





Facility: <u>Catawba</u>		Date of Examination: <u>June 2017</u>
Developed by: Written: Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/> // Operating Facility <input checked="" type="checkbox"/> NRC <input type="checkbox"/>		
Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	MB
-150	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	MB
-150	3. Facility contact briefed on security and other requirements (C.2.c)	MB
-150	4. Corporate notification letter sent (C.2.d)	MB
[-120]	5. Reference material due (C.1.e; C.3.c; Attachment 3)	MB
{-90}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1, ES-401-1/2, ES-401N-1/2, ES-401-3, ES-401N-3, ES-401-4, and ES-401N-4, as applicable (C.1.e and f; C.3.d)	MB
{-85}	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	MB
{-60}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6, ES-401N-6, and any Form ES-201-2, ES-201-3, ES-301-1, or ES-301-2 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	MB
-45	9. Written exam and operating test reviews completed. (C.3.f)	MB
-30	10. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	MB
-21	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	MB
-21	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	MB
-14	13. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	MB
-14	14. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	MB
-7	15. Facility licensee management queried regarding the licensee's views on the examination. (C.2 j)	MB
-7	16. Final applications reviewed; 1 or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 5; ES-202, C.2.e; ES-204)	MB
-7	17. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	MB
-7	18. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	MB
<p>* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee. [Applies only] {Does not apply} to examinations prepared by the NRC.</p>		

FINAL SUBMITTAL

Facility: Catawba Nuclear Station		Date of Examination: 06/26/17		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	RM	MB	MB
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	RM	MB	MB
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	RM	MB	MB
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	RM	MB	MB
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	RM	MB	MB
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	RM	MB	MB
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	RM	MB	MB
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	RM	MB	MB
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	RM	MB	MB
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	RM	MB	MB
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	RM	MB	MB
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	RM	MB	MB
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	RM	MB	MB
	d. Check for duplication and overlap among exam sections.	RM	MB	MB
	e. Check the entire exam for balance of coverage.	RM	MB	MB
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	RM	MB	MB
a. Author: Rusty Miller /  b. Facility Reviewer (*): RP Jones /  c. NRC Chief Examiner (#): MARK A. BATES /  d. NRC Supervisor: Gerald J. McLean / 		Date: 06/06/17 Date: 06/06/17 Date: 06/08/17 Date: 6/19/2017		
Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines				

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6/26 - 7/7/17 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>ANCE BOYETTE</u>	<u>EXAM ROOM MEMBER</u>	<u>[Signature]</u>	<u>10/16/16</u>	<u>[Signature]</u>	<u>07/01/17</u>	
2. <u>RUSTY MILLER</u>	<u>Exam Team Member</u>	<u>[Signature]</u>	<u>10/16/16</u>	<u>[Signature]</u>	<u>02/01/17</u>	
3. <u>ROSS COOKE</u>	<u>Simulator Support</u>	<u>[Signature]</u>	<u>10/16/16</u>	<u>[Signature]</u>	<u>2/1/17</u>	
4. <u>GAYLE L. WOOD</u>	<u>Simulator Support</u>	<u>[Signature]</u>	<u>07/11/16</u>	<u>[Signature]</u>	<u>7/10/17</u>	
5. <u>SAVANNA BREEKES</u>	<u>AD/Exam CRT SUP</u>	<u>[Signature]</u>	<u>07/11/16</u>	<u>[Signature]</u>	<u>7-11-17</u>	
6. <u>TIMOTHY THOMPSON</u>	<u>AD/Exam CRT SUP</u>	<u>[Signature]</u>	<u>10-17-16</u>	<u>[Signature]</u>	<u>7-10-17</u>	
7. <u>MARIE MORGAN</u>	<u>AD/Exam CRT SUP</u>	<u>[Signature]</u>	<u>11/20/16</u>	<u>[Signature]</u>	<u>7/10/17</u>	<u>per email</u>
8. <u>PAUL M. SHALAK</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>1-10-17</u>	<u>[Signature]</u>	<u>2-7-17</u>	
9. <u>BJ JONES</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>1-17-17</u>	<u>[Signature]</u>	<u>07/07/17</u>	<u>per email</u>
10. <u>JEREMY SISKIN</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>1-17-17</u>	<u>[Signature]</u>	<u>07/07/17</u>	<u>per email</u>
11. <u>CHRIS BROWN</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>1-17-17</u>	<u>[Signature]</u>	<u>07/07/17</u>	<u>per email</u>
12. <u>PAUL BRUCE THOMPSON</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>01/17/17</u>	<u>[Signature]</u>	<u>07/11/17</u>	<u>per email</u>
13. <u>GLENN SQUADINI</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>01/17/17</u>	<u>[Signature]</u>	<u>07/11/17</u>	<u>per email</u>
14. <u>M. ARNOLD</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>4-7-17</u>	<u>[Signature]</u>	<u>7/8/17</u>	<u>per email</u>
15. <u>J. BURKHOLDER</u>	<u>Facility Key</u>	<u>[Signature]</u>	<u>1/19/17</u>	<u>[Signature]</u>	<u>7/8/17</u>	<u>per email</u>

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. Will Fowls	SNV	<i>[Signature]</i>	01-20-17	<i>[Signature]</i>	07/25/17	Per email
2. Hayon Farim	DRS INST	<i>[Signature]</i>	01-26-17	<i>[Signature]</i>	07/11/17	Performance
3. David Keith	XE TRK	<i>[Signature]</i>	02/27/17	* Note 1 &	07/11/17	
4. Clark Heldegar	MNS Exam Team	<i>[Signature]</i>	2-14-17	<i>[Signature]</i>	7/10/17	Per email
5. Stefan Motteler	MNS Exam Team	<i>[Signature]</i>	2-14-17	<i>[Signature]</i>	7/10/17	Per email
6. Mack Hayes	LX ELC.	<i>[Signature]</i>	2-16-17	<i>[Signature]</i>	07/07/17	Per email
7. Matthew Beasky	RD	<i>[Signature]</i>	2-28-17	<i>[Signature]</i>	7-7-17	
8. Robert Russell	SPD	<i>[Signature]</i>	2/29/17	<i>[Signature]</i>	7/19/17	Per email
9. Brian Jewell	RD	<i>[Signature]</i>	03/08/17	<i>[Signature]</i>	7/17/17	Per email
10. James Blankensly	SRO	<i>[Signature]</i>	03/14/17	<i>[Signature]</i>	7/17/17	Per email
11. Mike Pezinski	SRO	<i>[Signature]</i>	3/8/17	<i>[Signature]</i>	7/14/17	Per email
12. Kristi Byers	Admin. Asst.	<i>[Signature]</i>	3/15/17	<i>[Signature]</i>	7/17/17	Per email
13. SAM LARK	ONS EXAM TEAM	<i>[Signature]</i>	3/16/17	<i>[Signature]</i>	7/10/17	Per phone
14. Scott Baulen	ONS Exam Team	<i>[Signature]</i>	3/16/17	<i>[Signature]</i>	7/10/17	Per email
15. Andrew Donato	SRO	<i>[Signature]</i>	3/24/17	<i>[Signature]</i>	7/17/17	Per email

NOTES: * Note 1 -

David Keith signed into the exam security agreement in order to perform printer/copier maintenance activities. No actual exam prep/review responsibilities. This employee has been terminated from employment. Not available to sign-off of exam security.

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>Delia D. Miller</u>	<u>SRD</u>	<u>[Signature]</u>	<u>05/15/17</u>	<u>[Signature]</u>	<u>7/7/17</u>	<u>per email</u>
2. <u>Don Peterson</u>	<u>RO</u>	<u>[Signature]</u>	<u>04/27/17</u>	<u>[Signature]</u>	<u>7/22/17</u>	<u>per email</u>
3. <u>Ed Miller</u>	<u>RO</u>	<u>[Signature]</u>	<u>04/19/17</u>	<u>[Signature]</u>	<u>7/7/17</u>	<u>per email</u>
4. <u>STEVE MILLER</u>	<u>DPT Manager</u>	<u>[Signature]</u>	<u>04/19/17</u>	<u>[Signature]</u>	<u>7/7/17</u>	
5. <u>Michelle Bass</u>	<u>SRD</u>	<u>[Signature]</u>	<u>05/22/17</u>	<u>[Signature]</u>	<u>7/7/17</u>	<u>per email</u>
6. <u>Tom Bowman</u>	<u>RO</u>	<u>[Signature]</u>	<u>05-24-17</u>	<u>[Signature]</u>	<u>7/21/17</u>	<u>per email</u>
7. <u>Charlie James</u>	<u>RO</u>	<u>[Signature]</u>	<u>05/30/17</u>	<u>[Signature]</u>	<u>7/21/17</u>	<u>per email</u>
8. <u>Jeffrey J. Cass</u>	<u>Reactor Operator</u>	<u>[Signature]</u>	<u>05/30/17</u>	<u>[Signature]</u>	<u>7/21/17</u>	<u>per email</u>
9. <u>Thomas Stroese</u>	<u>SRD</u>	<u>[Signature]</u>	<u>05/30/17</u>	<u>[Signature]</u>	<u>7/21/17</u>	<u>per email</u>
10. <u>Eric Madson</u>	<u>SRD</u>	<u>[Signature]</u>	<u>06/09/17</u>	<u>[Signature]</u>	<u>7/10/17</u>	
11. <u>Janet Davis</u>	<u>OPS INSTRUCTOR</u>	<u>[Signature]</u>	<u>06/09/17</u>	<u>[Signature]</u>	<u>7/10/17</u>	
12. <u>Ronnie Leckler</u>	<u>OPS Instructor</u>	<u>[Signature]</u>	<u>06/21/17</u>	<u>[Signature]</u>	<u>7/10/17</u>	<u>via text</u>
13. <u>Cheri Edmunds</u>	<u>PT</u>	<u>[Signature]</u>	<u>06/21/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	
14. <u>Tammy Dome</u>	<u>Admin</u>	<u>[Signature]</u>	<u>06/22-17</u>	<u>[Signature]</u>	<u>7/10/17</u>	<u>per email</u>
15. <u>CHRIS STUBS</u>	<u>OPT INSTRUCTOR</u>	<u>[Signature]</u>	<u>6-26-17</u>	<u>[Signature]</u>	<u>07/20/17</u>	<u>per phone</u>

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1. <u>Madeline Webster</u>	<u>Supervisor / LT</u>	<u>[Signature]</u>	<u>6/26/17</u>	<u>[Signature]</u>	<u>7/6/17</u>	
2. <u>Harvey W. Freeman</u>	<u>ADM-SUPV / Senior Licensee Trainer</u>	<u>[Signature]</u>	<u>6/26/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	<u>per email</u>
3. <u>Richard Haynes</u>	<u>ATOM Training / observer</u>	<u>[Signature]</u>	<u>6/27/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	<u>per email</u>
4. _____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____

NOTES:

1. Pre-Examination




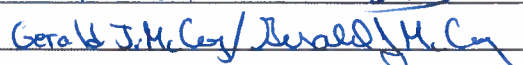
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1. <u>MPSAMES</u>	<u>SR0 / Wcsro</u>	<u>[Signature]</u>	<u>06/28/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	<u>per email</u>
2. <u>Rich Exley</u>	<u>Instructor / ICR 4541</u>	<u>[Signature]</u>	<u>06/28/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	<u>per email</u>
3. <u>Doug Gates</u>	<u>SR0</u>	<u>[Signature]</u>	<u>06/28/17</u>	<u>[Signature]</u>	<u>7/11/17</u>	<u>per email</u>
4. _____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____

NOTES:

Facility: Catawba Nuclear Station		Date of Examination: June 2017	Operating Test Number: 2017301	
1. General Criteria		Initials		
		a	b*	c#
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	RM	MB	MB
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	RM	MB	MB
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	RM	MB	MB
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	RM	MB	MB
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	RM	MB	MB
2. Walk-Through Criteria		--	--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> • initial conditions • initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time-critical by the facility licensee • operationally important specific performance criteria that include: <ul style="list-style-type: none"> - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable 	RM	MB	MB
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	RM	MB	MB
3. Simulator Criteria		--	--	--
The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.		RM	MB	MB
Printed Name / Signature		Date		
a.	Author <u>Rusty Miller / </u>	<u>06/06/17</u>		
b.	Facility Reviewer(*) <u>RP Jones / </u>	<u>06/06/17</u>		
c.	NRC Chief Examiner (#) <u>MARK A. BATES / </u>	<u>06/08/17</u>		
d.	NRC Supervisor <u>Gerald J. McCoy / </u>	<u>6/19/2017</u>		
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.				

Facility: Catawba Nuclear Station Date of Exam: June 2017 Scenario Numbers: 1 / 2 / 3 / 4 Operating Test No.: 2017301			
QUALITATIVE ATTRIBUTES	Initials		
	a	b*	c#
1. The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	RM	MB	MB
2. The scenarios consist mostly of related events.	RM	MB	MB
3. Each event description consists of <ul style="list-style-type: none"> the point in the scenario when it is to be initiated the malfunction(s) or conditions that are entered to initiate the event the symptoms/cues that will be visible to the crew the expected operator actions (by shift position) the event termination point (if applicable) 	RM	MB	MB
4. The events are valid with regard to physics and thermodynamics.	RM	MB	MB
5. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	RM	MB	MB
6. If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.	RM	MB	MB
7. The simulator modeling is not altered.	RM	MB	MB
8. The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	RM	MB	MB
9. Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.	RM	MB	MB
10. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	RM	MB	MB
11. The scenario set provides the opportunity for each applicant to be evaluated in each of the applicable rating factors. (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)	RM	MB	MB
12. Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).	RM	MB	MB
13. The level of difficulty is appropriate to support licensing decisions for each crew position.	RM	MB	MB
Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes		
1. Malfunctions after EOP entry (1-2)	2 / 3 / 2 / 2	RM	MB
2. Abnormal events (2-4)	4 / 4 / 4 / 4	RM	MB
3. Major transients (1-2)	1 / 1 / 1 / 1	RM	MB
4. EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1 / 1	RM	MB
5. EOP contingencies requiring substantive actions (0-2)	1 / 0 / 0 / 1	RM	MB
6. EOP based Critical tasks (2-3)	3 / 2 / 3 / 2	RM	MB
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.			

Facility: Catawba		Date of Exam: June 2017		Operating Test No.: 2017301													
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M (*)		
		Scenario 1			Scenario 2			Scenario 3									
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
RO 1	RX		1					5					2	1	1	0	
SRO-I	NOR					1,4							2	1	1	1	
SRO-U	I/C		3,5,7			2,5,7,9		1,2,7					10	4	4	2	
	MAJ		6			6		6					3	2	2	1	
	TS												0	0	2	2	
RO	RX							5					1	1	1	0	
SRO-I 1	NOR			1	1								2	1	1	1	
SRO-U	I/C			2,4,8	2,3,4,5			1,2,7					10	4	4	2	
	MAJ			6	6			6					3	2	2	1	
	TS				4,5								2	0	2	2	
RO	RX						4						1	1	1	0	
SRO-I 2	NOR	1								5			2	1	1	1	
SRO-U	I/C	2,3,4,5,8			3,8			3,4,8					10	4	4	2	
	MAJ	6			6			6					3	2	2	1	
	TS	3,4											2	0	2	2	
RO	RX		1										1	1	1	0	
SRO-I 3	NOR					1,4	5						3	1	1	1	
SRO-U	I/C		3,5,7			2,5,7,9	1,2,3,4						11	4	4	2	
	MAJ		6			6	6						3	2	2	1	
	TS						3,4						2	0	2	2	

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Catawba		Date of Exam: June 2017									Operating Test No.: 2017301						
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M(*)		
		Scenario 1			Scenario 2			Scenario 3									
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
RO	RX					4								1	1	1	0
SRO-I 4	NOR	1								5				2	1	1	1
SRO-U	I/C	2,3,4,5,8				3,8				3,4,8				10	4	4	2
	MAJ	6				6				6				3	2	2	1
	TS	3,4												2	0	2	2
RO	RX					4								1	1	1	0
SRO-I 5	NOR	1								5				2	1	1	1
SRO-U	I/C	2,3,4,5,8				3,8				3,4,8				10	4	4	2
	MAJ	6				6				6				3	2	2	1
	TS	3,4												2	0	2	2
RO	RX														1	1	0
SRO-I	NOR														1	1	1
SRO-U	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Catawba			Date of Exam: June 2017			Operating Test No.: 2017301											
A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M (*)		
		Scenario 1			Scenario 2			Scenario 3									
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P		R	I	U
RO	RX							5					1	1	1	0	
SRO-I	NOR			1									1	1	1	1	
SRO-U 1	I/C			2,3,4,5				1,2,7					7	4	4	2	
	MAJ			6				6					2	2	2	1	
	TS			4,5									2	0	2	2	
RO	RX		1										1	1	1	0	
SRO-I	NOR			1									1	1	1	1	
SRO-U 2	I/C		3,5,7	2,3,4,5									7	4	4	2	
	MAJ		6	6									2	2	2	1	
	TS			4,5									2	0	2	2	
RO	RX												0	1	1	0	
SRO-I	NOR					1,4	5						3	1	1	1	
SRO-U 3	I/C					2,5,7,9	1,2,3,4						8	4	4	2	
	MAJ					6	6						2	2	2	1	
	TS						3,4						2	0	2	2	
RO	RX												0	1	1	0	
SRO-I	NOR			1				5					2	1	1	1	
SRO-U 4	I/C			2,4,8				1,2,3,4					7	4	4	2	
	MAJ			6				6					2	2	2	1	
	TS							3,4					2	0	2	2	

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Catawba Nuclear Station Date of Examination: June 2017 Operating Test No: 2017301									
Competencies	APPLICANTS								
	RO (1) <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>			RO <input type="checkbox"/> SRO-I (1) <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>			RO <input type="checkbox"/> SRO-I (2) <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>		
	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret/Diagnose Events and Conditions	3,5,6,7	2,5,6,7,9	1,2,6,7	2,4,6,8	2,3,4,5,6	1,2,6,7	2,3,4,5,6,8	3,6,8	3,4,6,8
Comply With and Use Procedures (1)	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Operate Control Boards (2)	ALL	ALL	ALL	ALL		ALL		ALL	ALL
Communicate and Interact	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Demonstrate Supervisory Ability (3)					ALL		ALL		
Comply With and Use Tech. Specs. (3)					4,5		3,4		

Notes:
 (1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

Instructions:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility: Catawba Nuclear Station Date of Examination: June 2017 Operating Test No: 2017301									
Competencies	APPLICANTS								
	RO <input type="checkbox"/> SRO-I (3) <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>			RO <input type="checkbox"/> SRO-I (4) <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>			RO <input type="checkbox"/> SRO-I (5) <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>		
	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret/Diagnose Events and Conditions	3,5,6,7	2,5,6,7,9	1,2,3,4,6	2,3,4,5,6,8	3,6,8	3,4,6,8	2,3,4,5,6,8	3,6,8	3,4,6,8
Comply With and Use Procedures (1)	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Operate Control Boards (2)	ALL	ALL			ALL	ALL		ALL	ALL
Communicate and Interact	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Demonstrate Supervisory Ability (3)			ALL	ALL			ALL		
Comply With and Use Tech. Specs. (3)			3,4	3,4			3,4		
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.									

Instructions:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility: **Catawba Nuclear Station** Date of Examination: **June 2017** Operating Test No:**2017301**

Competencies	APPLICANTS								
	RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U (1) <input checked="" type="checkbox"/>			RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U (2) <input checked="" type="checkbox"/>			RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U (3) <input checked="" type="checkbox"/>		
	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret/Diagnose Events and Conditions		2,3,4,5,6	1,2,6,7	3,5,6,7	2,3,4,5,6			2,5,6,7,9	1,2,3,4,6
Comply With and Use Procedures (1)		ALL	ALL	ALL	ALL			ALL	ALL
Operate Control Boards (2)			ALL	ALL				ALL	
Communicate and Interact		ALL	ALL	ALL	ALL			ALL	ALL
Demonstrate Supervisory Ability (3)		ALL			ALL				ALL
Comply With and Use Tech. Specs. (3)		4,5			4,5				3,4

Notes:

- (1) Includes Technical Specification compliance for an RO.
- (2) Optional for an SRO-U.
- (3) Only applicable to SROs.

Instructions:




Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility: Catawba Nuclear Station Date of Examination: June 2017 Operating Test No: 2017301									
Competencies	APPLICANTS								
	RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U (4) <input checked="" type="checkbox"/>			RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>			RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>		
	SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3
Interpret/Diagnose Events and Conditions	2,4,6,8		1,2,3,4,6						
Comply With and Use Procedures (1)	ALL		ALL						
Operate Control Boards (2)	ALL								
Communicate and Interact	ALL		ALL						
Demonstrate Supervisory Ability (3)			ALL						
Comply With and Use Tech. Specs. (3)			3,4						

Notes:
 (1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

Instructions:

Check the applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant. (This includes all rating factors for each competency.) (Competency Rating factors as described on forms ES-303-1 and ES-303-3.)

Facility: <u>CATAWBA</u>		Date of Exam: <u>7/6/17</u>		Exam Level: RO <input checked="" type="checkbox"/> SRO <input checked="" type="checkbox"/>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
2. Answer key changes and question deletions justified and documented	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
4. Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>ba</u>	<u>N/A</u>	<u>MB</u>		
Printed Name/Signature		Date			
a. Grader	<u>THOMAS A. STEVENSON</u> 	<u>07/31/2017</u>			
b. Facility Reviewer(*)	<u>N/A</u>	<u>N/A</u>			
c. NRC Chief Examiner (*)	<u>MARK A. BATES</u> / 	<u>07/31/2017</u>			
d. NRC Supervisor (*)	<u>Gerald J. McCoy</u> / 	<u>8/3/2017</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					



Tom Simril
Vice President
Catawba Nuclear Station

Duke Energy
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York, SC 29745

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tom.simril@duke-energy.com

**Personal Information - Withhold from
Public Disclosure Under 10 CFR 2.390**

CNS-17-038

July 12, 2017

Mr. Mark Bates, Senior Operations Engineer
U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257

SUBJECT: Duke Energy Carolinas, LLC
Catawba Nuclear Station, Units 1 and 2
Docket Numbers: 50-413 and 50-414
Post Examination Documentation

Enclosed are the post examination materials for the Catawba Nuclear Station initial license examination completed on July 6, 2017, submitted in accordance with NUREG 1021, ES 501, C.1.a.

- Enclosure A: Original examination answer sheets, one clean copy and examination cover sheets
- Enclosure B: Master examinations and answer keys
- Enclosure C: Questions asked by applicants during exam
- Enclosure D: Substantive comments made by applicants following the written examination
- Enclosure E: Written examination seating chart
- Enclosure F: Completed Form ES-403-1, "Written Examination Grading Quality Checklist"; one sheet for RO and one sheet for SRO
- Enclosure G: Written Examination Performance Analysis
- Enclosure H: Form ES-201-3, "Examination Security Agreement" (preliminary)
- Enclosure I: Post Exam Comments

U. S. Nuclear Regulatory Commission
CNS-17-038
July 12, 2017
Page 2

A follow up submittal of Form ES-201-3, "Examination Security Agreement" will be provided to include all required signoffs.

If you have any questions or need additional information, please contact Tim Thompson, Training Supervisor at (803) 701-3177 or Steven Tripi, Operations Training Manager at (803) 701-3770.

Sincerely,

A handwritten signature in black ink that reads "Tom Simril". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Tom Simril
Vice President, Catawba Nuclear Station

U. S. Nuclear Regulatory Commission
CNS-17-038
July 12, 2017
Page 3

xc: without attachments

Gerald McCoy, Branch Chief
U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Joe Austin
Senior NRC Resident - Catawba
CN01NC

bxc: without attachments

Steve Tripi	CT01A
Marie Morgan	CT01A (Records)
ELL	EC2ZF

bxc: cover letter with correspondence review documentation only

CN-940.00	CN04DM
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Tom Simril
Vice President
Catawba Nuclear Station

**Withhold from
Public Disclosure Under 10 CFR 2.390**

Duke Energy
CN01VP | 4800 Concord Road
York, SC 29745

o: 803.701.3340
f: 803.701.3221
E-mail: Tom.Simril@Duke-Energy.com

CNS-17-025

April 27, 2017

U.S. Nuclear Regulatory Commission, Region II
Mr. Mark Bates, Senior Operations Engineer
Marquis One Tower
245 Peachtree Center Avenue, NE Suite 1200
Atlanta, GA 30303-1257

Subject: Duke Energy Carolinas, LLC
Catawba Nuclear Station, Unit 1 and 2
Docket Nos.: 50-413 and 50-414
Reactor and Senior Reactor Operator Initial Examinations Submittal

Reference: Letter from NRC to Duke Energy Corporation;
Reactor and Senior Reactor Operator Initial Examinations,
Catawba Nuclear Station, 05000413/2017301 and 05000414/2017301,
Dated January 25, 2017

The examination materials for the Catawba Nuclear Station Initial License Examination scheduled to begin on June 26, 2017 as listed below, are enclosed for your review.

- a. ES 201-3 - Examination Security Agreement (updated copy)
- b. ES 301-1 - Administrative Topics Outline (Reactor Operator)
- c. ES 301-1 - Administrative Topics Outline (Senior Reactor Operator)
- d. ES 301-2 - Control Room/In-Plant Systems Outline (Reactor Operator)
- e. ES 301-2 - Control Room/In-Plant Systems Outline (Senior Reactor Operator)
- f. ES 301-2 - Control Room/In-Plant Systems Outline (Instant Senior Reactor Operator)
- g. ES 301-3 - Operating Test Quality Checklist
- h. ES 301-4 - Simulator Scenario Quality Checklist
- i. ES 301-5 - Transient and Event Checklist

- j. ES 301-6 - Competencies Checklist
- k. ES D-1 - Forms for 4 (four) Simulator Scenarios Outlines
- l. Eleven (11) System Job Performance Measures, Four (4) RO Administrative Job Performance Measures, and Five (5) SRO Administrative Job Performance Measures
- m. Simulator Scenarios 1,2,3 and 4

The enclosed material contents shall be withheld from public disclosure until after the 2017 Catawba Nuclear Station Initial Examinations are complete. If you have any questions or need any additional information, please contact Tim Thompson, Nuclear Training Supervisor at 803-701-3177 or Steven Tripi, Operations Training Manager at 803-701-3770.

Sincerely,



Tom Simril
Site Vice President

U.S. Nuclear Regulatory Commission

April 27, 2017

Page 3 of 4

xc: Without Attachments

U.S. Nuclear Regulatory Commission
Gerald McCoy, Chief
Marquis One Tower
245 Peachtree Center Avenue, NE Suite 1200
Atlanta, GA 30303-1257

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Joe Austin, Senior Resident Inspector
Catawba – CN01NC

xc: without attachments

B. Leonard	CT01A
T. Thompson	CT01A
S. Tripi	CT01A
B. Webster	CT01A
K. Alcorn	CT01A
ELL	EC2ZF

bxc: cover letter with correspondence review documentation only
CN-940.00 CN04DM



Tom Simril
Vice President
Catawba Nuclear Station

**Withhold from
Public Disclosure Under 10 CFR 2.390**

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York, SC 29745

o: 803.701.3340
f: 803.701.3221
E-mail: Tom.Simril@Duke-Energy.com

CNS-17-017

April 6, 2017

U.S. Nuclear Regulatory Commission, Region II
Mr. Mark Bates, Senior Operations Engineer
Marquis One Tower
245 Peachtree Center Avenue, NE Suite 1200
Atlanta, GA 30303-1257

Subject: Duke Energy Carolinas, LLC
Catawba Nuclear Station, Unit 1 and 2
Docket Nos.: 50-413 and 50-414
Reactor and Senior Reactor Operator Initial Examinations Submittal

Reference: Letter from NRC to Duke Energy Corporation;
Reactor and Senior Reactor Operator Initial Examinations,
Catawba Nuclear Station, 05000413/2017301 and 05000414/2017301,
Dated January 25, 2017

The examination materials for the Catawba Nuclear Station Initial License Examination scheduled to begin on June 26, 2017 as listed below, are enclosed for your review.

- a. ES 201-2 Examination Outline Quality Checklist
- b. ES 201-3 Examination Security Agreement (updated copy)
- c. ES 401-4 Record of Rejected K/As
- d. ES 401-6 Written Exam Quality Checklist
- e. RO Written Exam questions - Seventy-Five (75) questions with references
- f. SRO Written Exam questions - Twenty-Five (25) questions with references
- g. Plant Reference Documents

U.S. Nuclear Regulatory Commission

April 6, 2017

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The enclosed material contents shall be withheld from public disclosure until after the 2017 Catawba Nuclear Station Initial Examinations are complete. If you have any questions or need any additional information, please contact Tim Thompson, Nuclear Training Supervisor at 803-701-3177 or Steven Tripi, Operations Training Manager at 803-701-3770.

Sincerely,

A handwritten signature in black ink that reads "Tom Simril". The signature is written in a cursive style with a large, stylized "S" at the end.

Tom Simril
Site Vice President

U.S. Nuclear Regulatory Commission

April 6, 2017

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xc: Without Attachments

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B. Leonard	CT01A
T. Thompson	CT01A
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K. Alcorn	CT01A
ELL	EC2ZF

bxc: cover letter with correspondence review documentation only
CN-940.00 CN04DM

Catawba 2017-301 Exam – Op Test Outline Comments

Admin JPMs

1. A.1-1 (RO&SRO): Should this be a Time Critical JPM? What is the Tech Spec Action if they do not complete the calc within one hour (shutdown preps)? What is the predicted validation time, which should be known since it's a bank JPM?

Systems JPMs

1. JPM "b": the safety function appears to potentially be incorrect. Ensuring containment isolation appears to be more appropriately associated with safety function 5 (containment pressure), rather than 2. Discuss the "inventory control" impact of the valves that failed to reposition. That conversation will help determine if the appropriate safety function has been designated. When evaluating this comment, it may help to review WE14EA1.1 to see if it is a better fit.

2. JPM "c": JPM itself looks OK. Review WE05EA1.1 and WE05EA2.2 to see if you think they may be a better fit for the emergency evolution that is being performed.

3. JPM "d": JPM itself looks OK. Review KA 054AA1.01 to see if you think that it is a better fit for the emergency evolution that is being performed.

4. JPM "f": The importance rating may not be appropriate for the task. Most all of the KAs that are associated with Circ Water are less than 2.5, which indicates that most tasks associated with this system are not eligible for JPM administration. It appears that matching a generic with an IR above 2.5 for a system that hardly has any tasks that rate greater than 2.5 would not be in good keeping with the spirit and intent of the importance rating. (ES-301, pg 6 states that IR should not be less than 2.5).

Scenarios

1. Sc 4, Critical Task 2: Manually starting RN pumps to prevent EDG damage appears to be a satisfactory CT as long as the simulator is programmed to model EDG failure based on a parameter that contains a solid technical basis for overheating in the absence of cooling. Will the EDG automatically fail based on a technically valid parameter when it is not being cooled?

Catawba 2017 Op Test Review

Scenario Comments

1. Scenario 1 / Event 4: Loss of 1A NV pump – do the verifiable actions meet the definition of a CT, in that if nothing is done, the reactor will eventually trip? Will the trip happen within a time frame that can be evaluated during the course of scenario administration?
2. Scenario 2 / Event 3: Is isolating PORV a critical task?
3. Scenario 2 / Event 4: restoring rods above insertion limits appears like it might be a CT. Plant is in an unanalyzed condition as long as rods are below insertion limits.
4. Scenario 3 / Event 3: Is starting standby pump a CT?
5. Scenario 4 / Event 4: Is starting an RL pump a CT?

Admin JPM Comments

1. A.1-1:
 - a. Delete 5th bullet in Initial Conditions. The JPM should not be teaching them that there is a one hour Tech Spec. Applicants are required to know that.
 - b. How many SDM calc procedures exist? First bullet should not tell them which procedure to use and should also not tell them which section to use.
 - c. Step 13: It appears that power defect could be interpolated. Is an acceptance band needed? If so, carry that band forward in the calculation.
2. A.1-2:
 - a. Why does the first bullet in the Initial Conditions tell the applicant exactly what procedure to use?
 - b. What is the purpose of the second bullet in the initial conditions?
 - c. Do some of these steps require acceptance bands? If no bands are stated in the Step Standard, we will hold the applicants to that exact value stated in the step. Bands should usually be stated if there is possibility of inconsequential rounding.
3. A.2:
 - a. This calculation is pure plug and chug with the forms that are given. There is really no aspect of finding information, analyzing information, etc. Furthermore, it is better to have a set of Admin JPMs that are not entirely composed of calculations. We should discuss replacement options for a non-calculation based JPM.
4. A.3:
 - a. How was the upper end of the acceptance band of 169 determined? It appears that 168 would accommodate any rounding errors.
 - b. Why does the JPM tell them which procedure attachment to use?
5. A.4:
 - a. Critical steps need to be designated on the ENF. Typically we would consider any step that would cause a failed Performance Indicator to be a critical step.
 - b. Last bullet of initial conditions should just state that the task is time critical or has time critical elements.

- c. Why is the classification not time-critical? The classification needs to be done in less than 15 minutes and then the notification form needs to be done within 15 minutes of the classification. Overall JPM standard also needs to reflect this.

Systems JPM Comments

1. JPMs a, b, c
 - a. These JPMs only have 2 or 3 critical steps. This comment does not require action at this time. It is mentioned here as a reminder to the examiners for prep week to ensure we are comfortable with so few critical steps being used on multiple JPMs.
2. JPM d
 - a. Step 2 (Proc Step 7.b – close 1CS-19): discuss whether this should be a critical step.
3. JPM k
 - a. Removing the lock appears to be a critical step. The task cannot be completed without doing this.