Facility: Waterford 3 Date of Examination: 11/15/04

Examination Level (circle one): RO / (SRO) Operating Test Number: 1

Administrative Topic (See Note)	Describe activity to be performed:
Conduct of Operations	JPM – Perform Review of a Manually Generated Estimated Critical Position. Candidate must determine the validity of the ECP based on given initial conditions.
Conduct of Operations	JPM – Determine Surveillances Required to be Performed to Recommence Core Alterations Based on Data from Previous Precore Alteration Checklist.
Equipment Control	JPM – Review and Approve an EOS. Applicant must find 4 errors with the provided EOS.
Radiation Control	JPM – Determine Actions/Restrictions Required for a Containment Entry at Power.
Emergency Plan	JPM – Review and Approve a Notification Message Form. The applicant must find four errors in the provided form based on provided initial conditions.

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

Facility: Waterford 3 Date of Examination: 11/15/04

Examination Level (circle one): RO / SRO Operating Test Number: 1

Administrative Topic (See Note)	Describe activity to be performed:
Conduct of Operations	JPM –Perform a Shutdown Margin Calculation with one dropped CEA.
Conduct of Operations	JPM – Determine Allowable Power Ascension Rate using Fuel Preconditioning Guidelines and Given Initial Conditions.
Equipment Control	JPM – Perform RO review of a manually generated Tagout. The candidate must find 4 major errors associated with the Tagout.
Radiation Control	Not Selected
Emergency Plan	JPM – Activate the Emergency Response Data System (ERDS).

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

Facility: Waterford 3 Date of Examination: 11/15/04
Exam Level (circle one): RO / SRO(I) / SRO(U) Operating Test No.: 1

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)		
System / JPM Title	Type Code*	Safety Function
a. Makeup to the VCT Using the Auto Makeup Mode (Selected Boric Acid Makeup Pump Trips)	D, S, L, A	1
b. PNPO Immediate Operator Actions on CR Evacuation	D, C, A	3
c. Perform Anticipated Transient System Check (DRTS)	D, S, L	7
d. Re-energize A3S From A2 with EDG A Loaded (EDG Trips on Overspeed during Paralleling Operations)	M, S, A	6
e. Return EFW System to Normal After EFAS Actuation	D, S, L	4 (S)
f. Perform Actions on a Recirculation Actuation (Leak on Suction Line)	M, C, L, A	2
g. Place SDC Train A in Service (SDC Suction Valve Closes)	M, S, A	4 (P)
h. Align CARS for Containment Pressure Control	D, S	5
Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U		
i. Place a Gas Decay Tank on Decay	N, R	9
j. Line up Potable Water to Instrument Air Compressors during Control Room Evacuation (No Fire)	D, L	8
k. Startup A Safety Related Battery Charger (High Voltage Shutdown)	D, A	6

* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

Facility: Waterford III Date of Examination: 11/15/04
Exam Level (circle one): RO / (SRO(I)) / SRO(U) Operating Test No.: 1

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)		
System / JPM Title	Type Code*	Safety Function
a. Makeup to the VCT Using the Auto Makeup Mode (Selected Boric Acid Makeup Pump Trips)	D, S, L, A	1
b. PNPO Immediate Operator Actions on CR Evacuation	D, C, A	3
c. Perform Anticipated Transient System Check (DRTS)	D, S, L	7
d. Re-energize A3S From A2 with EDG A Loaded (EDG Trips on Overspeed during Paralleling Operations)	M, S, A	6
e. Return EFW System to Normal After EFAS Actuation	D, S, L	4 (S)
f. Perform Actions on a Recirculation Actuation (Leak on Suction Line)	M, C, L, A	2
g. Place SDC Train A in Service (SDC Suction Valve Closes)	M, S, A	4 (P)
h.		
Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U		
i. Place a Gas Decay Tank on Decay	N, R	9
j. Line up Potable Water to Instrument Air Compressors during Control Room Evacuation (No Fire)	D, L	8
k. Startup A Safety Related Battery Charger (High Voltage Shutdown)	D, A	6
* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA		

Facility: Waterford 3 Date of Examination: 11/15/04
Exam Level (circle one): RO / SRO(I) / SRO(U) Operating Test No.: 1

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)		
System / JPM Title	Type Code*	Safety Function
a. Makeup to the VCT Using the Auto Makeup Mode (Selected Boric Acid Makeup Pump Trips)	D, S, L, A	1
b. PNPO Immediate Operator Actions on CR Evacuation	D, C, A	3
c. Return EFW System to Normal After EFAS Actuation	D, S, L	4 (S)
d.		
e.		
f.		
g.		
h.		
Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
i. Place a Gas Decay Tank on Decay	N, R	9
j. Line up Potable Water to Instrument Air Compressors during Control Room Evacuation (No Fire)	D, L	8
k.		

* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

Facility: Waterford III Scenario No.: 1 Op-Test No.: 1

Examiners: _____ Operators: _____
_____ _____
_____ _____

Initial Conditions: IC-20, 100%, MOC

Turnover: RCP 1A Anti – Reverse Rotation Device Temperature experienced a step change from 175ºF to 195ºF two days ago. Charging pump AB has been OOS for 24 hours to replace a cracked pump block. CS Pump A has been OOS for 74 hours to replace the pump impeller.

Event No.	Malf. No.	Event Type*	Event Description
1	RX14A	I-RO/SRO	After the crew takes the shift, the in-service PZR pressure control channel fails low. The crew should implement OP-901-120, PZR Pressure Control Malfunction, Subsection E0 and E1.
2	SG05A	I-BOP/SRO	After transferring to the non-faulted PPCS Channel, a S/G1 Narrow Range control channel instrument fails high causing the controllers for FWCS 1 to shift to manual. The crew should implement OP-901-201, Steam Generator Level Control Malfunction, and control S/G 1 level manually. Post trip, the Main and Startup Feed Reg Valve controllers must be placed in a RTO condition.
3	RC33A	R-RO N-BOP/SRO	After the crew addresses OP-901-201, RCP 1A Anti Reverse Rotation Device (ARRD) Temperature starts rising. The crew should implement OP-901-130, RCP Malfunction, Subsections E0 and E6. The temperature continues to rise until the crew is required to perform a plant shutdown in accordance with OP-010-005, Plant Shutdown.
4	RD02A01 RD02A02	C-RO/SRO	After the crew satisfies the reactivity manipulation two CEAs drop, requiring a manual reactor trip, OP-901-102, CEDMCS or CEA Malfunction, Subsection D, Immediate Operator Actions. After tripping the reactor the crew should go to OP-902-000, Standard Post Trip Actions.
5	RP03	C-BOP/SRO	The Main Turbine fails to trip automatically on the reactor trip, requiring the SNPO to manually trip the Main Turbine.
6	FW38A	M-ALL	After the crew diagnoses to OP-902-001, a Feedwater Line Break occurs inside containment on S/G 1. The crew should transition to OP-902-004, Excess Steam Demand Recovery.

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

Facility: Waterford III Scenario No.: 2 Op-Test No.: 1

Examiners: _____ Operators: _____
_____ _____
_____ _____

Initial Conditions: IC-27, 61%, EOC

Turnover: FWPT B was secured 3 days ago to determine cause of a high vibration problem. RCP 1A Anti – Reverse Rotation Device Temperature experienced a step change from 175ºF to 195ºF two days ago. Charging pump AB has been OOS for 24 hours to replace a cracked pump block. CS Pump A has been OOS for 74 hours to replace the pump impeller.

Event No.	Malf. No.	Event Type*	Event Description
1	ED02C	C-SRO	After the crew takes the shift, SUT A fails requiring evaluation of AC offsite circuits operability, Technical Specification 3.8.1.1. OP-903-066 must be performed within 1 hour.
2	CV30A2	C-RO/SRO	After the crew evaluates Technical Specification requirements, the in-service letdown flow control valve fails closed. The crew should implement OP-901-112, Charging or Letdown Malfunction, Subsection E0 and E2.
3	CH01A	C-BOP/SRO	After the crew implements OP-901-112, Containment Fan Cooler A trips. The crew should start the idle Containment Fan Cooler in accordance with OP-008-003, Containment Cooling System, Subsection 6.1 and evaluate Tech Spec 3.6.2.2 and 3.4.5.1.
4	RP01A-D RP02A-D RC03D	C-RO/SRO	After the crew places the alternate letdown flow control valve in service, RCP 2B shaft seizure occurs, resulting in automatic reactor trip signals being generated and loss of the offsite power source to Train A safety buses. The reactor fails to trip automatically or by manual pushbuttons, however, Diverse Reactor Trip pushbuttons work.
5	EG12A1 CV02A FW20A2 MS-13B	C-BOP C-RO C-BOP M-All	EDG A output breaker fails to close automatically. The BOP should manually close the EDG A output breaker. Startup Feed Reg Valve 1 fails closed on the trip, requiring the BOP to take manual control of Main Feed Reg Valve 1 to restore S/G 1 level. Charging Pump A fails to auto start post trip, requiring the RO to manually start Charging Pump A. The crew should implement OP-902-000, Standard Post Trip Actions (SPTAs). During the verification of SPTAs a Main Steam Line Break outside containment occurs on S/G 2. The crew should diagnose to OP-902-004, Excess Steam Demand Recovery.
6	SG01B	M-ALL	After the crew diagnoses to OP-902-004 and S/G dryout occurs, a Steam Generator Tube Rupture occurs in S/G 2. The crew should implement OP-902-008.

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

Facility: Waterford III Scenario No.: 3 Op-Test No.: 1

Examiners: _____ Operators: _____
_____ _____
_____ _____

Initial Conditions: IC-10, 100%, BOC

Turnover: RCP 1A Anti – Reverse Rotation Device Temperature experienced a step change from 175 ºF to 195 ºF two days ago. Charging pump AB has been OOS for 24 hours to replace a cracked pump block. CS Pump A has been OOS for 74 hours to replace the pump impeller.

Event No.	Malf. No.	Event Type*	Event Description
1	SG10B	I-BOP/SRO	After the crew takes the shift, the PPS Channel B S/G 1 narrow range level instrument fails high. The crew should evaluate TS 3.3.1 and 3.3.2 and take required actions to bypass the S/G Level High, S/G Level Low and S/G Delta-P trips for S/G 1 in PPS Channel B within 1 hour.
2	RD02A20	C-All	After the crew bypasses the affected PPS bistables, CEA 20 drops into the core. The crew should implement OP-901-102, CEDMCS or CEA Malfunction, Subsection E0 and E1. The crew should also implement OP-901-501, PMC or COLSS Malfunction, Subsection E0 and E2..
3	N/A	R-RO N-BOP/SRO	Within 15 minutes of the dropped CEA the crew must start a power reduction in accordance with OP-901-212, Rapid Plant Power Reduction.
4	RX14A RC14B1	C-All	After the reactivity manipulation is satisfied, the in-service PZR pressure control channel fails high. The crew should implement OP-901-120, PZR Pressure Control Malfunction, Subsection E0 and E1. After transferring to the non-faulted PPCS Channel. PZR Spray Valve B remains open requiring implementation of OP-901-120, Subsection E3. This requires manually tripping the reactor and securing at least RCP 1B. After the RCP is secured the Spray Valve closes. The crew should continue in OP-902-000 and diagnose to OP-902-001, Reactor Trip Recovery.
5	SI02B SI01A RC23D	C-BOP M-ALL	After the crew commences implementation of OP-902-001, a Small Break LOCA occurs. The crew should transition to OP-902-002. HPSI pump A trips on overcurrent. HPSI Pump B fails to auto start requiring the BOP to perform a manual start.

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