ES-301, D.1.a, and ES-301, D.2.a)
   - ☐ The task performance standard clearly describes the expected outcome (i.e., end state). Each performance step identifies a standard for successful completion of the step.
   - ☐ A valid marked up key was provided (e.g., graph interpretation, initialed steps for handouts).

4. For column 4, "Job Content," check the appropriate box if the job content flaw **does not meet** the following elements:
   - ☐ Topics are linked to the job content (e.g., not a disguised task, task required in real job).
   - ☐ The JPM has meaningful performance requirements that will provide a legitimate basis for evaluating the applicant's understanding and ability to safely operate the plant. (ES-301, D.2.c)

5. Based on the reviewer's judgment, is the JPM as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 5.

6. In column 6, provide a brief description of any (U)nacceptable or (E)nhancement rating from column 5.

Save initial review comments and detail subsequent comment resolution so that each exam-bound JPM is marked by a (S)atisfactory resolution on this form.

Facility: McGuire				Scenario: 1			Exam Date: 2018-301		
1 Event	2 Realism/Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scen. Overlap	9 U/E/S	10 Explanation
1					X			S	
2							X	E	Remove ops manager cue
3					X		X	S	
4								S	
5						X		E	Modify CTs to bound to objective criteria (time till seal failure, FR-H.1 3SGWR <24(36)%)
6						X		S	
7								S	
7	0	0	0		2	2	6	S	

Facility: McGuire				Scenario: 2			Exam Date: 2018-301		
1 Event	2 Realism/Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scen. Overlap	9 U/E/S	10 Explanation
1								S	
2							X	S	
3					X	X		S	
4					X			S	
5						X		S	
6								S	
7						X		S	Modify CTs to bound to objective criteria (actions result in orange or red path)
7	0	0	0		2	3	6	S	

Facility: McGuire				Scenario: 3			Exam Date: 2018-301		
1 Event	2 Realism/Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scen. Overlap	9 U/E/S	10 Explanation
1					X		X	S	
2					X			S	
3								S	
4							X	E	Evaluate for critical task
5						X		E	The time critical nature of this CT is management expectation, discuss
6								S	
7								S	
8						X		S	Modify CTs to bound to objective criteria (actions result in orange path)
9								S	
9	0	0	0		2	2	7	S	

Facility: McGuire				Scenario: 4			Exam Date: 2018-301		
1 Event	2 Realism/Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scen. Overlap	9 U/E/S	10 Explanation
1					X			S	
2					X			S	
3							X	S	
4							X	S	
5								S	
6						X	X	E	CT 3, what is the objective measure of SG void fraction that is monitored
7								S	
7	0	0	0		2	3	4	S	

Instructions for Completing This Table:

Use this table for each scenario for evaluation.

2 Check this box if the events are not related (e.g., seismic event followed by a pipe rupture) **OR** if the events do not obey the laws of physics and thermodynamics.

3, 4 In columns 3 and 4, check the box if there is **no** verifiable or required action, as applicable. Examples of required actions are as follows: (ES-301, D.5f)

- opening, closing, and throttling valves
- starting and stopping equipment
- raising and lowering level, flow, and pressure
- making decisions and giving directions
- acknowledging or verifying key alarms and automatic actions (Uncomplicated events that require no operator action beyond this should **not** be included on the operating test unless they are necessary to set the stage for subsequent events. (Appendix D, B.3).)

5 Check this box if the level of difficulty is **not** appropriate.

6 Check this box if the event has a TS.

7 Check this box if the event has a critical task (CT). If the same CT covers more than one event, check the event where the CT started **only.**

8 Check this box if the event overlaps with another event on any of the last two NRC examinations. (Appendix D, C.1.f)

9 Based on the reviewer's judgment, is the event as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 9.

10 Record any explanations of the events here.

In the shaded boxes, sum the number of check marks in each column.

- In column 1, sum the number of events.
- In columns 2–4, record the total number of check marks for each column.
- In column 5, based on the reviewer's judgement, place a checkmark only if the scenario's LOD is not appropriate.
- In column 6, TS are required to be ≥ 2 for each scenario. (ES-301, D.5.d)
- In column 7, preidentified CTs should be ≥ 2 for each scenario. (Appendix D; ES-301, D.5.d; ES-301-4)
- In column 8, record the number of events not used on the two previous NRC initial licensing exams. A scenario is considered unsatisfactory if there is < 2 new events. (ES-301, D.5.b; Appendix D, C.1.f)
- In column 9, record whether the scenario as written (U)nacceptable, in need of (E)nhancement, or (S)atisfactory from column 11 of the simulator scenario table.

Facility:							Exam Date:		
Scenario	1 Event Totals	2 Events Unsat.	3 TS Total	4 TS Unsat.	5 CT Total	6 CT Unsat.	7 % Unsat. Scenario Elements	8 U/E/S	11 Explanation
1	8	0	2	0	2	0	0	S	
2	7	0	2	0	3	0	0	S	
3	9	0	2	0	2	0	0	S	
4	7	0	2	0	3	0	0	S	

Instructions for Completing This Table:

Check or mark any item(s) requiring comment and explain the issue in the space provided.

1, 3, 5 For each simulator scenario, enter the **total** number of events (column 1), TS entries/actions (column 3), and CTs (column 5). This number should match the respective scenario from the event-based scenario tables (the sum from columns 1, 6, and 7, respectively).

2, 4, 6 For each simulator scenario, evaluate each event, TS, and CT as (S)atisfactory, (E)nhance, or (U)nsatisfactory based on the following criteria:

a. Events. Each event is described on a Form ES-D-2, including all switch manipulations, pertinent alarms, and verifiable actions. Event actions are balanced between at-the-controls and balance-of-plant applicants during the scenario. All event-related attributes on Form ES-301-4 are met. Enter the total number of unsatisfactory events in column 2.

b. TS. A scenario includes at least two TS entries/actions across at least two different events. TS entries and actions are detailed on Form ES-D-2. Enter the total number of unsatisfactory TS entries/actions in column 4. (ES-301, D.5d)

c. CT. Check that a scenario includes at least two preidentified CTs. This criterion is a target quantitative attribute, not an absolute minimum requirement. Check that each CT is explicitly bounded on Form ES-D-2 with measurable performance standards (see Appendix D). Enter the total number of unsatisfactory CTs in column 6.

7 In column 7, calculate the percentage of unsatisfactory scenario elements: $\left(\frac{2+4+6}{1+3+5}\right)100\%$

8 If the value in column 7 is > 20%, mark the scenario as (U)nsatisfactory in column 8. If column 7 is ≤ 20%, annotate with (E)nhancement or (S)atisfactory.

9 In column 9, explain each unsatisfactory event, TS, and CT. Editorial comments can also be added here.

Save initial review comments and detail subsequent comment resolution so that each exam-bound scenario is marked by a (S)atisfactory resolution on this form.

Site name: **Exam Date:**

OPERATING TEST TOTALS

	Total	Total Unsat.	Total Edits	Total Sat.	% Unsat.	Explanation
Admin. JPMs	9	3	3	3		
Sim./In-Plant JPMs	11	0	0	11		
Scenarios	4	0	0	4		
Op. Test Totals:	24	3	3	18	12.5%	Satisfactory

Instructions for Completing This Table:

Update data for this table from quality reviews and totals in the previous tables and then calculate the percentage of total items that are unsatisfactory and give an explanation in the space provided.

1. Enter the total number of items submitted for the operating test in the "Total" column. For example, if nine administrative JPMs were submitted, enter "9" in the "Total" items column for administrative JPMs. For scenarios, enter the total number of simulator scenarios.

2. Enter the total number of (U)nsatisfactory JPMs and scenarios from the two JPMs column 5 and simulator scenarios column 8 in the previous tables. Provide an explanation in the space provided.

3. Enter totals for (E)nhancements needed and (S)atisfactory JPMs and scenarios from the previous tables. This task is for tracking only.

4. Total each column and enter the amounts in the "Op. Test Totals" row.

5. Calculate the percentage of the operating test that is (U)nsatisfactory (Op. Test Total Unsat.)/(Op. Test Total) and place this value in the bolded "% Unsat." cell.

   Refer to ES-501, E.3.a, to rate the overall operating test as follows:
   - satisfactory, if the "Op. Test Total" "% Unsat." is ≤ 20%
   - unsatisfactory, if "Op. Test Total" "% Unsat." is > 20%

6. Update this table and the tables above with post-exam changes if the "as-administered" operating test required content changes, including the following:
   - The JPM performance standards were incorrect.
   - The administrative JPM tasks/keys were incorrect.
   - CTs were incorrect in the scenarios (not including postscenario critical tasks defined in Appendix D).
   - The EOP strategy was incorrect in a scenario(s).
   - TS entries/actions were determined to be incorrect in a scenario(s).

Scenario 1

Critical Tasks — is there any objective criteria in ECA-0.0 that we can tie to the critical task (such as time till seal failure, if not the CT as written will be acceptable)

Restore a Secondary Heat Sink by replacing the breaker and starting the 1A MDCA Pump before required to establish NCS Bleed and Feed in FR-H.1 [W/R level in at least 3 S/Gs - LESS THAN 24% (36% ACC)].

Event 1: — will provide the accumulator information after the EDG is loaded to 1000kW, if provided early this would limit SRO oversight of the EDG test

Event 2: — the selected path for reducing load does not require an ops manager cue for event 2

If the crew does not take timely action to reduce power with an overpower condition that is a performance deficiency Include the site specific guidance for overpower condition and time limit as evaluator What is the reference used for determining amount of boron, provide evaluator note

Scenario 2

Critical Task — ensure that the components required for CT3 are clearly listed in the D-2 for examiners to verify performance, also the criteria would be better bound if it was linked directly to the orange or red path

Scenario 3

Critical task — CT 1 bound by time and management expectation, if nothing happened what would the plant do, nothing, while this is a performance deficiency, this is not a critical task

It seems that event 4 letdown isolation could be a critical task, such that if the operators Did nothing the plant would trip on high PZR level

CT 2 it would be better to tie this to objective criteria, for example plant conditions have degraded to an orange path

Scenario 4

Critical Task — CT3 how is void fraction monitored? Or is another indicator used for this?

McGuire Outline JPM Comments

Generic comment

There needs to be a plausible mechanism for an applicant to fail an admin JPM without making a math error

Admin JPMs RO

A-1a
is there a specific reference that works through this calculation, the elements and standards does not cite a specific reference for many steps

A-1b
the initiating cue for the task asks the applicant to identify all TS LCOs that are not met, given the initial conditions they would likely identify the LCOs for the PRN as well, suggest this cue is better bounded (state the TS LCO for the PRNI that are not met in the initial conditions)

A2
UNSAT LOD=1 (suggest replace this JPM, for example reference 2017-301 from Catabwa)
The JPM only has the applicant read information in the initial conditions and fill out a checklist from that information, there is no meaningful way to evaluate an applicant's competence

A3
UNSAT. The task is LOD=1, suggest replacing this JPM with a task an operator may likely perform

Admin JPMs SRO

A-1a
steps 10-13,tolerance of +/-5% is not sufficient for evaluation
Suggest: Each calculated value should incorporate acceptable bands (to include truncating or rounding at the tenths place, and carry the numbers forward into the next calculation/step)

A-1b
the applicant needs to find the reference for maintaining an active license, this will not be 'handed out' with the cue
Initiating cue also need: if no, why

A2
UNSAT, LOD=1, the task as presented no meaningful way to evaluate an applicant's competence, the applicant need only read information in the initial conditions and follow a procedure verbatim

A3
No comments

A4
Handout 3 does not have a message number
The only 'critical' information is to add 1 sector and state that it is message 2

FINAL SAMPLE PLAN IS COMBINATION OF DRAFT SAMPLE PLAN AND ES-401-4.

Tier / Group	Randomly Selected KA	Reason for Rejection
2 / 1	SYS007 K5.02	Q(18) K/A rejected with permission of Chief Examiner. MNS does not use the PRT during bubble formation. New K/A (SYS007 K1.01) randomly selected by Chief Examiner. HCF 04-05-17
2 / 1	SYS064 2.2.4	Q(23) K/A rejected with approval of Chief Examiner due to no unit differences at MNS related to EDGs. New K/A (SYS064 GEN 2.2.12) randomly selected by Chief Examiner. HCF 04-05-17
2 / 2	SYS001 K2.01	Q(32) Q(32) K/A rejected with approval of Chief Examinerdue to facilities inability to write a discriminating question. New K/A randomly selected by Chief Examiner (SYS015 K2.01). SLM 02/28/18
2 / 2	SYS027 K2.01	Q(32) Q (32) K/A rejected by Chief Examiner during 401-9 review due to MNS not having a Containment Iodine Removal system. Chief Examiner randomly selected replacement K/A (SYS001 K2.01). SLM 2/28/18
2 / 2	SYS033 2.4.49	Q(34) K/A rejected with approval of Chief Examiner due to no immediate actions related to Spent Fuel Pool Cooling procedures. New K/A (SYS033 GEN 2.4.31) randomly selected by Chief Examiner. HCF 04-05-17
1 / 1	APE022 2.2.3	Q(43) Rejected this K/A with approval of Chief Examiner. Currently, no unit differences at MNS related to the Reactor Coolant Makeup System. New K/A (APE-022 2.2.44) randomly selected by Chief Examiner. HCF 04/05/17
1 / 1	APE025 AK3.02	Q(44) K/A rejected by chief examiner during early 401-9 review due to no auto isolation of the RHR system at MNS. Chief examiner randomly selected replacement K/A (APE025 AK1.01) SLM 8/17/17
1 / 1	APE025 AK3.03	Q(44) Rejected K/A with approval of Chief Examiner. At MNS, no immediate actions related to loss of RHR, shutdown LOCA, or ECCS actuation while shutdown. New K/A (APE-025 AK3.02) randomly selected by Chief Examiner. HCF 04-05-17
1 / 2	APE032 AA2.02	Q(60) Rejected K/A with approval of Chief Examiner due to facilities inability to write a discriminating question. New K/A (APE-032 AA2.04) randomly selected by Chief Examiner. HCF 04-05-17
1 / 2	APE067 AA1.01	Q(63) Rejected K/A with approval of Chief Examiner due to facilities inability to write a discriminating question at the RO level. New K/A (APE-067 AA1.05) randomly selected by Chief Examiner. HCF 04-05-17
2 / 1	SYS022 2.2.12	Q(77) Could not write discriminating question at the SRO level for originally provided K/A.
2 / 1	SYS064 A2.10	Q(79) KA Rejected by Chief Examiner during Early 401-9 Review. Chief Examiner randomly selected replacement K/A (SYS064 A2.03). HCF 08/16/17
2 / 2	SYS001 A2.04	Q(81) K/A rejected with approval of Chief Examiner. MNS does not have axial flux shaping rods. New K/A (SYS001 A2.03) randomly selected by Chief Examiner. HCF 04-05-17
2 / 2	SYS086 2.4.30	Q(83) Q(83) K/A rejected with approval of Chief Examiner due to inability t write a discriminating question at the SRO level. New K/A randomly selected by Chief Examiner (SYS016 2.4.3). SLM 03/07/18
2 / 2	SYS086 2.4.21	Q(83) K/A rejected with approval of Chief Examiner due to no relationship between the Fire Protection System and the Critical Safety Functions. New K/A (SYS086 GEN 2.4.30) randomly selected by Chief Examiner. HCF 04-05-17

ES-401 **Written Examination Quality Checklist** **Form ES-401-6**

Facility: McGuire Nuclear Station Date of Exam: 4/16/2018 Exam Level: RO ☑ SRO ☑

Item Description					Initial a	Initial b*	Initial c*
1.	Questions and answers are technically accurate and applicable to the facility.				SLM	✓	✓ WB
2.	a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.				SLM	✓	✓ WB
3.	SRO questions are appropriate in accordance with Section D.2.d of ES-401				SLM	✓	✓ WB
4.	The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last two NRC licensing exams, consult the NRR/NRO OL program office).						✓ WB
5.	Question duplication from the licensee screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or ☑ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)				SLM	✓	✓ WB
6.	Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	Bank 25 / 9	Modified 25 / 4	New 25 / 12	SLM	✓	✓ WB
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/analysis level; the SRO exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory 31 / 8	C/A 44 / 17		SLM	✓	✓ WB
8.	References/handouts provided do not give away answers or aid in the elimination of distractors.				SLM	✓	✓ WB
9.	Question content conforms to specific K/A statements in the previously approved examination outline and is appropriate for the tier to which they are assigned; deviations are justified.				SLM	✓	✓ WB
10.	Question psychometric quality and format meet the guidelines in ES Appendix B.				SLM	✓	✓ WB
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.				SLM	✓	✓ WB

	Printed Name / Signature	Date
a. Author	Steven Mosteller / Steven Mosteller	4/3/18
b. Facility Reviewer (*)	Wiley Kilgette / WKilgette	4/3/18
c. NRC Chief Examiner (#)	Jason D. Bundy / Jason D. Bundy MARK A. BATES / MARK A. BATES	4/6/18 4/9/18
d. NRC Regional Supervisor	Gerald J. McCoy / Gerald J. McCoy	4/9/2018

Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations.
Independent NRC reviewer initials items in Column "c"; chief examiner concurrence required.

Q	1.	2.	3. Psychomeric Flaws					4. Job Content Flaws				5. Other		6.	7.	8. Explanation
	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T / F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only	B, M, N	U, E, S	
																General: After all comments are resolved a verification of LOK will need to be done to ensure the requirements are met.
																General: It is not wrong to capitalize ONE in your question statements; however, it is not a requirement. I understand the NUREG leads one to believe that this is what is required, but everyone taking this test knows that there is only one answer. My suggestion would be to reserve accentuating items in the stem which you do not want the applicants to miss or read over. No change requested – just FYI.
																General: Review stats for questions from previous two exams to ensure requirements (4 RO and 2 SRO) are met.
																General: If a previously used NRC exam question from a another site was used but would have been evaluated as UNSAT it may be evaluated as E. (could still be U if, for example, KA was not matched between questions)
																General: choices for is/is not must have balance (for example not 75% is choices)
RO																
1	H	2												N	S	SYS012 K6.08.
2	F	2												B 2014 NRC	S	SYS013 K2.01 answer choices shuffled from bank Q is SAT
3	H	2												M 2015 NRC Q13	S	SYS022 A3.01 significantly modified IAW ES-401 D.2.f Q SAT
4	F	2				X								M 2015 NRC Q14	~~E~~ S	SYS025 A2.06 significantly modified IAW ES-401 D.2.f sublimation is of little discriminatory value suggest 1) SAT 2) increased floor slab buckling is/is not the primary concern Incorporated Q now SAT

5	F	2				X								B	~~U~~ S	SYS026 K1.01 distractors C.2. and D.2. do not appear to be plausible given interplay with C.1. and D.1. such that if the pump will NOT trip the choice is trivial since the pump is already running response: new second part question creates interplay, except now it affects the 1st part choices (will NOT is not plausible), it seems that a statement could be made after (1) but before (2) that could explain the pump is stopped and the valves are closed (that does not affect the choice for (1) response: modified editorial 2) following the above shutdown, Incorporated, Q now SAT
6	H	2				X								M 2008 NRC Q18	S	SYS039K4.06
7	H	2												M 2013 NRC Q17	~~E~~ S	SYS059 K3.02 editorial: auto start or auto-start (should be the same) significantly modified IAW ES-401 D.2.f Enhancement: tie the second part to the STEM suggest: Given the initial conditions, a Blackout signal (WILL/ WILLNOT) auto-start the MD CA pumps Subsequently, RCS pressure has increased to 1980 psig Based on CURRENT conditions, if the 1A Main Feedwater pump trips, the MD CA pumps (WILL/WILL NOT) auto start. response: there is only 1 question, suggest stating consider each statement below separately, question will be SAT with change Incorporated, Q now SAT
8	H	2												M 2014 NRC Q18	S	SYS061 K6.02 significantly modified IAW ES-401 D.2.f Evaluated for overlap of Q7, no issue noted
9	F	2												B 2015 NRC Q18	S	SYS062 A1.01 Last 2 exams count, same K/A on that exam (answers shuffled)

10	F	2												N	S	SYS062 A2.05
11	F	2				X								M 2011 NRC Q22	~~E~~ S	SYS063 K3.02 A.2. does not appear to be a plausible distractor in that if power is lost to the starting air solenoids the D/G will start. C.2 appears to be a subset of C.1. in that if there is not power to starting air solenoids then the D/G will not start Suggest 1) the voltage regulator field flashing (WILL/WILL NOT) have power available 2) if a diesel start signal is generated the 1A D/G engine (WILL/WILL NOT) automatically start Incorporated Q now SAT
12	F	2												M 2009 CNS audit	~~E~~ S	SYS003 2.4.11 Editorial, remove 1400 and 1402 data as they are extraneous Incorporated Q now SAT
13	H	2				X								M CNS Audit	~~U~~ S	SYS003 K5.03 How does the core bypass flow create a plausible distractor? suggest 1) SAT 2) The reason that the indicated Loop “A” Tavg changes is/is not due to reduced forward flowrate in Loop 1A Response: incorporated suggestions while maintaining operational validity (testing reverse flow is appropriate) Q now SAT
14	F	2												B 2010 MNS Audit	S	SYS004 A1.06
15	H	2												B 2015 MNS Audit	S	SYS005 A4.01
16	F	2												B ILT42 ONS	S	SYS005 K5.01

17	H	2												M 2010 CNS Audit	~~E~~ S	SYS006 K4.30 Overlap issue with Q28, this needs to be corrected when evaluating both questions From a question construction perspective this question provides multiple ways to arrive at the correct answer, this is not preferred (see ES-401 E.) test the differences suggest 1) CVI does/ does not occur, Suggest one question test CNMT pressure and the other evaluate RCS pressure and its impact on systems Incorporated Q now SAT
18	F	2					X							M NRC 2014 Q70	~~U~~ S	SYS007 K1.01 significantly modified IAW ES-401 D.2.f submitted answer is not technically correct as written, 0.3 meets the LCO as it is equal to or less then (this change from the bank question resulted in the evaluation as U) distractor analysis for PRT rupture is lacking plausibility, it is simply asking the applicant to recall the rupture disc design pressure suggest 1) may want to ask given the rupture disc breaking early 2) as Containment pressure continues to rise, the LCO for Tech Spec 3.6.4 (CONTAINMENT PRESSURE) WILL/WILL NOT be met if pressure exceeds a MINIMUM of 0.3/0.5 Incorporated Q now SAT

19	H	2	X											N	~~U~~ S	SYS008 K2.02 1) these pumps do not start, for plausibility what example of cross train component would start on blackout signal 2) the statement teaches Suggest asking about the B train equipment if a blackout occurs and subsequently if an SI occurs response : Modified question there is not enough information in the stem to elicit a correct answer. Suggest: a stem for what is in service prior to the failure Response: Modified question Q now SAT
20	H	2												M CNS 2008 NRC	S	SYS008 K3.03
21	H	2				X								N	~~U~~ S	SYS010 A4.01 Cred dist: MCB SLIM is such a strong choice that the Ovation Soft Controls ONLY, provokes disbelief when compared to the other choices ~~2) Could test which NC pumps to secure for the spray valve failure~~ Incorporated Q now SAT
22	H	2	X			X								N	~~E~~ S	SYS012 K4.05 1) 1/3 plausibility is LOD=1 Suggest Test individual functional units, which ones does that impact Response: there is only 1 question, suggest stating consider each statement below separately 1) will the plant survive the loss of 2EKVC and not trip on another function at some time later? It seems that the question needs better bounding: facitlity verified the plant will survive without trip 2) is acceptable Q now SAT

23	F	2												N	~~E~~ S	SYS064 2.2.12 Editorial: in accordance with the PT/1/A/4350/002A… bullet 2 and 3 were performed Incorporated Q now SAT
24	F	2												B	S	SYS064 K1.02
25	H	2				X								B 2015 NRC Q24	~~E~~ S	SYS073 A2.02 Last 2 exams count, same K/A on that exam (answers shuffled) Cred dist A1/B1 1) will is very strong answer, why would you ask this question if it did not trip, discuss other options on this failure to include the flow path to include trip 1 or trip 2 Response: suggest 1) SAT 2) depress the clear button on EMF-31 will/will NOT (to address the general comment of is/is NOT questions, this suggestion will create a negative choice)

26	F	2												N	~~E~~ S	SYS076 K2.01 significantly modified IAW ES-401 D.2.f does bus nomenclature discredit distractors? Are there any cross train loads at this same voltage? Response 1: submitted same question With no cross train loads A/C are not discriminating Need to enhance discriminatory value of this question, Suggest a second half question that tests another SW component PS, perhaps control power to the same pump B/D are plausible Response 2) is SYS 075 K2 <2.5 Suggest ask about load shed of the Response: There is little discriminatory value memory item at the pump power supply level, this would appear to be testing LOD=1. Response: New question 1) find little plausibility as written 2) SAT Suggest 1) ask about what stays at LLI Choices would be LLI/SNSWP Q now SAT
27	H	2												B 2012 NRC Q27	S	SYS078 A4.01
28	H	2												B 2015 NRC Q28	S	SYS103 A3.01 Last 2 exams count, same K/A on that exam (answers shuffled)

29	H	2												B 2014 NRC Q34	~~E~~ S	SYS002 K5.11 Can the 20% OPEN be seen in the control room, the indication the applicant receives must be operationally valid Credible distractor Interplay between pressurizer level and T-ave, not plausible that they go in different directions given the information in the stem (would defy the laws of physics essentially) As submitted the 3 parameters allow the applicant to select the correct answer by knowing 2 of the relationships, so the 3rd relationship reduces the plausibility of distractors Response: removed 3 parameters from choices and failed safety open Q now SAT
30	H	2												B CNS NRC 2016 Q57	~~E~~ S	SYS014 A1.04 Editorial: suggest replace 'in that quadrant' to in the quadrant with M-6 remove 'expect to' Need reference 1AD-2 D/10 ARP Rev 68 Incorporated Q now SAT
31	H	2												M 2009 NRC Retake Q31	~~E~~ S	SYS017 K6.01 use of reference is not 'direct look up', suggest providing the CETs for Quadrant 2 that are INOPERABLE (not the ones that are operable), this also tests the knowledge that 5 per quadrant per train are available response: retain the question as submitted, due to operational validity of providing data for evaluation Accepted Q now SAT

32	F	2										X		M	~~E~~ S	~~SYS027 K2.01~~ ~~System is not at MNS, this does not meet~~ ~~the K/A directly, if you do not have the ability to meet this K/A we can discuss selection of a new K/A~~ ~~Response 1: selected new KA [SYS001 K2.01], unable to write a discriminating question to that K/A~~ Response 2 N/A SYS015 K2.01 Response: Why not just test if 1EKVA/B/C/D has tripped, Bullet 2 could have much less information But question submitted is acceptable Q now SAT
33	H	2												B 2003 Audit	S	SYS029 K1.05
34	H	2												M 2009 NRC	S	SYS033 2.4.31 The basis for meeting the K/A needs modified such that the KA is matched because the applicant must demonstrate knowledge of pump operation following equipment malfunction and actions that would need to be taken to mitigate the event remove from hi cog discussion 'recall maximum KF flow allowed' Incorporated Q now SAT
35	F	2				X								M CNS 2016 NRC Q62	~~E~~ S	SYS034 K4.03 2) has little discriminatory value Response: resubmitted the same question Suggest 2) if the overload cutoff limit above is IN, bridge and trolley motion is/is NOT possible Response: Q now SAT

36	H	2				X								N	~~E~~ S	SYS035 A4.05 Auxiliary is a strong distractor given the stem nothing would discredit its use, as such, it discredits main as a choice Suggest asking main feedwater can / can not be used to feed all S/Gs Incorporated Q now SAT
37	H	2												N	~~E~~ S	SYS068 A3.02 suggest 1) there is no knowledge being tested by 1WP-35, 1WL-320 since it is in all the answers (as such it seems to teach, since it is always correct), suggest just asking if 1WM-46 will/will not automatically close given the above conditions 2) SAT Incorporated Q now SAT
38	F	2	X											M CNS 2016 NRC	~~E~~ S	SYS079 A2.01 the plausibility statement reads 1VI-820 should automatically close at 80 psig, doesn't this actually occur at 90 psig, is there a document that controls VS air compressor in OFF as normal alignment such that there is no unstated assumption for the compressor to start? Response 1: agree with changes, perhaps we could state that the VS compressor is in OFF per procedure, this aligns with plausibility that VI compressors would start in this configuration Should be SAT based on discussion, have not seen written yet Response Incorporated Q now SAT

39	H	2												B 2017 CNS audit	~~E~~ S	EPE007 2.4.4 significantly modified IAW ES-401 D.2.f ~~C is not plausible given the interplay of the first part with the second, because if the trip is not blocked a trip would occur and the applicant would then know that E-0 must be entered~~ ~~A2/C2 are not plausible because the plant conditions are not blocked, such that the reactor will trip on low flow~~ Response: included additional discussion to support plausibility of submitted question Suggest: 1) replace expected with as designed 2) will NOT has little plausibility, at power a trip of an RCP would result in a procedure flow path that would get you to E-O Something needs to be added to the stem that would make will NOT plausible, perhaps this question could be asked if in mode 3 and would the choice be different? Response: Incorporated interplay with 1 that makes 2 distractor not credible Response: Modified the concept is sound, just need to ensure the question is asked to elicit only 1 correct answer, is there a time delay on the 2/4 trip, on the electrical transient? Q now SAT
40	F	2												N	~~E~~ S	APE008 AK3.03 The interplay of A1/A2 and B1/B2 are non-credible And minimize NCS heatup is non-credible without heat sink issues Response : New Question submitted C/D are tied to each other and create a subset issue, therefore there is one non-plausible distractor Response: Modified Q now SAT

41	H	2												N	~~E~~ S	EPE009 EK1.02 A and C are credible choices, suggest adding a second part Response: no changes, have seen plausibility used previously in this exam for the confusion of psia/psig suggest a second part that requires the applicant to determine if the condenser is available as a heat sink (C-9), provide degraded condenser pressure which does not meet C-9, and another parameter for C-9 that is meet (if available) Response: Incorporated Q now SAT
42	F	2		X		X								M 2009 audit Q46	~~E~~ S	EPE011 EK3.13 Distractor analysis for B2/D2 does not seem to be related to the answer choice, if CNMT sump screens failed how would hot leg recirc help mitigate the condition and why would the transition be made after a period of time and not based on that failure (B2/D2 are cued as not plausible choices) Response : Modified question Q now SAT
43	H	2												M 2012 NRC Q43	~~E~~ S	APE022 2.2.44 Suggest 1)Based on the conditions above, NC pump seal injection flow will be INCREASING OR DECREASING (remains the same is not credible) Incorporated Q now SAT
44	H	2												N	S	APE025 AK1.01
45	F	2				X								M 2013 NRC Q43	~~E~~ S	APE026 AA1. 07 distractor B1/D1 does not seem to be a plausible number, since the plausibility statement implies that it is a calculated number based on splitting flow for the system suggest 1) putting a flow value in the stem and then asking if the MINIMUM flow IS/IS NOT established Incorporated Q now SAT

46	H	2				X								M 2012 NRC Q46	~~E~~ S	APE027 AK1.02 A/D interplay seems non-credible C/D spray valve position: non-credible distractor: as submitted the question lacks discriminatory value based on an answer choice of spray valves open with pressure increasing Response: Modified question Q now SAT
47	H	2												B CNS 2016 NRC Q7	~~E~~ S	EPE029 EK2.06 Test the differences 1) undervoltage did/did not operate as designed The question that is referenced as the bank question has been modified to remove the condition that the reactor trip and bypass breakers have been successfully opened by the field operator Response: Incorporated Q now SAT
48	H	2												B 2013 NRC Q45	~~E~~ S	EPE038 2.1.31 Suggest: 1) when does P-12 illuminate (2 plausible choices) 2) steam dump valves (3,12,21 / 3 other valves that are not cooldown valves) Response: typo 1) value not values Q now SAT
49	F	2	X											N	~~U~~ S	APE040 AA1.06 NC pressure value and stable do not need to be included because it would be implied that pressure was greater then P-11 unless the applicant is told otherwise, remove bullet 2 (also it does not sound like a correct response that pressure would be stable given that transient) Also the logic of Minimum in the first part seems like it should be a maximum (the way it is worded seems to bound an incorrect answer or cue that applicant that the lower value is not wrong) 775 would always be a correct answer the way the question is worded Response: Incorporated Q now SAT

50	H	2												B 2015 NRC Q48	~~E~~ S	APE054 AA2.04 Last 2 exams count, same K/A on that exam (answers shuffled) remove 210 since it is not part of answer choices and NCS temp since it does not support plausibility of any choices, Q will be SAT with enhancements Response: Incorporated Q now SAT
51	H	2										X		N	~~U~~ S	EPE055 EA2.06 Test the differences, normal is in every choice, ONLY leads to more scrutiny because the correct answer needs to be correct in all circumstances, not just in relation to the other choices The question is not testing the K/A, specifically because the bus remains energized the lockout does not need to be cleared to re-energize the bus. Response: Modified stem and 1) Incorporated feedback Q now SAT

52	F	2				X								B 2016 MNS audit	~~E~~ S	APE056 AK1.01 B/D Hot leg temp indication does not seem plausible D does not seem plausible as there is no driving head Response: test the differences (remove 1 and 5 from answer choices) the statement: given the following parameters needs to be modified, since as currently written they are not all true, need to separate the stem from answer choices suggest: Given the following initial conditions on Unit 1: • A Loss of Offsite Power has occurred • The crew is verifying natural circulation flow per EP/1A/5000/ G-1 (Generic Enclosures) Enclosure 33 (NATURAL CIRCULATION PARAMETERS) Based on the conditions above, NC system subcooling = 0°F does/does NOT support or indicate natural circulation flow NC system hot leg temperatures at saturation temperature for S/G pressure does/does NOT support or indicate natural circulation flow Which ONE (1) of the following completes the statement above? Response: Incorporated Q now SAT
53	F	2												M 2014 NRC Q50	~~E~~ S	APE057 AA1.01 Do A/C as written tie trains together, ie violate general principle of train separation? If so A/C are none plausible distractors Response: 53 Additional information provided Discuss did the response state that A/C actions are done in the plant? Response: Q now SAT

54	H	2				X						X		M MNS 2009 Audit	~~U~~ ~~E~~ S	APE065 AA2.07 C2/D2 non-plausible because: (1) is a valid question, however as (2) is worded cues that it must be automatically aligned since (2) states will open (there is an interplay issue) Suggest (2) if, nitrogen is aligned to 1NC-36B it WILL/WILL NOT be open Response: 2) need to add clarifying information: with nitrogen aligned Pzr PORV… response: Incorporated Q now SAT
55	H	2				X								N	~~E~~ S	WE04 EK2.1 A2/C2 not plausible as written since the EOP use 100defF in an hour Suggest change to 100 degF in an hour response: Incorporated Q now SAT
56	H	2					X							M 2013 MNS NRC Q 55	~~E~~ S	WE05 EK2.2 significantly modified IAW ES-401 D.2.f 1) Is not bound in such a way that either choice presented is correct, since AFW is the first source. Additionally CM is required to establish CF Suggest 1) Establishing plant parameters where CM flow is aligned and the S/G pressure needs reduced to establish flow. The procedure says reduce pressure to less than … MNS FR-H.1 refers to 'feed and bleed', not bleed and feed Response: Incorporated Q now SAT
57	H	2												N	S	APE003 2.4.47

58	F	2												B RNP 2016 NRC Q19	S	APE005 AK2.02
59	H	2				X								N	~~U~~ S	APE024 AA1.22 non cred dist C2/D2 Suggest: Emergency boration flow rate is 32 GPM 1) SAT 2) to ask if the crew IS/IS NOT required to align NV pump suction to the FWST Response: Incorporated Q now SAT
60	H	2												N	~~E~~ S	APE032 AA2.04 There would seem to be a way to bound the “required overlaps”’ we need to point to a surveillance or procedure that would ensure this value is required (i.e. some procedure we operate the plant with, not a lesson plan) Response: Modified and Incorporated Need to correct typographical error in first bullet [is performing ~~is performing~~] Q now SAT
61	H	2												N	S	APE033AK3.01
62	F	2												B ONS NRC ILT41 Q46	S	APE061 AK1.01
63	F	2												B 2007 NRC Q63E	~~E~~ S	APE067 AA1.05 Provide reference OAD-12, F/3 Suggest 1) asking if 1A VE Fan has/has not tripped 2) SAT Response: Q now SAT

64	F	2												N	~~E~~ S	WE10 2.1.23 What specific reference provides plausibility to 155 gpm Response: Q now SAT
65	H	2												M 2011 NRC Q63	~~E~~ S	WE13 EK3.2 Given the 4 distinct actions the reason is not required to select a correct answer suggest: Based on the above conditions, and in accordance with FR-H.2, 1) Manual isolation of feedwater to the 1 B S/G IS/IS NOT required 2) Dumping steam from the 1 B S/G IS/IS NOT required Which ONE (1) of the following completes the statements above? Response: Incorporated Q now SAT
66	F	2												N	S	GEN2.1 2.1.1
67	F	2												M 2014 NRC Q33	S	GEN2.1 2.1.44
68	H	2												B 2009 NRC Retake Q70	S	GEN2.2 2.2.35
69	H	2												N	S	GEN2.2 2.2.41
70	F	2												B RNP 2015 Audit	S	GEN2.2 2.2.6
71	F	2												B 2012 NRC Q71	S	GEN2.3 G2.3.15

72	H	2												N	~~E~~ S	GEN2.3 2.3.7 Editorial, suggest rephrase the question as follows: Based on the conditions above, The MAXIMUM allowable stay-time in the 2A NI pump room for hanging the tagout is _____ minutes. Which ONE of the following completes the statements above? Response: Incorporated changes, but did not state "Based on the conditions above," [this is fine, but may want to add for consistency throughout exam] Q now SAT
73	H	2				X						X		B CNS 2006 NRC Q74	~~E~~ S	GEN2.4 2.4.16 Question seems to be testing a generic K/A in a manner that makes it an extension of a Tier 2 systems question, which NUREG-1021 prohibits, or at least discourages. If E-O and ECA-0.0 are the only direct entry procedures, choices A/D are non-plausible given the stem A. does not seem like a plausible distractor compared to the other choices Response 1: Choice D, non-plausible, given that it is a use "when time allows" Suggest: modifying the stem to create an orange path for subcriticallity and a red path for heat sink, remove AP-07 as a choice Response : Incorporated Q now SAT

74	H	2	X			X								N	~~E~~ S	GEN2.4 2.4.17 Choices B/C do not seem plausible given the interplay of the 2 intact S/Gs 1B S/G NR -0% is not utilized in the EOP network as the check for a faulted S/G Suggest … may need to reselect the KA to find LOD>1 Response 1: S/Gs C/D have the same trend so, intact and faulted as opposing choices is not credible Suggest: When validating indications for emergency classification assessments in accordance with Classification of Emergency [RP/0/A/5700/000] An instrument channel check is/is NOT an acceptable way to validate indications Indications on related indicators is/is NOT an acceptable way to validate indications Which ONE (1) of the following completes the statement above? Response : Incorporated Q now SAT
75	F	2												N	S	GEN2.4 2.4.28 Is safeguards procedures or information incorporated into the initial license process, if for instance the applicant does not receive safeguards information training until after the NRC exam, safeguards is not a plausible distractor Suggest, just asking if the AP is/is not proprietary (as most APs do not have the additional header/ control) Response: Incorporated Q now SAT

SRO																
																GENERAL – Please review the SRO-only guidance in NUREG-1021. This is helpful with making an initial screen of the SRO-only knowledge.
																GENERAL – It has been standard practice to provide a reference to applicants when greater than one hour tech spec knowledge is needed to arrive at the correct answer. It appears that St. Lucie may require their operators to know greater than one hour tech specs from memory, as evidenced on some of the questions. When a question requires this knowledge, I am requesting that the facility Operations Representative and the Training Management Representative make a statement for that question that re-iterates the facility requirement for their operators to know this knowledge in a closed book environment. The intent is to have this determined before the exam is administered and avoid this argument in the post-exam arena.
76	H	2												N	S	SYS006 2.2.37 Early submittal The submitted answer choice as selected has conflicting information, ie 2 right answers. The LCO Bases 'LCO' states in part: Four accumulators are required to ensure that 100% of the contents of three of the accumulators will reach the core during a LOCA. This is consistent with the assumption that the contents of one accumulator spill through the break. If less than three accumulators are injected during the blowdown phase of a LOCA, the ECCS acceptance criteria of 10 CFR 50.46 (Ref. 3) could be violated. Therefore answer B is also correct. The first part question is an RO job function Recommendation to use submitted question 79 for this KA as it meets the KA as written with the following enhancement. Reword question (79) 1) The LATEST time the 2A NV pump is required to be declared INOPERABLE by is 1300/1215 2) SAT Q76 will be S with the above enhancements Draft submittal Q is SAT

77	H	2										X		B 2017 CNS NRC	~~U~~ S	~~SYS022 2.2.12~~ The system appears to be window dressing K/A mismatch, nothing in the question requires knowledge of the system, the question relates to the system only by reference to a PT and TSs, but the applicant could arrive at the correct answer for this question using information that would be applicable only to a generic tech spec evaluation. Response: re-submitted same question, K/A issue is still there The question as submitted does not appear to need TSs provided as a reference Replacement K/A SYS013 2.2.25 What demonstrates knowledge of the bases for this question Q now SAT
78	F	2				X						X		N	~~U~~ S	SYS059 A2.04 C seems non plausible, it seems to be a correct choice suggest 1) Based on the conditions above and in accordance with ECA-2.1, the crew will throttle feed flow to 100/25 GPM to each S/G 2) The basis for the action taken by the crew was/was not done because a thermal shock concern would exist if the SG's were allowed to dry out. Response: Incorporated Q now SAT
79	H	2												N	~~E~~ S	SYS064 A2.03 The value of 4000 KW is used in question 9 as an answer choice, There are 2 ways to arrive at the answer for 2) Suggest Add to the timeline meeting the 4200 peak requirement such that 2) is only NOT because of <1hr loading Response: discuss why overload test is not required, and if it is required there needs to be only 1 way to arrive at the right answer Discussed Q now SAT

80	F	2				X								M	~~U~~ ~~E~~ S	SYS073 A2.02 C1/D1 if you do the same thing you were doing why would you need new paperwork or not, and a continuous release does not seem plausible ?Can we better define paperwork Suggest: Adding to the first bullet the procedure and enclosure Reword 1) Given the above conditions, the contents of VUCDT MAY/MAY NOT be released via a batch release in accordance with enclosure 4.1 [Pumping VUCDT to RC Discharge Using Batch Release Method] 2) IF 1EMF is returned to FUNCTIONAL, the continuous discharge of the VCDUT in accordance with enclosure 4.3 WILL/WILL NOT require updated LWR paperwork Response: Editorial: need to define 'paperwork', what specifically this is Will be S with editorial change Incorporated Q now SAT
81	H	2												B 2014 NRC Q90	~~E~~ S	SYS001 A2.03 editorial 1) when checking reactor power at step 12 of enclosure 1, the crew will use ____ 2) SAT Response: Incorporated Q now SAT
82	F	2												N	S	SYS072 A2.03

83	F	2												~~N~~ B 2016 CNS NRC Exam	~~E~~ S	~~SYS086 2.4.30~~ What supporting document states that SLCs are part of TS, it seems that the SLCs are part of the UFSAR. May need a statement that attests to this application of SLCs at the facility Suggest Replace expected with designed, test the differences 1) Based on the conditions above, the "B" main fire pump did/did not operate as designed Response: Incorporated What plant reference ties SLCs to be treated as TS response: there is none Replacement K/A SYS016 2.4.3 New question submitted Q now SAT
84	H	2												B 2011 NRC Q84	S	EPE007 EA2.04
85	H	2												N	S	EPE009 EA2.38
86	H	2				X							X	N	~~U~~ S	EPE011 EA2.08 1) can: Non-credible distractor given that 1NS-20A **FAILED** to close. A better approach would be to test if 1NS-18A can/cannot be opened given the conditions 2)The link to 55.43(b)(5) without some type of procedure selection is not met, so this question will not meet SRO only link Response: Incorporated Q now SAT

87	H	2												N	~~E~~ S	APE026 2.4.46 Editorial: Basis for higher cog discusses tank curve, this is not a reference the applicant will have Part 2 is also plausible if the applicant does not know the time critical action time of ten minutes, and they assume longer Response: Incorporated Q now SAT
88	H	2												N	S	APE057 2.4.8
89	H	2				X								N	~~U~~ ~~E~~ S	APE062 2.4.9 Need to add a something that prevents emergency coordinator judgement (the correct emergency classification, without using Emergency Coordinator judgement, in accordance with EAL wall charts for this event is… Non-plausible distractor C1,D1; 0922 has no basis presented in the stem, the plausibility statement discussed 22 minutes from a time to boil calc but this assumption is not presented in the stem Response: Incorporated Editorial, 2) In accordance with the Emergency Action Levels (EALs) and excluding Emergency Coordinator Judgement, the classification for this event is a/an [this format is used in Q93] 1) is this an operationally valid presentation of stem information? Would you expect operators to make an E-plan classification based on linearly extrapolated data? Response Modified Q now SAT

90	H	2												B 2015 NRC Q82	~~E~~ S	APE003 AA2.03 significantly modified IAW ES-401 D.2.f ? what is overall core QPTR (is this a defined term) or is the question asking about the QPTR in the quadrant The change in 2) no longer seems to meet the link to procedure selection, so this question will not meet SRO only link Suggest using the bank question from 2015 as previously used with the following enhancement (that met SRO based on TS) 1) In one hour the QPTR in the quadrants without the dropped rod will increase/decrease Response: Incorporated 2) do training and operations management agree that this is required knowledge in a closed book format? We need the facility to attest to this in the remarks if so, [include name and title] Response: Incorporated Q now SAT
91	H	2					X							N	~~E~~ S	APE036 2.4.31 ? does the FWST have viable inventory to use as a makeup source With AP-40/41 it seems to test degrees of freedom suggest 1) Operator actions to combat this event are located in AP-41 case II / AP-40 2)SAT Response: Incorporated Q now SAT
92	H	2												N	~~E~~ S	APE037 AA2.03 Editorial Enhance plausibility statement for main steam lines since it is used in E-3 (step 2 RNO b.) Response: Incorporated Q now SAT

93	H	2												N	~~E~~ S	APE067 2.4.41 Need to add a something that prevents emergency coordinator judgement Suggest: the correct emergency classification, without using Emergency Coordinator judgement, in accordance with EAL wall charts for this event is… Response: Incorporated Q now SAT
94	F	2												M 2016 NRC Q98	~~E~~ S	GEN2.1 2.1.13 significantly modified IAW ES-401 D.2.f bounding of 1) suggest 1) the WCC SRO does/does not have the authority to grant permission to enter the annulus editorial: the general discussion references containment, not the annulus, attachment 4.4 not 4.3 is applicable Response: Test what the procedure says, to address the above concern: For example 1)MSD-585 (…) does/does not state to “obtain WCC SRO permission prior to entry into Annulus” 2) rephrase to work with changes to 1) Response Incorporated Q now SAT
95	F	2												B 2012 NRC Q95	S	GEN2.1 2.1.45

96	H	1											X	M 2016 CNS NRC Q89	~~E~~ S	GEN2.2 2.2.23 E because on a previous NRC exam, [Bank 2014 NRC Q79] The question does not test at the SRO level, given the reference the valves that fail the stroke time are not operable and the only task that is not a direct lookup (when given the reference) is determining if 2 valves in the same flow path are inoperable (which can be answered by systems level knowledge). LOD 1 Response: Submitted new question CNS 2016 NRC Q 89 Q now SAT
97	H	2												B 2013 NRC Q76	S	GEN2.2 2.2.37

98	H	2				X								B 2011 Audit Q97	~~E~~ S	GEN2.3 2.3.6 Evaluated for overlap with Q80 (no issue) Non-plausible distractor 0200, all the values are within limits, it is not plausible that exceeding the recommended release rate with an allowable value in the stem would invalidate the GWR permit Suggest Given the following plant conditions: • Unit 1 is in the process of making a radioactive gaseous waste release from the Waste Gas Decay Tank in accordance with OP/0/A/6200/519 (WASTE GAS DECAY TANK RELEASE) • 0EMF-50 (WASTE GAS DISCH) is INOPERABLE • 1EMF-36 (UNIT VENT GAS) is OPERABLE Based on the conditions above and in accordance with OP/0/A/6200/519 1) RP Management approval is/is not required to release WGDT 2) Primary Chemistry is/is not required to obtain two independent samples of WGDT to be released. Which ONE (1) of the following completes the statements above? Response: Same question resubmitted release rate less than allowable is still non-credible accept 0200 is plausible, however C 0230 is not plausible because 30 and 35 are both below the allowable release rate Response: the revised concept is sound what actions or response occur on trip 1 suggest 0215 25 CFM, and CPM between trip 1 and trip 2 so 0245 becomes the correct answer Q now SAT
99	F	2												B 2011 NRC Q76	S	GEN2.4 2.4.18

100	F	2	X	X										M 2012 NRC Q100	~~E~~ S	GEN2.4 2.4.31 There is little discriminatory value in an applicant at the SRO level not knowing that a PAR is required with a declaration of a General emergency Cueing, 2) based on usage seems connected to 1) such that it informs the applicant that a PAR is required, as written there is not statement that separates the two questions. Suggest asking: 1) if the TSC is manned / activated and the control room becomes aware that conditions for an upgrade to a GE are now meet the SM can/cannot declare the GE 2) SAT Cueing comment will be resolved with the above suggestion Editorial: in the general discussion it is stated that if the event is rapidly progressing, then all areas within a 2 mile radius must be evacuated… this information is not provided to the applicant Response 1: Suggest 1) ~~if the TSC is manned/activated~~ if the TSC is officially activated … 1) is correct because RP/0/A/5700/012 pg 20 [2.0 9] rev 50, incorporate into supporting documentation Q will be SAT with editorial change Response Incorporated Q now SAT