

2009 DUANE ARNOLD ENERGY CENTER

INITIAL EXAMINATION

ADMINISTRATIVE FILES

Facility: Duane Arnold Energy CenterDate of Examination: 09/21/2009Developed by: Written - Facility NRC // Operating - Facility NRC

Target Date*	Task Description (Reference)	Chief Examiner's Initials
03/13/2009	1. Examination administration date confirmed (C.1.a; C.2.a and b)	dwr
05/15/2009	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	dwr
05/15/2009	3. Facility contact briefed on security and other requirements (C.2.c)	dwr
05/15/2009	4. Corporate notification letter sent (C.2.d)	dwr
N/A	[5. Reference material due (C.1.e; C.3.c; Attachment 3)]	N/A
06/12/2009	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's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	dwr
06/19/2009	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	dwr
07/17/2009	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, and any Form ES-201-3 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	dwr
08/21/2009	9. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	dwr
Rcvd by 09/04/2009	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	dwr
08/21/2009	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	dwr
Week of 08/24/2009	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	dwr
Rcvd 09/11/2009	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	dwr
09/11/2009	14. 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)	dwr
Week of 09/14/2009	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	dwr
Week of 09/14/2009	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	dwr

* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.

[Applies only] {Does not apply} to examinations prepared by the NRC.

**FPLE/DAEC
MASTER SECURITY AGREEMENT**

The Master Security Agreement is used for those personnel having both knowledge of Exam Sensitive Material and unrestricted access to Primary and Secondary Containment.

1. Pre-Examination (Review TDAP 1836, Attachment 1 for pre-job briefing requirements)

I acknowledge that I have acquired specialized knowledge about the Sept, 2009 ILT NRC examination(s) scheduled for the date(s) of September 2009 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 an Operations Training Supervisor. I understand that I am not to instruct, evaluate, or provide performance feedback to those individuals scheduled to be administered these examinations from this date until completion of examination administration. Acting as a simulator booth operator or communicator is acceptable if I do not select the training content or provide direct or indirect feedback to an examinee. Furthermore, I am aware of the physical security measures and requirements (as documented in NMC procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against my facility or me. I will immediately report to the Exam Project Manager 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 examinations administered during the date(s) of 9/21-9/29/09. 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 individuals who were administered these examinations.

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	<u>Curtis Hansen</u>	<u>Exam Project Manager</u>	<u>[Signature]</u>	<u>12/4/08</u>	<u>[Signature]</u>	<u>9/29/09</u>	
2.	<u>Wayne Rander</u>	<u>Instructor</u>	<u>Wayne Rander</u>	<u>2/24/09</u>	<u>Wayne Rander</u>	<u>9/30/09</u>	
3.	<u>STANLEY VICK</u>	<u>EXAM PROJECT MANAGER</u>	<u>[Signature]</u>	<u>3/10/09</u>	<u>[Signature]</u>	<u>9/29/09</u>	
4.	<u>Lowell Johnson</u>	<u>Simulator</u>	<u>Lowell Johnson</u>	<u>3/17/09</u>	<u>Lowell Johnson</u>	<u>9/30/09</u>	
5.	<u>Rhett Linssen</u>	<u>ANSOE</u>	<u>[Signature]</u>	<u>3/15/09</u>	<u>[Signature]</u>	<u>10/5/9</u>	
6.	<u>RICHARD CHARLIE</u>	<u>ANSOE</u>	<u>[Signature]</u>	<u>3-15-09</u>	<u>[Signature]</u>	<u>9-30-09</u>	
7.	<u>Edward E Harrison</u>	<u>SRO</u>	<u>Edward E Harrison</u>	<u>16 mm 09</u>	<u>Edward E Harrison</u>	<u>30 10/5/09</u>	
8.	<u>Kelly Gasman</u>	<u>Simulator</u>	<u>[Signature]</u>	<u>3/19/09</u>			<u>SAVE PAGE 11 of 16</u>

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
9.	<u>Theodore J Grassman</u>	<u>Simulator</u>		<u>3-18-09</u>		<u>9-30-09</u>	
10.	<u>David J Young</u>	<u>Simulator</u>		<u>3/23/09</u>			SAA Page 9 of 16
11.	<u>GREG MERTA</u>	<u>SRO/CRS</u>		<u>4-20-09</u>		<u>9-29-09</u>	
12.	<u>MICHAEL D. BELZ</u>	<u>RO</u>		<u>4/20/09</u>		<u>10/8/09</u>	
13.	<u>RICHARD PFEIL</u>	<u>RO</u>		<u>05/04/09</u>		<u>9/29/09</u>	
14.	<u>BRIAN L. HUPKE</u>	<u>SRO/OSM</u>		<u>5/04/09</u>		<u>9/29/09</u>	
15.	<u>George Ludeking</u>	<u>RO</u>		<u>5-4-9</u>		<u>10-5-9</u>	

NOTES: CONTINUED ON PAGE 3

**FPLE/DAEC
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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
16.	<u>TERRE L SUBBERT</u>	<u>NSOE</u>	<u>[Signature]</u>	<u>5-7-9</u>	<u>[Signature]</u>	<u>9-30-9</u>	
17.	<u>Brian Priest</u>	<u>NSPEC/RO</u>	<u>[Signature]</u>	<u>5/7/09</u>	<u>[Signature]</u>	<u>9/2/09</u>	
18.	<u>Ray Wheeler</u>	<u>CRS</u>	<u>[Signature]</u>	<u>5/19/09</u>	<u>[Signature]</u>	<u>10/1/09</u>	
19.	<u>Stacy Miller</u>	<u>RO</u>	<u>[Signature]</u>	<u>5-19-9</u>	<u>[Signature]</u>	<u>10-1-9</u>	
20.	<u>John Krueger</u>	<u>Ro</u>	<u>[Signature]</u>	<u>5/20/09</u>	<u>[Signature]</u>	<u>10/5/09</u>	
21.	<u>Scott Arebaugh</u>	<u>SR0/OSM</u>	<u>[Signature]</u>	<u>5/22/09</u>	<u>[Signature]</u>	<u>10/5/09</u>	
22.	<u>Jan Brieg</u>	<u>NOS evaluator</u>	<u>[Signature]</u>	<u>6/2/09</u>	<u>[Signature]</u>	<u>10/2/09</u>	
23.	<u>Brod L. Worley</u>	<u>Rx Eng</u>	<u>[Signature]</u>	<u>6/3/09</u>	<u>[Signature]</u>	<u>10/1/9</u>	
24.	<u>Mark Gilbert</u>	<u>OSM</u>	<u>[Signature]</u>	<u>6/10/9</u>	<u>[Signature]</u>	<u>10/8/9</u>	
25.	<u>Chuck Sizemore</u>	<u>MGR Fleet Ops TRN</u>	<u>[Signature]</u>	<u>6/12/09</u>			SEE PAGE 10 of 16
26.	<u>Nancy L. Patricia</u>	<u>BPA</u>	<u>[Signature]</u>	<u>6/23/09</u>	<u>[Signature]</u>	<u>10-1-09</u>	
27.	<u>Dan Bomquist</u>	<u>HP Instructor</u>	<u>[Signature]</u>	<u>6/24/09</u>	<u>[Signature]</u>	<u>10-5-09</u>	
28.	<u>Doug Peterson</u>	<u>CRS</u>	<u>[Signature]</u>	<u>6-29-09</u>	<u>[Signature]</u>	<u>9-20-09</u>	
29.	<u>ERIC ROSEN</u>	<u>ANSOE</u>	<u>[Signature]</u>	<u>6-29-9</u>	<u>[Signature]</u>	<u>10-1-9</u>	
30.	<u>Ken Marsan</u>	<u>ANSOE</u>	<u>[Signature]</u>	<u>7-13-09</u>	<u>[Signature]</u>	<u>10-8-09</u>	
31.	<u>LONNIE GROSS</u>	<u>NSOE</u>	<u>[Signature]</u>	<u>7-13-9</u>	<u>[Signature]</u>	<u>10-6-9</u>	
32.	<u>JAMES Ford</u>	<u>CRS Inst.</u>	<u>[Signature]</u>	<u>7-14-09</u>	<u>[Signature]</u>	<u>9-30-09</u>	

NOTES:

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1. Pre-Examination (Review TDAP 1836, Attachment 1 for pre-job briefing requirements)

I acknowledge that I have acquired specialized knowledge about the 2009 ILT Exam examination(s) scheduled for the date(s) of Sept, 2009 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 an Operations Training Supervisor. I understand that I am not to instruct, evaluate, or provide performance feedback to those individuals scheduled to be administered these examinations from this date until completion of examination administration. Acting as a simulator booth operator or communicator is acceptable if I do not select the training content or provide direct or indirect feedback to an examinee. Furthermore, I am aware of the physical security measures and requirements (as documented in NMC procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against my facility or me. I will immediately report to the Exam Project Manager 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 examinations administered during the date(s) of 9/21 - 9/29/09. 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 individuals who were administered these examinations.

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	<u>Tim Eger</u>	<u>OSM</u>	<u>[Signature]</u>	<u>9/24/09</u>	<u>[Signature]</u>	<u>10/1/09</u>	
2.	<u>Steve Brewer</u>	<u>OSM</u>	<u>[Signature]</u>	<u>8/26/09</u>	<u>[Signature]</u>	<u>10/5/09</u>	
3.	<u>Roy HARTER</u>	<u>Outgr mtr</u>	<u>[Signature]</u>	<u>8/27/09</u>	<u>[Signature]</u>	<u>10/1/09</u>	
4.	<u>DAVE Schussler</u>	<u>OSM</u>	<u>[Signature]</u>	<u>9/2/09</u>	<u>[Signature]</u>	<u>10/1/09</u>	
5.	<u>Stephen Gibson</u>	<u>Ops TRNG</u>	<u>[Signature]</u>	<u>9/21/09</u>	<u>[Signature]</u>	<u>9/30/09</u>	
6.	<u>Eric Murray</u>	<u>Ops Training</u>	<u>[Signature]</u>	<u>9/21/09</u>	<u>[Signature]</u>	<u>9/30/09</u>	
7.	<u>Gordon Fuller</u>	<u>Proctor</u>	<u>[Signature]</u>	<u>9/21/09</u>	<u>[Signature]</u>	<u>9/30/09</u>	
8.	<u>Glenn Rushworth</u>	<u>AOM</u>	<u>[Signature]</u>	<u>9/23/09</u>	<u>[Signature]</u>	<u>9/30/09</u>	

1. Pre-Examination **DAEC 2009 NRC INITIAL LICENSE EXAM**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21/09 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 9/21/09-9/28/09. 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. MICHAEL E. SLACK	SUPV OPS TRNG, MONTICELLO	<i>[Signature]</i>	5/26/09		
2. Gerald M. Allen	PSOT, MONTICELLO	<i>[Signature]</i>	5/26/09		
3. DERRICK KADLUK	SUPV OPS TRAINING, MONTICELLO	<i>[Signature]</i>	5/26/09		
4. LEON STRONG	TFO	<i>[Signature]</i>	7/15/09		
5. Dennis Stancel	RO	<i>[Signature]</i>	7/15/09	<i>[Signature]</i>	10/5/09
6. Mark Dickerson	RO	<i>[Signature]</i>	7/24/09		10/11/09
7. Jeffrey White	RO	<i>[Signature]</i>	7/27/09		8/20/09
8. John Calkson	RO	<i>[Signature]</i>	7-29-09		9/11/09
9. John Haveland	RO	<i>[Signature]</i>	8/7/09		10/5/09
10. Buddy Maddox	SRO	<i>[Signature]</i>	8/13/09		10/5/09
11. Jeffrey A. Miell	SRO	<i>[Signature]</i>	8/13/09		10-1-09
12. Jim Charsen	CRS	<i>[Signature]</i>	8-20-09		9-30-09
13. Hans Olson	STA	<i>[Signature]</i>	8/20/09		9/2/09
14. Jesse Latham	RO	<i>[Signature]</i>	8-22-09		10-1-09
15. TOM Gordon	SRO	<i>[Signature]</i>	8-24-09		10-6-09
NOTES:					
16. Chuck Breckmann	Ops Manager	<i>[Signature]</i>	8-25-09	<i>[Signature]</i>	10-2-09

} SEE PAGE 13 OF 16

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DAEC

ES-201

Examination Security Agreement

Form ES-201-3

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21-9/28 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 9/21-9/29/09 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.	JOSEPH ARSQUAULT	Developer / Reviewer	<i>Joseph Arsquault</i>	10/28/08	<i>Joseph Arsquault</i>	10/1/09
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Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of SEPT. 2009 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 RC 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.

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 SEPT. /09. 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
STEVEN DENNIS	EXAM DEVELOPER	<i>Steven Dennis</i>	11/2/08	<i>Steven Dennis</i>	10/14/09	

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ES-201

Examination Security Agreement

Form ES-201-3

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21/09 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 9/21-9/22. 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.	Edwin Bowles	Exam Development	Edwin Bowles	12/30/08	Edwin Bowles	9/23/09	
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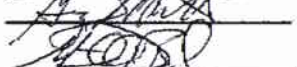

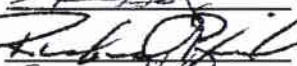
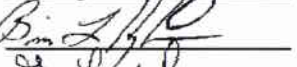

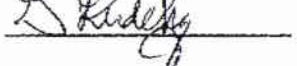
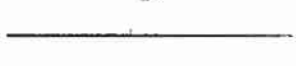

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QF-1071-01 Rev. 0


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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
9.	<u>THEODORE J CRISSMAN</u>	<u>Simulator</u>		<u>3-18-09</u>		<u>9-30-09</u>	
10.	<u>David S Young</u>	<u>Simulator</u>		<u>3/23/09</u>		<u>10/1/09</u>	
11.	<u>GREG MERTS</u>	<u>SRO/CES</u>		<u>4-20-09</u>		<u>9-29-09</u>	
12.	<u>MICHAEL D. BELE</u>	<u>RO</u>		<u>2/20/09</u>			
13.	<u>RICHARD PFEIL</u>	<u>RO</u>		<u>05/04/09</u>		<u>9/29/09</u>	
14.	<u>BRIAN L. HUPKE</u>	<u>SRO/OSM</u>		<u>5/04/09</u>		<u>9/29/09</u>	
15.	<u>George Ludeking</u>	<u>RO</u>		<u>5-4-9</u>			

NOTES: CONTINUED ON PAGE 3

FACSIMILE COPY FOR: DAVID S. YOUNG (LINE 10)

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17.	Brian Priest	NSPEC/RO	<i>[Signature]</i>	5/7/09	<i>[Signature]</i>	9/2/09	
18.	Ray Wheaton	CAS	<i>[Signature]</i>	5/19/9	<i>[Signature]</i>	10/1/9	
19.	Stacy Miller	RO	<i>[Signature]</i>	5-19-9	<i>[Signature]</i>	10-1-9	
20.	John Klueber	RO	<i>[Signature]</i>	5/20/09			
21.	Scott Arebaugh	SRO/OSM	<i>[Signature]</i>	5/20/09			
22.	Jan Birig	NOS evaluator	<i>[Signature]</i>	6/2/09			
23.	Brad L. Worley	Rx Eng	<i>[Signature]</i>	6/3/09	<i>[Signature]</i>	10/1/9	
24.	Mark Gilbert	OSM	<i>[Signature]</i>	6/10/9	<i>[Signature]</i>	10/1/9	
25.	Chuck Sizemore	MGR Fleet Ops TRN	<i>[Signature]</i>	6/22/09	<i>[Signature]</i>	10/1/09	
26.	Nancy L. Patricia	BPA	<i>[Signature]</i>	6/23/09	<i>[Signature]</i>	10-1-09	
27.	Tuan Bungvist	HP Instructor	<i>[Signature]</i>	6/24/09			
28.	Doug Peterson	CAS	<i>[Signature]</i>	6-29-09	<i>[Signature]</i>	9-30-09	
29.	ERIC ROSEN	ANSOE	<i>[Signature]</i>	6-29-9	<i>[Signature]</i>	10-1-9	
30.	Ken Morgan	ANSOE	<i>[Signature]</i>	7-13-09			
31.	LOHNIK GROSS	NSOE	<i>[Signature]</i>	7-13-9			
32.	James Ford	CPS Inst.	<i>[Signature]</i>	7-14-09	<i>[Signature]</i>	9-30-09	

NOTES: FACSIMILE COPY FOR CHUCK SIZEMORE (LINE 25)

RECEIVED AT DAEC 10/1/09 ^{10/12/09} Page 3 of 3 10 of 16

[Signature]

**FPLE/DAEC
MASTER SECURITY AGREEMENT**

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The Master Security Agreement is used for those personnel having both knowledge of Exam Sensitive Material and unrestricted access to Primary and Secondary Containment.

1. Pre-Examination (Review TDAP 1836, Attachment 1 for pre-job briefing requirements)

I acknowledge that I have acquired specialized knowledge about the Sept, 2009 ILT NRC examination(s) scheduled for the date(s) of September 2009 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 an Operations Training Supervisor. I understand that I am not to instruct, evaluate, or provide performance feedback to those individuals scheduled to be administered these examinations from this date until completion of examination administration. Acting as a simulator booth operator or communicator is acceptable if I do not select the training content or provide direct or indirect feedback to an examinee. Furthermore, I am aware of the physical security measures and requirements (as documented in NMC procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against my facility or me. I will immediately report to the Exam Project Manager 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 examinations administered during the date(s) of 9/21-9/29/09. 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 individuals who were administered these examinations.

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	<u>Curtis Hansen</u>	<u>Exam Project Manager</u>	<u>[Signature]</u>	<u>12/4/08</u>	<u>[Signature]</u>	<u>9/29/09</u>	
2.	<u>Wayne Rander</u>	<u>Instructor</u>	<u>Wayne Rander</u>	<u>2/24/09</u>	<u>Wayne Rander</u>	<u>9/29/09</u>	
3.	<u>Stanley Vick</u>	<u>EXAM PROJECT MANAGER</u>	<u>[Signature]</u>	<u>3/10/09</u>	<u>[Signature]</u>	<u>9/29/09</u>	
4.	<u>Lowell Johnson</u>	<u>Simulator</u>	<u>Lowell Johnson</u>	<u>3/17/09</u>	<u>Lowell Johnson</u>	<u>9/29/09</u>	
5.	<u>Rhett Linssen</u>	<u>ANSOE</u>	<u>[Signature]</u>	<u>3/15/09</u>			
6.	<u>Richard Chandler</u>	<u>ANSOE</u>	<u>Rd Chandler</u>	<u>3-15-09</u>	<u>[Signature]</u>	<u>9-30-09</u>	
7.	<u>Edward E Harrison</u>	<u>SRO</u>	<u>Edward E Harrison</u>	<u>16 mm 09</u>	<u>Edward E Harrison</u>	<u>9-30-09</u>	
8.	<u>Kelly Gassman</u>	<u>Simulator</u>	<u>[Signature]</u>	<u>3/19/09</u>	<u>[Signature]</u>	<u>9-30-09</u>	

~~FACSIMILE~~ FACSIMILE COPY FOR KELLY GASSMAN (LINE 8) [Signature] PAGE 11 OF 16

1. Pre-Examination

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I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9-21-09 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 9/21-9/29/09 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. 9-21-9-29-09

	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1.	KEN ARSENAULT	CONSULTANT	Kenneth Arsenault	10-28-08	Kenneth Arsenault	9-30-09	
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ES-201

Examination Security Agreement

Form ES-201-3

1. Pre-Examination **DAEC 2009 NRC INITIAL LICENSE EXAM**

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21/09 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 9/21/09-9/28/09 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. MICHAEL E. SUCK	SUPV OPS TRAINING, MONTICELLO	<i>[Signature]</i>	5/26/09	<i>[Signature]</i>	10/1/09
2. Gerald M. Allen	PSOT, MONTICELLO	<i>[Signature]</i>	5/26/09	<i>[Signature]</i>	10/2/09
3. DERRICK KADLUKI	SUPV OPS TRAINING, MONTICELLO	<i>[Signature]</i>	5/26/09	<i>[Signature]</i>	10/1/09
4. LEVIN STRONG	ICO	<i>[Signature]</i>	7/13/09	<i>[Signature]</i>	10/1/09
5. Dennis Stancel	RO	<i>[Signature]</i>	7/15/09		
6. Mark Dickerson	RO	<i>[Signature]</i>	7/26/09	<i>[Signature]</i>	10/1/09
7. Jeffrey White	RO	<i>[Signature]</i>	7/27/09	<i>[Signature]</i>	10/1/09
8. John Cookson	RO	<i>[Signature]</i>	7-29-09	<i>[Signature]</i>	10/1/09
9. John Harrison	RO	<i>[Signature]</i>	8/17/09		
10. Buddy Maddox	SRO	<i>[Signature]</i>	8/13/09		
11. Jeffrey A. Miell	SRO	<i>[Signature]</i>	8/13/09	<i>[Signature]</i>	10-1-09
12. Jim Chesser	CRS	<i>[Signature]</i>	8-20-09	<i>[Signature]</i>	9-30-09
13. Hans Olson	STA	<i>[Signature]</i>	8/20/09	<i>[Signature]</i>	9/24/09
14. Jesse Ingram	RO	<i>[Signature]</i>	8-22-09	<i>[Signature]</i>	10-1-09
15. TOM GORDON	SRO	<i>[Signature]</i>	8-24-09	<i>[Signature]</i>	10-1-09
16. Chuck Dickmann	Ops Manager	<i>[Signature]</i>	8-25-09		

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ES-201, Page 26 of 27 w/10/13/09

FACSIMILE COPY FOR MONTICELLO NPS (LINES 1, 2 AND 3)
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DAEC 2009

FACSIMILE COPY

ES-201

Examination Security Agreement

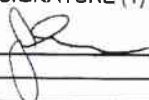
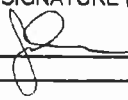
Form ES-201-3

1. Pre-Examination


I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21-9/24/09 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 9/21-24/09. 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 TAYLOR</u>	<u>WESTERN TECH</u>		<u>4/22/09</u>		<u>10/2/09</u>	
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Duane Arnold
1. Pre-Examination

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I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of September 2009 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 (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 9/21-9/29/09. 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.	Jacqueline Schelky	Administrative Assistant	<i>Jacqueline Schelky</i>	3/20/09	<i>Jacqueline Schelky</i>	9/30/09	
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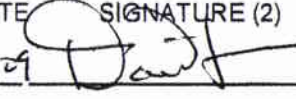
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1. **Pre-Examination**


I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/21/09 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 9/21-23/09 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.	DAVID LAZAROVY	EXAM DEVELOPER		4/28/09		10/5/09	
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Tier / Group	Randomly Selected K/A	Reason for Rejection
2 / 1	223002 / A3.03	RO #18, Ability to monitor automatic operations of the PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF including: SPDS/ERIS/CRIDS/GDS: Plant-Specific. Low level of difficulty, minutia. Randomly selected A3.02 – Valve closures
2 / 1	217000 / A2.03	RO #25, Ability to (a) predict the impacts of the following on the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Valve closures. Similar in concept to #13 Randomly selected A4.03 - Ability to manually operate and/or monitor in the control room: System valves
2 / 2	203000 / K6.04	RO #32, K6.04 - Knowledge of the effect that a loss or malfunction of the following will have on the RHR/LPCI: CONTAINMENT SPRAY SYSTEM MODE: Keep fill system. Same concept as #31 (water hammer). Randomly selected K6.08 - Knowledge of the effect that a loss or malfunction of the following will have on the RHR/LPCI: CONTAINMENT SPRAY SYSTEM MODE: Nuclear boiler instrumentation
2 / 2	290001 / A2.04	RO #34, Ability to (a) predict the impacts of the following on the SECONDARY CONTAINMENT; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High airborne radiation. Similar concept to #45 (refuel floor evacuation due to high rad). Randomly selected 245000 A2.01 - Ability to (a) predict the impacts of the following on the MAIN TURBINE GENERATOR AND AUXILIARY SYSTEMS ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Turbine trip
1 / 1	295005 / AK2.09	RO #42, Knowledge of the interrelations between MAIN TURBINE GENERATOR TRIP and the following: Feedwater - HPCI: BWR-2. DAEC is not a BWR-2 Randomly selected AK2.03 – Recirculation system
1 / 1	600000 / AK2.03	RO #43, Knowledge of the interrelations between PLANT FIRE ON SITE and the following: Motors. Low LOD, not discriminating. Randomly selected AK2.01 - Knowledge of the interrelations between PLANT FIRE ON SITE and the following: Sensors/ detectors, valves
1 / 1	295023 / AK3.01	RO #45, Knowledge of the reasons for the following responses as they apply to REFUELING ACCIDENTS: Refueling floor evacuation. There is only one reason for evacuating the refuel floor, radiation issues. Therefore, plausible distractors were not available to result in a question with an LOD>1. Randomly selected AK3.02 – Interlocks associated the fuel handling equipment
1 / 1	295030 / EA1.06	RO #49, Ability to operate and/or monitor the following as they apply to LOW SUPPRESSION POOL WATER LEVEL: Condensate storage and transfer (make-up to the suppression pool): Plant-Specific. Does not apply at DAEC Randomly selected EA1.05 - HPCI
1 / 1	295016 / 2.1.27	RO #55, Conduct of Operations: Knowledge of system purpose and / or function. Topic does not pertain to APE (control room abandonment). Randomly selected AA1.06 - Ability to operate and/or monitor the following as they apply to CONTROL ROOM ABANDONMENT: Reactor Water Level.

1 / 1	295021 / 2.1.30	RO #57, Conduct of Operations: Ability to locate and operate components, including local controls. This topic area is demonstrated on the JPM portion of the exam. Randomly selected 2.1.25 - Ability to interpret reference materials, such as graphs, curves, tables, etc.
1 / 2	500000 / EA1.07	RO # 62, Ability to operate and monitor the following as they apply to HIGH CONTAINMENT HYDROGEN CONTROL: Nitrogen purge system. Does not apply at DAEC. Randomly selected 295007 AA1.02 - Ability to operate and/or monitor the following as they apply to HIGH REACTOR PRESSURE : HPCI
1 / 2	295002 / 2.1.32	RO #64, Conduct of Operations: Ability to explain and apply all system limits and precautions. System limits and precautions are very limited and result in a question involving very basic (LOD-1) questions such as the MSIV closure and main Turbine Trip setpoints. Randomly selected 2.4.47 - Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material.
3	2.2.17	RO #68, Knowledge of the process for managing maintenance activities during power operations, such as risk assessments, work prioritization, coordination with the transmission system operator. This activity is performed and managed by the SROs at DAEC. Randomly selected 2.2.12 – Knowledge of surveillance procedures
3	2.2.3	RO #69, (multi-unit license) Knowledge of the design, procedural, and operational differences between units. DAEC is a single unit site. Randomly selected 2.2.43 - Knowledge of the process used to track inoperable alarms.
3	2.2.41	RO #74, Ability to obtain and interpret station electrical and mechanical drawings. This KA, "Obtain <i>and</i> Interpret drawings" may be tested during different portions of the operating exam and does not lend itself to a written question. Randomly selected 2.2.22 - Knowledge of limiting conditions for operations and safety limits.
1 / 1	295037 / EA2.05	SRO #78, Ability to determine and/or interpret the following as they apply to SCRAM CONDITION PRESENT AND REACTOR POWER ABOVE APRM DOWNSCALE OR UNKNOWN: Control rod position. This is the same K/A as RO #52. Randomly selected EA2.03 - SBLC Tank Level
1 / 1	700000 / AA2.02	SRO #82, - Ability to determine and/or interpret the following as they apply to GENERATOR VOLTAGE AND ELECTRIC GRID DISTURBANCES: Voltage outside the generator capability curve. Very similar topic area as K/A for RO #53. Randomly selected AA2.08 – Criteria to trip the turbine or reactor
1 / 2	500000 / EA2.03	SRO #83, Ability to determine and / or interpret the following as they apply to HIGH PRIMARY CONTAINMENT HYDROGEN CONCENTRATIONS: Combustible limits for drywell. This information has removed from EOP guidance and is in the SAGs. Randomly selected 295015 AA2.01 - Ability to determine and / or interpret the following as they apply to INCOMPLETE SCRAM: Reactor power
2 / 1	209001 / A2.03	SRO #86, Ability to (a) predict the impacts of the following on the LOW PRESSURE CORE SPRAY SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: A.C. failures. System covered in Q #7, 16 & 48. #7 covers the same topic area. Randomly selected A2.05 - Core Spray line break

2 / 1	223002 / A2.11	SRO #87, Ability to (a) predict the impacts of the following on the PRIMARY CONTAINMENT ISOLATION SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Standby liquid initiation. SLC initiation does not affect the PCIS system. Although RWCU isolates on SLC initiation, it is not part of the PCIS logic. Randomly selected A2.03 – System logic failures
3	2.3.14	SRO #96, Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities. Overlap with RO exam #71. Randomly selected 2.2.21 - Knowledge of pre- and post-maintenance operability requirements
3	2.1.41	SRO #100, Knowledge of the refueling process. Topic oversampled for the SROs. See question 94. Randomly selected 2.1.5 - Ability to use procedures related to shift staffing, minimum crew complement, overtime limitation, etc.

Facility: DAEC		Date of Exam: 9/29/2009	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	<i>aw</i>	<i>H</i>	<i>JZ</i>	
2. Answer key changes and question deletions justified and documented	N/A ⁽¹⁾	N/A ⁽¹⁾	N/A	
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>aw</i>	<i>H</i>	<i>JZ</i>	
4. Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	N/A ⁽²⁾	N/A ⁽²⁾	N/A	
5. All other failing examinations checked to ensure that grades are justified	N/A ⁽³⁾	N/A ⁽³⁾	N/A	
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<i>aw</i>	<i>H</i>	<i>JZ</i>	
Printed Name/Signature		Date		
a. Grader	Stanley L. Vick / <i>Stanley L. Vick</i>	9/30/2009		
b. Facility Reviewer(*)	Brian L. Hupke / <i>Brian L. Hupke</i>	10/1/2009		
c. NRC Chief Examiner (*)	David W. Reeser / <i>David W. Reeser</i>	10/9/2009		
d. NRC Supervisor (*)	Hironori Peterson / <i>Hironori Peterson</i>	10/28/09		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.				
(1) No answer key changes or question deletions are recommended.				
(2) No applicants scored ≤ 82% overall or ≤ 74% on the SRO-only portion.				
(3) No applicants failed the examination.				

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
1	F	3											Y		N	E	<p>To make distracter "A" more credible change: "cooled to 100°F" to "warmed to greater than 150°F". Doesn't seem plausible to cool a system which is normally cold.</p> <p>Distracter changed to read "warm to 100°F"/wrong because temperature must raised to 150°F.</p> <p>To make distracter "D" more credible (original distracter would close suction valve instead of bypass valve did not seem credible due to size differences) change to: "The Recirc Pump Suction Valves are normally closed to prevent SDC flow from bypassing the core".</p> <p>Not incorporated since suction valves may be closed to prevent bypass flow, if discharge valves cannot be closed. Distracter was replaced.</p>
2	H	3											Y		B	S	
3	F	3											Y		B	S	
4	F	3											Y		B	S	
5	H	3											Y		N	S	
6	H	3											Y		B	S	
7	H	3	X				X						Y		N	E	<p>½ x 2; Isn't a bus voltage of <65% rated a valid LOOP? If so then Offsite power would be lost at T=0. Could be indicative of a LOOP but low bus voltage will normally cause transfer to a reserve transformer if available.</p> <p>Distracters B an D not very credible to believe all RHR and CS pumps would start simultaneously. Changed to ask which pumps start first.</p>
8	F	2											Y		N	S	½ x 2
9	H	3											Y		B	S	
10	H	3											Y		B	S	½ x 2
11	H	3											Y		B	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
12	H	3											Y		N	E	Revise distracters as follows to give squib valve indications rather than statement of firing or not. Comment incorporated. a. Both pumps will start, squib valve continuity lights will be extinguished, pump discharge pressure and flow will indicate zero. b. Both pumps will start, squib valve continuity lights will be illuminated, pump discharge pressure and flow will indicate normally. c. Both pumps will start, squib valve continuity lights will be extinguished, pump discharge pressure and flow will indicate normally. d. Neither pump will start, squib valve continuity lights will be illuminated, pump discharge pressure and flow will indicate zero.
13	H	3											N		B	U	K/A is ability to predict/monitor changes in RCIC system flow. Question is related to manual operation (i.e., manual restart). ½ x 2
	H	3											/		N	S	Question replaced. K/A remains the same.
14	H	3											Y		N	S	½ x 2
15	H	3											Y		N	E	½ x 2; In distracters C and D is it necessary to include hand-switch status. Reference to hand-switches removed.
16	H	3											Y		N	E	½ x 2; couldn't an argument be made that since level is increasing that the valves do not need to be opened. Suggest stating that level is stable instead. Recommended change made.
17	F	3											Y		B	E	½ x 2; Suggest deleting Mode Switch status and change distracters C and D to state SBTG would <u>NOT</u> start. Recommended change made.
18	F	3				?							Y		B	E	Explanation of distracters "A" and "B" doesn't make sense and need to be fixed. Explanations fixed.
19	F	1				X							Y		N	U	½ x 2; REFUEL only mode switch position not credible given basic system knowledge; and automatic reset after RPS reset not credible Recommended change made.
20	H	2											Y		B	E	Distracters C not plausible to consider reverse power, or distracter D that it would trip on overcurrent. Consider revising question to paralleling offsite power to the DG. After discussion with facility, "C" left as is, but "D" was replaced.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
21	F	3	X					X					Y		B	E	Revise stem "Which of the following Technical Specification LCOs is impacted by placing RHR Loop A in Torus Cooling?" Correct answer stem: The LCO(s) for ____." Add "ONLY" to end of distracters A and B Recommended changes made.
22	H	3											Y		N	E	½ x 2; In each of the answer choices part 2, change "would" to " <u>would normally.</u> " Recommended change made.
23	F	3											Y		B	E	Revise answer choice "A" to state that Both OG Stack Exhaust Fans must be on. Insert into answer choice "C"; "At least one OG Stack Exh Fan, 1V-EF-18A[B] must be on when HPCI is running." Revise the last sentence in answer choice "C" to read "At least one SBGT Train must be operable; the train does not have to be in operation." Revise the last sentence of answer choice "D" to read: At least one SBGT Exhaust Fan, 1V-EF-15A[B], and one OG Stack Exhaust Fan, 1V-EF-18A[B], must be on when HPCI is running." Recommended changes made.
24	F	3											Y		N?	S	
25	F	3											Y		N?	S	½ x 2
26	H	3				X							Y		N	U E	No correct answer. No suction path is also a start permissive. C pump will not start. <i>Not true at DAEC. C pump will attempt to start. Distracters "C" and "D" modified to state C pump attempts to start.</i>
27	F	3											Y		N	S	½ x 2
28	H	3											N		B	U	K/A relates to FPC&C; Question contains not mention of FPC&C Stem reworded to state that RHR in Supplement Fuel Pool cooling.
29	H	3											Y		B	S	½ x 2; Verify sufficient d/p to insert control rod without exhaust path. Verified by facility.
30	F	3											Y		B	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
31	F	3										Y		B	S	
32	H	3										Y		B	S	
33	H	3										Y		B	S	
34	H	3	X									Y		N	E	½ x 2; Change "... and any additional actions..." to "... and sequence for securing Hydrogen Seal Oil System. Recommended change made.
35	H	3										Y		B	E	Change choice "A": Replace "No response" to "Operation continues with no changes..." Revise choice "B" to read: Channel A reverses direction and both drives withdraw from the core to the shield position. Recommended changes made
36	H	2	X			X						Y		N	U	½ x 2; Distractors C and D repeat "tube side"/"shell side" at end of second line; delete second part of question is meaningless. Once you answer part 1, part 2 is answered. Second part of answer choices changed to remove reference to tube or shell.
37	F	3										Y		N	E	Delete 1 st sentence. Replace RPV Narrow Range Level with another parameter that is more believable as an accident monitor. Narrow range level replaced with RPV Metal Temperatures
38	F(H)	3										Y		N	S	½ x 2
39	F(H)											Y		N	S	½ x 2
40	F	2				X						Y		B	U	½ x 2; The 2 nd part of distractors "C" and "D" don't seem very plausible.
	H	3										Y		B	S	If the only reference for this information is TS Bases then this would be SRO only. Question replaced/K/A from K1.02 to K1.01

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
41	H	3										Y		B	E	Recommend the following changes: a. change "more" to "less" b. change "less" to "more" and "increased" to "decreased" Recommended changes made. Modified distracter A from radial peaking factor to pre-conditioning limits.
42	H	3										Y		N	S	½ x 2
43	F	3										Y		B	S	
44	F(H)	2										Y		N	S	
45	F	3						X				Y		B	U	If the only reference for this information is TS Bases then this would be SRO only.
	H										Y		B	S	New K/A selected and new question from Bank.	
46	F	3										Y		B	S	
47	F	3										Y		N	E	Change "...spraying the drywell..." to "...drywell spray initiation..." See page 35 of EOP-2 bases. Recommended change made.
48	H	3										Y		B	E	ADD to distracter "A" "...below -25" with Core Spray Flow < 3000 gpm." Changed as recommended.
49	H	3										Y		B	S	½ x 2
50	F	3										Y		B	S	
51	H	3										Y		B	S	
52	H	3										N		B	U	½ x 2; K/A is related to ATWS. Initial conditions indicate Reactor is shutdown (all rods in).
	H	3										Y		N	S	New question written to same K/A
53	H	3										Y		N	S	
54	F	3										Y		N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
55	F	3										Y		B	E	In distracters A and D add the word "ONLY" after HIC-2440 Changed as recommended.
56	F	3										Y		M	S	
57	H	3										Y		B	S	
58	F	3										Y		B	S	
59	H	3			X							Y		B	E	Change distracter "B" from "Drive header pressure...." to "Cooling Water header pressure" to make distracter more plausible; Ball check is normally maintained seated by Cooling water whereas drive header pressure only present during rod movement. Changed as recommended.
60	H	3										Y		N	S	
61	F F	3 3				X						Y Y		B M	U S	Since the question is related to a primary leak outside of containment distracters "B" and "D" are not credible, and "A" is marginal. New K/A selected and question replaced with modified question from 2005 NRC exam.
62	H	4										Y		B	S	
63	H	3										Y		B	E	replace "super-critical" with "critical" Changed as recommended.
64	H	3										Y		B	S	
65	F	3					X	X				Y		B	U E	"D" is partially correct in that limiting loss from RWCU will limit release to the environment. <i>Distracter D replaced.</i> If the only reference for this information is TS Bases then this would be SRO only. RO lesson plan objective supports this question.
66	F	3										Y		N	S	½ x 2
67	F	3										Y		B	S	½ x 2
68	F	3										Y	X	B	S	
69	H	3										Y		N	S	
70	H	3										Y		N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
71	H	3	X									Y		B	U	Multiple correct answers as written. In stem question delete "and the reactor cavity completely drained" Capitalize INITIAL add "as the cavity drains" to end of question. Changes made as recommended.
72	F(H)	3										Y		N	S	
73	F	3		X								Y		N	S	See Q4 on SRO exam. May be OK if RO and SRO exams are given separately. Changes were made to Q4 on SRO exam.
74	F	3										Y		N	E	In distracter C change MCPR value to 1.15 and in distracter D change MCPR value to 1.11 Changes made as recommended.
75	F	2										Y		B	S	
																9/75=12% unsat F/H=35/40
1	H	2										Y	Y	N	S	
2	H	2	X									Y	Y	B	U	Question asks impact on HPCI; nothing in answers for HPCI 4 hour LCO for PCIV RCIC is not only inoperable, but not available either $\frac{1}{2} \times 2$ Question stem modified to remove reference to HPCI. The second part of each answer choice modified to remove reliance on action completion times.
3	H	3										Y	Y	N	E	Switch 2 nd and 3 rd bullets. Order switched Is 4 th bullet necessary? Item deleted.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
4	H	3		X		X						N	Y	N	U	<p>No correct answer. Transfer of control to 1C388 is performed by Control Room Operator. A NSPEO is dispatched to 1C389, 1C390, 1C391, and 1C392. Answer choices modified to reflect tasks that are normally performed by NSPEO.</p> <p>Reason for task is not technically correct. Analysis assumes that level will reach TAF. Question modified to remove time reference due to inconsistencies in basis documents.</p> <p>To eliminate conflict with RO Q73, change 2nd sentence state that all required Control Room actions were completed prior to abandoning the Control Room. Changed as recommended.</p>
5	H	3	X									N	?	N	U	<p>There doesn't appear to be any link between the two parts of the question; two separate questions not tied by the K/A statement.</p> <p>New K/A selected and new question written.</p>
	F	3										Y	Y	B	S	
6	H	3										Y	Y	B	S	
7	H	3										Y	Y	N	S	½ x 2
8	H	3										N	Y	B	S	<p>Control rod insertion status is unknown. Comment withdrawn after clarification provided by facility.</p>
9	H	3										Y	Y	M	S	
10	H	3										Y	Y	N	E	<p>Three out of four choices have the same cause. Distracter "D" modified to eliminate concern.</p>
11	H	3										Y	Y	N	U	<p>½ x 2; applicants are not required to memorize time clocks.</p> <p>Question modified to eliminate reliance on long term action times</p>
12	H	3	X									Y	Y	B	E	<p>Clarify what is meant by MO 1940 not responding. Clarification added.</p> <p>Remove reference to Group 4 annunciator, and change operator report to include header pressure and that RHR B flow has been maximized through the heat exchanger. Intent of requested change incorporated.</p> <p>Change distracter "C" to direct actions and NOT verifications. Changes made to distracters "C" and "D".</p>
13	H	3										Y	Y	N	S	½ x 2

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
14	H	3					X					Y	Y	B	U E	Multiple possible correct answers. No mention of if RPV level has already been lowered or not. Stem is not clear on whether SRVs are being manually cycled or not. Minor clarifications made to address issue. Starting RCIC is a possible pressure control strategy. Strategy not available due to specified.RPV level control band. Eliminates concern over multiple correct answers.
15	H	3										Y	Y	N	E	½ x 2 A better question might be the basis for the Figures. Question significantly modified test basis of figures rather than a simple application of curves
16	H	3										Y	Y	N	E	Change 2 nd part of choices "A" and "C" to remove reference to declaring the rod inoperable. Change stem question to "...action(s) would be in compliance with Technical Specifications." Changes made as recommended.
17	H H	3 3										Y Y	N Y	N B	U S	ROs are responsible for IMMEDIATE actions. New question for newly selected K/A
18	H	3										Y	Y	N	E	In stem question, replace "control room" with "Control Building". Changed as requested.
19	F	3										Y	Y	B	S	
20	F	3										Y	Y	N	E	½ x 2; Change stem question to read "...written authorization to perform the SpTP. Changed as recommended.
21	F	3										Y	Y	B	S	
22	H	3										Y	Y	N	S	
23	H	3										Y	Y	B	E	Delete "No additional EOP entries are required" or ADD "at this time." Changed by adding additional wording.
24	F	3										Y	Y	B	E	Replace "describes" with "is" Change distracter C to Plant Manager. Changes made as recommended.
25	H	3										Y	Y	B	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
																5/25=20% unsat	F/H=5/20
																	Red text indicates initial question review sample, however a detailed review was conducted on all questions. All questions checked for K/A conformance.

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
 - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
 - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
 - The answer choices are a collection of unrelated true/false statements.
 - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
 - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
 - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
 - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
 - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
 - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
- Enter question source: (B)ank, (M)odified, or (N)ew. Check that (M)odified questions meet criteria of ES-401 Section D.2.f.
- Based on the reviewer's judgment, is the question as written (U)nsatisfactory (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).



October 1, 2009

NG-09-0773
NUREG 1021

U.S. Nuclear Regulatory Commission, Region III
Attention: David Reeser
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

Duane Arnold Energy Center
Docket 50-331
License No. DPR-49

Duane Arnold Energy Center Initial License Examination

In accordance with the guidelines Examiner Standard ES-501 of NUREG 1021, "Operating License Examination Standards for Power Reactors," Revision 9, we are providing the Post-Examination material for the initial license examinations that were administered at our facility during the week of September 21, 2009.

You may direct any questions or comments regarding this material to Stan Vick at 319-851-7268.

This letter contains no new commitments.

A handwritten signature in blue ink that reads "Christopher Costanzo".

Christopher Costanzo
Vice President, Duane Arnold Energy Center
NextEra Energy Duane Arnold, LLC

Enclosures

CC: Chief Operator License Branch, Region III
NRC Resident Inspector
NRC Document Control Desk

QUESTIONS DURING EXAMINATION 9/29/09

08:59

QUESTION 39

Which associated bus does the question refer to? DC? 480vac? 4160vac?

FACILITY ANSWER: THE QUESTION STANDS AS WRITTEN.

~~10:19~~

~~QUESTION SRD-6 ()~~

~~IN CHOICES C & D, DOES "VALIDATED"~~

INDIVIDUAL DECIDED THAT HE HAD ENOUGH INFORMATION AND RETRACTED THE QUESTION.

QUESTIONS DURING EXAMINATION

9/29/09

~~10:53~~

~~QUESTION SR0-15 ()~~

INDIVIDUAL DID NOT ASK QUESTION. DECIDED THAT HE HAD ENOUGH INFORMATION

~~11:02~~

~~QUESTION 7 (RO)~~

~~FOR THE SECOND PART OF EACH CHOICE, SHOULD THE WORDS "AT TIME 4" BE ADDED?~~

INDIVIDUAL RETRACTED QUESTION, DECIDED SUFFICIENT INFO

11:10

QUESTION SR0-16 (91)

STUDENT ASKING IF CLARIFICATION CAN BE GIVEN ON "COMPLIANCE" VS THE STATEMENT IN CHOICE "D" "REQUIRED TO BE FULLY INSERTED AND DISARMED WITHIN 3 HOURS."

FACILITY ANSWER: "THE QUESTION STANDS AS WRITTEN"

12:45

RO #4

What APRM "C" trip indication is referred to? The light or the annunciators?

FACILITY ANSWER: "THE QUESTION STANDS AS WRITTEN." ✓ #

14:40

SRO - 11 (86)

DOES "IMMEDIATE SHUTDOWN" MEAN "REACTOR SCRAM" OR "NORMAL PLANT SHUTDOWN"?

FACILITY ANSWER: "THE QUESTION STANDS AS WRITTEN."

Exam Item Analysis for Form ES-403-1
DAEC 2009 Initial License Written Examination

RO Exam Item Analysis

The applicants did not provide comments on any questions on the Reactor Operator Exam. The following questions were analyzed by DAEC due to being missed by half or more of the applicants:

- Question 4: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that RO question 4 remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 13: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that RO question 13 remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 33: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that RO question 33 remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 36: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that RO question 36 remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 65: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that RO question 65 remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.


SRO Exam Item Analysis


The applicants did not provide comments on any questions on the Senior Reactor Operator Exam. The following questions were analyzed by DAEC due to being missed by half or more of the applicants:

- Question 4: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that SRO question 4 (Combined #79) remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.

Exam Item Analysis for Form ES-403-1
DAEC 2009 Initial License Written Examination

- Question 11: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that SRO question 11 (Combined #86) remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 13: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that SRO question 13 (Combined #88) remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 19: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that SRO question 19 (Combined #94) remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.
- Question 20: Evaluated for validity, technical accuracy, wording and/or training deficiencies. DAEC recommends that SRO question 20 (Combined #95) remains as written and approved. The training for this item will be evaluated in accordance with DAEC Training Department procedures.

Grader Stanley L. Vick /  10/01/2009

Facility
Reviewer Brian L. Hupke /  10/01/2009

2009 DAEC INITIAL LICENSE EXAMINATION

Revised Outline Forms

Form ES-201-2, "Examination Outline Quality Checklist" – Revised

Form ES-301-1, "Administrative Topics Outline" – Revised

Form ES-301-2, "Control Room/In-Plant Systems Outline" – Revised

**Form ES-201-2, "Examination Outline Quality Checklist"
– Revised**

Facility:	Duane Arnold	Date of Examination:	9 / 2009		
Item	Task Description	Initials			
		a	b*	c#	
W R I T T E N	1. a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	SD	H	2	
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	SD	H	2	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	SD	H	2	
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	SD	H	2	
S I M U L A T O R	2. 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.	SD	H	2	
	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 scenarios will not be repeated on subsequent days.	SD	H	02	
	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.	SD	H	2	
W / T	3. a. Verify that 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.	SD	H	2	
	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	SD	H	2	
	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.	SD	H	2	
G E N E R A L	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	SD	H	02	
	b. Assess whether the 10CFR 55.41/43 and 55.45 sampling is appropriate.	SD	H	02	
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	SD	H	02	
	d. Check for duplication and overlap among exam sections.	SD	H	02	
	e. Check the entire exam for balance of coverage.	SD	H	02	
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	SD	H	02	
Printed Name / Signature		Date			
a. Author	STEVEN DENNIS <i>Steven Dennis</i>	7-2-09			
b. Facility Reviewer (*)	BRIAN L HURKE <i>Brian Hurke</i>	7-12-09			
c. NRC Chief Examiner (#)	David W Reeser <i>David W Reeser</i>	9-14-09			
d. NRC Supervisor	Hirmer Peterson <i>Hirmer Peterson</i>	01-04-10 ?			
NOTE: # Independent NRC reviewer initial items in Column "c", chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines					

** Original outline signed approved 6/19/09 - This was an updated.*

**Form ES-301-1, "Administrative Topics Outline" –
Revised**

Facility: DAEC	Date of Examination: Sept 2009	
Examination Level RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>	Operating Test Number: 2009-01	
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	M, S	<p><u>Perform Control Room Panel Checklist</u> While performing STP 3.0.0-02, Control Room Panel Checks, the Operator will find TS equipment out of its required position.</p> <p>K/A 2.1.18 (3.6) Ability to make accurate, clear, and concise logs, records, status boards, and reports.</p>
Conduct of Operations	M, S	<p><u>Operate the Plant Process Computer</u> Given that RWCU has tripped, the operator will substitute a value in PPC per OI-261(RWCU) and OI-831.4 (PPC). Then when he has inserted and checked the value, he will return the point to scan per OI-261(RWCU) and OI-831.4 (PPC).</p> <p>K/A 2.1.19 (3.9) Ability to use plant computers to evaluate system or component status.</p>
Equipment Control	D, S	<p><u>Perform Jet Pump Operability Surveillance Test</u> The operator will perform STP 3.4.2-01, Daily Jet Pump Operability Test and determine that 2 jet pumps are out of spec.</p> <p>K/A 2.2.12 (3.7) Knowledge of surveillance procedures</p>
Radiation Control	N,R	<p><u>Entering / Exiting a Contaminated Area</u> Given the need to enter a contaminated area, comply with the RWP for entry and exit.</p> <p>K/A 2.3.7 (3.5) Ability to comply with Radiation Work Permit requirements during normal or abnormal conditions.</p>

Emergency Plan	N/A	
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NOTE: All items (5 total are required for SROs). RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

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

Facility: DAEC		Date of Examination: Sept 2009
Examination Level	RO <input type="checkbox"/> SRO <input checked="" type="checkbox"/>	Operating Test Number: 2009-01
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	M, R	<p><u>Perform Control Room Shiftly Instrument Checks</u></p> <p>While reviewing STP 3.0.0-01, Instrument Checks, the Candidate will find readings and calculations outside the required acceptance criteria. The TS implications of the findings must be identified.</p> <p>K/A 2.1.18 (3.8) Ability to make accurate, clear, and concise logs, records, status boards, and reports.</p>
Conduct of Operations	D, R	<p><u>Review Startup Lineup</u></p> <p>Given RHR Startup Lineup, OI-149 Attachment 6, the Candidate will determine that an MOV is inoperable, address the Technical Specification requirements and determine that a Mode change cannot be performed.</p> <p>K/A 2.1.29 (4.0) Knowledge of how to conduct system lineups, such as valves breakers, switches, etc.</p>
Equipment Control	M, S	<p><u>Determine Risk and Resultant Protected Systems</u></p> <p>Given current plant status and the need to declare equipment inoperable, determine plant risk using ORAM and the resultant protected systems using WPG-2, On-Line Risk Management Guideline.</p> <p>K/A 2.2.17 (3.8) Knowledge of the process for managing maintenance activities during power operations, such as risk assessments, work prioritization, and coordination with the transmission system operator.</p>
Radiation Control	N, R	<p><u>Emergency Plant Access Radiation Briefing</u></p> <p>Given emergency conditions and the need to dispatch an operator, the Candidate will provide a briefing on the radiological conditions and precautions.</p> <p>K/A 2.3.14 (3.8) Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.</p>

<p>Emergency Plan</p>	<p>N, R</p>	<p><u>Change Protective Action Recommendations</u> Given a condition where a General Emergency has already been entered and PARs already given to the state, the Candidate will be given changed conditions. The Candidate will determine the new PARs and fill out a new notification form (Note 5).</p> <p>K/A 2.4.44 (4.4). Knowledge of emergency plan protective action recommendations.</p>
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NOTE: All items (5 total are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

*Type Codes & Criteria:

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

**Form ES-301-2, "Control Room/In-Plant Systems
Outline" – Revised**

Facility:	DAEC	Date of Examination:	Sept 2009
Exam Level:	RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	Operating Test No.:	2009-01
Control Room Systems [@] (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U, including 1 ESF)			
	System / JPM Title	Type Code*	Safety Function
S-1	<u>Startup of the MG set and recirculating pump</u> The plant is shutdown. The operator will startup the 1P-201B recirc pump IAW OI 264 Section 3.3. K/A 202001 A4.01 3.7/3.7	M, L, S	Reactivity Control (1)
S-2	<u>Inject into the RPV with Core Spray to achieve Alternate Shutdown Cooling.</u> The operator will manually inject to the RPV with Core Spray. During the evolution the CS min flow valve will fail to auto close. K/A 209001 A4.05 3.8/3.6	P, A, S	Heat Removal From The Core (4)
S-3	<u>Shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve</u> The operator will shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve and take appropriate actions upon a failure of the "B" Feed Reg Valve. K/A 259002 A4.01 3.8/3.6	M, A, S	Reactor Water Inventory Control (2)
S-4	<u>Containment Vent via SGBT/ Hard Pipe Vent</u> The operator will vent per SEP 301.1, TORUS VENT VIA SGBT, for containment pressure control. An RPS failure will require use of the Hard Pipe Vent. K/A 295024 EA 1.19 3.3/3.4	D, A, EN, S	Radioactive Release (9)
S-5	<u>Re-energize bus 1A1 from the STARTUP transformer</u> During a shutdown the operator re-energize bus 1A1 from the S/U transformer, IAW OI 304.1. K/A 262001 A4.01 3.4/3.7	M, L, S	Electrical (6)
S-6	<u>Perform an APRM Gain Adjustment</u> The operator will perform an APRM "C" gain adjustment IAW OI 878.4 Section 8.0. K/A 215005 A4.03 3.2/3.3	D, S	Instrumentation (7)
S-7	<u>TIP System Response to a Group II Containment Isolation</u> The operator will take actions IAW OI 878.6 to complete a group II isolation on the TIP system K/A 223002 A4.01 3.6/3.5	D, A, S	Containment Integrity (5)
S-8	<u>Install Defeat 5 and depressurize the RPV thru the MSL Drains</u> The operator will perform the required actions of EOP Defeat 5 in order to depressurize the RPV with the Main Steam Line Drains. K/A 239001 A4.02 3.2/3.2	D, S	Reactor Pressure Control (3)

In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)			
P-1	<u>Shift 125 VDC Battery Chargers</u> K/A 295004 AA1.01 3.3/3.4	D	Electrical (6)
P-2	<u>Manually Initiate Cable Spreading Room CO2</u> K/A 286000 2.1.30 4.4/4.0	D, A, R	Plant Systems (8)
P-3	<u>Vent the scram air header</u> K/A 295037 EA1.05 3.9/4.0	D, E, R	Reactivity Control (1)
<p>@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</p>			
* Type Codes		Criteria for RO / SRO-I / SRO-U	
(A)lternate path		4-6 / 4-6 / 2-3	
(C)ontrol room			
(D)irect from bank		≤ 9 / ≤ 8 / ≤ 4	
(E)mergency or abnormal in-plant		≥ 1 / ≥ 1 / ≥ 1	
(EN)gineering Safeguards Feature		- / - / ≥ 1 (control room system)	
(L)ow-Power / Shutdown		≥ 1 / ≥ 1 / ≥ 1	
(N)ew or (M)odified from bank including 1(A)		≥ 2 / ≥ 2 / ≥ 1	
(P)revious 2 exams		≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	
(R)CA		≥ 1 / ≥ 1 / ≥ 1	
(S)imulator			

Facility:	DAEC	Date of Examination:	Sept 2009
Exam Level:	RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/>	Operating Test No.:	2009-01
Control Room Systems [@] (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U, including 1 ESF)			
System / JPM Title		Type Code*	Safety Function
(S-1)	N/A (RO Only)		
S-2	<u>Inject into the RPV with Core Spray to achieve Alternate Shutdown Cooling.</u> The operator will manually inject to the RPV with Core Spray. During the evolution the CS min flow valve will fail to auto close. K/A 209001 A4.05 3.8/3.6	P, A, S	Heat Removal From The Core (4)
S-3	<u>Shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve</u> The operator will shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve and take appropriate actions upon a failure of the "B" Feed Reg Valve. K/A 259002 A4.01 3.8/3.6	M, A, S	Reactor Water Inventory Control (2)
S-4	<u>Containment Vent via SBTG/ Hard Pipe Vent</u> The operator will vent per SEP 301.1, TORUS VENT VIA SBTG, for containment pressure control. An RPS failure will require use of the Hard Pipe Vent. K/A 295024 EA 1.19 3.3/3.4	D, A, EN, S	Radioactive Release (9)
S-5	<u>Re-energize bus 1A1 from the STARTUP transformer</u> During a shutdown the operator re-energize bus 1A1 from the S/U transformer, IAW OI 304.1. K/A 262001 A4.01 3.4/3.7	M, L, S	Electrical (6)
S-6	<u>Perform an APRM Gain Adjustment</u> The operator will perform an APRM "C" gain adjustment IAW OI 878.4 Section 8.0. K/A 215005 A4.03 3.2/3.3	D, S	Instrumentation (7)
S-7	<u>TIP System Response to a Group II Containment Isolation</u> The operator will take actions IAW OI 878.6 to complete a group II isolation on the TIP system K/A 223002 A4.01 3.6/3.5	D, A, S	Containment Integrity (5)
S-8	<u>Install Defeat 5 and depressurize the RPV thru the MSL Drains</u> The operator will perform the required actions of EOP Defeat 5 in order to depressurize the RPV with the Main Steam Line Drains. K/A 239001 A4.02 3.2/3.2	D, S	Reactor Pressure Control (3)

In-Plant Systems [®] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)			
P-1	<u>Shift 125 VDC Battery Chargers</u> K/A 295004 AA1.01 3.3/3.4	D	Electrical (6)
P-2	<u>Manually Initiate Cable Spreading Room CO2</u> K/A 286000 2.1.30 4.4/4.0	D, A, R	Plant Systems (8)
P-3	<u>Vent the scram air header</u> K/A 295037 EA1.05 3.9/4.0	D, E, R	Reactivity Control (1)
<p>@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</p>			
* Type Codes		Criteria for RO / SRO-I / SRO-U	
(A)lternate path		4-6 / 4-6 / 2-3	
(C)ontrol room			
(D)irect from bank		≤ 9 / ≤ 8 / ≤ 4	
(E)mergency or abnormal in-plant		≥ 1 / ≥ 1 / ≥ 1	
(EN)gineering Safeguards Feature		- / - / ≥ 1 (control room system)	
(L)ow-Power / Shutdown		≥ 1 / ≥ 1 / ≥ 1	
(N)ew or (M)odified from bank including 1(A)		≥ 2 / ≥ 2 / ≥ 1	
(P)revious 2 exams		≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	
(R)CA		≥ 1 / ≥ 1 / ≥ 1	
(S)imulator			

Facility:	DAEC	Date of Examination:	Sept 2009
Exam Level:	RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/>	Operating Test No.:	2009-01
Control Room Systems [@] (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U, including 1 ESF)			
	System / JPM Title	Type Code*	Safety Function
(S-1)	N/A		
(S-2)	N/A		
S-3	<u>Shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve</u> The operator will shift feed flow control from the Startup Feed Reg Valve to the "B" Feed Reg Valve and take appropriate actions upon a failure of the "B" Feed Reg Valve. K/A 259002 A4.01 3.8/3.6	M, A, S	Reactor Water Inventory Control (2)
S-4	<u>Containment Vent via SBTG/ Hard Pipe Vent</u> The operator will vent per SEP 301.1, TORUS VENT VIA SBTG, for containment pressure control. An RPS failure will require use of the Hard Pipe Vent. K/A 295024 EA 1.19 3.3/3.4	D, A, EN, S	Radioactive Release (9)
S-5	<u>Re-energize bus 1A1 from the STARTUP transformer</u> During a shutdown the operator re-energize bus 1A1 from the S/U transformer, IAW OI 304.1. K/A 262001 A4.01 3.4/3.7	M, L, S	Electrical (6)
(S-6)	N/A		
(S-7)	N/A		
(S-8)	N/A		
In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)			
(P-1)	N/A		
P-2	<u>Manually Initiate Cable Spreading Room CO2</u> K/A 286000 2.1.30 4.4/4.0	D, A, R	Plant Systems (8)
P-3	<u>Vent the scram air header</u> K/A 295037 EA1.05 3.9/4.0	D, E, R	Reactivity Control (1)
@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.			
	* Type Codes	Criteria for RO / SRO-I / SRO-U	
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	(C)ontrol room		
	(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4	
	(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1	
	(EN)gineering Safeguards Feature	- / - / ≥ 1 (control room system)	
	(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1	
	(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1	
	(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	
	(R)CA	≥ 1 / ≥ 1 / ≥ 1	
	(S)imulator		