Revised after all Exam Comments resolved & incorporated JBlum 9/20/02

Facility: Nine Mile Point Unit 1 Date of Exam: 09/30/02 Exam Level: SRO

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	4	5	0				7	4			6	26
	2	3	3	3				2	3			3	17
	Tier Totals	7	8	3				9	7			9	43
2. Plant Systems	1	2	1	2	2	2	1	3	2	3	1	4	23
	2	1	1	1	1	1	2	1	1	1	1	2	13
	3	1	0	0	1	0	0	1	0	0	0	1	4
	Tier Totals	4	2	3	4	3	3	5	3	4	2	7	40

3. Generic Knowledge and Abilities	Cat 1	Cat 2	Cat 3	Cat 4	
	5	4	4	4	17

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).
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.
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.
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 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.
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.

ES-4 /NR SRO Examination OutlineForm ES-401-1 (R8, S1)

Emergency and Abnormal Plant Evolutions - Tier 1/Group 1

E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	Imp.	Points
295003 Partial or Complete Loss of AC Pwr / 6				X		X	**2.4.41** - Knowledge of the emergency action level threshold and classification **SRO021**	4.1	1
							AA1.01 - Ability to operate and/or monitor the following as they apply to Partial or complete loss of AC power: AC electrical distribution system **RO026,SRO019**	3.8	1
295006 Scram/ 1					X		**AA2.02** - Ability to determine and/or interpret the following as they apply to **Scram**: Control Rod position **RO008,SRO017**	4.4	1
295007 High Reactor Pressure / 3		X				X	**AK2.05** - Knowledge of the interrelations **High Reactor Pressure** and the following: Shutdown cooling **RO001,SRO002**	3.1	1
							2.1.33 – Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications **RO009,SRO001**	4.0	1
295009 Low Reactor Water Level / 2	X			X			**AK1.05** - Knowledge of the operational applications of the following concepts as they apply to the **Low Reactor Water Level**: Natural circulation **RO002,SRO003**	3.4	1
							AA1.01 - Ability to operate and/or monitor the following as they apply to **Low Reactor Water Level**: Reactor feedwater **RO003,SRO004**	3.9	1
295010 High Drywell Pressure / 5				X			**AA1.03** - Ability to operate and/or monitor the following as they apply to **High Drywell Pressure**: Nitrogen makeup **RO004,SRO005**	2.6	1
295013 High Suppression Pool Temp. / 5	X	X					**AK1.04** - Knowledge of the operational applications of the following concepts as they apply to the **High Suppression Pool Temp**: Complete condensation **RO020,SRO006**	3.2	1
							AK2.01 - Knowledge of the interrelations between **High Suppression Pool Temp** and the following: Suppression pool cooling **RO021,SRO007**	3.7	1
295014 Inadvertent Reactivity Addition / 1				X			**AA1.07** - Ability to operate and/or monitor the following as they apply to **Inadvertent Reactivity Addition**: Cold water injection **RO005,SRO008**	4.1	1
295015 Incomplete SCRAM / 1	X	X					**AK2.04** - Knowledge of the interrelations between **Incomplete SCRAM** and the following: RPS **RO006,SRO009**	4.1	1
							AK1.04 - Knowledge of the operational implications of the following concepts as they apply to **Incomplete SCRAM**: Reactor pressure **RO0007,SRO010**	3.8	1
295016 Control Room Abandonment / 7				X	X		**AA1.03** - Ability to operate and/or monitor the following as they apply to **Control Room Abandonment**: RPIS **RO022,SRO012**	3.1	1
							AA2.02 - Ability to determine and interpret the following as they apply to **Control Room Abandonment**: Reactor water level **RO028,SRO011**	4.3	1
295017 High Off-site Release Rate / 9					X	X	**AA2.01** - Ability to determine and interpret the following as they apply to **High Off-site Release Rate**: Off-site release rate **SRO013**	4.2	1
							2.2.25 – Knowledge of bases in technical specifications for limiting	3.7	1

							conditions for operations and safety limits **SRO014**		
295023 Refueling Accidents / 8				X	X		**AA1.06 –** Ability to operate and/or monitor the following as they apply to **Refueling Accidents**: Neutron monitoring **RO034,SRO016**	3.4	1
							AA2.05 - Ability to determine and interpret the following as they apply to **Refueling Accidents**: Entry conditions of emergency plan **SRO015**	4.6	1
295024 High Drywell Pressure / 5						X	**2.1.23 –** Ability to perform specific system and integrated plant procedures during different modes of plant operation **SRO024**	4.0	1
295026 Suppression Pool High Water Temp. / 5		X					**EK2.03 –** Knowledge of the interrelations between **Suppression Pool High Water Temp** and the following: Suppression chamber pressure **RO025,SRO018**	3.6	1
295030 Low Suppression Pool Water Level / 5						X	**2.1.32 –** Ability to explain and apply system limits and precautions **SRO020**	3.8	1
295037 SCRAM Condition Present and Power Above APRM Downscale or Unknown / 1		X		X			**EK2.13 –** Knowledge of the interrelations between **SCRAM Condition Present and Power Above APRM Downscale or Unknown** and the following: Alternate boron injection methods **RO011,SRO022**	4.1	1
							EA1.01 - Ability to operate and/or monitor the following as they apply to **SCRAM Condition Present and Power Above APRM Downscale or Unknown**: RPS **RO012,SRO023**	4.6	1
295038 High Off-site Release Rate / 9						X	**2.3.9 –** Knowledge of the process for performing a containment purge **RO031,SRO025**	3.4	1
500000 High Containment Hydrogen Conc. / 5	X						**EK1.01** - Knowledge of the operational applications of the following concepts as they apply to the **High Containment Hydrogen Conc**: Containment integrity **RO013,SRO026**	3.9	1
K/A Category Totals:	**4**	**5**	**0**	**7**	**4**	**6**	**Group Point Total:**		**26**

ES-401 BWR SRO Examination OutlineForm ES-401-1 (R8, S1)

Emergency and Abnormal Plant Evolutions - Tier 1/Group 2

E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	Imp.	Points
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4		X		X			**AA1.05 –** Ability to operate and/or monitor the following as they apply to **Partial or Complete Loss of Forced Core Flow Circulation**: Recirculation flow control **RO014,SRO028** **AK2.01 –** Knowledge of the interrelations between **Partial or Complete Loss of Forced Core Flow Circulation** and the following: Recirculation System **SRO027**	3.3 3.7	1 1
295002 Loss of Main Condenser Vacuum / 3			X				**AK3.02 -** Knowledge of the reasons for the following responses as they apply to **Loss of Main Condenser Vacuum**: Turbine trip **RO016,SRO029**	3.4	1
295004 Partial or Total Loss of DC Pwr / 6		X					**AK2.01 -** Knowledge of the interrelations between **Partial or Total Loss of DC Pwr** and the following: Battery charger **RO018,SRO031**	3.1	1
295008 High Reactor Water Level/ / 2	X						**AK1.02** - Knowledge of the operational implications of the following concepts as they apply to **High Reactor Water Level**: Component/erosion damage **RO017,SRO030**	2.8	1
295018 Partial or Total Loss of CCW / 8				X		X	**AA1.01 –** Ability to operate and/or monitor the following as they apply to **Partial or Total Loss of CCW**: Backup systems **RO023,SRO034** **2.4.9 –** Knowledge of low power/shutdown implications in accident (eg. LOCA or loss of RHR) mitigation strategies **SRO033**	3.4 3.9	1 1
295022 Loss of CRD Pumps / 1		X					**AK2.07 -** Knowledge of the interrelations between **Loss of CRD Pumps** and the following: Reactor pressure (scram assist) **RO024,SRO035**	3.6	1
295028 High Drywell Temperature / 5	X		X		X		**EK1.01 -** Knowledge of the operational applications of the following concepts as they apply to the **High Drywell Temperature:** Reactor Water level measurement **RO019,SRO032** **EK3.04 –** Knowledge of the reasons for the following responses as they apply to **High Drywell Temperature**: Increased drywell cooling **RO027,SRO037** **EA2.04 -** Ability to determine and interpret the following as they apply to **High Drywell Temperature**: Drywell pressure **SRO036**	3.7 3.8 4.2	1 1 1
295032 High Secondary Containment Area Temperature / 5			X				**EK3.01 –** Knowledge of the reasons for the following responses as they apply to **High Secondary Containment Area Temperature:** Emergency/normal depressurization **RO035,SRO041**	3.8	1
295033 High Secondary Containment Area Radiation Levels / 9	X						**EK1.02 -** Knowledge of the operational applications of the following concepts as they apply to the **High Secondary Containment Area Radiation Levels**: Personnel protection **RO029,SRO038**	4.2	1

295034 Secondary Containment Ventilation High Radiation / 9					X	X	**EA2.02 –** Ability to determine and interpret the following as they apply to **Secondary Containment Ventilation High Radiation**: Cause of high radiation levels **SRO039** **2.4.18 –** Knowledge of the specific bases for EOPs **SRO040**	4.2 3.6	1 1
600000 Plant Fire On Site / 8				X		X	**AA1.05 –** Ability to operate and/or monitor the following as they apply to **Plant Fire On Site**: Plant and control room ventilation systems **RO032,SRO043** **2.4.30 –** Knowledge of which events related to system operations/status should be reported to outside agencies **SRO042**	3.1 3.6	1 1
K/A Category Point Totals:	**3**	**3**	**3**	**3**	**2**	**3**	**Group Point Total:**		**17**

ES-40..VR SRO Examination OutlineForm ES-401-1 (R8, S1)

Plant Systems - Tier 2/Group 1

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	Imp.	Points
206000 HPCI								X	X			**A2.05** – Ability to (a) predict the impacts of the following on the **HPCI** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: DC failures **RO039,SRO044**	3.8	1
												A3.07 - Ability to monitor automatic operations of the **HPCI** including: Lights and alarms **RO040,SRO045**	3.8	1
207000 Isolation (Emergency) Condenser											X	**2.1.12** – Ability to apply technical specifications for a system **SRO055**	4.0	1
209001 LPCS							X			X		**A1.03** – Ability to predict and/or monitor changes in parameters associated with operating the **LPCS** controls including: Reactor water level **RO041,SRO046**	3.9	1
												A4.09 - Ability to manually operate and/or monitor in the control room: Suppression pool level **RO042,SRO047**	3.5	1
211000 Standby Liquid Control System (Liquid Poison)											X	**2.1.33** – Ability to recognize indications for system operating parameters which are entry level conditions for technical specifications **SRO057**	4.0	1
212000 RPS											X	**2.4.21** – Knowledge of the parameters and logic used to assess the status of safety functions including: **SRO048**	4.3	1
215004 Source Range Monitor				X	X							**K4.06** – Knowledge of **Source Range Monitor** design feature(s) and or interlock(s) which provide for the following: IRM/SRM interlock **RO044,SRO049**	3.2	1
												K5.03 - Knowledge of the operational implications of the following concepts as they apply to the **Source Range Monitor**: Changing detector position **RO045,SRO050**	2.8	1
215005 APRM / LPRM		X					X					**K2.02** – Knowledge of electrical power supplies to the following: APRM channels **RO046,SRO051**	2.8	1
												A1.03 - Ability to predict and/or monitor changes in parameters associated with operating the **APRM/LPRM** controls including: Control rod block status **RO047,SRO052**	3.6	1
218000 ADS									X			**A3.03** - Ability to monitor automatic operations of the **ADS** including: ADS valve	3.8	1

												acoustical monitor noise **RO050,SRO053**		
223001 Primary CTMT and Auxiliaries	X											**K1.10** - Knowledge of the physical connections and/or cause-effect relationships between **Primary CTMT and Auxiliaries** and the following: Plant air systems **RO052,SRO054**	3.1	1
223002 PCIS/Nuclear Steam Supply Shutoff											X	**2.4.6** - Knowledge of symptom based EOP strategies **SRO056**	4.0	1
226001 RHR/LPCI: CTMT Spray Mode					X							**K5.06** - Knowledge of the operational implications of the following concepts as they apply to the **RHR/LPCI: CTMT Spray Mode**: Vacuum breaker operation **RO071,SRO058**	2.8	1
239002 SRVs			X				X					**K3.01** - Knowledge of the effect that a loss or malfunction of the **SRVs** will have on the following: Reactor pressure control **RO056,SRO060**	4.0	1
												A1.05 - Ability to predict and/or monitor changes in parameters associated with operating the **SRVs** controls including: Reactor Water level **RO055,SRO059**	3.4	1
241000 Reactor/Turbine Pressure Regulator	X											**K1.01** - Knowledge of the physical connections and/or cause-effect relationships between **Reactor/Turbine Pressure Regulator** and the following: Reactor power **RO057,SRO061**	3.9	1
259002 Reactor Water Level Control				X				X				**K4.13** – Knowledge of **Reactor Water Level Control** design feature(s) and or interlock(s) which provide for the following: FWRV lockup **RO059,SRO062**	3.6	1
												A2.03 - Ability to (a) predict the impacts of the following on the **Reactor Water Level Control** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of reactor water level input **RO060,SRO063**	3.7	1
261000 SGTS			X									**K3.03** - Knowledge of the effect that a loss or malfunction of the **SGTS** will have on the following: Primary containment pressure: Mark I&II **RO061,SRO064**	3.4	1
262001 AC Electrical Distribution						X						**K6.03** - Knowledge of the effect that a loss or malfunction of the following will have on the **AC Electrical Distribution**: Generator trip **RO074,SRO065**	3.7	1
264000 EDGs									X			**A3.05** - Ability to monitor automatic operations of the **EDGs** including: Load shedding and sequencing **RO063,SRO066**	3.5	1
K/A Category Point Totals:	**2**	**1**	**2**	**2**	**2**	**1**	**3**	**2**	**3**	**1**	**4**	**Group Point Total:**		**23**

ES-401BWR SRO Examination OutlineForm ES-401-1 (R8, S1)

Plant Systems - Tier 2/Group 2

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	Imp.	Points
201001 CRD Hydraulic						X						**K6.03** - Knowledge of the effect that a loss or malfunction of the following will have on the **CRD Hydraulic**: Plant air systems **RO037,SRO067**	2.9	1
201006 RWM										X		**A4.03** - Ability to manually operate and/or monitor in the control room: Latched group indication **RO066,SRO068**	3.0	1
202001 Recirculation			X								X	**K3.08** – Knowledge of the effect that a loss or malfunction of the **Recirculation** will have on the following: Shutdown cooling system **RO067,SRO070**	2.9	1
												2.2.25 – Knowledge of the bases in technical specifications for limiting conditions for operations and safety limits **SRO069**	3.7	1
204000 RWCU											X	**2.1.32** – Ability to explain and apply system limits and precautions **RO068,SRO071**	3.8	1
219000 RHR/LPCI: Torus/Pool Cooling Mode		X					X					**K2.01** – Knowledge of electrical power supplies to the following: Valves **RO069,SRO072**	3.3	1
												A1.03 - Ability to predict and/or monitor changes in parameters associated with operating the **RHR/LPCI: Torus/Pool Cooling Mode** controls including: System pressure **RO070,SRO073**	2.9	1
245000 Main Turbine Gen. and Auxiliaries					X							**K5.02** - Knowledge of the operational implications of the following concepts as they apply to the **Main Turbine Gen. and Auxiliaries**: Turbine operations and limitations **RO072,SRO074**	3.1	1
271000 Offgas				X								**K4.08** - Knowledge of **Offgas** design feature(s) and or interlock(s) which provide for the following: Automatic system isolation **RO076,SRO075**	3.3	1
272000 Radiation Monitoring									X			**A3.09** - Ability to monitor automatic operations of the **Radiation Monitoring** including: Containment isolation indications **RO077,SRO076**	3.5	1
290003 Control Room HVAC	X					X						**K1.01** – Knowledge of the physical connections and/or cause-effect relationships between **Control Room HVAC** and the	3.5	1

												following: Radiation monitors **RO080,SRO077** **K6.02** - Knowledge of the effect that a loss or malfunction of the following will have on the **Control Room HVAC**: Component cooling water systems **RO081,SRO078**	**2.9**	1
400000 Component Cooling Water								X				**A2.02** - Ability to (a) predict the impacts of the following on the **Component Cooling Water** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High/low surge tank level **RO083,SRO079**	**3.0**	1
K/A Category Point Totals:	1	1	1	1	1	2	1	1	1	1	2	**Group Point Total:**		13

ES-401BWR SRO Examination OutlineForm ES-401-1 (R8, S1)

Plant Systems - Tier 2/Group 3

System # / Name	K 1	K 2	K 3	K 4	K 5	K6	A1	A2	A3	A4	G	K/A Topic(s)	Imp.	Points
201003 Control Rod and Drive Mechanism				X							X	**K4.04** – Knowledge of **Control Rod and Drive Mechanism** design feature(s) and or interlock(s) which provide for the following: the use of either accumulator or reactor water to SCRAM the control rod **RO065,SRO80**	3.7	1
												2.1.14 – Knowledge of system status criteria which require the notification of plant personnel **SRO081**	3.3	1
215001 Traversing In-core Probe							X					**A1.01** - Ability to predict and/or monitor changes in parameters associated with operating the **Traversing In-core Probe** controls including: Radiation levels **RO084,SRO082**	2.9	1
233000 Fuel Pool Cooling and Cleanup	X											**K1.14** - Knowledge of the physical connections and/or cause-effect relationships between **Fuel Pool Cooling and Cleanup** and the following: Reactor building ventilation **RO086,SRO083**	2.5	1
K/A Category Point Totals:	1	0	0	1	0	0	1	0	0	0	1	Group Point Total:		4

Plant-Specific Priorities

System / Topic	Recommended Replacement for...	Reason	Points
295009 AA1.01	295009 AK3.02	Appropriate question could not be developed	1
295024 2.1.23	295038 EK1.03	Written as RO only but is better SRO only question as written	1
295028 EK1.01	295012 AK1.02	Appropriate question could not be developed to original KA without resulting in oversampling.	1
295018 AA1.01	295018 AA1.03	Appropriate question could not be developed	1
295006 AA2.02	295024 EA2.01	Appropriate question could not be developed	1
239002 A1.05	239002 A1.01	Appropriate question could not be developed	1
Plant-Specific Priority Total (limit 10):			6

Revised after all Exam Comments resolved & incorporated 9/20/02

ES-401 BWR RO Examination Outline Form ES-401-2 (R8, S1)

Facility: Nine Mile Point Unit 1 Date of Exam: 09/30/02 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	3	3	0				4	2			1	13
	2	4	4	2				5	2			2	19
	3	0	0	2				1	0			1	4
	Tier Totals	7	7	4				10	4			4	36
2. Plant Systems	1	3	1	3	3	3	1	4	3	3	3	1	28
	2	2	2	2	2	2	2	2	2	1	1	1	19
	3	1	0	0	0	0	1	1	1	0	0	0	4
	Tier Totals	6	3	5	5	5	4	7	6	4	4	2	51

3. Generic Knowledge and Abilities	Cat 1	Cat 2	Cat 3	Cat 4	13
	4	3	2	4	

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).
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.
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.
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 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.
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.

ES-401 BWR RO Examination OutlineForm ES-401-2 (R8, S1) Emergency and Abnormal Plant Evolutions - Tier 1/Group 1									
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	Imp.	Points
295006 Scram/ 1					X		**AA2.02** - Ability to determine and/or interpret the following as they apply to **Scram**: Control Rod position **RO008,SRO017**	4.3	1
295007 High Reactor Pressure / 3		X				X	**AK2.05** - Knowledge of the interrelations **High Reactor Pressure** and the following: Shutdown cooling **RO001,SRO002** **2.1.33 –** Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications **RO009,SRO001**	2.9 3.4	1 1
295009 Low Reactor Water Level / 2	X			X			**AK1.05** - Knowledge of the operational applications of the following concepts as they apply to the **Low Reactor Water Level**: Natural circulation **RO002,SRO003** **AA1.01** - Ability to operate and/or monitor the following as they apply to **Low Reactor Water Level**: Reactor feedwater **RO003,SRO004**	3.3 3.9	1 1
295010 High Drywell Pressure / 5				X			**AA1.03** - Ability to operate and/or monitor the following as they apply to **High Drywell Pressure**: Nitrogen makeup **RO004,SRO005**	2.6	1
295014 Inadvertent Reactivity Addition / 1				X			**AA1.07** - Ability to operate and/or monitor the following as they apply to **Inadvertent Reactivity Addition**: Cold water injection **RO005,SRO008**	4.0	1
295015 Incomplete SCRAM / 1	X	X					**AK2.04** - Knowledge of the interrelations between **Incomplete SCRAM** and the following: RPS **RO006,SRO009** **AK1.04** - Knowledge of the operational implications of the following concepts as they apply to **Incomplete SCRAM:** Reactor pressure **RO0007,SRO010**	4.0 3.8	1 1
295025 High Reactor Pressure / 3					X		**EA2.01** - Ability to determine and interpret the following as they apply to **High Reactor Pressure**: Reactor pressure **RO010**	4.3	1
295037 SCRAM Condition Present and Power Above APRM Downscale or Unknown / 1		X		X			**EK2.13 –** Knowledge of the interrelations between **SCRAM Condition Present and Power Above APRM Downscale or Unknown** and the following: Alternate boron injection methods **RO011,SRO022** **EA1.01** - Ability to operate and/or monitor the following as they apply to **SCRAM Condition Present and Power Above APRM Downscale or Unknown**: RPS **RO012,SRO023**	3.4 4.6	1 1
500000 High Containment Hydrogen Conc. / 5	X						**EK1.01** - Knowledge of the operational applications of the following concepts as they apply to the **High Containment Hydrogen Conc**: Containment integrity **RO013,SRO026**	3.3	1
K/A Category Totals:	3	3	0	4	2	1	**Group Point Total:**		13

ES-401 BWR RO Examination OutlineForm ES-401-2 (R8, S1)

Emergency and Abnormal Plant Evolutions - Tier 1/Group 2

E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	Imp.	Points
295001 Partial or Complete Loss of Forced Core Flow Circulation / 1 & 4				X	X		**AA1.05** – Ability to operate and/or monitor the following as they apply to **Partial or Complete Loss of Forced Core Flow Circulation**: Recirculation flow control **RO014,SRO028**	3.3	1
							AA2.02 - Ability to determine and interpret the following as they apply to **Partial or Complete Loss of Forced Core Flow Circulation**: Neutron monitoring **RO015**	3.1	1
295002 Loss of Main Condenser Vacuum / 3			X				**AK3.02** - Knowledge of the reasons for the following responses as they apply to **Loss of Main Condenser Vacuum**: Turbine trip **RO016,SRO029**	3.4	1
295003 Partial or Complete Loss of AC Pwr / 6				X			**AA1.01** - Ability to operate and/or monitor the following as they apply to Partial or complete loss of AC power: AC electrical distribution system **RO026,SRO019**	3.7	1
295004 Partial or Complete Loss of DC Pwr / 6		X					**AK2.01** - Knowledge of the interrelations between **Partial or Total Loss of DC Pwr** and the following: Battery charger **RO018,SRO031**	3.1	1
295008 High Reactor Water Level / 2	X						**AK1.02** – Knowledge of the operational applications of the following concepts as they apply to the **High Reactor Water Level**: Component/erosion damage **RO017,SRO030**	2.8	1
295013 High Suppression Pool Temp. / 5	X	X					**AK1.04** - Knowledge of the operational applications of the following concepts as they apply to the **High Suppression Pool Temp**: Complete condensation **RO020,SRO006**	2.9	1
							AK2.01 - Knowledge of the interrelations between **High Suppression Pool Temp** and the following: Suppression pool cooling **RO021,SRO007**	3.6	1
295016 Control Room Abandonment / 7				X	X		**AA1.03** - Ability to operate and/or monitor the following as they apply to **Control Room Abandonment**: RPIS **RO022,SRO012**	3.0	1
							AA2.02 – Ability to determine and interpret the following as they apply to **Control Room Abandonment**: Reactor water level **RO028,SRO011**	4.2	1
295018 Partial or Complete Loss of CCW / 8				X			**AA1.01** – Ability to operate and/or monitor the following as they apply to **Partial or Total Loss of CCW**: Backup systems **RO023,SRO034**	3.3	1
295022 Loss of CRD Pumps / 1		X					**AK2.07** - Knowledge of the interrelations between **Loss of CRD Pumps** and the following: Reactor pressure (scram assist) **RO024,SRO035**	3.4	1
295026 High Suppression Pool Water Temp. / 5		X					**EK2.03** – Knowledge of the interrelations between **Suppression Pool High Water Temp** and the following: Suppression chamber pressure **RO025,SRO018**	3.2	1
295028 High Drywell Temperature / 5	X		X				**EK1.01** - Knowledge of the operational applications of the following concepts as they apply to the **High Drywell Temperature:** Reactor Water level measurement	3.5	1

							RO019,SRO032 **EK3.04** – Knowledge of the reasons for the following responses as they apply to **High Drywell Temperature**: Increased drywell cooling **RO027,SRO037**	3.6	1
295029 High Suppression Pool Water Level / 5						X	**2.1.30** Ability to locate and operate components/including local controls **RO030**	3.9	1
295033 High Sec. Cont. Area Rad. Levels / 9	X						**EK1.02** - Knowledge of the operational applications of the following concepts as they apply to the **High Secondary Containment Area Radiation Levels**: Personnel protection **RO029,SRO038**	3.9	1
295038 High Off-site Release Rate / 9						X	**2.3.9** – Knowledge of the process for performing a containment purge **RO031,SRO025**	2.5	1
600000 Plant Fire On Site / 8				X			**AA1.05** – Ability to operate and/or monitor the following as they apply to **Plant Fire On Site**: Plant and control room ventilation systems **RO032,SRO043**	3.0	1
K/A Category Point Totals:	**4**	**4**	**2**	**5**	**2**	**2**	**Group Point Total:**		**19**

ES-401 BWR RO Examination OutlineForm ES-401-2 (R8, S1) Emergency and Abnormal Plant Evolutions - Tier 1/Group 3									
E/APE # / Name / Safety Function	K 1	K 2	K 3	A 1	A 2	G	K/A Topic(s)	Imp.	Points
295021 Loss of Shutdown Cooling / 4			X				**AK3.01** - Knowledge of the reasons for the following responses as they apply to **Loss of Shutdown Cooling**: raising reactor water level **RO033**	3.3	1
295023 Refueling Accidents / 8				X			**AA1.06 –** Ability to operate and/or monitor the following as they apply to **Refueling Accidents**: Neutron monitoring **RO034,SRO016**	3.3	1
295032 High Secondary Containment Area Temperature / 5			X				**EK3.01 –** Knowledge of the reasons for the following responses as they apply to **High Secondary Containment Area Temperature:** Emergency/normal depressurization **RO035,SRO041**	3.5	1
295036 Secondary Containment High Sump/Area Water Level / 5						X	**2.4.50 –** Ability to verify system alarm setpoints and operate controls identified in the alarm response manual **RO036**	3.3	1
K/A Category Point Totals:	0	0	2	1	0	1	**Group Point Total:**		4

ES-401 BWR RO Examination OutlineForm ES-401-2 (R8, S1) Plant Systems - Tier 2/Group 1														
System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	Imp.	Points
201001 CRD Hydraulic						X						**K6.03** - Knowledge of the effect that a loss or malfunction of the following will have on the **CRD Hydraulic**: Plant air systems **RO037,SRO067**	3.0	1
202002 Recirculation Flow Control					X							**K5.02** - Knowledge of the operational implications of the following concepts as they apply to the **Recirculation Flow Control**: Feedback signals **RO038**	2.6	1
206000 HPCI								X	X			**A2.05 –** Ability to (a) predict the impacts of the following on the **HPCI** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: DC failures **RO039,SRO044** **A3.07** - Ability to monitor automatic operations of the **HPCI** including: Lights and alarms **RO040,SRO045**	3.5 3.9	1 1
209001 LPCS							X			X		**A1.03 –** Ability to predict and/or monitor changes in parameters associated with operating the **LPCS** controls including: Reactor water level **RO041,SRO046** **A4.09** - Ability to manually operate and/or monitor in the control room: Suppression pool level **RO042,SRO047**	3.8 3.6	1 1
212000 RPS							X					**A1.09** - Ability to predict and/or monitor changes in parameters associated with operating the **RPS** controls including: Individual relay status **RO043**	2.7	1
215004 SRM				X	X							**K4.06 –** Knowledge of **Source Range Monitor** design feature(s) and or interlock(s) which provide for the following: IRM/SRM interlock **RO044,SRO049** **K5.03** - Knowledge of the operational implications of the following concepts as they apply to the **Source Range Monitor**: Changing detector position **RO045,SRO050**	3.2 2.8	1 1

215005 APRM / LPRM		X					X					**K2.02 –** Knowledge of electrical power supplies to the following: APRM channels **RO046,SRO051**	2.6	1
												A1.03 - Ability to predict and/or monitor changes in parameters associated with operating the **APRM/LPRM** controls including: Control rod block status **RO047,SRO052**	3.6	1
216000 Nuclear Boiler Instrumentation			X								X	**K3.30 –** Knowledge of the effect that a loss or malfunction of the **Nuclear Boiler Instrumentation** will have on the following: Recirculation system **RO048**	3.2	1
												2.4.10 – Knowledge of annunciator response procedures **RO049**	3.0	1
218000 ADS					X				X			**K5.01** - Knowledge of the operational implications of the following concepts as they apply to the **ADS**: ADS logic operation **RO051**	3.8	1
												A3.03 - Ability to monitor automatic operations of the **ADS** including: ADS valve acoustical monitor noise **RO050,SRO053**	3.7	1
223001 Primary CTMT and Auxiliaries	X			X								**K1.10** - Knowledge of the physical connections and/or cause-effect relationships between **Primary CTMT and Auxiliaries** and the following: Plant air systems **RO052,SRO054**	3.0	1
												K4.05 - Knowledge of **Primary CTMT and Auxiliaries** design feature(s) and or interlock(s) which provide for the following: Maintains proper suppression pool to drywell differential pressure **RO053**	2.9	1
223002 PCIS/Nuclear Steam Supply Shutoff										X		**A4.01** - Ability to manually operate and/or monitor in the control room: Valve closures **RO054**	3.6	1
239002 SRVs			X				X					**K3.01** - Knowledge of the effect that a loss or malfunction of the **SRVs** will have on the following: Reactor pressure control **RO056,SRO060**	3.9	1
												A1.05 - Ability to predict and/or monitor changes in parameters associated with operating the **SRVs** controls including: Reactor Water level **RO055,SRO059**	3.7	1
241000 Reactor/Turbine Pressure Regulator	X X											**K1.01** - Knowledge of the physical connections and/or cause-effect relationships between **Reactor/Turbine Pressure Regulator** and the following: Reactor power **RO057,SRO061**	3.8	1
												K1.09 - Knowledge of the physical	3.1	1

												connections and/or cause-effect relationships between **Reactor/Turbine Pressure Regulator** and the following: Combined intermediate valves **RO058**		
259002 Reactor Water Level Control				X				X				**K4.13 –** Knowledge of **Reactor Water Level Control** design feature(s) and or interlock(s) which provide for the following: FWRV lockup **RO059,SRO062** **A2.03 -** Ability to (a) predict the impacts of the following on the **Reactor Water Level Control** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: Loss of reactor water level input **RO060,SRO063**	3.5 3.6	1 1
261000 SGTS			X							X		**K3.03 -** Knowledge of the effect that a loss or malfunction of the **SGTS** will have on the following: Primary containment pressure: Mark I&II **RO061,SRO064** **A4.09 -** Ability to manually operate and/or monitor in the control room: Ventilation valves/dampers **RO062**	3.2 2.7	1 1
264000 EDGs								X	X			**A2.06 -** Ability to (a) predict the impacts of the following on the **EDGs** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: opening normal and/or alternate power to emergency bus **RO064** **A3.05 -** Ability to monitor automatic operations of the **EDGs** including: Load shedding and sequencing **RO063,SRO066**	3.4 3.4	1 1
K/A Category Point Totals:	**3**	**1**	**3**	**3**	**3**	**1**	**4**	**3**	**3**	**3**	**1**	**Group Point Total:**		**28**

ES-[illegible]VR RO Examination OutlineForm ES-401-2 (R8, S1)

Plant Systems - Tier 2/Group 2

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	Imp.	Points
201003 Control Rod and Drive Mechanism				X								**K4.04 –** Knowledge of **Control Rod and Drive Mechanism** design feature(s) and or interlock(s) which provide for the following: the use of either accumulator or reactor water to SCRAM the control rod **RO065,SRO80**	3.6	1
201006 RWM										X		**A4.03** - Ability to manually operate and/or monitor in the control room: Latched group indication **RO066,SRO068**	3.0	1
202001 Recirculation			X									**K3.08 –** Knowledge of the effect that a loss or malfunction of the **Recirculation** will have on the following: Shutdown cooling system **RO067,SRO070**	2.8	1
204000 RWCU											X	**2.1.32 –** Ability to explain and apply system limits and precautions **RO068,SRO071**	3.4	1
219000 RHR/LPCI: Torus/Pool Cooling Mode		X					X					**K2.01 –** Knowledge of electrical power supplies to the following: Valves **RO069,SRO072** **A1.03** - Ability to predict and/or monitor changes in parameters associated with operating the **RHR/LPCI: Torus/Pool Cooling Mode** controls including: System pressure **RO070,SRO073**	3.1 2.9	1 1
226001 RHR/LPCI: CTMT Spray Mode					X							**K5.06** - Knowledge of the operational implications of the following concepts as they apply to the **RHR/LPCI: CTMT Spray Mode**: Vacuum breaker operation **RO071,SRO058**	2.6	1
245000 Main Turbine Gen. and Auxiliaries					X							**K5.02** - Knowledge of the operational implications of the following concepts as they apply to the **Main Turbine Gen. and Auxiliaries**: Turbine operations and limitations **RO072,SRO074**	2.8	1
256000 Reactor Condensate							X					**A1.03** - Ability to predict and/or monitor changes in parameters associated with operating the **Reactor Condensate** controls including: System pressure **RO073**	2.8	1
262001 AC Electrical Distribution						X						**K6.03** - Knowledge of the effect that a loss or malfunction of the following will have on the **AC Electrical Distribution**: Generator trip **RO074,SRO065**	3.5	1
263000 DC Electrical Distribution	X											**K1.01** - Knowledge of the physical connections and/or cause-effect relationships between **DC Electrical Distribution** and the	3.3	1

												following: AC electrical distribution **RO075**		
271000 Offgas				X								**K4.08** - Knowledge of **Offgas** design feature(s) and or interlock(s) which provide for the following: Automatic system isolation **RO076,SRO075**	3.1	1
272000 Radiation Monitoring									X			**A3.09** - Ability to monitor automatic operations of the **Radiation Monitoring** including: Containment isolation indications **RO077,SRO076**	3.6	1
286000 Fire Protection		X										**K2.02** - Knowledge of electrical power supplies to the following: Pumps **RO078**	2.9	1
290001 Secondary CTMT								X				**290001 A2.01** - Ability to (a) predict the impacts of the following on the Secondary CTMT and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: personnel airlock failure **RO079**	3.3	1
290003 Control Room HVAC	X					X						**K1.01 –** Knowledge of the physical connections and/or cause-effect relationships between **Control Room HVAC** and the following: Radiation monitors **RO080,SRO077** **K6.02** - Knowledge of the effect that a loss or malfunction of the following will have on the **Control Room HVAC**: Component cooling water systems **RO081,SRO078**	3.4 2.7	1 1
300000 Instrument Air			X									**K3.02** - Knowledge of the effect that a loss or malfunction of the **Instrument Air** will have on the following: systems having pneumatic valves and controls **RO082**	3.3	1
400000 Component Cooling Water								X				**A2.02** - Ability to (a) predict the impacts of the following on the **Component Cooling Water** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High/low surge tank level **RO083,SRO079**	2.8	1
K/A Category Point Totals:	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**Group Point Total:**		**19**

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Plant Systems - Tier 2/Group 3

System # / Name	K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G	K/A Topic(s)	Imp.	Points
215001 Traversing In-core Probe						X	X					**K6.04** - Knowledge of the effect that a loss or malfunction of the following will have on the **Traversing In-core Probe**: primary containment isolation system **RO085**	3.1	1
												A1.01 - Ability to predict and/or monitor changes in parameters associated with operating the **Traversing In-core Probe** controls including: Radiation levels **RO084,SRO082**	2.8	1
233000 Fuel Pool Cooling and Cleanup	X							X				**K1.14** - Knowledge of the physical connections and/or cause-effect relationships between **Fuel Pool Cooling and Cleanup** and the following: Reactor building ventilation **RO086,SRO083**	2.5	1
												A2.15 - Ability to (a) predict the impacts of the following on the **Fuel Pool Cooling and Cleanup** and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: High system temperature **RO087**	2.8	1
K/A Category Point Totals:	1	0	0	0	0	1	1	1	0	0	0	Group Point Total:		4

Plant-Specific Priorities

System / Topic	Recommended Replacement for...	Reason	Points
295009 AA1.01	295009 AK3.02	Appropriate question could not be developed	1
295030 AA2.02	295030 EK3.02	Was SRO only K/A added to as a common	1
290001 A4.02	290001 A4.06	NMPCU1 has a Reactor building not a Fuel building swapped to applicable K/A	1
295028 EK1.01	295012 AK1.02	Appropriate question could not be developed to original KA without resulting in oversampling.	1
295006 AA2.02	295024 EA2.01	Appropriate question could not be developed	1
295018 AA1.01	295018 AA1.03	Appropriate question could not be developed	1
239002 A1.05	239002 A1.01	Appropriate question could not be developed	1
Plant-Specific Priority Total: (limit 10)			7

Tier / Group	Randomly Selected K/A	Reason for Rejection
SRO Tier 1/Group 1	295009 AK3.02	Acceptable question could not be developed to original KA statement. Replaced with **295009 AA1.01** - Ability to operate and/or monitor the following as they apply to Low Reactor Water Level: Reactor feedwater
SRO Tier 1/Group 1	295038 EK1.03	Original K/A not appropriate for >LOD1 question replaced with **295024 2.1.23** – Ability to perform specific system and integrated plant procedures during different modes of plant operation added as SRO only was RO only better SRO only as written
SRO Tier 1/Group 1	295030 EK3.02	Original K/A not applicable to NMPCU1 design replaced with **295003 2.4.41** - Knowledge of the emergency action level threshold and classification
SRO Tier 1/Group 1	295038 2.1.32	Original K/A not appropriate for >LOD1 question replaced with **295038 2.3.9** – Knowledge of the process for performing a containment purge
SRO Tier 2/Group 1	223001 K6.10	Original K/A not applicable to NMPCU1 design replaced with **216000 2.4.6** – Knowledge of symptom based EOP strategies to SRO exam only removed from RO exam better SRO only as written
SRO Tier 2/Group 1	226001 K5.02	Original K/A not appropriate for >LOD1 question replaced with **226001 K5.06** - Knowledge of the operational implications of the following concepts as they apply to the RHR/LPCI: CTMT Spray Mode: Vacuum breaker operation
SRO Tier 2/Group 1	239002 K2.01	Original K/A not appropriate for >LOD1 question replaced with **239002 A1.01** - Ability to predict and/or monitor changes in parameters associated with operating the SRVs controls including: Tail pipe temperature
SRO Tier 2/Group 3	215001 A1.03	Original K/A double jeopardy with RO only question in same tier and system replaced with **215001 A1.01** - Ability to predict and/or monitor changes in parameters associated with operating the Traversing In-core Probe controls including: Radiation levels
SRO Tier 1/Group 2	295018 2.4.49	Original K/A not applicable to SRO only replaced with **2.4.9** – Knowledge of low power/shutdown implications in accident (eg. LOCA or loss of RHR) mitigation strategies
SRO Tier 1/Group 2	295034 2.4.49	Original K/A not applicable to SRO only replaced with **2.4.18 –** Knowledge of the specific bases for EOPs
SRO Tier 2/Group 1	212000 2.4.49	Original K/A not applicable to SRO only replaced with **2.4.21 –** Knowledge of the parameters and logic used to assess the status of safety functions including:
SRO Tier 2/Group 1	226001 2.4.49	Original K/A not applicable to SRO only replaced with **2.4.22 –** Knowledge of the bases for prioritizing safety functions during abnormal/emergency operations
RO Tier 1/Group 1	295009 AK3.02	Acceptable question could not be developed to original KA statement. Replaced with **295009 AA1.01** - Ability to operate and/or monitor the following as they apply to Low Reactor Water Level: Reactor feedwater.
RO Tier 1/Group 2	295038 EK1.03	Original K/A not appropriate for >LOD1 question replaced with **295029 2.1.30** - Ability to locate and operate components/including local controls
RO Tier 1/Group 2	295030 EK3.02	Original K/A not applicable to NMPCU1 design replaced with **295030 AA2.02** – Ability to determine and interpret the following as they apply to Control Room Abandonment: Reactor water level added to RO as a both question was SRO only K/A

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NOTE: K/A replacements were all randomly selected except where otherwise noted. John B Cotton 9/20/02

RO Tier 1/Group 2	295038 2.1.32	Original K/A not appropriate for >LOD1 question replaced with **295038 2.3.9** – Knowledge of the process for performing a containment purge
RO Tier 2/Group 1	223001 K6.10	Original K/A not applicable to NMPCU1 design replaced with **223001 K4.05** - Knowledge of Primary CTMT and Auxiliaries design feature(s) and or interlock(s) which provide for the following: Maintains proper suppression pool to drywell differential pressure
RO Tier 2/Group 2	226001 K5.02	Original K/A not appropriate for >LOD1 question replaced with **226001 K5.06** - Knowledge of the operational implications of the following concepts as they apply to the RHR/LPCI: CTMT Spray Mode: Vacuum breaker operation
RO Tier 2/Group 1	239002 K2.01	Original K/A not appropriate for >LOD1 question replaced with **239002 A1.01** - Ability to predict and/or monitor changes in parameters associated with operating the SRVs controls including: Tail pipe temperature
RO Tier 2/Group 3	215001 A1.03	Original K/A double jeopardy with K6.04 question replaced with **215001 A1.01** - Ability to predict and/or monitor changes in parameters associated with operating the Traversing In-core Probe controls including: Radiation levels
RO Tier 1/Group 1	295024 2.1.23	Removed was RO only better SRO only as written replaced with **295005 2.1.33** – Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications to RO exam
RO Tier 2/Group 1	216000 2.4.6	Removed from RO exam better SRO only as written replaced with **216000 2.4.10** – Knowledge of annunciator response procedures
RO Tier 2/Group 2	202001 2.1.27	Original K/A not appropriate for >LOD1 question replaced with **204000 2.1.32** - Ability to explain and apply system limits and precautions
RO Tier 2/Group 2	290001 A4.06	NMPCU1 has RB not a Fuel Building replaced with **290001 A4.02** - Ability to manually operate and/or monitor in the control room: Reactor building area temperatures
RO Tier 3	2.2.3	Original K/A removed not applicable to NMPCU1 replaced with **2.4.47** - Ability to diagnose and recognize trends in an accurate and timely manner utilizing the appropriate control room reference material
RO Tier 3	2.3.11	Original 2.3.11 question written made better SRO only replaced with **2.3.4** - Knowledge of radiation exposure limits and contamination control/including permissible levels in excess of those authorized original added to SRO only

The following changes were made after initial written outlines were submitted, during question development.

Tier / Group	Randomly Selected K/A	Reason for Rejection
SRO Tier 1/Group 1	295026 EK3.03	Original K/A not applicable to NMPCU1 design replaced with **295003 AA1.01** - Ability to operate and/or monitor the following as they apply to Partial or complete loss of AC power: AC electrical distribution system
SRO Tier 1/Group 2	295036 EK2.02	Original K/A not applicable to NMPCU1 design replaced with **295036 EA2.01** – Ability to determine and/or interpret the following as they apply to Secondary containment High sump/area water level: operability of components within the affected area
RO Tier 1/Group 2	295026 EK3.03	Original K/A not applicable to NMPCU1 design replaced with **295003 AA1.01** - Ability to operate and/or monitor the following as they apply to Partial or complete loss of AC power: AC electrical distribution system
RO Tier 1/Group 3	295036 EK2.02	Original K/A not applicable to NMPCU1 design replaced with **295036 EA2.01** – Ability to determine and/or interpret the following as they apply to Secondary containment High sump/area water level: operability of components within the affected area
RO Tier 2/Group 2	290001 A4.02	Replaced with **290001 A2.01** - Ability to (a) predict the impacts of the following on the Secondary CTMT and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: personnel airlock failure due to oversampling of system/topic
RO Tier 2/Group 2	300000 K3.01	Original K/A not applicable to NMPCU1 design replaced with **300000 K3.02** - Knowledge of the effect that a loss or malfunction of the Instrument Air System will have on the following: systems having pneumatic valves and controls
RO SRO Tier 1/Group2	295012 AK1.02	Question written to original KA results in over-sampling and double jeopardy. Replaced with **295028 EK1.01**, which is a similar topic.
RO SRO Tier 1/Group 2	295018 AA1.03	Appropriate question could not be developed. Replaced with **295018 AA1.01**
RO SRO Tier 1/Group 1	295024 EA2.01	Appropriate question could not be developed. Replaced with **295006 AA2.01**
RO SRO Tier 2/ Group 1	239002 A1.01	Appropriate question could not be developed. Replaced with **295006 A1.05**
RO Tier 2/Group2 SRO Tier 2/Group 1	219000 K2.02	Appropriate question could not be developed. Replaced with **219000 K2.01**
SRO Tier 3	2.1.6	KA Statement is inappropriate for developing an acceptable written exam question at the SRO level. Replaced with **2.1.12**
RO SRO Tier 2\Group 2	272000 K3.06	Due to system design, an applicable question could not be developed. Replaced with **272000 A3.09**

The following changes were made as a result of NRC exam review.		
RO SRO Tier 3	2.2.2	Appropriate Tier 3 generic question could not be developed to the original KA statement, which was system specific. Replaced with **2.2.11** (RO 91 SRO 90)
RO SRO Tier 3	2.4.24	Appropriate Tier 3 generic question could not be developed to the original KA statement, which was system specific. Replaced with **2.1.10** (RO 97 SRO 97)
RO SRO Tier 3	2.4.47	Appropriate Tier 3 generic question could not be developed to the original KA statement, which was system specific.. Replaced with **2.4.32** (RO 94 SRO 96)
RO SRO Tier 1/Group 2	295004 AK1.04	Appropriate question could not be developed to the original KA statement. Replaced with **295008 AK1.02** (RO 17 SRO 30)
SRO Tier 2/Group 1	216000 2.4.6	Appropriate question could not be developed to the original KA statement. Replaced with **207000 2.1.12** (SRO 55)
SRO Tier 2/Group 1	226001 2.4.22	Eliminate overlap with other written questions and simulator scenarios. Replaced with **211000 2.1.33** (SRO 57)
SRO Tier 1/Group 2	295001 AA2.06	Eliminate overlap with operating test. Replaced with **295001 AK2.01** (SRO 27)
RO SRO Tier 1/Group 1	295015 AK3.01	Acceptable question could not be developed based on original KA statement. Unable to develop 3 plausible distractors. Replaced with **295015 AK1.04** (RO 07 SRO 10) 9/19/02.