



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

May 15, 2015

William R. Gideon
Brunswick Steam Electric Plant
Vice President
Brunswick Steam Electric Plant
P.O. Box 10429
Southport, NC 28461

**SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT – NOTIFICATION OF LICENSED
OPERATOR INITIAL EXAMINATION 05000325/2015301 AND 05000324/2015301**

Dear Mr. Gideon:

In a telephone conversation on May 12, 2015, between Mr. Robert Bolin, Examination Development Coordinator, Mr. Louis Sosler, Examination Author, and Mr. Richard S. Baldwin, Senior Operations Engineer, arrangements were made for the administration of licensing examinations at the Brunswick Steam Electric Plant. The operating test is scheduled to be administered during the weeks of November 30, 2015 and December 7, 2015. The written examination is scheduled to be administered the week of December 14, 2015. The on-site preparatory week is scheduled for the week of November 2, 2015.

As agreed during the telephone conversation, your staff will prepare both the operating test and written examinations based on the guidelines in Revision 10, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." The U.S. Nuclear Regulatory Commission (NRC) regional office will discuss with your staff any changes that might be necessary before the examinations are administered. Your staff has also agreed to make copies of all examination materials that are necessary for administering the examination.

To meet the above schedule, it will be necessary for your staff to furnish the operating test outlines by September 1, 2015. Mr. Philip Capehart provided written examination outlines to your staff in February 2015. The written examinations, operating test and the supporting reference materials identified in Attachment 3 to ES-201 will be due by October 1, 2015. Pursuant to Title 10, Section 55.40(b)(3), of the Code of Federal Regulations (10 CFR 55.40(b)(3)), an authorized representative of the facility licensee shall approve the examinations, and test before they are submitted to the NRC for review and approval. All materials shall be complete and ready-to-use.

We request that any personal, proprietary, sensitive unclassified, or safeguards information in your response be contained in a separate enclosure and appropriately marked. Any delay in receiving the required examination and reference materials, or the submittal of inadequate or incomplete materials, may cause the examinations to be rescheduled.

In order to conduct the requested written examinations and operating tests, it will be necessary for your staff to provide adequate space and accommodations in accordance with ES-402, and to make the simulation facility available on the dates noted above. In accordance with ES-302, your staff should retain the original simulator performance data (e.g., system pressures, temperatures, and levels) generated during the dynamic operating tests until the examination results are final.

Appendix E of NUREG-1021 contains a number of NRC policies and guidelines that will be in effect while the written examinations and operating tests are being administered.

To permit timely NRC review and evaluation, your staff should submit preliminary reactor operator and senior reactor operator license applications (Office of Management and Budget (OMB) approval number 3150-0090), medical certifications (OMB approval number 3150-0024), and waiver requests (OMB approval number 3150-0090) at least 30 days before the first examination date. If the applications are not received at least 30 days before the first examination date, a postponement may be necessary. Signed applications certifying that all training has been completed should be submitted at least 14 days before the first examination date.

This letter contains information collections that are subject to the *Paperwork Reduction Act of 1995* (44 U.S.C. 3501 et seq.). These information collections were approved by OMB under approval number 3150-0018, which expires on April 30, 2016. The public reporting burden for this collection of information is estimated to average 2500 hours per response, including the time for reviewing instructions, gathering and maintaining the data needed, writing the examinations, and completing and reviewing the collection of information. Send comments on any aspect of this collection of information, including suggestions for reducing the burden, to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at BJS1@nrc.gov; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0018), Office of Management and Budget, Washington, DC 20503.

The NRC may neither conduct nor sponsor, and a person is not required to respond to, an information collection, unless it displays a currently valid OMB control number.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm.adams.html> (the Public Electronic Reading Room).

Thank you for your cooperation in this matter. Mr. Robert Bolin has been advised of the policies and guidelines referenced in this letter. If you have any questions regarding the NRC's examination procedures and guidelines, please contact Mr. Richard S. Baldwin at (404) 997-4642, (Internet E-mail: Richard.Baldwin@nrc.gov), or me at (404) 997-4662, (Internet E-mail: Eugene.Guthrie@nrc.gov)

Sincerely,

/RA/

Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

Docket Nos.: 50-325, 50-324
License Nos.: DPR-71, DPR-62

cc: Distribution via Listserv

Thank you for your cooperation in this matter. Mr. Robert Bolin has been advised of the policies and guidelines referenced in this letter. If you have any questions regarding the NRC's examination procedures and guidelines, please contact Mr. Richard S. Baldwin at (404) 997-4642, (Internet E-mail: Richard.Baldwin@nrc.gov), or me at (404) 997-4662, (Internet E-mail: Eugene.Guthrie@nrc.gov)

Sincerely,

/RA/

Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

Docket Nos.: 50-424, 50-425
License Nos.: NPF-68, NPF-81

cc: Distribution via Listserv

x ☐ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE x ☐ NON-SENSITIVE
ADAMS: x ☐ Yes ACCESSION NUMBER: _ML15138A340_____ ☐ SUNSI REVIEW COMPLETE ☐ FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS					
SIGNATURE	VIA EMAIL	EFG					
NAME	BALDWIN	GUTHRIE					
DATE	5/13/2015	5/ 15 /2015	5/ /2015	5/ /2015	5/ /2015	5/ /2015	5/ /2015
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\OLEXAMS\BRUNSWICK EXAMINATIONS\INITIAL EXAM 2015-301\CORRESPONDENCE\BRUNSWICK 2015-301 CORPORATE NOTIFICATION LETTER_R00(RSB).DOCX

Facility: <u>Brunswick</u>		Date of Examination: <u>12/2015</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)	RSB
-150	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	RSB
-150	3. Facility contact briefed on security and other requirements (C.2.c)	RSB
-150	4. Corporate notification letter sent (C.2.d)	RSB
[-120]	5. Reference material due (C.1.e; C.3.c; Attachment 3)	RSB
{-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)	RSB
{-85}	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	RSB
{-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 <u>ES-201-2, ES-201-3, ES-301-1, or ES-301-2</u> updates), and reference materials due (C.1.e, f, g and h; C.3.d)	RSB
-45	9. <u> </u> Written exam and operating test reviews completed. (C.3.f)	RSB
-30	<u>10.</u> Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	RSB
-21	<u>11.</u> Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	RSB
-21	<u>12.</u> Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	RSB
-14	<u>13.</u> Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	RSB
-14	<u>14.</u> Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	RSB
-7	<u>15.</u> Facility licensee management queried regarding the licensee's views on the examination. (C.2.j)	RSB
-7	<u>16.</u> 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)	RSB
-7	<u>17.</u> Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	RSB
-7	<u>18.</u> Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	RSB
<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.</p> <p>[Applies only] {Does not apply} to examinations prepared by the NRC.</p>		

Facility: Brunswick Nuclear Plant		Date of Examination: Dec 2015		
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 or ES-401N.	✓	N/A*	10/5
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 or ES-401N and whether all K/A categories are appropriately sampled.	✓	N/A*	10/5
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	✓	N/A*	10/5
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	✓	N/A*	10/5
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.	✓	Q	10/5
	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.	✓	Q	10/5
	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.	✓	Q	10/5
3. W A L K T H R O U G H	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.	✓	Q	10/5
	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	✓	Q	10/5
	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.	✓	Q	10/5
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.	✓	Q	10/5
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	✓	Q	10/5
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	✓	Q	10/5
	d. Check for duplication and overlap among exam sections.	✓	Q	10/5
	e. Check the entire exam for balance of coverage.	✓	Q	10/5
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	✓	Q	10/5
a. Author <u>Lou Sosler</u> b. Facility Reviewer (*) <u>Jerry Pierce</u> c. NRC Chief Examiner (#) <u>RICHARD S. BALDWIN</u> d. NRC Supervisor <u>EUGENE F. GOTHARD</u>		Printed Name/Signature Date 8-28-15 8-27-15 11/30/15 11/30/15		
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 11/30-12/15 2015 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

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 11/30-12/15 2015. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>Walter J. Sotlar</u>	<u>Exam Admin</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
2. <u>Bob Bolin</u>	<u>Exam Developer</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
3. <u>Jim Barry</u>	<u>Exam Supervisor</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
4. <u>Jeffery Deane</u>	<u>Simulator Support</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
5. <u>Aaron Farshy</u>	<u>Fleet Exam Spec</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
6. <u>Eric Pierce</u>	<u>Facility Rep</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
7. <u>Walt Woodruff</u>	<u>Ops Instructor</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
8. <u>Mike Cooper</u>	<u>CO-5</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
9. <u>Hunter Moore</u>	<u>RO</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
10. <u>Andrew Smith</u>	<u>RO</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
11. <u>Michael Long</u>	<u>CRS</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
12. <u>Michael Maresca</u>	<u>RO</u>	<u>[Signature]</u>	<u>2/16/15</u>	<u>[Signature]</u>	<u>12-17-15</u>	
13. <u>John Benshaw</u>	<u>CRS</u>	<u>[Signature]</u>	<u>2-21-15</u>	<u>[Signature]</u>	<u>1-2-16</u>	
14. <u>David Cobb</u>	<u>RO</u>	<u>[Signature]</u>	<u>2-21-15</u>	<u>[Signature]</u>	<u>1-2-16</u>	
15. <u>Russell Brown</u>	<u>CRS</u>	<u>[Signature]</u>	<u>2-21-15</u>	<u>[Signature]</u>	<u>12-17-16</u>	

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of _____ 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

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/30-1/31/15. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>John D. Buggs</u>	<u>OPS TRNG</u>	<u>[Signature]</u>	<u>7/27/15</u>	<u>[Signature]</u>	<u>12/16/15</u>	
2. <u>Clark Fletcher</u>	<u>OPS TRNG</u>	<u>[Signature]</u>	<u>7/27/15</u>	<u>[Signature]</u>	<u>12/16/15</u>	
3. <u>Terry Giese</u>	<u>OPS TRNG</u>	<u>[Signature]</u>	<u>7/27/15</u>	<u>[Signature]</u>	<u>12/16/15</u>	
4. <u>Dege Pickert</u>	<u>RO</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
5. <u>Thomas Butler</u>	<u>RO</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
6. <u>Kevin Kingston</u>	<u>CRS</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
7. <u>Brian Muehler</u>	<u>CRS</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
8. <u>Ang Oliver</u>	<u>CRS</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
9. <u>Frank Nelson</u>	<u>CRS</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
10. <u>Deon Myles</u>	<u>RO</u>	<u>[Signature]</u>	<u>9/18/15</u>	<u>[Signature]</u>	<u>12/28/15</u>	
11. <u>Mark Simley</u>	<u>OTM</u>	<u>[Signature]</u>	<u>10/21/15</u>	<u>[Signature]</u>	<u>12/17/15</u>	
12. <u>APPALECH</u>	<u>OTM</u>	<u>[Signature]</u>	<u>10/21/15</u>	<u>[Signature]</u>	<u>12/17/15</u>	
13. <u>D. Hulin</u>	<u>OPS TRNG</u>	<u>[Signature]</u>	<u>11/16/15</u>	<u>[Signature]</u>	<u>12/17/15</u>	
14. <u>S. Salazar</u>	<u>CER</u>	<u>[Signature]</u>	<u>11/24/15</u>	<u>[Signature]</u>	<u>12/17/15</u>	
15. _____	_____	_____	_____	_____	_____	_____

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of _____ 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

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 11/30-12/1/15. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>Joe Morris</u>	<u>ops Tmg Supr</u>	<u>[Signature]</u>	<u>12/1/15</u>	<u>[Signature]</u>	<u>12/1/15</u>	
2. <u>Tina Lalawaja</u>	<u>ops mgr</u>	<u>[Signature]</u>	<u>12-1-15</u>	<u>[Signature]</u>	<u>12-1-15</u>	
3. <u>Justin Dunsen</u>	<u>APM - OLTAGE</u>	<u>[Signature]</u>	<u>12/2/15</u>	<u>[Signature]</u>	<u>12/2/15</u>	
4. <u>Bryan Weston</u>	<u>APM - Support</u>	<u>[Signature]</u>	<u>12/2/15</u>	<u>[Signature]</u>	<u>12/2/15</u>	
5. <u>Michael D. Long</u>	<u>CRS</u>	<u>[Signature]</u>	<u>12-2-15</u>	<u>[Signature]</u>	<u>12-2-15</u>	
6. _____	_____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	_____	
9. _____	_____	_____	_____	_____	_____	
10. _____	_____	_____	_____	_____	_____	
11. _____	_____	_____	_____	_____	_____	
12. _____	_____	_____	_____	_____	_____	
13. _____	_____	_____	_____	_____	_____	
14. _____	_____	_____	_____	_____	_____	
15. _____	_____	_____	_____	_____	_____	

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of _____ 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

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 12/21/15. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. Brian Stetson	ILT Instructor	<i>Brian Stetson</i>	12/15/15	<i>Brian Stetson</i>	12/11/15	
2. Jason McEnroe	ILT Instructor	<i>Jason McEnroe</i>	12/15/15	<i>Jason McEnroe</i>	12/11/15	
3. Douglas Hakenwerdt	ILT INSTRUCTOR	<i>Douglas Hakenwerdt</i>	12-7-15	<i>Douglas Hakenwerdt</i>	12-10-15	
4. Michael D. Gibson	ILT INSTRUCTOR	<i>Michael D. Gibson</i>	12/7/15	<i>Michael D. Gibson</i>	12/10/15	
5. James Brown	ILT Instructor	<i>James Brown</i>	12/15	<i>James Brown</i>	12/10/15	
6. Brian Stetson	ILT Instructor	<i>Brian Stetson</i>	12/15/15	<i>Brian Stetson</i>	12/16/15 (2)	
7. MICHAEL D GIBSON	ILT INSTRUCTOR	<i>Michael D. Gibson</i>	12/14/15	<i>Michael D. Gibson</i>	12/16/15	
8. _____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____

NOTES: ① Opened Exam only.

③ Written Exam only.

Facility: Brunswick		Date of Examination: 11/30/2015		Operating Test Number:	
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).	S	q	MB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	S	q	MB	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	S	q	MB	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	S	q	MB	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	S	q	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 	S	q	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.	S	q	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.		S	q	MB	
Printed Name / Signature		Date			
a.	Author Lou Sosler	11-24-2015			
b.	Facility Reviewer(*) Jerry Pierce	11/25/15			
c.	NRC Chief Examiner (#) RICHARD S. BROWN / Richard Brown	11/30/2015			
d.	NRC Supervisor EUGENE F. GOTHARD / Eugene F. Gothard	11/30/15			
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: Brunswick		Date of Exam 11/30/2015		Scenario Numbers 1 / 2 / 3 / 4		Operating Test No.:	
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.						
2.	The scenarios consist mostly of related events.						
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) 						
4.	The events are valid with regard to physics and thermodynamics.						
5.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.						
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.						
7.	The simulator modeling is not altered.						
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.						
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.						
10.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).						
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.)						
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).						
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.						
Target Quantitative Attributes (Per Scenario; See Section D.5.d)				Actual Attributes			
1.	Malfunctions after EOP entry (1-2)			2 / 3 / 2 / 2			
2.	Abnormal events (2-4)			2 / 4 / 4 / 2			
3.	Major transients (1-2)			1 / 2 / 2 / 2			
4.	EOPs entered/requiring substantive actions (1-2)			2 / 2 / 2 / 2			
5.	EOP contingencies requiring substantive actions (0-2)			1 / 2 / 2 / 2			
6.	EOP based Critical tasks (2-3)			3 / 2 / 2 / 2			
NOTE: <ul style="list-style-type: none"> The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer Initial Items in Column "c"; chief examiner concurrence required. 							

Facility: Brunswick Nuclear Plant			Date of Exam: Nov/Dec 2015			Operating Test No.: Final												
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 (*)		
		1			2			3			4							
		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	
SRO-I1 Roel Brusselmans	RX							3				3			2	1	1	0
	NOR			1				1				2			3	1	1	1
	I/C			2,4,5,6, 9				2,4,5,6, 9				1,4,5,6, 7,9,10			17	4	4	2
	MAJ			6,7				7,8,10, 11				8,11,13			9	2	2	1
	TS							2,5				4,6			4	0	2	2
SRO-I2 Patrick Sena	RX	5							3				3		3	1	1	0
	NOR	1							1						2	1	1	1
	I/C	2,3,4,5, 6,8,9							4,6,9				1,4		12	4	4	2
	MAJ	6,7							7,8				8,11,13		7	2	2	1
	TS	3,4													2	0	2	2
SRO-U2 Heather Edwards	RX							3							1	1	1	0
	NOR							1							1	1	1	1
	I/C							2,4,5,6, 9							5	4	4	2
	MAJ							7,8,10, 11							4	2	2	1
	TS							2,5							2	0	2	2
RO-4 Kimberly Embrey	RX		5												1	1	1	0
	NOR									1					1	1	1	1
	I/C			3,5,8							4,6,9				6	4	4	2
	MAJ			6,7							7,8				4	2	2	1
	TS														0	0	2	2
RO-5 Justin Sibson	RX		5												1	1	1	0
	NOR									1			2		1	1	1	1
	I/C			3,5,8							4,6,9			5,7	8	4	4	2
	MAJ			6,7							7,8			8,11,13	7	2	2	1
	TS														0	0	2	2

Facility: Brunswick Nuclear Plant			Date of Exam: Nov/Dec 2015			Operating Test No.: Final												
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 (*)		
		1			2			3			4							
		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					
SRO-U1 Eric Beachum	RX							3						1	1	1	0	
	NOR							1						1	1	1	1	
	I/C							2,4,5,6,9						5	4	4	2	
	MAJ							7,8,10,11						4	2	2	1	
	TS							2,5						2	0	2	2	
RO-1 Charles Brookshire	RX		5											1	1	1	0	
	NOR									1				1	1	1	1	
	I/C		3,5,8							4,6,9				6	4	4	2	
	MAJ		6,7							7,8				4	2	2	1	
	TS													0	0	2	2	
RO-2 Freddie Bunnell	RX							3						1	1	1	0	
	NOR			1										1	1	1	1	
	I/C			2,4,5,6,9					2,5,6,11					9	4	4	2	
	MAJ			6,7					7,8,10					5	2	2	1	
	TS													0	0	2	2	
SRO U3 Holly West	RX	5												1	1	1	0	
	NOR	1												1	1	1	1	
	I/C	2,3,4,5,6,8,9												7	4	4	2	
	MAJ	6,7												2	2	2	1	
	TS	3,4												2	0	2	2	
SRO-U4 Dwayne Wolf	RX	5												1	1	1	0	
	NOR	1												1	1	1	1	
	I/C	2,3,4,5,6,8,9												7	4	4	2	
	MAJ	6,7												2	2	2	1	
	TS	3,4												2	0	2	2	
RO-3 Jacob Bush	RX							3						1	1	1	0	
	NOR			1										1	1	1	1	
	I/C			2,4,5,6,9					2,5,6,11					9	4	4	2	
	MAJ			6,7					7,8,10					5	2	2	1	
	TS													0	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 (SRO-I) must serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an SRO-I *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for 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 one-for-one 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.
4. For licensees that use the ATC operator primarily for monitoring plant parameters, the chief examiner may place SRO-I applicants in either the ATC or BOP position to best evaluate the SRO-I in manipulating plant controls.

Facility: Brunswick		Date of Examination: Nov/Dec 2015		Operating Test No.: Final												
Competencies	APPLICANTS															
	SRO-I1 Roel Brusselmans								SRO-I2 Patrick Sena				SRO-U2 Heather Edwards			
	SCENARIO								SCENARIO				SCENARIO			
	1	2	3	4					1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2,5, 6,7		2,5, 11	1,4, 5,6, 7,8, 9,10, 11, 12					2,4, 5,6		2,5, 11	1,4, 5,6, 7,8, 9,10, 11, 12			2,5, 11	
Comply With and Use Procedures (1)	2,5, 7		2,5, 7,10	1,2, 3,5, 8					1,2, 4,5, 6		2,5, 7,10	1,2, 3,5, 8			2,5, 7,10	
Operate Control Boards (2)	1,2, 4,5, 6		NA	2,5, 7,9, 10					NA		2,5, 7,8, 10	NA			2,5, 7,8, 10	
Communicate and Interact	ALL		ALL	ALL					ALL		ALL	ALL			ALL	
Demonstrate Supervisory Ability (3)	NA		1,3, 5,7, 8,9, 10,1 1,12	NA					2,3, 4,5, 6,7, 8,9		NA	1,3, 5,7, 8,9, 10,1 1,12			1,3, 5,7, 8,9, 10,1 1,12	
Comply With and Use Tech. Specs. (3)	NA		2,5	NA					3,4		NA	4,6			2,5	

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.

Facility: Brunswick		Date of Examination: October 2014				Operating Test No.: Final										
Competencies	APPLICANTS															
	RO-4 Kimberly Embrey				RO-5 Justin Sibson				SRO-U1 Eric Beachum				RO-1 Charles Brookshire			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	3,5, 7,8, 9		4,6, 9		3,5, 7,8, 9		4,6, 9	1,4, 5,7, 8,9, 10,1 1,12			2,5, 11		3,5, 7,8, 9		4,6, 9	
Comply With and Use Procedures (1)	2,5		1,3, 4,6, 9		2,5		1,3, 4,6, 9	1,2, 3,5, 8			2,5, 7,10		2,5		1,3, 4,6, 9	
Operate Control Boards (2)	3,5, 7,8, 9		1,3, 4,6, 9		3,5, 7,8, 9		1,3, 4,6, 9	NA			2,5, 7,8, 10		3,5, 7,8, 9		1,3, 4,6, 9	
Communicate and Interact	ALL		ALL		ALL		ALL	ALL			ALL		ALL		ALL	
Demonstrate Supervisory Ability (3)	NA		NA		NA		NA	NA			1,3, 5,7, 8,9, 10,1 1,12		NA		NA	
Comply With and Use Tech. Specs. (3)	NA		NA		NA		NA	NA			2,5		NA		NA	
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.

Facility: Brunswick		Date of Examination: October 2014		Operating Test No.: Final												
Competencies	APPLICANTS															
	RO-2 Freddie Bunnell				SRO-U3 Holly West				SRO-U4 Dwayne Wolf				RO-3 Jacob Bush			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	3,5,7,8,9		2,5,11		2,4,5,6				2,4,5,6				2,4,5,6		2,5,11	
Comply With and Use Procedures (1)	2,5		2,5,7,10		1,2,4,5,6				1,2,4,5,6				1,2,4,5,6		2,5,7,10	
Operate Control Boards (2)	3,5,7,8,9		2,5,7,8,10		NA				NA				NA		2,5,7,8,10	
Communicate and Interact	ALL		ALL		ALL				ALL				ALL		ALL	
Demonstrate Supervisory Ability (3)	NA		NA		2,3,4,5,6,7,8,9				2,3,4,5,6,7,8,9				NA		NA	
Comply With and Use Tech. Specs. (3)	NA		NA		3,4				3,4				3,4		2,5	
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.

Facility: Brunswick		Date of Examination: Nov/Dec 2015		Operating Test No.: Final												
Competencies	APPLICANTS															
	SRO-I1 Roel Brusselmans				SRO-I2 Doug Just				SRO-I3 Patrick Sena				SRO-U2 Heather Edwards			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2,5, 6,7		2,5, 11		3,5, 7,8, 9	3,4, 5,6, 7,8, 9	4,6, 9		2,4, 5,6	4,6, 8,9	2,4, 5,6, 7,11		2,5, 6,7	3,4, 5,6, 7,8, 10		
Comply With and Use Procedures (1)	2,5, 7		2,5, 7,10		2,5	5,6, 7	1,3, 4,6, 9		1,2, 4,5, 6	1,4, 6,7	2,4, 5,7, 10		2,5, 7	5,6, 7		
Operate Control Boards (2)	NA		2,5, 7,8, 10		3,5, 7,8, 9	NA	1,3, 4,6, 9		1,2, 4,5, 6	1,2, 4,6, 7,9	NA		NA	NA		
Communicate and Interact	ALL		ALL		ALL	ALL	ALL		ALL	ALL	ALL		ALL	ALL		
Demonstrate Supervisory Ability (3)	2,3, 4,5, 6,7, 8,9		NA		NA	2,3, 4,5, 6,7, 8,10	NA		NA	NA	2,3, 4,5, 6,7, 8,10		2,3, 4,5, 6,7, 8,9	2,3, 4,5, 6,7, 8,10		
Comply With and Use Tech. Specs. (3)	3,4		NA		NA	4,5	NA		NA	NA	2,5		3,4	4,5		

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.

Facility: Brunswick

Date of Examination: October 2014

Operating Test No.: Final

Competencies	APPLICANTS															
	RO-4 Kimberly Embrey				RO-5 Justin Sibson				SRO-U1 Eric Beachum				RO-1 Charles Brookshire			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	3,5, 7,8, 9	3,5, 6,7	4,6, 9		2,4, 5,6	4,6, 8,9			2,5, 6,7				3,5, 7,8, 9	3,5, 6,7		
Comply With and Use Procedures (1)	2,5	1,3, 5,6, 7	1,3, 4,6, 9		1,2, 4,5, 6	1,4, 6,7			2,5, 7				2,5	1,3, 5,6, 7		
Operate Control Boards (2)	3,5, 7,8, 9	1,3, 5,6, 7	1,3, 4,6, 9		1,2, 4,5, 6	1,2, 4,6, 7,9			NA				3,5, 7,8, 9	1,3, 5,6, 7		
Communicate and Interact	ALL	ALL	ALL		ALL	ALL			ALL				ALL	ALL		
Demonstrate Supervisory Ability (3)	NA	NA	NA		NA	NA			2,3, 4,5, 6,7, 8,9				NA	NA		
Comply With and Use Tech. Specs. (3)	NA	NA	NA		NA	NA			3,4				NA	NA		

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.

Facility: Brunswick

Date of Examination: October 2014

Operating Test No.: Final

Competencies	APPLICANTS															
	RO-2 Freddie Bunnell				SRO-U3 Holly West				SRO-U4 Dwayne Wolf				RO-3 Jacob Bush			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2,4, 5,6	4,6, 8,9				3,4, 5,6, 7,8, 10					2,4, 5,6, 7,11			3,5, 6,7	2,5, 11	
Comply With and Use Procedures (1)	1,2, 4,5, 6	1,4, 6,7				5,6, 7					2,4, 5,7, 10			1,3, 5,6, 7	2,5, 7,10	
Operate Control Boards (2)	1,2, 4,5, 6	1,2, 4,6, 7,9				NA					NA			1,3, 5,6, 7	2,5, 7,8, 10	
Communicate and Interact	ALL	ALL				ALL					ALL			ALL	ALL	
Demonstrate Supervisory Ability (3)	NA	NA				2,3, 4,5, 6,7, 8,10					2,3, 4,5, 6,7, 8,10			NA	NA	
Comply With and Use Tech. Specs. (3)	NA	NA				4,5					2,5			NA	NA	

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.

FINAL

ES-401, Rev. 9

BWR Examination Outline Rev.1 (Shown in red)

Form ES-401-1

Facility Brunswick		Date of Exam: December 2015															
Tier	Group	RO K/A Category Points												SRO-Only Points			
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2	G*	Total	
1. Emergency & Abnormal Plant Evolutions	1	4	3	4	N/A			3	3	N/A			3	20	4	3	7
	2	2	1	1				1	1				1	7	2	1	3
	Tier Totals	6	4	5				4	4				4	27	6	4	10
2. Plant Systems	1	2	3	3	2	3	1	2	3	3	2	2	26	3	2	5	
	2	1	2	1	1	1	1	1	1	1	1	1	12	0	2	3	
	Tier Totals	3	5	4	3	4	2	3	4	4	3	3	38	5	3	8	
3. Generic Knowledge and Abilities Categories				1	2		3		4		10		1	2	3	4	7
				2	3		3		2		2	2	1	2			
<ol style="list-style-type: none"> Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the ATier Totals® in each K/A category shall not be less than two). The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ±1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems that are not included on the outline should be added. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories. *The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. On the following pages, enter the K/A numbers, a brief description of each topic, the topics= importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note # 1 does not apply). Use duplicate pages for RO and SRO-only exams. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43. 																	

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
295001AK1.04	Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4	2.5	3.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Limiting cycle oscillation: Plant-Specific.....
295003G2.4.50	Partial or Complete Loss of AC / 6	4.2	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.
295004AK3.02	Partial or Total Loss of DC Pwr / 6	2.9	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ground isolation/fault determination.....
295005AA1.07	Main Turbine Generator Trip / 3	3.3	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A.C. electrical distribution.....
295006AA2.02	SCRAM / 1	4.3	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control rod position.....
295016AK2.01	Control Room Abandonment / 7	4.4	4.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Remote shutdown panel: Plant-Specific.....
295018AK3.02	Partial or Total Loss of CCW / 8	3.3	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor power reduction.....
295019AA1.04	Partial or Total Loss of Inst. Air / 8	3.3	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Service air isolations valves: Plant-Specific.....
295021AK3.02	Loss of Shutdown Cooling / 4	3.3	3.4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feeding and bleeding reactor vessel.....
295023AA2.01	Refueling Acc Cooling Mode / 8	3.6	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Area radiation levels.....
295024G2.4.50	High Drywell Pressure / 5	4.2	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
295025EK2.05	High Reactor Pressure / 3	4.1	4.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety/relief valves: Plant-Specific.....
295026EK1.02	Suppression Pool High Water Temp. / 5	3.5	3.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Steam condensation.....
295028EK1.01	High Drywell Temperature / 5	3.5	3.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor water level measurement.....
295030EK1.02	Low Suppression Pool Wtr Lvl / 5	3.5	3.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pump NPSH.....
295031G2.2.37	Reactor Low Water Level / 2	3.6	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to determine operability and/or availability of safety related equipment
295037EK3.07	SCRAM Condition Present and Power Above APRM Downscale or Unknown / 1	4.2	4.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Various alternate methods of control rod insertion: Plant-Specific.....
295038EA2.02	High Off-site Release Rate / 9	2.5	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total number of curies released.....
600000AK2.01	Plant Fire On Site / 8	2.6	2.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sensors / detectors and valves
700000AA1.02	Generator Voltage and Electric Grid Disturbancecs	3.8	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Turbine / generator controls

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
295007G2.4.11	High Reactor Pressure / 3	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.
295008AK1.02	High Reactor Water Level / 2	2.8	2.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Component erosion/damage.....
295010AK2.02	High Drywell Pressure / 5	3.3	3.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drywell/suppression chamber differential pressure: Mark I&II
295014AA2.04	Inadvertent Reactivity Addition / 1	4.1	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Violation of fuel thermal limits.....
295017AK1.03	High Off-site Release Rate / 9	2.7	3.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Meteorological effects on off-site release.....
295020AK3.02	Inadvertent Cont. Isolation / 5 & 7	3.3	3.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drywell/containment pressure response.....
500000EA1.02	High CTMT Hydrogen Conc. / 5	3.3	3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Primary containment oxygen instrumentation

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
RO	SRO													
203000A4.06	RHR/LPCI: Injection Mode	3.9	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	System reset following automatic initiation: Plant-Specific
205000K3.02	Shutdown Cooling	3.2	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor water level: Plant-Specific
205000K5.03	Shutdown Cooling	2.8	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Heat removal mechanisms
206000G2.2.36	HPCI	3.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to analyze the effect of maintenance activities, such as degraded power sources, on the status of limiting conditions of operations
209001A3.03	LPCS	3.5	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System pressure
211000G2.4.9	SLC	3.8	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of low power / shutdown implications in accident (e.g. LOCA or loss of RHR) mitigation strategies.
212000K1.03	RPS	3.4	3.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recirculation system
215003K2.01	IRM	2.5	2.7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	IRM channels/detectors
215004K5.01	Source Range Monitor	2.6	2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Detector operation
215005K1.10	APRM / LPRM	3.3	3.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor manual control system: Plant-Specific
217000K6.01	RCIC	3.4	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Electrical power

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
218000A3.03	ADS	3.7	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ADS valve acoustical monitor noise: Plant-Specific
218000K2.01	ADS	3.1	3.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ADS logic
223002A2.09	PCIS/Nuclear Steam Supply Shutoff	3.6	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System initiation
223002A4.05	PCIS/Nuclear Steam Supply Shutoff	2.5	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SPDS/ERIS/CRIDS/GDS: Plant-Specific
239002K4.04	SRVs	3.4	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensures even distribution of heat load to suppression pool, and adequate steam condensing
259002A2.06	Reactor Water Level Control	3.3	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Loss of controller signal output
261000K3.04	SGTS	3.1	3.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High pressure coolant injection system: Plant- Specific
262001A1.05	AC Electrical Distribution	3.2	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Breaker lineups
262002A2.01	UPS (AC/DC)	2.6	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Under voltage
262002A3.01	UPS (AC/DC)	2.8	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transfer from preferred to alternate source
263000A1.01	DC Electrical Distribution	2.5	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Battery charging/discharging rate

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
264000K3.03	EDGs	4.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Major loads powered from electrical buses fed by the emergency generator(s)
264000K5.05	EDGs	3.4	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Paralleling A.C. power sources
300000K2.01	Instrument Air	2.8	2.8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Instrument air compressor
400000K4.01	Component Cooling Water	3.4	3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Automatic start of standby pump

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
201001K4.03	CRD Hydraulic	2.7	2.7	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Control rod drive mechanism cooling water flow
201002A1.04	RMCS	3.6	3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Overall reactor power
201003A2.01	Control Rod and Drive Mechanism	3.4	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stuck rod
204000A4.01	RWCU	3.1	3.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System pumps
215002K2.03	RBM	2.8	2.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	APRM channels: BWR-3,4,5
219000G2.2.37	RHR/LPCI: Torus/Pool Cooling Mode	3.6	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to determine operability and/or availability of safety related equipment
233000K2.02	Fuel Pool Cooling/Cleanup	2.8	2.9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	RHR pumps
241000K6.10	Reactor/Turbine Pressure Regulator	3.6	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bypass valves
256000A3.07	Reactor Condensate	2.9	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feedwater heater level
271000K1.03	Offgas	2.7	3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elevated release point
290002K5.05	Reactor Vessel Internals	3.1	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brittle fracture

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
290003K3.02	Control Room HVAC	RO	SRO	3.3	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Computer/Instrumentation: Plant-Specific

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
G2.1.30	Conduct of operations	4.4	4.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to locate and operate components, including local controls.
G2.1.42	Conduct of operations	2.5	3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of new and spent fuel movement procedures
G2.2.25	Equipment Control	3.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.
G2.2.40	Equipment Control	3.4	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to apply technical specifications for a system.
G2.2.43	Equipment Control	3.0	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the process used to track inoperable alarms
G2.3.11	Radiation Control	3.8	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to control radiation releases.
G2.3.15	Radiation Control	2.9	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of radiation monitoring systems
G2.3.7	Radiation Control	3.5	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to comply with radiation work permit requirements during normal or abnormal conditions
G2.4.17	Emergency Procedures/Plans	3.9	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of EOP terms and definitions.
G2.4.42	Emergency Procedures/Plans	2.6	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of emergency response facilities.

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
295003AA2.04	Partial or Complete Loss of AC / 6	3.5	3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	System lineups.....
295016G2.1.7	Control Room Abandonment / 7	4.4	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation.
295018G2.1.23	Partial or Total Loss of CCW / 8	4.3	4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to perform specific system and integrated plant procedures during all modes of plant operation.
295021AA2.06	Loss of Shutdown Cooling / 4	3.2	3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reactor pressure
295023G2.4.11	Refueling Acc Cooling Mode / 8	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of abnormal condition procedures.
295025EA2.05	High Reactor Pressure / 3	3.4	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Decay heat generation.....
295037EA2.07	SCRAM Condition Present and Power Above APRM Downscale or Unknown / 1	4.0	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Containment conditions/isolations.....

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
295015G2.4.5	Incomplete SCRAM / 1	3.7	4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions.
295022AA2.01	Loss of CRD Pumps / 1	3.5	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accumulator pressure.....
295034EA2.02	Secondary Containment Ventilation High Radiation / 9	3.7	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cause of high radiation levels.....

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
203000G2.4.6	RHR/LPCI: Injection Mode	3.8	4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of EOP mitigation strategies.
209001A2.07	LPCS	2.6	2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Loss of room cooling
212000A2.06	RPS	4.1	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High reactor power
217000G2.4.47	RCIC	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.
261000A2.05	SGTS	3.0	3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fan trips

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
219000G2.1.25	RHR/LPCI: Torus/Pool Cooling Mode	3.9	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to interpret reference materials such as graphs, monographs and tables which contain performance data.
256000A2.07	Reactor Condensate	2.9	2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High hotwell level
290002A2.04	Reactor Vessel Internals	3.7	4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excessive heatup/cooldown rate

KA	NAME / SAFETY FUNCTION:	IR	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	TOPIC:
		RO	SRO											
G2.1.26	Conduct of operations	3.4	3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of industrial safety procedures (such as rotating equipment, electrical, high temperature, high pressure, caustic, chlorine, oxygen and hydrogen).
G2.1.38	Conduct of operations	3.7	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the stations requirements for verbal communication when implementing procedures
G2.2.17	Equipment Control	2.6	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of the process for managing maintenance activities during power operations.
G2.2.22	Equipment Control	4.0	4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of limiting conditions for operations and safety limits.
G2.3.6	Radiation Control	2.0	3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to approve release permits
G2.4.13	Emergency Procedures/Plans	4.0	4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Knowledge of crew roles and responsibilities during EOP usage.
G2.4.46	Emergency Procedures/Plans	4.2	4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ability to verify that the alarms are consistent with the plant conditions.

Facility: <u>BRUNSWICK</u>		Date of Exam: <u>12/15/15</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>OK</u>	<u>MB</u>	<u>RSB</u>		
2. Answer key changes and question deletions justified and documented	<u>OK</u>		<u>RSB</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>OK</u>		<u>RSB</u>		
4. Grading for all borderline cases (80 \pm 2% overall and 70 or 80, as applicable, \pm 4% on the SRO-only) reviewed in detail	<u>OK</u>		<u>RSB</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>OK</u>		<u>RSB</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>OK</u>		<u>RSB</u>		
Printed Name/Signature		Date			
a. Grader	<u>NEWTON LACY</u>	<u>1/7/2016</u>			
b. Facility Reviewer(*)	<u>N/A</u>	<u>N/A</u>			
c. NRC Chief Examiner (*)	<u>RICHARD S. BALDWIN</u>	<u>1/8/2016</u>			
d. NRC Supervisor (*)	<u>EUGENE F. GUTHRIE</u>	<u>1/20/2016</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

November 30, 2015

Duke Energy Progress, Inc.
ATTN: Mr. Jonathan L. Hicks
Manager, Training
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429

SUBJECT: BRUNSWICK NUCLEAR POWER PLANT - OPERATOR LICENSING
OPERATING EXAMINATION APPROVAL 05000325/2015301 AND
05000324/2015301

Dear Mr. Hicks:

The purpose of this letter is to confirm the final arrangements for the upcoming operator licensing operating examination at the Brunswick Nuclear Power Plant.

The U.S. Nuclear Regulatory Commission (NRC) has completed its review of the operator license applications submitted in connection with this examination and separately provided a list of approved applicants to your office. The NRC staff will administer the operating tests to individuals, as applicable, the weeks of November 30, 2015, and December 7, 2015. Note that any examination waivers and application denials have been addressed in separate correspondence.

This examination has undergone extensive review by my staff and representatives responsible for operator training at your facility. Based on this review, I have concluded that the examination meets the guidelines of NUREG-1021 for content, operational, and discrimination validity. By administering this examination, you also agree that it meets NUREG-1021 guidelines, and is appropriate for measuring the qualifications of licensed operators at your facility. If you determine that this examination is not appropriate for licensing operators at your facility, do not administer the examination and contact me at (404) 997-4642.

Please contact the Chief Examiner, Mr. Richard S. Baldwin, at (404) 997-4642, if you have any questions or identify any errors or changes in license level (RO or SRO) or type of examination (operating examination) specified for each applicant on the list of approved applicants.

Sincerely,
/RA/
Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

Docket Nos.: 50-325, 50-324
License Nos.: DPR-71, DPR-62

November 30, 2015

Duke Energy Progress, Inc.
ATTN: Mr. Jonathan L. Hicks
Manager, Training
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429

SUBJECT: BRUNSWICK NUCLEAR POWER PLANT - OPERATOR LICENSING
OPERATING EXAMINATION APPROVAL 05000325/2015301 AND
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Please contact the Chief Examiner, Mr. Richard S. Baldwin, at (404) 997-4642, if you have any questions or identify any errors or changes in license level (RO or SRO) or type of examination (operating examination) specified for each applicant on the list of approved applicants.

Sincerely,
/RA/
Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

Docket Nos.: 50-325, 50-324

License Nos.: DPR-71, DPR-62

X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE

ADAMS: Yes ACCESSION NUMBER: ML15335A557

X SUNSI REVIEW COMPLETE

OFFICE	RII:DRS	RII:DRS	RII:DRS			
SIGNATURE	Jcb	Rsb	efg			
NAME	JVINCENT	RBALDWIN	EGUTHRIE			
DATE	11/ 24 /15	11/ 30 /15	11/30/15			
E-MAIL COPY?	YES NO	YES	YES NO			

OFFICIAL RECORD COPY



**Enclosure Contains Operator Examination Material
Withhold in Accordance with 10 CFR 2.390**

Brunswick Nuclear Plant
P.O. Box 10429
Southport, NC 28461

AUG 24 2015

Serial: BSEP 15-0070

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Victor M. McCree, Regional Administrator
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324
Operating Test Outline for Licensed Operator Initial Examination
50-325/2015-301 and 50-324/2015-301

Reference: Letter from Eugene F. Guthrie (NRC) to William R. Gideon (Duke Energy),
"Brunswick Steam Electric Plant – Notification of Licensed Operator Initial
Examination 05000325/2015301 and 05000324/2015301," dated May 15, 2015,
ADAMS Accession Number ML15138A340

Dear Mr. McCree:

In accordance with the guidelines in Revision 10, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Duke Energy Progress, Inc., is providing the examination outline supporting the operating test, which is scheduled to be administered during the weeks of November 30, 2015, and December 7, 2015.

In accordance with the schedule contained in the NRC's letter dated May 15, 2015, a copy of the outline for the operating test is being provided only to Mr. Richard S. Baldwin, the assigned NRC chief examiner. In accordance with 10 CFR 55.40(b)(3), Mr. Jerry Pierce, as the designated authorized representative of the Brunswick Steam Electric Plant, Units 1 and 2, has approved the outline for the examinations of the applicants.

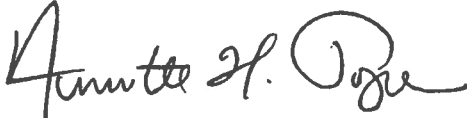
In accordance with Revision 10, of NUREG-1021, Section ES-201, "Initial Operator Licensing Examination Process," please ensure that the outline for the operating test is withheld from public disclosure until after the examinations are complete.

This document contains no regulatory commitments.

**Enclosure Contains Operator Examination Material
Withhold in Accordance with 10 CFR 2.390**

Please refer any questions regarding this submittal to Mr. Bob Bolin, Senior Nuclear Operations Instructor, at (910) 457-3078, or Mr. Jerry Pierce, Assistant Operations Manager - Support, at (910) 454-7931.

Sincerely,

A handwritten signature in black ink, appearing to read "Annette H. Pope". The signature is fluid and cursive, with the first name "Annette" being more prominent than the last name "Pope".

Annette H. Pope
Director – Organizational Effectiveness
Brunswick Steam Electric Plant

AHP/mkb

Enclosure: Outline for Operating Test (**Enclosure only being sent to Chief Examiner**)

cc (with enclosure):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Richard S. Baldwin, Chief Examiner
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

cc (without enclosure):

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

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Eugene F. Guthrie
Chief, Operations Branch 2
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

U. S. Nuclear Regulatory Commission
ATTN: Mr. Andrew Hon (Mail Stop OWFN 8G9A)
11555 Rockville Pike
Rockville, MD 20852-2738

(Electronic Copy Only)

U. S. Nuclear Regulatory Commission
ATTN: Ms. Michelle P. Catts, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510



~~Letter Enclosures Contain Personally Identifiable Information~~
~~Withheld in Accordance with 18 CFR 2.200(e)(6)~~

William R. Gideon
Vice President
Brunswick Nuclear Plant
P.O. Box 10429
Southport, NC 28461
o: 910.457.3698

OCT 29 2015

Serial: BSEP 15-0087

U.S. Nuclear Regulatory Commission, Region II
ATTN: Regional Administrator
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324
Preliminary Reactor Operator and Senior Reactor Operator License Applications

References:

1. Letter from Eugene F. Guthrie (NRC) to William R. Gideon (Duke Energy), "Brunswick Steam Electric Plant – Notification of Licensed Operator Initial Examination 05000325/2015301 and 05000324/2015301," dated May 15, 2015, ADAMS Accession Number ML15138A340
2. Letter from Annette H. Pope (Duke Energy) to Victor M. McCree (NRC), "Operating Test Outline for Licensed Operator Initial Examination 50-325/2015-301 and 50-324/2015-301," dated August 24, 2015
3. Letter from Annette H. Pope (Duke Energy) to NRC Region II, Regional Administrator, "Operating Test, Written Exam, and Reference Materials for Licensed Operator Initial Examination 50-325/2015-301 and 50-324/2015-301," dated September 29, 2015

Dear Regional Administrator:

In accordance with the schedule contained in the NRC's letter dated May 15, 2015 (i.e., Reference 1), Duke Energy Progress, Inc., is submitting preliminary reactor operator and senior reactor operator license applications and medical certifications for individuals participating in the operating test that is scheduled to be administered during the weeks of November 30, 2015, and December 7, 2015, and the written examination that is scheduled to be administered during the week of December 14, 2015, at the Brunswick Steam Electric Plant. Submittal of the preliminary reactor operator and senior reactor operator license applications and medical certifications is required at least 30 days before the first examination date.

Enclosure 1 provides a list of the applicants who are currently scheduled to participate in the license examination. Enclosure 2 provides preliminary, unsigned license applications for each applicant (i.e., NRC Form 398, "Personal Qualification Statement – Licensee"). Enclosure 3 provides signed medical certifications for each applicant (i.e., NRC Form 396, "Certification of Medical Examination by Facility Licensee"). Enclosure 4 provides the physician's letter for only a few specific individuals.

~~Letter Enclosures Contain Personally Identifiable Information~~
~~Withheld in Accordance with 18 CFR 2.200(e)(6)~~

OCT 30 2015

Duke Energy requests that the information in the enclosures be withheld from public disclosure, in accordance with 10 CFR 2.390(a)(6), since disclosure of this information would constitute a clearly unwarranted invasion of personal privacy.

This document contains no regulatory commitments.

Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager – Regulatory Affairs, at (910) 457-2487.

Sincerely,

A handwritten signature in cursive script, appearing to read "Karl Moser for", written in black ink.

William R. Gideon

WRG/mkb

Enclosures:

1. List of Applicants Scheduled for License Examinations (~~Personally Identifiable Information – Withhold in Accordance with 10 CFR 2.390(a)(6)~~)
2. Preliminary NRC Form 398, "Personal Qualification Statement – Licensee" (~~Personally Identifiable Information – Withhold in Accordance with 10 CFR 2.390(a)(6)~~)
3. NRC Form 396, "Certification of Medical Examination by Facility Licensee" (~~Personally Identifiable Information – Withhold in Accordance with 10 CFR 2.390(a)(6)~~)
4. Physician's Letters (~~Personally Identifiable Information – Withhold in Accordance with 10 CFR 2.390(a)(6)~~)

cc (with enclosures):

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

U.S. Nuclear Regulatory Commission, NRC Region II
ATTN: Mr. Richard S. Baldwin, Chief Examiner
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

cc (without enclosures):

U.S. Nuclear Regulatory Commission, NRC Region II
ATTN: Mr. Gerald J. McCoy
Chief, Operations Branch
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

U.S. Nuclear Regulatory Commission
ATTN: Mr. Andrew Hon (Mail Stop OWFN 8G9A) **(Electronic Copy Only)**
11555 Rockville Pike
Rockville, MD 20852-2738

U.S. Nuclear Regulatory Commission
ATTN: Ms. Michelle P. Catts, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510



William R. Gideon
Vice President
Brunswick Nuclear Plant
P.O. Box 10429
Southport, NC 28461
910.457.3698

December 21, 2015

Serial: BSEP 15-0105

U.S. Nuclear Regulatory Commission, Region II
ATTN: Regional Administrator
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324
Reactor Operator and Senior Reactor Operator License Post-Examination
Documentation and Comments

Reference: Letter from Eugene F. Guthrie (NRC) to William R. Gideon (Duke Energy),
"Brunswick Steam Electric Plant – Notification of Licensed Operator Initial
Examination 05000325/2015301 and 05000324/2015301," dated May 15, 2015,
ADAMS Accession Number ML15138A340

Dear Regional Administrator:

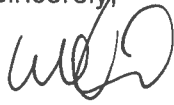
In accordance with the guidance contained in Revision 10 of NUREG-1021, "Operator Licensing Standards for Power Reactors," Section ES-402, "Administering Initial Written Examinations," and ES-501, "Initial Post-Examination Activities," Duke Energy Progress, Inc., is providing the NRC the specified documentation for the reactor operator and senior reactor operator written examinations, which were administered at the Brunswick Steam Electric Plant on Tuesday, December 15, 2015. The examination documentation enclosures are being provided only to Mr. Eugene Guthrie, with his copy of this letter. Duke Energy has five post exam comments relating to the written examination included with this submittal letter as Enclosure 2.

The master examination and answer key are provided in Enclosure 6 of this letter, with annotations. All substantive comments made by the applicants following the written examination are included with Enclosure 2. Lastly, the original ES-201-3 forms, "Examination Security Agreement," with all the pre- and post-examination signatures will be provided via email, as previously discussed with the NRC chief examiner on December 21, 2015.

This document contains no regulatory commitments.

Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager – Regulatory Affairs, at (910) 457-2487.

Sincerely,

A handwritten signature in black ink, appearing to read 'WRG', written over a horizontal line.

William R. Gideon

WRG/mkb

Enclosures:

1. Completed ES-403-1, "Written Examination Grading Quality Checklist"
2. Written Examination Performance Analysis Results (with recommended substantive changes)
3. Graded Written Examinations and Applicants' Answer Sheets
4. Applicants' Questions Asked and Answers Given During the Written Examination
5. Written Examination Seating Chart
6. Master Examination and Answer Key

cc (with enclosures):

U.S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Eugene F. Guthrie
Chief, Operations Branch 2
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

cc (without enclosures):

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

U.S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Gerald J. McCoy
Chief, Operations Branch 1
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

U.S. Nuclear Regulatory Commission
ATTN: Mr. Andrew Hon (Mail Stop OWFN 8G9A) **(Electronic Copy Only)**
11555 Rockville Pike
Rockville, MD 20852-2738

U.S. Nuclear Regulatory Commission
ATTN: Ms. Michelle P. Catts, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC