EXAMINATION OUTLINE SUBMITTAL FOR THE

PERRY INITIAL EXAMINATION - FEBRUARY 2007

October 24, 2006
PY-CEI/OIE-0679L

United States Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532

Attention: Mike Bielby, Chief Examiner
Operations Branch Region III

Perry Nuclear Power Plant
Docket No. 50-440
NRC Initial License Examination Submittal - Partial

Dear Mr. Bielby:

In accordance with NUREG-1021, ES-201, enclosed is a partial submittal of the proposed examinations, supporting documentation, and reference materials for the NRC initial license examination tentatively scheduled to be administered starting February 19, 2007. The examination materials were developed in accordance with the guidelines specified in NUREG-1021, Revision 9.

NUREG-1021 Forms ES-301-1, ES-301-2, ES-401-1, ES-401-3, ES-D-1, and ES-D-2 are enclosed with the applicable supporting documentation.

The Operating Test outlines for the applicant's audit exams have also been included in this submittal as requested.

It is hereby requested that the enclosed examination materials be withheld from public disclosure until after the initial license examinations are completed.

As requested, this is a partial submittal of the examination materials in order to provide the NRC the opportunity to begin its review. The remainder of the examination materials will be submitted at a later date.

As recommended, all materials have been provided electronically on the enclosed USB memory stick. No paper copies of forms requiring signatures are included in this submittal.

If you have any questions or require additional information, please contact Mr. Daniel K. Zielinski at (440) 280-5277.

Sincerely,

Daniel K. Zielinski
Nuclear Qualification Instructor – Author

Frederick W. Smith
Facility Representative

December 22, 2006

United States Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
Lisle, Illinois 60532-4351

Attention: Mike Bielby, Chief Examiner
Operations Branch Region III

Perry Nuclear Power Plant
Docket No. 50-440
NRC Initial License Examination Outline Submittal

Dear Mr. Bielby:

In accordance with NUREG-1021, ES-201, enclosed are examination materials that document the NRC *initial license examination for the Perry Nuclear Power Plant.*

It is hereby requested that these examination materials be withheld from public disclosure until after the initial license examinations are completed. The tentative examination start date is February 26, 2007.

Per your request we are submitting material on a memory stick, that was previously submitted.

Written Examination

Form ES-401-1 for a BWR RO Examination is being resubmitted due to a typographical error in tier 2 / group 1 for E/APE 215004, the correct K&A for K3 is 04.

Form ES-401-4 for a BWR RO and SRO Examination is being resubmitted due to a typographical error, 251000 K6.09 should have been submitted as 261000 K6.09.

Per our phone conversation form 301-5 is being resubmitted.

Crew 1 is the three Instant SRO's Tom Shega, Mike Doty and Steve Kapostasy, they will be examined to scenario's 2,3, and 4.

Crew 2 is Tim Via Upgrade, Larry Beese Instant and Scott Williams RO, they will be examined to scenario's 2 and 3.

Crew 3 is Glen Burnham Upgrade, Doug Carmen and Mark Subsinsky RO's, they will be examined to scenario's 2 and 3.

Monday and Tuesday scenario's 2 and 3 will be run on all three crews.
Wednesday sceanario 4 will be run for Crew 1 and then JPM's.
Thursday JPM's.
Friday complete JPM's if required.

You may contact Dan Zielinski at (440) 280-5277 if you have any further questions.

Sincerely,

Daniel K. Zielinski
Nuclear Qualification Instructor - Author

Facility: PERRY Date of Examination: 2-19-2007

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	DZ		MGS
	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.	DZ		MGS
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	DZ		MGS
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	DZ		MGS
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	DZ		MGS
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	DZ		* MGS
	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.	DZ		MGS
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	DZ		* MGS
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	DZ		MGS
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	DZ		MGS
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	DZ		MGS
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	DZ		MGS
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	DZ		MGS
	d. Check for duplication and overlap among exam sections.	DZ		MGS
	e. Check the entire exam for balance of coverage.	DZ		MGS
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	DZ		MGS

	Printed Name/Signature	Date
a. Author	DANIEL H ZIELINSKI	12/10/2006
b. Facility Reviewer (*)	FREDERICK W. SMITH	12/10/2006
c. NRC Chief Examiner (#)	Michael F. Bielby / Michael F. Bielby	12/19/06
d. NRC Supervisor	Bruce Palagi / Bruce Palagi for HP	1-8-07

Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.

* Will review audit tests for overlap when completed. MGS

Facility: Perry	Date of Examination: 2/26/07
Examination Level: RO	Operating Test Number: 2007-01

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R N	2.1.25 Calculate Time to Boil and Time to Core Uncovery.
Conduct of Operations	R N	2.1.24 and 2.1.28 Fire Protection Leak isolation and evaluation of affect on system per PAP1910
Equipment Control	R N	2.2.12 Evaluate scram times and report findings to Unit Supervisor
Radiation Control	R N	2.3.4 Knowledge of radiation exposure limits.
Emergency Plan		

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

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

Facility: Perry	Date of Examination: 2/26/07
Examination Level: SRO	Operating Test Number: 2007-01

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R N	2.1.4 and 2.1.5 Staff oncoming shift positions based on personnel qualifications.
Conduct of Operations	R N	2.1.25 Calculate Time to Boil and Time to Core Uncovery.
Equipment Control	R N	2.2.12 and 2.2.23 Evaluate scram times, Complete PLCO paperwork.
Radiation Control	R N	2.3.4 Knowledge of radiation exposure limits.
Emergency Plan	R N	2.4.40 and 2.4.41 Verify notification paperwork is correct prior to notification

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

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

Facility: ____Perry _____ **Date of Examination:** 2/26/07
Exam Level: RO **Operating Test No.:** 2007-01

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. Feedwater / Digital Feedwater Shift SOI-C34, 7.5	A N S	2
b. Automatic Depressurization / Inhibit ADS	A D S	3
c. RHR / Shutdown Cooling Alignment SOI-E12, 4.5.6	A L N S	4
d. RCIS / Withdraw Control Rods	A N S	1
e. RHR / CTMT Spray termination to Pool Cooling	N S	5
f. Electrical / Distribution Surveillance after Div 3 DG	L D S	6
g. LPRM / Bypass LPRM	D S	7
h. Control Room HVAC / Reset from Emergency Recirc	N S	9
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. Alternate Boron / Line up Alternate Boron for injection	R D	1
j. Remote Shutdown / RHR B to Pool Cooling	N	7
k. Fire Protection / Emergency Run of Diesel Fire Pump	A M	8

@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: ____Perry _____ Date of Examination: 2/26/07
Exam Level: SRO-I Operating Test No.: 2007-01

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. Feedwater / Digital Feedwater Shift SOI-C34, 7.5	A N S	2
b. Automatic Depressurization / Inhibit ADS	A D S	3
c. RHR / Shutdown Cooling Alignment SOI-E12, 4.5.6	A L N S	4
d. RCIS / Withdraw Control Rods	A N S	1
e. RHR / CTMT Spray termination to Pool Cooling	N S	5
f. Electrical / Distribution Surveillance after Div 3 DG	L D S	6
g. Control Room HVAC / Reset from Emergency Recirc	N S	9
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. Alternate Boron / Line up Alternate Boron for injection	R D	1
j. Remote Shutdown / RHR B to Pool Cooling	N	7
k. Fire Protection / Emergency Run of Diesel Fire Pump	A M	8

@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: ____Perry _____ **Date of Examination:** 2/26/07
Exam Level: SRO-U **Operating Test No.:** 2007-01

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. Feedwater / Digital Feedwater Shift SOI-C34, 7.5	A N S	2
b. Automatic Depressurization / Inhibit ADS	A D S	3
c. RHR / Shutdown Cooling Alignment SOI-E12, 4.5.6	A L N S	4

In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)

i. Alternate Boron / Line up Alternate Boron for injection	R D	1
j. Remote Shutdown / RHR B to Pool Cooling	N	7

@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / **Shutdown**	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

ES-301, Rev. 9 **Simulator Scenario Quality Checklist** **Form ES-301-4**

Facility: **Perry** Date of Exam: **2/26/2007** Scenario Numbers: **1/2/3/4** Operating Test No.: **2007-01**

QUALITATIVE ATTRIBUTES		Initials a	Initials b*	Initials c#
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	DL		MGB
2.	The scenarios consist mostly of related events.	DL		MGB
3.	Each event description consists of · the point in the scenario when it is to be initiated · the malfunction(s) that are entered to initiate the event · the symptoms/cues that will be visible to the crew · the expected operator actions (by shift position) · the event termination point (if applicable)	DL		MGB
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.	DL		MGB
5.	The events are valid with regard to physics and thermodynamics.	DL		MGB
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	DL		MGB
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.	DL		MGB
8.	The simulator modeling is not altered.	DL		MGB
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	DL		MGB
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.5 of ES-301.	DL		MGB
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	DL		MGB
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).	DL		MGB
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	DL		MGB

	Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes	--	--	--
1.	Total malfunctions (5–8)	10 / 7 / 6 / 6			
2.	Malfunctions after EOP entry (1–2)	3 / 3 / 3 / 3			
3.	Abnormal events (2–4)	3 / 3 / 2 / 2			
4.	Major transients (1–2)	2 / 3 / 2 / 2			
5.	EOPs entered/requiring substantive actions (1–2)	2 / 3 / 4 / 3			
6.	EOP contingencies requiring substantive actions (0–2)	1 / 2 / 2 / 1			
7.	Critical tasks (2–3)	7 / 4 / 9 / 10			

Facility Name:Perry Date of Exam:2/19/2007

Q#	Category	K/A #	Topic	RO IR	RO #	SRO-Only IR	SRO-Only #
R1	1. Conduct of Operations	2.1. 10	Knowledge of conditions and limitations in the facility license.	2.7	1		
R2		2.1. 11	Knowledge of less than one hour technical specification action statements for systems.	3	1		
R3		2.1. 22	Ability to determine Mode of Operation.	2.8	1		
		2.1.					
S1		2.1. 12	Ability to apply technical specifications for a system.			4	1
S2		2.1. 32	Ability to explain and apply system limits and precautions.			3.8	1
		Subtotal			3		2
R4	2. Equipment Control	2.2. 13	Knowledge of tagging and clearance procedures.	3.6	1		
R5		2.2. 12	Knowledge of surveillance procedures.	3	1		
R6		2.2. 30	Knowledge of RO duties in the control room during fuel handling such as alarms from fuel handling area / communication with fuel storage facility / systems operated from the control room in support of fueling operations / and supporting instrumentation.	3.5	1		
		2.2.					
S3		2.2. 06	Knowledge of the process for making changes in procedures as described in the safety analysis report.			3.3	1
S4		2.2. 28	Knowledge of new and spent fuel movement procedures.			3.5	1
		Subtotal			3		2
R7	3. Radiation Control	2.3. 01	Knowledge of 10 CFR 20 and related facility radiation control requirements.	2.6	1		
R8		2.3. 02	Knowledge of facility ALARA program.	2.5	1		
		2.3.					
		2.3.					
S5		2.3. 09	Knowledge of the process for performing a containment purge.			3.4	1
S6		2.3. 04	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.			3.1	1
		Subtotal			2		2
R9	4. Emergency Procedures / Plan	2.4. 01	Knowledge of EOP entry conditions and immediate action steps.	4.3	1		
R10		2.4. 17	Knowledge of EOP terms and definitions.	3.1	1		
		2.4.					
		2.4.					
		2.4.					
S7		2.4. 19	Knowledge of EOP layout, symbols, and icons.			3.7	1
		Subtotal			2		1
Tier 3 Point Total					10		7

Facility: Perry **Scenario No.: 1** **Op-Test No.: 2007-01**

Examiners: _____ **Operators:** _____

_____ _____

_____ _____

Initial Conditions: Completed repairs of Reactor Recirc FCV HPU leak in Drywell. Power ascension in progress at 9%, IOI-3 step 4.3.6, and 4.3.10.d, rods at step 28 gangs 40/39 at 8. Turbine is at 1800 RPM. SVI M56-T5417 is in progress, along with fuel moves in FHB to comply with NRC B.5.B. FHB integrity is established. Severe Thunderstorm watch is in affect for Lake County. OPRM's are Inoperable. Division 1 igniters Inoperable for SVI-M56-T5417, maintenance at step 5.1.1.30.

Turnover: Raise power with rods per IOI-3 and synch the Generator.

Event No.	Malf. No.	Event Type*	Event Description
1		R	Withdraw Rods to get at least 1.5 bypass valves open
2		N	Synch the Generator
3	trg 1, imf 1e31n040a	I	RWCU Pump room instrument fails high, TS 3.3.6.1
3	mv05:1g33f 004	C	G33F0004 Fails to Auto Isolate, Operator isolates TS 3.6.1.3
4	rf tc06	C	High Vibrations Main Turbine Bearing, Turbine fails to trip. Operator trips Main Turbine.
5	cb03:1n514 mcs	C	Generator Field Breaker Fails to open, Operator opens Field Breaker
6	trg 29 batch nrc-2007-08b1	C	FHB Bridge Brake Failure, Damaged Spent Fuel Bundle. Enter PEI-D17, PEI-N11, ONI-D17, ONI-J11-2.
6	ior m40a lite on	C	M40 Supply fan fails to Trip on High Radiation, Operator stops fan.
7	trg 10	I	Loss of RFBP's on hot surge tank level instrument failure. No Feedwater
7	ry02 div 2 rp03 ari	M	PEI-B13 ATWS, Failure of RPS B and ARI to Scram, Pull Scram Fuses PEI-SPI-1.1 or insert rods per PEI-SPI 1.3.
8	sl05	C	SLC Pipe Break, SLC will not inject discharge pressure less than Reactor Pressure. Direct PEI-SPI 1.8 Alternate Boron Injection
9	bs01:692b/f, rc03 5 min.	I	RCIC Level 2 instrument failure, Ops arms and depresses. RCIC will trip 5 minutes after injection. High Pressure injection not available.
10	cb04:hpcs pump	C	HPCS Pump will not start automatically, start with switch.
11		M	Emergency Depressurize on Level, PEI-B13 ED. If all rods insert can restore level with HPCS and ED is not required.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Appendix D, Rev. 9	Scenario Outline	Form ES-D-1

Facility: Perry **Scenario No.: 2** **Op-Test No.: 2007-01**

Examiners: _____ **Operators:** _____

_____ _____

_____ _____

Initial Conditions: Reactor Power 37%, power ascension in progress IOI-3 4.5.4.h. Rods at step 57 gang 44 at 12. Division 2 DG is in secured status with work complete. Circulating Water Pump C is OOS. Fuel moves in progress for NRC B.5.B concerns. Chemistry investigating possible tube leak in train D. SVI-R45-T2002 in progress. OPRM's are Operable. SVI-R10-T5227 is due in 6 hours for Division 2 DG.

Turnover: Align systems to support a Div 2 DG maintenance run, start ESW B and shift M25/26. Continue power ascension shift reactor recirc to fast speed and raise core flow to 58 mlbm/hr.

Event No.	Malf. No.	Event Type *	Event Description
1		R	Shift Reactor Recirc Pumps to fast and raise flow to 58 mlbm/hr.
2		N	Start ESW B and Shift M25/26 to Emergency Recirculation.
3	pt01:1e31n00 18b, 350	I	RHR B E31 instrument failure, TS 3.3.6.1
4	mv06:1e51f0 63	C	1E51F063 fails, loose indication, need to isolate penetration with E51F064, TS 3.6.1.3 and 3.5.3.
5		N	Report of Informational Airplane threat from NRC, ONI-P56-3
6	trg 10, batch nrc-2007-b33	C	Reactor Recirc pump B vibration and seal failure. Trip B pump and isolate B reactor recirc loop. ONI-C51 and insert cram rods if in immediate exit region.
7	rd16 at 20%	M	Scram Reactor on rising Drywell pressure (NON-ATWS). SDV rupture, Containment Pressure increases.
8	fw08c	C	Motor Feed Pump Failure, loss of oil. HPCS or RFPT's are level control.
9	mv04:1e22f0 04	C	E22F004 fails to auto open, If level 8 is exceeded on scram E22F004 will not open unless level 8 is reset.
10	mv06:1e12f0 028a	C	1E12F0028A fails to open for containment spray.
11	tf01:2s11 and 1s11	M	Loss of Offsite power, ONI-R10, DG picks up Div 1 and Div 3 bus. RHR B not available for Containment Spray
12		M	Emergency Depressurize prior to exceeding PSP

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Appendix D, Rev. 9 | Scenario Outline | Form ES-D-1

Facility: Perry | **Scenario No.: 3** | **Op-Test No.: 2007-01**

Examiners: _____ **Operators:** _____

_____ _____

_____ _____

Initial Conditions: Reactor Power 56%, power ascension in progress IOI-3, 4.5.21. Rods at step 56 gang 48 at 24. P43 B is OOS for Oil change. P41B is OOS for Seal Line blockage. P47C is OOS, work is complete and package with Shift Engineer. SVI-E31-T083A prereqs in progress. RFPT A has a small oil leak. Severe Thunderstorm watch is in affect until 1800. Feedwater leak on B FW venturi is degrading, Team Inc investigating sealing. OPRM's are Operable.

Turnover: Shut RFPT A down per SOI-N27 section 7.39 for oil leak repair. Continue Power Ascension with rods to 62% power and hold for IOI-3 actions.

Event No.	Malf. No.	Event Type*	Event Description
1		R	Withdraw control rods to 62% power, ensure load line is greater than 75%
2		N	Shutdown RFPT A.
3	cb01:p41d trg 1	C	Trip of Service Water Pump D, ONI-P41, Start Service Water Pump C
4	nm04a to 125%, trg 2	I	APRM A fails upscale, AFDL in Control. Lock up FCV's. TS 3.3.1.1 and 3.4.1.
4		R	Load line 75% and flow less than 42 mlbm/hr insert cram rods per ONI-C51
5	trg 3, cu04 aux leak, cu05 stm tunnel leak	M	RWCU Leak, G33F0004 and G33F001 fail to isolate, Scram on primary system discharge per PEI-N11. ATWS on scram, Level Feed, Pressure Bypass until MSIV's close on steam tunnel temperature.
6	ior in timer skip off	C	Insert Rods Per PEI-SPI 1.3, In Timer Skip fails, insert with insert button.
7	ior e22f004 auto	C	HPCS Injection valve fails to close, stop HPCS pump to prevent injection.
8		M	Emergency Depressurize two Max safe Temperatures.
8	ior 41e and 47h auto	C	Two ADS SRV's fail to open. Open two additional SRV's.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Perry **Scenario No.: 4** **Op-Test No.: 2007-01**

Examiners: _____ **Operators:** _____

_____ _____

_____ _____

Initial Conditions: Reactor Power 80%, Operating per IOI-3 attachment 3 power increase to 100%. RFPT B has been returned to service. LH-2-A Transformer is out of service and EH21 outage is in progress, scheduled to complete later today. Chemistry investigating possible tube leak on D train. Team Inc investigating possible seal injection for degrading leak on FW B venturi. OPRM's are Inoperable.

Turnover: Shutdown Motor Feed Pump to Standby and continue power ascension with flow to 100%. SVI-C61-T1104 is in progress.

Event No.	Malf. No.	Event Type*	Event Description
1		N	Shutdown Motor Feed Pump to standby
2		R	Raise Reactor Power with flow
3	trg 1, rd13a, 22-31, 34-03, 50-31, rd05	C	CRD suction filter clog, CRD pump trip, ONI-C11-1, 3 accumulator faults 20 minutes to restore TS 3.1.5
4	pt01:1c34n004b, trg 2	I	C34N004B fails upscale, Bypass instrument, ORM 6.2.13
5	trg 5, mc01a, rd15 atws	M/R	Vacuum Leak, Reactor Scram, ATWS, MSIV's A, B and D isolate on degrading vacuum.
6	ms01c/g	C	MSIV Line C fails to isolate, inboard valve will isolate with switch.
7	ior arm to disarm	C	Terminate/Prevent for HPCS fails, will need to perform at level 2 initiation.
8	ior 1e12f042c	C	LPCI C injection valve will fail to override. Must secure RHR C pump.
9		M	Emergency Depressurize on HCL

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor