

EXAMINATION OUTLINE SUBMITTALS

FOR THE KEWAUNEE RETAKE EXAMINATION - NOV 2004

2004 Kewaunee RO Written Retake Exam Rev. 8 OUTLINE SUBMITTAL-1 of 3

- Licensee Letter Transmitting Outline to NRC
- ES-201-2 Examination Outline Quality Checklist
- ES-401-4 & -5 PWR Examination Outline
(100 questions)
- NRC Outline Comments (NONE)



July 21, 2004

NRC-04-085
10 CFR 55.40

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
Attn: Mr. Dell McNeil
2443 Warrenville Road, Suite 210
Lisle, IL 60532 - 4352

Kewaunee Nuclear Power Plant
Docket 50-305
License No. DPR-43

Reactor Operator Written Examination Materials for Mr. Jason F. Crowley

In accordance with the guidelines NUREG 1021, "Operating License Examination Standard for Power Reactors" Revision 8, Supplement 1, we are providing you with the Reactor Operator written examination materials for the re-examination of Mr. Jason Crowley, scheduled for the week of August 16, 2004. This package contains the 100 - question written examination, the reference material supporting the distracters, and form ES-401-7.

NUREG 1021 physical security requirements state that the enclosed examination materials shall be withheld from public disclosure until after the examination is complete.

Please direct any questions or comments regarding this material to Mr. David Fitzwater at 920-388-8387.

Thomas Coutu
Site Vice President, Kewaunee Nuclear Power Plant
Nuclear Management Company, LLC

Enclosures (3)

cc w/o enclosures: Senior Resident Inspector, Kewaunee, USNRC

Facility:		Date of Examination:		
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 per ES-401.	✓	✓	bn
	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.	✓	✓	bn
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	✓	✓	bn
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	✓	✓	bn
2. S I M	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.			N/A
	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; ensure 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 over successive days.			
	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.			
3. W / T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.			
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.			
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.			
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.			
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 section.	✓	✓	bn
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	✓	✓	bn
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	✓	✓	bn
	d. Check for duplication and overlap among exam sections.	-	-	bn N/A
	e. Check the entire exam for balance of coverage.	-	-	bn N/A
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	✓	✓	bn
a. Author <u>Keith E. Hampton</u> / <u>Keith E. Hampton</u> b. Facility Reviewer (*) <u>Dave Fitzwater</u> / <u>Dave Fitzwater</u> c. NRC Chief Examiner (#) <u>Dell R. McNeil</u> / <u>Dell R. McNeil</u> d. NRC Supervisor <u>RD Lankburg</u> / <u>RD Lankburg</u>		Printed Name / Signature		Date 6/17/04 6/17/04 6/21/04 6/21/04
Note: * Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.				

Facility: Kewaunee Nuclear Power Plant														Date of Exam: 08/16/04		Exam Level: RO	
Tier	Group	K/A Category Points											Point Total				
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *					
1. Emergency & Abnormal Plant Evolutions	1	2	2	5				0	4			3	16				
	2	2	2	2				7	2			2	17				
	3	1	0	1				1	0			0	3				
	Tier Totals	5	4	8				8	6			5	36				
2. Plant Systems	1	3	1	3	4	2	1	2	1	1	1	4	23				
	2	3	1	4	1	1	1	3	1	2	2	1	20				
	3	1	1	1	1	1	0	0	1	1	0	1	8				
	Tier Totals	7	3	8	6	4	2	5	3	4	3	6	51				
3. Generic Knowledge and Abilities					Cat 1		Cat 2		Cat 3		Cat 4		13				
					3		3		3		4						
<p>Note: 1. Ensure that at least two topics from every K/A category are sampled within each tier (i.e., the "Tier Totals" in each K/A category shall not be less than two).</p> <p>2. 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 exam must total 100 points.</p> <p>3. Select topics from many systems; avoid selecting more than two or three K/A topics from a given system unless they relate to plant-specific priorities.</p> <p>4. Systems/evolutions within each group are identified on the associated outline.</p> <p>5. The shaded areas are not applicable to the category/tier.</p> <p>6.* The generic 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.</p> <p>7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings for the SRO license level, and the point totals for each system and category. K/As below 2.5 should be justified on the basis of plant-specific priorities. Enter the tier totals for each category in the table above.</p>																	

ES-401

PWR RO Examination Outline
Emergency and Abnormal Plant Evolutions - Tier 1/Group 1

Form ES-401-4

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000005 Inoperable/Stuck Control Rod / 1			02				Rod Insertion Limit	3.6	1
000015/17 RCP Malfunctions / 4	04						Basic steady state thermodynamic relationship between RCS loops and S/Gs resulting from unbalanced RCS flow	2.9	1
BW/E09; CE/A13; W/E09&E10 Natural Circ. / 4					02		Adherence to appropriate procedures and operation within the limitations in the facility's license	3.4	1
000024 Emergency Boration / 1		01					Valves	2.7	1
000026 Loss of Component Cooling Water / 8			03				Guidance actions contained in EOP for Loss of CCW	4.0	1
000027 Pressurizer Pressure Control System Malfunction / 3			03				Actions contained in EOP for PZR PCS malfunction	3.7	1
000040 (BW/E05; CE/E05; W/E12) Steam Line Rupture - Excessive Heat Transfer / 4						x	2.4.6 - Knowledge symptom based EOP mitigation strategies	3.1	1
CE/A11; W/E08 RCS Overcooling - PTS / 4						x	2.4.18 - Knowledge of the specific bases for EOPs.	2.7	1
000051 Loss of Condenser Vacuum / 4					02		Conditions requiring reactor and/or turbine trip	3.9	1
000055 Station Blackout / 6			02				Actions contained in EOP for loss of offsite and onsite power	4.3	1
000057 Loss of Vital AC Elec. Inst. Bus / 6					18		The indicator, valve, breaker, or damper position which will occur on a loss of power	3.1	1
000062 Loss of Nuclear Service Water / 4						x	2.4.24 - Knowledge of loss of cooling water procedures	3.3	1
000067 Plant Fire On-site / 9	02						Fire fighting	3.1	1
000068 (BW/A06) Control Room Evac. / 8			18				Actions contained in EOP for control room evacuation emergency task	4.2	1
000069 (W/E14) Loss of CTMT Integrity / 5		03					Personnel access hatch and emergency access hatch	2.8	1
000074 (W/E06&E07) Inad. Core Cooling / 4					01		Subcooling margin	4.6	1
BW/E03 Inadequate Subcooling Margin / 4									
000076 High Reactor Coolant Activity / 9									
BW/A02&A03 Loss of NNI-X/Y / 7									
K/A Category Totals:	2	2	5	0	4	3	Group Point Total:		16

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	K/A Topic(s)	Imp.	Points
000001 Continuous Rod Withdrawal / 1			01				Manually driving rods into position that existed before start of casualty	3.2	1
000008 Pressurizer Vapor Space Accident / 3	01						Thermodynamics and flow characteristics of open or leaking valves	3.2	1
000009 Small Break LOCA / 3					39		Adequate core cooling	4.3	1
000011 Large Break LOCA / 3		02		04			Pumps / ESF actuation system in manual	2.6/4.4	2
W/E04 LOCA Outside Containment / 3									
BW/E08; W/E03 LOCA Cooldown/Depress. / 4		02					Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility.	3.7	1
W/E11 Loss of Emergency Coolant Recirc. / 4				03			Desired operating results during abnormal and emergency situations	3.7	1
W/E01 & E02 Re-diagnosis & SI Termination / 3				02			Operating behavior characteristics of the facility	3.6	1
000022 Loss of Reactor Coolant Makeup / 2						x	2.1.32 - Ability to explain and apply all systems limits and precautions	3.4	1
000025 Loss of RHR System / 4					07		Pump cavitation	3.4	1
000029 Anticipated Transient w/o Scram / 1				13			Manual trip of main turbine	4.1	1
000032 Loss of Source Range NI / 7	01						Effects of voltage changes on performance	4.1	1
000033 Loss of Intermediate Range NI / 7									
000037 Steam Generator Tube Leak / 3			07				Actions contained in EOP for S/G tube leak	4.2	1
000038 Steam Generator Tube Rupture / 3									
000054 (CE/E06) Loss of Main Feedwater / 4						x	2.4.48 - Ability to interpret control room indications to verify the status and operation of system, and understand how operator actions and directives affect plant and system conditions.	3.5	1
BW/E04; W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4				03			Desired operating results during abnormal and emergency situations	3.8	1
000059 Accidental Liquid RadWaste Rel. / 9				01			Radioactive liquid monitor	3.5	1
000060 Accidental Gaseous Radwaste Rel. / 9									
000061 ARM System Alarms / 7				01			Automatic actuation	3.6	1
W/E16 High Containment Radiation / 9									
CE/E09 Functional Recovery									
K/A Category Point Totals:	2	2	2	7	2	2	Group Point Total:		17

ES-401

PWR RO Examination Outline
Plant Systems - Tier 2/Group 1

Form ES-401-4

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
001 Control Rod Drive	05									03		NIS and RPS / CRDS mode control	4.5/4.0	2
003 Reactor Coolant Pump								02				Conditions which exist for an abnormal shutdown of an RCP in comparison to a normal shutdown of an RCP	3.7	1
004 Chemical and Volume Control				04	04							Manual/automatic transfers of control / Reason for hydrogen cover gas in VCT	3.2/2.8	2
013 Engineered Safety Features Actuation		01				01						ESFAS & safeguards equipment control / Sensors and detectors	3.6/2.7	2
015 Nuclear Instrumentation				06							x	Reactor trip bypasses / 2.1.12 - Ability to apply tech specs for a system	3.9/2.9	2
017 In-core Temperature Monitor			01									Natural circulation indications	3.5	1
022 Containment Cooling				03							x	Automatic containment isolation / 2.1.10 - Knowledge of conditions and limitations in the facility license	3.6/2.7	2
025 Ice Condenser														
056 Condensate	03										x	MFW / 2.4.45 - Ability to prioritize and interpret the significance of each annunciator or alarm	2.6/3.3	2
059 Main Feedwater			03	19								S/Gs / Auto isolation of MFW	3.5/3.2	2
061 Auxiliary/Emergency Feedwater					01		04					Relationship between AFW flow and RCS heat transfer / AFW source tank level	3.6/3.9	2
068 Liquid Radwaste	07											Sources of liquid wastes for LRS	2.7	1
071 Waste Gas Disposal			05							03		ARM and PRM systems / Radiation monitoring system alarm and actuating signals	3.2/3.6	2
072 Area Radiation Monitoring							01				x	Radiation levels / 2.4.31 - Knowledge of annunciator alarms and indications, and use of the response instructions	3.4/3.3	2
K/A Category Point Totals:	3	1	3	4	2	1	2	1	1	1	4	Group Point Total:		23

ES-401

PWR RO Examination Outline
Plant Systems - Tier 2/Group 2

Form ES-401-4

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
002 Reactor Coolant					10							Relationship between reactor power & RCS differential temperature	3.6	1
006 Emergency Core Cooling	07						11					MFW System / Boron concentration	2.9/3.1	2
010 Pressurizer Pressure Control			01									RCS	3.8	1
011 Pressurizer Level Control									03			Charging and letdown	3.2	1
012 Reactor Protection					10							Permissive circuits	3.3	1
014 Rod Position Indication										01		Rod selection control	3.3	1
016 Non-nuclear Instrumentation			02									PZR LCS	3.4	1
026 Containment Spray							01					Containment pressure	3.9	1
029 Containment Purge	02											Containment Radiation Monitor	3.3	1
033 Spent Fuel Pool Cooling														
035 Steam Generator	09											RCS	3.8	1
039 Main and Reheat Steam							03					Primary sys temperature indications and required values during MS warm-up	2.6	1
055 Condenser Air Removal			01									Main Condenser	2.5	1
062 AC Electrical Distribution									05			Safety-related indicators and controls	3.5	1
063 DC Electrical Distribution			02									Components using DC control power	3.5	1
064 Emergency Diesel Generator		03										Control Power	3.2	1
073 Process Radiation Monitoring								01				Erratic or failed power supply	2.5	1
075 Circulating Water										01		Emergency/essential SWS pumps	3.2	1
079 Station Air				01								Cross-connect with IAS	2.9	1
086 Fire Protection											x	2.4.31 - Knowledge of annunciators, alarms and indications, and use of the response instructions.	3.3	1
K/A Category Point Totals:	3	1	4	1	1	1	3	1	2	2	1	Group Point Total:		20

ES-401

PWR RO Examination Outline
Plant Systems - Tier 2/Group 3

Form ES-401-4

System # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
005 Residual Heat Removal					03							Reactivity effects of RHR fill water	2.9	1
007 Pressurizer Relief/Quench Tank														
008 Component Cooling Water	02											Loads cooled by CCWS	3.3	1
027 Containment Iodine Removal														
028 Hydrogen Recombiner and Purge Control														
034 Fuel Handling Equipment				01								Fuel protection from binding and dropping	2.6	1
041 Steam Dump/Turbine Bypass Control			04									Reactor power	3.5	1
045 Main Turbine Generator									05			Electro-hydraulic control	2.6	1
076 Service Water		08										ESF-actuated MOVs	3.1	1
078 Instrument Air											x	2.4.11 - Knowledge of abnormal condition procedures	3.4	1
103 Containment								03				Phase A and B isolation	3.5	1
K/A Category Point Totals:	1	1	1	1	1	0	0	1	1	0	1	Group Point Total:	8	

Plant-Specific Priorities

System / Topic	Recommended Replacement for...	Reason	Points

Plant-Specific Priority Total: (limit 10)

Facility: Kewaunee Nuclear Power Plant		Date of Exam: 8/16/04		Exam Level: RO	
Category	K/A #	Topic	Imp.	Points	
Conduct of Operations	2.1.2	Knowledge of operator responsibilities during all modes of plant operation	3.0	1	
	2.1.3	Knowledge of shift turnover practices	3.0	1	
	2.1.32	Ability to explain and apply all system limits and precautions	3.4	1	
	Total			3	
Equipment Control	2.2.12	Knowledge of surveillance procedures	3.0	1	
	2.2.13	Knowledge of tagging and clearance procedures	3.6	1	
	2.2.22	Knowledge of limiting conditions for operations and safety limits	3.4	1	
	Total			3	
Radiation Control	2.3.1	Knowledge of 10 CFR 20 and related facility radiation control requirements	2.6	1	
	2.3.4	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized	2.5	1	
	2.3.9	Knowledge of the process for performing a containment purge	2.5	1	
	Total			3	
Emergency Procedures/Plan	2.4.1	Knowledge of EOP entry conditions and immediate actions steps	4.3	1	
	2.4.8	Knowledge of how the event-based emergency/abnormal operating procedures are used in conjunction with the symptom-based EOPs	3.0	1	
	2.4.11	Knowledge of abnormal condition procedures	3.4	1	
	2.4.16	Knowledge of EOP implementation hierarchy and coordination with other support procedures	3.0	1	
	Total			4	
Tier 3 Point Total (RO/SRO)				13	

2004 Kewaunee RO Written Retake Exam Rev. 9 OUTLINE SUBMITTAL-2 of 3

- Licensee Letter Transmitting Outline to NRC
- ES-201-2 Examination Outline Quality Checklist
- ES-401-2, & -3 PWR Examination Outline
(75 questions)
- ~~- ES-401-4 Record of Rejected KIAs~~ *MEB*
- NRC Outline Comments (NONE)



August 13, 2004

NRC-04-096
10 CFR 55

Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532 - 4352

Kewaunee Nuclear Power Plant
Docket 50-305
License No. DPR-43

Re-application for Mr. Jason F. Crowley for Reactor Operator License

The NMC is submitting the sample plan for Mr. Crowley's examination per our phone conversation on August 6, 2004.

The sample plan was randomly generated in accordance with NUREG -1021, ES-401 requirements, using the PWR sample plan generating software distributed by the Westinghouse Owner's Group. This software meets the requirements of section D.1.b of that section of the examiner's standard. We have enclosed the following forms as prescribed by NUREG -1021:

ES-201-2
ES-401-2
ES-401-3
ES-401-4

NUREG 1021 physical security requirements state that the enclosed examination materials shall be withheld from public disclosure until after the examination is complete.

Please contact Mr. Wyatt Godes, Operations Training Group Supervisor, at 920-388-8779 for any issues related to this submittal.

A handwritten signature in black ink that reads "Thomas Coutu". The signature is written in a cursive style with a large, prominent initial "T".

Thomas Coutu
Site Vice President, Kewaunee Nuclear Power Plant
Nuclear Management Company, LLC

Enclosures (4)

cc w/o enclosures: Senior Resident Inspector, Kewaunee, USNRC

Facility: Kewaunee Nuclear Power Plant		Date of Examination: 11/15/2004		
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 per ES-401.	KEH	ORF	sm
	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.	KEH	ORF	sm
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	KEH	ORF	sm
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	KEH	ORF	N/A sm
2. S I M	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.		N/A	
	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; ensure 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 over successive on subsequent days.	N/A		
	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.			
3. W / T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks; (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.		N/A	
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 4-6 (2 - 3 for SRO-U) of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.			N/A
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.			
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive-subsequent days.			
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 section.	KEH	ORF	sm
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	KEH	ORF	sm
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	KEH	ORF	sm
	d. Check for duplication and overlap among exam sections.	KEH	ORF	sm
	e. Check the entire exam for balance of coverage.	KEH	ORF	sm
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	KEH	ORF	sm
a. Author	Printed Name / Signature <u>KEITH E. HAMPTON / Keith E. Hampton</u>		Date <u>8/12/04</u>	
b. Facility Reviewer (*)	<u>David I. Fitzwater Jr / David I. Fitzwater Jr</u>		<u>8/12/04</u>	
c. NRC Chief Examiner (#)	<u>Debbie R. McNeil / Debbie R. McNeil</u>		<u>8/17/04</u>	
d. NRC Supervisor	<u>RS Linksbury / RS Linksbury</u>		<u>8/17/04</u>	
Note:	* Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.			

Facility: My Power Unit

Printed: 08/11/2004

Date Of Exam: 06/01/2004

Tier	Group	RO K/A Category Point:											SRO-Only Points					
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	Total	K	A	A2	G*	
1. Emergency & Abnormal Plant Evolutions	1	2	1	4				4	3			4	18	0	0	0	0	0
	2	0	2	4				0	2			1	9	0	0	0	0	0
	Tier Totals	2	3	8				4	5			5	27	0	0	0	0	0
2. Plant Systems	1	3	3	3	3	3	2	4	3	1	0	3	28	0	0	0	0	0
	2	3	0	0	2	0	0	1	0	2	2	0	10	0	0	0	0	0
	Tier Totals	6	3	3	5	3	2	5	3	3	2	3	38	0	0	0	0	0
3. Generic Knowledge And Abilities Categories				1		2		3		4		10	1	2	3	4	0	
				3		2		3		2			0	0	0	0		

Note:

1. Ensure that at least two topics from every K/A category are sampled within each tier of the RO outline (i.e., the "Tier Totals" in each K/A category shall not be less than two). Refer to Section D.1.c for additional guidance regarding the SRO sampling.
2. 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.
3. Select topics from many systems and evolutions; avoid selecting more than two K/A topics from a given system unless they relate to plant-specific priorities.
4. Systems/evolutions within each group are identified on the associated outline.
5. The shaded areas are not applicable to the category /tier.
- 6.* 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. The SRO K/As must also be linked to 10 CFR 55.43 or an SRO-level learning objective.
7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IR) 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 columns labeled "K" and "A". Use duplicate pages for RO and SRO-only exams.
8. For Tier 3, enter the K/A numbers, descriptions, importance ratings, and point totals on Form ES-401-3.
9. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

ES - 401

Emergency and Abnormal Plant Evolutions - Tier 1 / Group 1

Form ES-401-2

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
000008 Pressurizer Vapor Space Accident / 3	X						AK1.01 - Thermodynamics and flow characteristics of open or leaking valves	3.2	1
000009 Small Break LOCA / 3					X		EA2.39 - Adequate core cooling	4.3	1
000011 Large Break LOCA / 3				X			EA1.04 - ESF actuation system in manual	4.4	1
000011 Large Break LOCA / 3		X					EK2.02 - Pumps	2.6*	1
000022 Loss of Rx Coolant Makeup / 2						X	2.1.32 - Ability to explain and apply all system limits and precautions.	3.4	1
000025 Loss of RHR System / 4					X		AA2.07 - Pump cavitation	3.4	1
000026 Loss of Component Cooling Water / 8			X				AK3.03 - Guidance actions contained in EOP for Loss of CCW	4.0	1
000027 Pressurizer Pressure Control System Malfunction / 3			X				AK3.03 - Actions contained in EOP for PZR PCS malfunction	3.7	1
000029 ATWS / 1				X			EA1.13 - Manual trip of main turbine	4.1	1
000040 Steam Line Rupture - Excessive Heat Transfer / 4						X	2.4.6 - Knowledge symptom based EOP mitigation strategies.	3.1	1
000054 Loss of Main Feedwater / 4						X	2.4.48 - Ability to interpret control room indications to verify the status and operation of system, and understand how operator actions and directives affect plant and system conditions.	3.5	1
000055 Station Blackout / 6			X				EK3.02 - Actions contained in EOP for loss of offsite and onsite power	4.3	1
000056 Loss of Off-site Power / 6	X						AK1.01 - Principle of cooling by natural convection	3.7	1
000057 Loss of Vital AC Inst. Bus / 6					X		AA2.18 - The indicator, valve, breaker, or damper position which will occur on a loss of power	3.1	1
000062 Loss of Nuclear Svc Water / 4						X	2.4.24 - Knowledge of loss of cooling water procedures.	3.3	1
000065 Loss of Instrument Air / 8			X				AK3.03 - Knowing effects on plant operation of isolating certain equipment from instrument air	2.9	1
W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4				X			EA1.3 - Desired operating results during abnormal and emergency situations	3.8	1
W/E11 Loss of Emergency Coolant Recirc. / 4				X			EA1.3 - Desired operating results during abnormal and emergency situations	3.7	1
K/A Category Totals:	2	1	4	4	3	4		Group Point Total: 18	

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

ES - 401

Emergency and Abnormal Plant Evolutions - Tier 1 / Group 2

Form ES-401-2

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
000005 Inoperable/Stuck Control Rod / 1			X				AK3.02 - Rod insertion limits	3.6	1
000037 Steam Generator Tube Leak / 3			X				AK3.07 - Actions contained in EOP for S/G tube leak	4.2	1
000051 Loss of Condenser Vacuum / 4					X		AA2.02 - Conditions requiring reactor and/or turbine trip	3.9	1
000068 Control Room Evac. / 8			X				AK3.18 - Actions contained in EOP for control room evacuation emergency task	4.2	1
000069 Loss of CTMT Integrity / 5		X					AK2.03 - Personnel access hatch and emergency access hatch	2.8*	1
W/E03 LOCA Cooldown - Depress. / 4		X					EK2.2 - Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility	3.7	1
W/E08 RCS Overcooling - PTS / 4						X	2.4.18 - Knowledge of the specific bases for EOPs.	2.7	1
W/E10 Natural Circ. / 4					X		EA2.2 - Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3.4	1
W/E13 Steam Generator Over-pressure / 4			X				EK3.2 - Normal, abnormal and emergency operating procedures associated with Steam Generator Overpressure	2.9	1
K/A Category Totals:	0	2	4	0	2	1	Group Point Total:	9	

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

ES - 401

Plant Systems - Tier 2 / Group 1

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
003 Reactor Coolant Pump								X				A2.02 - Conditions which exist for an abnormal shutdown of an RCP in comparison to a normal shutdown of an RCP	3.7	1
004 Chemical and Volume Control				X								K4.04 - Manual/automatic transfers of control	3.2	1
004 Chemical and Volume Control					X							K5.04 - Reason for hydrogen cover gas in VCT (oxygen scavenge)	2.8	1
005 Residual Heat Removal					X							K5.03 - Reactivity effects of RHR fill water	2.9*	1
006 Emergency Core Cooling							X					A1.11 - Boron concentration	3.1	1
006 Emergency Core Cooling	X											K1.07 - MFW System	2.9*	1
008 Component Cooling Water	X											K1.02 - Loads cooled by CCWS	3.3	1
010 Pressurizer Pressure Control			X									K3.01 - RCS	3.8	1
012 Reactor Protection						X						K6.10 - Permissive circuits	3.3	1
013 Engineered Safety Features Actuation		X										K2.01 - ESFAS/safeguards equipment control	3.6*	1
013 Engineered Safety Features Actuation						X						K6.01 - Sensors and detectors	2.7*	1
022 Containment Cooling				X								K4.03 - Automatic containment isolation	3.6*	1
022 Containment Cooling											X	2.1.10 - Knowledge of conditions and limitations in the facility license.	2.7	1
026 Containment Spray							X					A1.01 - Containment pressure	3.9	1
039 Main and Reheat Steam							X					A1.03 - Primary system temperature indications, and required values, during main steam system warm-up	2.6	1
056 Condensate	X											K1.03 - MFW	2.6*	1
056 Condensate											X	2.4.45 - Ability to prioritize and interpret the significance of each annunciator or alarm.	3.3	1
059 Main Feedwater			X									K3.03 - S/Gs	3.5	1
059 Main Feedwater				X								K4.19 - Automatic feedwater isolation of MFW	3.2	1
061 Auxiliary/Emergency Feedwater							X					A1.04 - AFW source tank level	3.9	1
061 Auxiliary/Emergency Feedwater					X							K5.01 - Relationship between AFW flow and RCS heat transfer	3.6	1

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

ES - 401

Plant Systems - Tier 2 / Group 1

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
062 AC Electrical Distribution									X			A3.05 - Safety-related indicators and controls	3.5	1
063 DC Electrical Distribution			X									K3.02 - Components using DC control power	3.5	1
064 Emergency Diesel Generator		X										K2.03 - Control power	3.2*	1
073 Process Radiation Monitoring								X				A2.01 - Erratic or failed power supply	2.5	1
076 Service Water		X										K2.08 - ESF-actuated MOVs	3.1*	1
078 Instrument Air											X	2.4.11 - Knowledge of abnormal condition procedures.	3.4	1
103 Containment								X				A2.03 - Phase A and B isolation	3.5*	1
K/A Category Totals:	3	3	3	3	3	2	4	3	1	0	3	Group Point Total:		28

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

ES - 401

Plant Systems - Tier 2 / Group 2

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
014 Rod Position Indication										X		A4.01 - Rod selection control	3.3	1
029 Containment Purge	X											K1.02 - Containment radiation monitor	3.3	1
034 Fuel Handling Equipment				X								K4.01 - Fuel protection from binding and dropping	2.6	1
035 Steam Generator	X											K1.09 - RCS	3.8	1
045 Main Turbine Generator									X			A3.05 - Electrohydraulic control	2.6	1
068 Liquid Radwaste	X											K1.07 - Sources of liquid wastes for LRS	2.7	1
071 Waste Gas Disposal									X			A3.03 - Radiation monitoring system alarm and actuating signals	3.6	1
072 Area Radiation Monitoring							X					A1.01 - Radiation levels	3.4	1
075 Circulating Water										X		A4.01 - Emergency/essential SWS pumps	3.2*	1
079 Station Air				X								K4.01 - Cross-connect with IAS	2.9	1
K/A Category Totals:	3	0	0	2	0	0	1	0	2	2	0	Group Point Total:		10

Generic Knowledge and Abilities Outline (Tier 3)

PWR RO Examination Outline

Printed: 08/11/2004

Facility: My Power Unit

Form ES-401-3

<u>Generic Category</u>	<u>KA</u>	<u>KA Topic</u>	<u>Imp.</u>	<u>Points</u>
Conduct of Operations	2.1.2	Knowledge of operator responsibilities during all modes of plant operation.	3.0	1
	2.1.3	Knowledge of shift turnover practices.	3.0	1
	2.1.32	Ability to explain and apply all system limits and precautions.	3.4	1
	Category Total:			3
Equipment Control	2.2.12	Knowledge of surveillance procedures.	3.0	1
	2.2.13	Knowledge of tagging and clearance procedures.	3.6	1
	Category Total:			2
Radiation Control	2.3.1	Knowledge of 10 CFR: 20 and related facility radiation control requirements.	2.6	1
	2.3.4	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.	2.5	1
	2.3.9	Knowledge of the process for performing a containment purge.	2.5	1
	Category Total:			3
Emergency Procedures/Plan	2.4.1	Knowledge of EOP entry conditions and immediate action steps.	4.3	1
	2.4.11	Knowledge of abnormal condition procedures.	3.4	1
	Category Total:			2
Generic Total:			10	

Tier / Group	Randomly Selected K/A	Reason for Rejection
1 / 1	065 AA1.01	Plant does not have equipment that would be considered "remote manual loaders"
		Replaced with randomly selected K/A 065 AK3.03

**2004 Kewaunee RO Written Retake Exam
Rev. 9 OUTLINE SUBMITTAL-3 of 3**

- ES-201-2 Examination Outline Quality Checklist
- ES-401-2, & -3 PWR Examination Outline
(75 questions)
- ES-401-4 Record of Rejected K/As
- NRC Outline Comments (NONE)

Facility: Kewaunee Nuclear Power Plant		Date of Examination: 11/15/2004		
Item	Task Description	Initials		
		a	b*	c#
WRITEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	KEH	WAG	MGB
	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.	KEH	WAG	MGB
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	KEH	WAG	MGB
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	KEH	WAG	MGB
SIM	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	N/A		
	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; ensure 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 over successive on subsequent days.	N/A		
	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.			
3.	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.			
W/T	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% - 6 (2 - 3 for SRO-U) of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	N/A		
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.			
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive subsequent days.			
	4.			
GENERAL	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	KEH	WAG	MGB
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	KEH	WAG	MGB
	d. Check for duplication and overlap among exam sections.	KEH	WAG	MGB
	e. Check the entire exam for balance of coverage.	KEH	WAG	MGB
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	KEH	WAG	MGB
a. Author	KEITH E. HAMPTON / <i>Keith E. Hampton</i>			Date / 10/15/04
b. Facility Reviewer (*)	WYATT A. GODES / <i>Wyatt A. Godes</i>			10/15/04
c. NRC Chief Examiner (#)	MICHAEL E. BIELBY / <i>Michael E. Bielby Sr</i>			10/18/04
d. NRC Supervisor	ROD LINKSBURG / <i>ROD Linksbury</i>			11/10/04

Note: • Not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

Facility: Kewaunee Nuclear Power Plant

Printed: 10/15/2004

Date Of Exam: 11/15/2004

Tier	Group	RO K/A Category Point:											SRO-Only Points						
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	Total	K	A	A2	G*		
1. Emergency & Abnormal Plant Evolutions	1	2	1	4				4	3				4	18	0	0	0	0	0
	2	0	2	4				0	2				1	9	0	0	0	0	0
	Tier Totals	2	3	8				4	5				5	27	0	0	0	0	0
2. Plant Systems	1	3	3	3	2	3	2	4	3	1	1	3	28	0	0	0	0	0	0
	2	3	0	0	2	0	0	1	0	2	2	0	10	0	0	0	0	0	0
	Tier Totals	6	3	3	4	3	2	5	3	3	3	3	38	0	0	0	0	0	0
3. Generic Knowledge And Abilities Categories				1		2		3		4		10		1	2	3	4	0	
				3		2		3		2				0	0	0	0		

Note:

1. Ensure that at least two topics from every K/A category are sampled within each tier of the RO outline (i.e., the "Tier Totals" in each K/A category shall not be less than two). Refer to Section D.1.c for additional guidance regarding the SRO sampling.
2. 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.
3. Select topics from many systems and evolutions; avoid selecting more than two K/A topics from a given system unless they relate to plant-specific priorities.
4. Systems/evolutions within each group are identified on the associated outline.
5. The shaded areas are not applicable to the category /tier.
- 6.* 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. The SRO K/As must also be linked to 10 CFR 55.43 or an SRO-level learning objective.
7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IR) 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 columns labeled "K" and "A". Use duplicate pages for RO and SRO-only exams.
8. For Tier 3, enter the K/A numbers, descriptions, importance ratings, and point totals on Form ES-401-3.
9. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.

PWR RO Examination Outline

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Facility: Kewaunee Nuclear Power Plant

ES - 401

Emergency and Abnormal Plant Evolutions - Tier 1 / Group 2

Form ES-401-2

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
000005 Inoperable/Stuck Control Rod / 1			X				AK3.02 - Rod insertion limits	3.6	1
000037 Steam Generator Tube Leak / 3			X				AK3.07 - Actions contained in EOP for S/G tube leak	4.2	1
000051 Loss of Condenser Vacuum / 4					X		AA2.02 - Conditions requiring reactor and/or turbine trip	3.9	1
000068 Control Room Evac. / 8			X				AK3.18 - Actions contained in EOP for control room evacuation emergency task	4.2	1
000069 Loss of CTMT Integrity / 5		X					AK2.03 - Personnel access hatch and emergency access hatch	2.8*	1
W/E03 LOCA Cooldown - Depress. / 4		X					EK2.2 - Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility	3.7	1
W/E08 RCS Overcooling - PTS / 4						X	2.4.18 - Knowledge of the specific bases for EOPs.	2.7	1
W/E10 Natural Circ. / 4					X		EA2.2 - Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3.4	1
W/E13 Steam Generator Over-pressure / 4			X				EK3.2 - Normal, abnormal and emergency operating procedures associated with Steam Generator Overpressure	2.9	1
K/A Category Totals:	0	2	4	0	2	1		Group Point Total:	9

PWR RO Examination Outline

Printed: 10/15/2004

Facility: Kewaunee Nuclear Power Plant

ES - 401

Plant Systems - Tier 2 / Group 1

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
003 Reactor Coolant Pump								X				A2.02 - Conditions which exist for an abnormal shutdown of an RCP in comparison to a normal shutdown of an RCP	3.7	1
004 Chemical and Volume Control				X								K4.04 - Manual/automatic transfers of control	3.2	1
004 Chemical and Volume Control					X							K5.04 - Reason for hydrogen cover gas in VCT (oxygen scavenge)	2.8	1
004 Chemical and Volume Control										X		A4.07 - Boration/dilution	3.9	1
005 Residual Heat Removal					X							K5.03 - Reactivity effects of RHR fill water	2.9*	1
006 Emergency Core Cooling							X					A1.11 - Boron concentration	3.1	1
008 Component Cooling Water	X											K1.02 - Loads cooled by CCWS	3.3	1
010 Pressurizer Pressure Control			X									K3.01 - RCS	3.8	1
012 Reactor Protection						X						K6.10 - Permissive circuits	3.3	1
013 Engineered Safety Features Actuation		X										K2.01 - ESFAS/safeguards equipment control	3.6*	1
013 Engineered Safety Features Actuation						X						K6.01 - Sensors and detectors	2.7*	1
022 Containment Cooling											X	2.1.10 - Knowledge of conditions and limitations in the facility license.	2.7	1
026 Containment Spray							X					A1.01 - Containment pressure	3.9	1
039 Main and Reheat Steam							X					A1.03 - Primary system temperature indications, and required values, during main steam system warm-up	2.6	1
056 Condensate	X											K1.03 - MFW	2.6*	1
056 Condensate											X	2.4.45 - Ability to prioritize and interpret the significance of each annunciator or alarm.	3.3	1
059 Main Feedwater			X									K3.03 - S/Gs	3.5	1
059 Main Feedwater				X								K4.19 - Automatic feedwater isolation of MFW	3.2	1
061 Auxiliary/Emergency Feedwater							X					A1.04 - AFW source tank level	3.9	1
061 Auxiliary/Emergency Feedwater					X							K5.01 - Relationship between AFW flow and RCS heat transfer	3.6	1
062 AC Electrical Distribution									X			A3.05 - Safety-related indicators and controls	3.5	1

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Facility: Kewaunee Nuclear Power Plant

ES - 401

Plant Systems - Tier 2 / Group 1

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
063 DC Electrical Distribution			X									K3.02 - Components using DC control power	3.5	1
064 Emergency Diesel Generator		X										K2.03 - Control power	3.2*	1
073 Process Radiation Monitoring								X				A2.01 - Erratic or failed power supply	2.5	1
076 Service Water		X										K2.08 - ESF-actuated MOVs	3.1*	1
076 Service Water	X											K1.05 - ED/G	3.8*	1
078 Instrument Air											X	2.4.11 - Knowledge of abnormal condition procedures.	3.4	1
103 Containment								X				A2.03 - Phase A and B isolation	3.5*	1
K/A Category Totals:	3	3	3	2	3	2	4	3	1	1	3	Group Point Total:		28

PWR RO Examination Outline

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Facility: Kewaunee Nuclear Power Plant

ES - 401

Plant Systems - Tier 2 / Group 2

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
014 Rod Position Indication										X		A4.01 - Rod selection control	3.3	1
029 Containment Purge	X											K1.02 - Containment radiation monitor	3.3	1
034 Fuel Handling Equipment				X								K4.01 - Fuel protection from binding and dropping	2.6	1
035 Steam Generator	X											K1.09 - RCS	3.8	1
045 Main Turbine Generator									X			A3.05 - Electrohydraulic control	2.6	1
068 Liquid Radwaste	X											K1.07 - Sources of liquid wastes for LRS	2.7	1
071 Waste Gas Disposal									X			A3.03 - Radiation monitoring system alarm and actuating signals	3.6	1
072 Area Radiation Monitoring							X					A1.01 - Radiation levels	3.4	1
075 Circulating Water										X		A4.01 - Emergency/essential SWS pumps	3.2*	1
079 Station Air				X								K4.01 - Cross-connect with IAS	2.9	1
K/A Category Totals:	3	0	0	2	0	0	1	0	2	2	0	Group Point Total:		10

Generic Knowledge and Abilities Outline (Tier 3)

PWR RO Examination Outline

Printed: 10/15/2004

Facility: Kewaunee Nuclear Power Plant

Form ES-401-3

<u>Generic Category</u>	<u>KA</u>	<u>KA Topic</u>	<u>Imp.</u>	<u>Points</u>
Conduct of Operations	2.1.2	Knowledge of operator responsibilities during all modes of plant operation.	3.0	1
	2.1.3	Knowledge of shift turnover practices.	3.0	1
	2.1.32	Ability to explain and apply all system limits and precautions.	3.4	1
	Category Total:			3
Equipment Control	2.2.12	Knowledge of surveillance procedures.	3.0	1
	2.2.13	Knowledge of tagging and clearance procedures.	3.6	1
	Category Total:			2
Radiation Control	2.3.1	Knowledge of 10 CFR: 20 and related facility radiation control requirements.	2.6	1
	2.3.4	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.	2.5	1
	2.3.9	Knowledge of the process for performing a containment purge.	2.5	1
	Category Total:			3
Emergency Procedures/Plan	2.4.1	Knowledge of EOP entry conditions and immediate action steps.	4.3	1
	2.4.11	Knowledge of abnormal condition procedures.	3.4	1
	Category Total:			2

Generic Total: 10

Tier / Group	Randomly Selected K/A	Reason for Rejection
1 / 1	076 K1.05	Plant does not have equipment that would be considered "remote manual loaders".
		Replaced with randomly Selected K/A 065 AK3.03.
2 / 1	006 K1.07	Question could not be developed that that would be significantly different from
		question developed for another K/A ((059 K4.19).
		Replaced with K/A 076K 1.05 selected from randomly generated outline.
2 / 1	022 K4.03	Question could not be written covering containment isolation that had
		not been already covered.
		Replaced with K/A 004 A4.07 selected from randomly generated sample plan. Based on
		total number of "K2" or "A4" being lowest on outline.
2 / 1	059 K3.03	After several attempts to write a question with an acceptable Difficulty
		Level were unsuccessful, a different K/A was selected
		Replaced with generic K/A 059 2.4.4 selected from randomly generated sample plan.