Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 - 6/8/01**

Examination Level (circle one): **RO** / SRO Operating Test Number: __1___

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	Knowledge / Ability	IMP	Additional K/A's	ORIGIN	NOTES
A.1	Shift Turnover	JPM GG-1-JPM-OP-ADM30 Given plant conditions, complete required documentation to allow a shift turnover.	2.1.3	3.0		**BANK**	
	Operator Responsibilities	JPM GG-1-JPM-RO-ADM31 Given an installed equipment clearance, perform the duties of an independent verifier.	2.1.2	3.0		**NEW**	
A.2	Protective Tagging Program	JPM GG-1-JPM-RO-ADM32 Given a component, using the Tagging Computer prepare equipment clearance.	2.2.13	3.6	2.1.24: 2.8	**NEW**	Previous JPMs were manually prepared.
A.3	Radiation Control	JPM GG-1-JPM-OP-ADM33 Perform required actions to access the Controlled Access Area (CAA), determine requirements to enter a High Contamination Area, and exit the CAA.	2.3.1	2.6		**MOD Changed to High Contam. Area**	NRC 5/00 was entry and exit with entry rqmts to high rad area **CFR 55.45 (a)9 & 10**
A.4	Emergency Plan Assessment	Question RO EPP - 1 Identify five Offsite State and Local agencies notified of an emergency. No reference	2.4.43	2.8		**NEW**	**CFR 55.45 (a) 11**
		Question RO EPP – 2 Which personnel act as the initial communicators in an emergency and who	2.4.43	2.8		**NEW**	**CFR 55.45 (a) 11**

		relieves them upon ERO implementation? Reference allowed.					

Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 - 6/8/01**

Exam Level (circle one): **RO** / SRO(I) / SRO(U) Operating Test No.: ___1___

System / JPM Title / Type Codes*	Safety Function	Knowledge / Ability	IMP.	Additional K/A's	ORIGIN	NOTES
B.1. CONTROL ROOM SYSTEMS						
1. 201005 REACTOR CONTROL & INFORMATION SYSTEM (RCIS) **(D)(S)(L)** Operate the CRD System to bring the Reactor Critical GG-1-JPM-RO-C1124	**1**	A4.01	3.7	A3.01: 3.5 A3.02: 3.5 A3.03: 3.4 A4.02: 3.7	**BANK**	**ALSO SAFETY FUNCTION 7 CFR 55.45(a)1 & 2**
2. 217000 REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) **(D)(S)(A)** RCIC Manual Startup (Faulted – Steam Leak) GG-1-JPM-RO-E5101	**4**	A2.15	3.8	A2.03: 3.4 A2.04: 2.3 A3.01: 3.5 A3.06: 3.5 A4.01: 3.7 A4.03: 3.4 A4.04: 3.6 2.1.31: 4.2 2.4.46: 3.5 2.4.49: 4.0	**BANK**	**ALSO SAFETY FUNCTION 2 CFR 55.45(a)3 & 6**
3. 259002 REACTOR WATER LEVEL CONTROL SYSTEM **(N)(S)(L)(A)** Align Feedwater System for Startup Level Control (Faulted - Valve Fail Open) GG-1-JPM-RO-N2120	**2**	A1.05	2.9	295008 AK2.03: 3.6 AA1.01: 3.7 AA1.08: 3.5 AA2.02: 3.4 2.1.31: 4.2	**NEW**	**CFR 55.45(a)6**
4. 261000 STANDBY GAS TREATMENT SYSTEM **(D)(S)(A)** Place SBGT Train in Standby with an Auto Start Signal Present (Faulted – High Rad) GG-1-JPM-RO-T4801	**9**	A4.03	3.0	A4.02: 3.1 A4.09: 2.7	**BANK** **NRC 5/2000**	**CFR 55.45(a)9**
5. 219000 RESIDUAL HEAT REMOVAL SYSTEM **(M)(S)(A)** Shutdown Suppression Pool Cooling and Return to Standby LPCI Lineup (Faulted – Valve Fail	**5**	A2.04	3.1	A3.01: 3.3 A4.01: 3.8 A4.02: 3.7 A4.03: 2.9	**MOD** **Added Valve**	**CFR 55.45(a)4**

Mid Position) GG-1-JPM-RO-E1230				A4.04: 3.0 A4.08: 2.9	**failure**	

Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 – 6/8/01**

Exam Level (circle one): **RO** / SRO(I) / SRO(U) Operating Test No.: ___1___

System / JPM Title / Type Codes*	Safety Function	Knowledge / Ability	IMP.	Additional K/A's	ORIGIN	NOTES
6. 264000 EMERGENCY DIESEL GENERATORS **(D)(S)(A)** Paralleling an Offsite Power source to Division I Diesel Generator (Faulted – Temperature alarm) GG-1-JPM-RO-P7530	**6**	A2.01	3.5	A2.03: 3.4 A2.05: 3.6 A4.05: 3.6 2.1.31: 4.2 2.4.10: 3.0 2.4.45: 3.3	**BANK**	**CFR 55.45(a) 8**
7. 212000 REACTOR PROTECTION (RPS) SYSTEM **(N)(C)** Defeat Reactor Protection System Trips per EP2 Attachment 19. GG-1-JPM-RO-EP031	**7**	A4.17	4.1	A4.14: 3.8 295037 EA1.01: 4.6	**NEW**	**CFR 55.45(a) 3 & 6**
B.2. FACILITY WALK-THROUGH						
8. 295016 CONTROL ROOM ABANDONMENT **(D)(P)(R)** Align the Remote Shutdown Panel Alternate Shutdown Panels for a Fire in the Control Room GG-1-JPM-RO-C6108	**7**	AA1.07	4.2		**BANK**	**CFR 55.45(a) 6 & 12 Emergency/ Abnormal**
9. 295019 PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR SYSTEM **(D)(P)(R)** Lineup Makeup Nitrogen to ADS Valve Accumulators GG-1-JPM-NLO-P5301	**8**	AA1.01	3.5	AA1.02: 3.3 218000 A2.03: 3.4 2.1.20: 4.3 2.1.29: 3.4 2.1.30: 3.9	**BANK**	**CFR 55.45(a) 6 Also Safety Function 3 Emergency/ Abnormal**
10. 262002 UNINTERRUPTABLE POWER SUPPLY (UPS) **(D)(P)** Transfer Plant DC Inverter from Normal to Alternate Power Source GG-1-JPM-NLO-L6201	**6**	A3.01	2.8	2.1.20: 4.3 2.1.29: 3.4 2.1.30: 3.9	**BANK**	**CFR 55.45(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, (P)lant, (R)CA

Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 - 6/8/01**

Examination Level (circle one): RO / **SRO** Operating Test Number: __1___

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	Knowledge / Ability	IMP	Additional K/A's	ORIGIN	NOTES
A.1	Technical Specifications	JPM GG-1-JPM-SRO-ADM34 Given a component failure, determine the appropriate Tech Spec actions and complete required documentation.	2.1.12	4.0		**MOD**	New component
	Plant Safety Index (EOOS)	JPM GG-1-JPM-SRO-ADM35 Given plant conditions, determine the Plant Safety Index (EOOS).	2.1.19	3.0		**NEW**	
A.2	Maintenance Operability	JPM GG-1-JPM-SRO-ADM36 Given maintenance performed on a component, determine retest requirements for operability.	2.2.21	3.5		**NEW**	
A.3	Radioactive Release Permits	JPM GG-1-JPM-SRO-ADM37 Perform required reviews for release of a Floor Drain Sample Tank to the environment with a Radioactive Discharge Permit.	2.3.6	3.1		**BANK**	**CFR 55.45 (a) 8**
A.4	Emergency Plan Action Levels	JPM GG-JPM-SRO-A&E38 Given conditions determine the appropriate emergency classification and complete the required notification form.	2.4.41	4.1	2.4.30: 3.6	**NEW**	**CFR 55.45 (a) 11**

Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 - 6/8/01**

Exam Level (circle one): RO / ***SRO(I)*** / SRO(U) Operating Test No.: ___1___

System / JPM Title / Type Codes*	Safety Function	Knowledge / Ability	IMP.	Additional K/A's	ORIGIN	NOTES
B.1. CONTROL ROOM SYSTEMS						
1. 201005 REACTOR CONTROL & INFORMATION SYSTEM (RCIS) **(D)(S)(L)** Operate the CRD System to bring the Reactor Critical GG-1-JPM-RO-C1124	**1**	A4.01	3.7	A3.01: 3.5 A3.02: 3.5 A3.03: 3.3 A4.02: 3.7	**BANK**	**Also Safety Function 7 CFR 55.45(a)1 & 2**
2. 217000 REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) **(D)(S)(A)** RCIC Manual Startup (Faulted – Steam Leak) GG-1-JPM-RO-E5101	**4**	A2.15	3.8	A2.03: 3.3 A2.04: 2.3 A3.01: 3.5 A3.06: 3.4 A4.01: 3.7 A4.03: 3.3 A4.04: 3.6 2.1.31: 3.9 2.4.46: 3.6 2.4.49: 4.0	**BANK**	**Also Safety Function 2 CFR 55.45(a)3 & 6**
3. 259002 REACTOR WATER LEVEL CONTROL SYSTEM **(N)(S)(L)(A)** Align Feedwater System for Startup Level Control (Faulted - Valve Fail Open) GG-1-JPM-RO-N2120	**2**	A1.05	2.9	295008 AK2.03: 3.7 AA1.01: 3.7 AA1.08: 3.5 AA2.02: 3.4 2.1.31: 3.9	**NEW**	**CFR 55.45(a)6**
4. 261000 STANDBY GAS TREATMENT SYSTEM **(D)(S)(A)** Place SBGT Train in Standby with an Auto Start Signal Present (Faulted – High Rad) GG-1-JPM-RO-T4801	**9**	A4.03	3.0	A4.02: 3.1 A4.09: 2.7	**BANK** **NRC 5/2000**	**CFR 55.45(a)9**
5. 219000 RESIDUAL HEAT REMOVAL SYSTEM **(M)(S)(A)** Shutdown Suppression Pool Cooling and Return to Standby LPCI Lineup (Faulted – Valve Fail	**5**	A2.04	3.2	A3.01: 3.3 A4.01: 3.7 A4.02: 3.5 A4.03: 2.9	**MOD** **Added Valve**	**CFR 55.45(a)4**

Mid Position) GG-1-JPM-RO-E1230				A4.04: 2.9 A4.08: 2.9	**Failure**	

Facility: **GRAND GULF NUCLEAR STATION** Date of Examination: **6/4/01 – 6/8/01**

Exam Level (circle one): RO / ***SRO(I)*** / SRO(U) Operating Test No.: ___1___

System / JPM Title / Type Codes*	Safety Function	Knowledge / Ability	IMP.	Additional K/A's	ORIGIN	NOTES
6. 264000 EMERGENCY DIESEL GENERATORS **(D)(S)(A)** Paralleling an Offsite Power source to Division I Diesel Generator (Faulted – Temperature alarm) GG-1-JPM-RO-P7530	**6**	A2.01	3.6	A2.03: 3.4 A2.05: 3.6 A4.05: 3.7 2.1.31: 3.9 2.4.10: 3.1 2.4.45: 3.6	**BANK**	**CFR 55.45(a) 8**
7. 212000 REACTOR PROTECTION (RPS) SYSTEM **(N)(C)** Defeat Reactor Protection System Trips per EP2 Attachment 19. GG-1-JPM-RO-EP031	**7**	A4.17	4.1	A4.14: 3.8 295037 EA1.01: 4.6	**NEW**	**CFR 55.45(a) 3 & 6**
B.2. FACILITY WALK-THROUGH						
8. 295016 CONTROL ROOM ABANDONMENT **(D)(P)(R)** Align the Remote Shutdown Panel Alternate Shutdown Panels for a Fire in the Control Room GG-1-JPM-RO-C6108	**7**	AA1.07	4.3		**BANK**	**CFR 55.45(a) 6 & 12 Emergency/ Abnormal**
9. 295019 PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR SYSTEM **(D)(P)(R)** Lineup Makeup Nitrogen to ADS Valve Accumulators GG-1-JPM-NLO-P5301	**8**	AA1.01	3.3	AA1.02: 3.1 218000 A2.03: 3.6 2.1.20: 4.2 2.1.29: 3.3 2.1.30: 3.4	**BANK**	**CFR 55.45(a) 6 Also Safety Function 3 Emergency/ Abnormal**
10. 262002 UNINTERRUPTABLE POWER SUPPLY (UPS) **(D)(P)** Transfer Plant DC Inverter from Normal to Alternate Power Source GG-1-JPM-NLO-L6201	**6**	A3.01	3.1	2.1.20: 4.2 2.1.29: 3.3 2.1.30: 3.4	**BANK**	**CFR 55.45(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, (P)lant, (R)CA

CLEARANCE CLEARANCE **INSTALLATION** FORM CLEARANCE

COMPONENT TO BE TAGGED:	**CLEARANCE NUMBER: GG-**
PURPOSE OF CLEARANCE:	**DESIRED DATE:**
SPECIAL INSTRUCTIONS:	**DRAW XREF:**

PREPARED BY:	**DATE/TIME:**	**REVIEWED BY:**	**DATE/TIME:**
AUTHORIZED (SS):	**DATE/TIME:**	**AUTHORIZED (PS):**	**DATE/TIME:**

CLEARANCE **TAG INSTALLATION SECTION** CLEARANCE

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE

? CONTINUATION SHEET

CLEARANCE

TAG INSTALLATION SECTION

CLEARANCE

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE

CLEARANCE CLEARANCE **INSTALLATION** FORM CLEARANCE

COMPONENT TO BE TAGGED: 1P42C001C PUMP COMPONENT COOLING WATER PUMP "C"	**CLEARANCE NUMBER: GG-01-**
PURPOSE OF CLEARANCE: REPLACE OUTER PUMP SEAL	**DESIRED DATE:**
SPECIAL INSTRUCTIONS:	**DRAW XREF:** M1063A, E1226-02
SHIFT TO 1P42C001A & B AND SECURE 1P42C001C PRIOR TO HANGING THIS CLEARANCE. (NOT REQUIRED)	
PREPARED BY: CANDIDATE **DATE/TIME:** 6/4/01	**REVIEWED BY:** **DATE/TIME:**
AUTHORIZED (SS): **DATE/TIME:**	**AUTHORIZED (PS):** **DATE/TIME:**

CLEARANCE **TAG INSTALLATION SECTION** CLEARANCE

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
1	1	1P42M603C IBISSW CCW PUMP "C" 1P42C001C HANDSWITCH	CON-25A-166	NORM AFTER STOP		
2	2	52-12205 CKTBRK CCW PUMP "C" 1P42C001C CKT BRK	AUX-10-119	OPEN RACKED OUT		
3	3	1P42F016C VALVE CCW PUMP "C" DISCHARGE ISOL VALVE	AUX-09-093	CLOSED		
4	4	1P42F011C VALVE CCW PUMP "C" SUCTION ISOL VALVE	AUX-09-093	CLOSED		
5	5	1P42F013C VALVE CCW PUMP "C" CASING DRAIN VALVE	AUX-09-093	OPEN		
5	6	1P42F237C VALVE CCW PUMP "C" CASING DRAIN VALVE	AUX-09-093	OPEN		
6	7	1P42F012C VALVE CCW PUMP "C" VENT VALVE	AUX-09-093	OPEN		
5	8	1P42F015C (OPTIONAL) VALVE CCW PUMP "C" DRAIN VALVE	AUX-09-093	OPEN		
		(ITEMS IN RED ARE CRITICAL)				
		(ITEMS IN BLUE ARE OPTIONAL)				
		(WORDING IN UPPER PORTION SHOULD BE SIMILAR)				

? CONTINUATION SHEET

CLEARANCE **TAG INSTALLATION SECTION** **CLEARANCE**

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE

CLEARANCE **CLEARANCE INSTALLATION FORM** **CLEARANCE**

COMPONENT TO BE TAGGED:
1E22C001 PUMP
HPCS PUMP

CLEARANCE NUMBER: GG-01-10001T

PURPOSE OF CLEARANCE:
REPLACE DISCHARGE PIPING DUE TO PIPE WALL THINNING
MAI GG-2001-0415

DESIRED DATE: 6/4/2001 17:00

SPECIAL INSTRUCTIONS:
STEP 6.2.3.a OF THE PROTECTIVE TAGGING PROCEDURE 01-S-06-1 IS APPLICABLE FOR TAG # 17.

DRAW XREF: M1086, E1183-01/02/03/04/06/07/08/21, E1188-19

PREPARED BY: S.KEESEE **DATE/TIME:** 6/3/01 0700 **REVIEWED BY:** S. ELLIOTT **DATE/TIME:** 6/3/01 0830
AUTHORIZED (SS): S. MURANO **DATE/TIME:** 6/3/01 0930 **AUTHORIZED (PS):** M. ELLIS **DATE/TIME:** 6/3/01 1000

CLEARANCE GG-01-10001T **TAG INSTALLATION SECTION** **CLEARANCE GG-01-10001T**

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
1	1	1E22M702 IBISSW HPCS PUMP 1E22C001 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER STOP		
2	2	152-1702 CKTBRK HPCS PUMP 1E22C001 CKT BRK	CON-25A-166	OPEN RACKED DOWN		
3	3	1E22M611 IBISSW HPCS JOCKEY PUMP 1E22C003 HANDSWITCH	CON-25A-166 1H13-P601	NORM AFTER STOP		
4	4	1E22M601 IBISSW HPCS INJECTION SHUTOFF VALVE 1E22F004 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	5	1E22M605 IBISSW HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	6	1E22M606 IBISSW HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	7	1E22M607 IBISSW HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	8	1E22M600 IBISSW HPCS PUMP SUCTION FROM CST VALVE 1E22F001 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	9	1E22M609 IBISSW HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		

∏ CONTINUATION SHEET

CLEARANCE GG-01-10001T

TAG INSTALLATION SECTION

CLEARANCE GG-01-10001T

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
5	10	52-170101 CKTBRK	CON-25A-111	OFF		
		HPCS INJECTION SHUTOFF VALVE 1E22F004 CKTBRK				
5	11	52-170105 CKTBRK	CON-25A-111	OFF		
		HPCS JOCKEY PUMP 1E22C003 CKTBRK				
5	12	52-170106 CKTBRK	CON-25A-111	OFF		
		HPCS PUMP SUCTION FROM CST VALVE 1E22F001 CKTBRK				
5	13	52-170107 CKTBRK	CON-25A-111	OFF		
		HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 CKTBRK				
5	14	52-170109 CKTBRK	CON-25A-111	OFF		
		HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 CKTBRK				
5	15	52-170110 CKTBRK	CON-25A-111	OFF		
		HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 CKTBRK				
5	16	52-170111 CKTBRK	CON-25A-111	OFF		
		HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 CKTBRK				
5	17	52-1P71120 CKTBRK	CON-25A-111	OFF		
		MOV HEATERS VERT SECTION “D” (SPACE HEATER FOR 1E22F015/F023) CKTBRK				
6	18	1E22F004 VALVE	AUX-08-119 RHR-B ROOM	CLOSED		
		HPCS INJECTION SHUTOFF VALVE 1E22F004 HANDWHEEL				
6	19	1E22F305 VALVE	AUX-08-119 RHR-B ROOM	CLOSED		
		INJECTION VALVE EQUALIZATION ISOLATION VALVE (AROUND 1E22F004)				
6	20	1E22F012 VALVE	AUX-08-093 HPCS ROOM	CLOSED		
		HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 HANDWHEEL				
6	21	1E22F003 VALVE	AUX-08-119 RHR-B ROOM	CLOSED		
		FLUSHING WATER SUPPLY ISOLATION VALVE				
6	22	1E22F019 VALVE	AUX-08-093 HPCS ROOM	CLOSED		
		HPCS FLUSH TO LIQUID RADWASTE SURGE TANK ISOLATION VALVE				

∏ CONTINUATION SHEET

CLEARANCE GG-01-10001T

TAG INSTALLATION SECTION

CLEARANCE GG-01-10001T

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
6	23	1E22F010 VALVE	AUX-08-093	CLOSED		
		HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 HANDWHEEL	HPCS ROOM			
6	24	1E22F039 VALVE	AUX-10-100	CLOSED		
		STOP CHECK VALVE AROUND 1E22F010				
6	25	1E22F023 VALVE	AUX-08-093	CLOSED		
		HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 HANDWHEEL	HPCS ROOM			
7	26	1E22F001 VALVE	AUX-08-093	CLOSED		
		HPCS PUMP SUCTION FROM CST VALVE 1E22F001 HANDWHEEL	HPCS ROOM			
7	27	1E22F015 VALVE	AUX-08-093	CLOSED		
		HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 HANDWHEEL	HPCS ROOM			
8	28	1E22F215 VALVE	AUX-08-093	OPEN		
		HPCS PMP DISH LINE DRN SHUTOFF	HPCS ROOM			
8	29	1E22F214 VALVE	AUX-08-093	OPEN		
		HPCS PMP DISH LINE DRN ISO	HPCS ROOM			
8	30	1E22F302 VALVE	AUX-08-093	OPEN		
		TEST LINE TO SUPP POOL DRN SHUTOFF	HPCS ROOM			
8	31	1E22F301 VALVE	AUX-08-093	OPEN		
		TEST LINE TO SUPP POOL DRN ISO	HPCS ROOM			
8	32	1E22F226 VALVE	AUX-08-093	OPEN		
		SUPP POOL SUCT LINE DRN SHUTOFF	HPCS ROOM			
8	33	1E22F225 VALVE	AUX-08-093	OPEN		
		SUPP POOL SUCT LINE DRN ISO	HPCS ROOM			
9	34	1E22F212 VALVE	AUX-08-119	OPEN		
		HPCS PMP DISC LINE VNT SHUTOFF	RHR-B ROOM			
9	35	1E22F213 VALVE	AUX-08-119	OPEN		
		HPCS PMP DISC LINE VNT ISO	RHR-B ROOM			
10	36	1E22F018 VALVE	AUX-08-093	OPEN		
		HPCS PMP SUCT VNT SHUTOFF	HPCS ROOM			
10	37	1E22F200 VALVE	AUX-08-093	OPEN		
		HPCS PMP SUCT VNT ISO	HPCS ROOM			
10	38	1E22F210 VALVE	AUX-08-093	OPEN		
		SUPP POOL SUCT LINE VNT SHUTOFF	HPCS ROOM			
10	39	1E22F211 VALVE	AUX-08-093	OPEN		
		SUPP POOL SUCT LINE VNT ISO	HPCS ROOM			

EVALUATOR COPY

CLEARANCE **CLEARANCE INSTALLATION FORM** **CLEARANCE**

COMPONENT TO BE TAGGED:
1E22C001 PUMP
HPCS PUMP

CLEARANCE NUMBER: GG-01-10001T

TAGS 1 AND 3 ARE HUNG ON WRONG COMPONENTS

PURPOSE OF CLEARANCE:
REPLACE DISCHARGE PIPING DUE TO PIPE WALL THINNING
MAI GG-2001-0415

DESIRED DATE: 6/4/2001 17:00

SPECIAL INSTRUCTIONS:
STEP 6.2.3.a OF THE PROTECTIVE TAGGING PROCEDURE 01-S-06-1 IS APPLICABLE FOR TAG # 17.

DRAW XREF: M1086, E1183-01/02/03/04/06/07/08/21, E1188-19

PREPARED BY: S.KEESEE **DATE/TIME:** 6/3/01 0700 **REVIEWED BY:** S. ELLIOTT **DATE/TIME:** 6/3/01 0830
AUTHORIZED (SS): S. MURANO **DATE/TIME:** 6/3/01 0930 **AUTHORIZED (PS):** M. ELLIS **DATE/TIME:** 6/3/01 1000

CLEARANCE GG-01-10001T **TAG INSTALLATION SECTION** **CLEARANCE GG-01-10001T**

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
1	1	1E22M702 IBISSW HPCS PUMP 1E22C001 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER STOP		
2	2	152-1702 CKTBRK HPCS PUMP 1E22C001 CKT BRK	CON-25A-166	OPEN RACKED DOWN		
3	3	1E22M611 IBISSW HPCS JOCKEY PUMP 1E22C003 HANDSWITCH	CON-25A-166 1H13-P601	NORM AFTER STOP		
4	4	1E22M601 IBISSW HPCS INJECTION SHUTOFF VALVE 1E22F004 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	5	1E22M605 IBISSW HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	6	1E22M606 IBISSW HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	7	1E22M607 IBISSW HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	8	1E22M600 IBISSW HPCS PUMP SUCTION FROM CST VALVE 1E22F001 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		
4	9	1E22M609 IBISSW HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 HANDSWITCH	CON-25A-166 1H13-P601	AUTO AFTER CLOSED		

∏ CONTINUATION SHEET

EVALUATOR COPY

CLEARANCE GG-01-10001T

TAG INSTALLATION SECTION

CLEARANCE GG-01-10001T

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
5	10	52-170101 CKTBRK HPCS INJECTION SHUTOFF VALVE 1E22F004 CKTBRK	CON-25A-111	OFF		
5	11	52-170105 CKTBRK HPCS JOCKEY PUMP 1E22C003 CKTBRK	CON-25A-111	OFF		
5	12	52-170106 CKTBRK HPCS PUMP SUCTION FROM CST VALVE 1E22F001 CKTBRK	CON-25A-111	OFF		
5	13	52-170107 CKTBRK HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 CKTBRK	CON-25A-111	OFF		
5	14	52-170109 CKTBRK HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 CKTBRK	CON-25A-111	OFF		
5	15	52-170110 CKTBRK HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 CKTBRK	CON-25A-111	OFF		
5	16	52-170111 CKTBRK HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 CKTBRK	CON-25A-111	OFF		
5	17	52-1P71120 CKTBRK MOV HEATERS VERT SECTION “D” (SPACE HEATER FOR 1E22F015/F023) CKTBRK	CON-25A-111	OFF		
6	18	1E22F004 VALVE HPCS INJECTION SHUTOFF VALVE 1E22F004 HANDWHEEL	AUX-08-119 RHR-B ROOM	CLOSED		
6	19	1E22F305 VALVE INJECTION VALVE EQUALIZATION ISOLATION VALVE (AROUND 1E22F004)	AUX-08-119 RHR-B ROOM	CLOSED		
6	20	1E22F012 VALVE HPCS MIN FLOW VALVE TO SUPPRESSION POOL 1E22F012 HANDWHEEL	AUX-08-093 HPCS ROOM	CLOSED		
6	21	1E22F003 VALVE FLUSHING WATER SUPPLY ISOLATION VALVE	AUX-08-119 RHR-B ROOM	CLOSED		
6	22	1E22F019 VALVE HPCS FLUSH TO LIQUID RADWASTE SURGE TANK ISOLATION VALVE	AUX-08-093 HPCS ROOM	CLOSED		

∏ CONTINUATION SHEET

EVALUATOR COPY

CLEARANCE GG-01-10001T — TAG INSTALLATION SECTION — CLEARANCE GG-01-10001T

SEQ	TAG #	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY / DATE	VERIFIED BY / DATE
6	23	1E22F010 VALVE HPCS INBOARD TEST RETURN TO CST VALVE 1E22F010 HANDWHEEL	AUX-08-093 HPCS ROOM	CLOSED		
6	24	1E22F039 VALVE STOP CHECK VALVE AROUND 1E22F010	AUX-10-100	CLOSED		
6	25	1E22F023 VALVE HPCS TEST RETURN TO SUPPRESSION POOL VALVE 1E22F023 HANDWHEEL	AUX-08-093 HPCS ROOM	CLOSED		
7	26	1E22F001 VALVE HPCS PUMP SUCTION FROM CST VALVE 1E22F001 HANDWHEEL	AUX-08-093 HPCS ROOM	CLOSED		
7	27	1E22F015 VALVE HPCS PUMP SUCTION FROM SUPPRESSION POOL VALVE 1E22F015 HANDWHEEL	AUX-08-093 HPCS ROOM	CLOSED		
8	28	1E22F215 VALVE HPCS PMP DISH LINE DRN SHUTOFF	AUX-08-093 HPCS ROOM	OPEN		
8	29	1E22F214 VALVE HPCS PMP DISH LINE DRN ISO	AUX-08-093 HPCS ROOM	OPEN		
8	30	1E22F302 VALVE TEST LINE TO SUPP POOL DRN SHUTOFF	AUX-08-093 HPCS ROOM	OPEN		
8	31	1E22F301 VALVE TEST LINE TO SUPP POOL DRN ISO	AUX-08-093 HPCS ROOM	OPEN		
8	32	1E22F226 VALVE SUPP POOL SUCT LINE DRN SHUTOFF	AUX-08-093 HPCS ROOM	OPEN		
8	33	1E22F225 VALVE SUPP POOL SUCT LINE DRN ISO	AUX-08-093 HPCS ROOM	OPEN		
9	34	1E22F212 VALVE HPCS PMP DISC LINE VNT SHUTOFF	AUX-08-119 RHR-B ROOM	OPEN		
9	35	1E22F213 VALVE HPCS PMP DISC LINE VNT ISO	AUX-08-119 RHR-B ROOM	OPEN		
10	36	1E22F018 VALVE HPCS PMP SUCT VNT SHUTOFF	AUX-08-093 HPCS ROOM	OPEN		
10	37	1E22F200 VALVE HPCS PMP SUCT VNT ISO	AUX-08-093 HPCS ROOM	OPEN		
10	38	1E22F210 VALVE SUPP POOL SUCT LINE VNT SHUTOFF	AUX-08-093 HPCS ROOM	OPEN		
10	39	1E22F211 VALVE SUPP POOL SUCT LINE VNT ISO	AUX-08-093 HPCS ROOM	OPEN		

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ADMINISTRATIVE JPM
COMPLETE DOCUMENTS FOR SHIFT TURNOVER

REASON FOR REVISION: NEW JPM .

THIS DOCUMENT REPLACES N/A .

REVIEW / APPROVAL:

PREPARED BY: _____DATE:_____

REVIEWED BY: _____DATE:_____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Administrative JPM Complete Documents for Shift Turnover

JPM No. GG-1-JPM-RO-ADM30 Rev. 00 Page 3 of 8

Task List No: CRO-ADMIN-003

K/A Reference and Importance Factors (RO/SRO):

K/A GENERIC 2.1.2 – 3.0/4.0; 2.1.3 - 3.0/3.4

SAFETY FUNCTION: N/A

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/***NO***

Faulted JPM: YES/***NO***

Administrative JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to complete the required documents for shift turnover.

The proper method of evaluation is by the candidate completing required documents for shift turnover.

Setup the Simulator in IC 17 with the following equipment tagged out:

HPCS System

Required Material(s):

01 Operations Procedure, 02-S-01-4, Shift Relief and Turnover Attachment IA.

General Reference(s):

01 Operations Procedure, 02-S-01-4, Shift Relief and Turnover

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Complete Attachment IA of 02-S-01-4.

Evaluator has copy of completed attachment for comparison.

Initial Condition(s):

The plant is operating at 100 % power. The HPCS pump was tagged out at 1030 on 6/3/01 to allow mechanical maintenance work on the HPCS pump.

Initiating Cue(s):

You are the Control Room Operator. Complete the Shift Turnover Checksheet for present plant conditions, time and date.

(USE CURRENT TIME AND DATE.)

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a copy of 02-S-01-4 Attachment IA Mode 1, 2, and 3 Plant Status Checksheet.

Standard: Candidate obtains a copy of Attachment IA.

Comments: When candidate locates the checksheet hand the candidate a blank Attachment IA.

SAT _____ **UNSAT** ____

Item 2 (*) Completes Attachment IA similar to Attached attachment.

Standard: **SEE THE ATTACHED EVALUATOR COPY OF ATTACHMENT IA.**

Comments:

Items NOT required are denoted. Numbers may be approximate if they are consistent with simulator conditions. Candidate may use board indicators or PDS and Cyclops computers, any or all of these are acceptable.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Attachment IA has been completed.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is operating at 100 % power. The HPCS pump was tagged out at 1030 on 6/3/01 to allow mechanical maintenance work on the HPCS pump.

Initiating Cue(s):

You are the Control Room Operator. Complete the Shift Turnover Checksheet for present plant conditions, time and date.

(USE CURRENT TIME AND DATE.)

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ADMINISTRATIVE JPM
ENTRY AND EGRESS FROM THE CONTROLLED ACCESS AREA (CAA) WITH ENTRY REQUIREMENTS FOR ACCESSING A HIGH CONTAMINATION AREA

REASON FOR REVISION: NEW JPM .

THIS DOCUMENT REPLACES N/A .

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Entry and Egress from the Controlled Access Area (CAA)
with entry requirements for accessing a High Contamination Area.

JPM No. GG-1-JPM-OP-ADM33 Rev. 00 Page 3 of 13

Task List No: AON-ADMIN-022; 025

K/A Reference and Importance Factors (RO/SRO):

K/A GENERIC 2.3.1 - 2.6; 2.3.4 - 2.5; 2.3.5 - 2.3

SAFETY FUNCTION: N/A
Radiological Protection Generic Section 3

Time Required for Completion: N/A Minutes (approximate).
Time for this JPM will vary based on time spent inside CAA performing other JPMs.

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

Administrative JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant X Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Entry and Egress from the Controlled Access Area (CAA)
with entry requirements for accessing a High Contamination Area.

JPM No. GG-1-JPM-OP-ADM33 Rev. 00 Page 4 of 13

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to enter the GGNS Controlled Access Area (CAA) observing all applicable radiation practices for operators entering the Power Block and the procedures for exiting the CAA. Prior to entry into the CAA, the candidate will be informed to enter an area designated as a High Contamination Area. The proper method of evaluation is by the candidate performing entry into the Controlled Access Area of GGNS and exiting the area.

This JPM will be performed in conjunction with other JPMs performed inside the CAA.

Required Material(s):

01 Key Card

02 TLD

03 Merlin Guerlin alarming dosimeter

04 Hard Hat

05 Safety Glasses

06 Ear Plugs (optional only required if time in a high noise area will exceed posted times.)

General Reference(s):

01 Administrative Procedure 01-S-08-34
Radiological Work Planning, Performance, and Reviews

02 Administrative Procedure 01-S-08-2, Exposure & Contamination Control.

Safety Consideration(s):

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01 Normal plant access safety materials.

GIVE CANDIDATE THE INSTRUCTIONS FOR THIS JPM PRIOR TO ENTRY INTO SECURITY ISLAND.

DISCUSSION IS ON THE NEXT PAGE UNDER INITIATING CUE.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Enters and exits GGNS Controlled Access Area per Radiation Work Permit requirements and obtains required briefings and dosimetry for entry into a High Contamination Area.

Initial Condition(s): (The location for the initial conditions to be given is Security Island.)

N/A

Initiating Cue(s):

NOTE to Evaluator: Explain to the Candidate that you will be observing and grading the radiological practices performed by the candidate during the entry, activities inside the CAA, and exit of the CAA. INFORM THE CANDIDATE PART OF THE ENTRY WILL REQUIRE ENTRY INTO THE REACTOR WATER CLEANUP 'A' PUMP ROOM.

This JPM will be performed in conjunction with other JPMs performed inside the CAA.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) Obtain Key Card and TLD from Security Island.

Standard: Candidate should obtain Key Card and TLD from rack in Security Island.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Wears Hard Hat and Safety Glasses inside the CAA as required.

Standard: Candidate has a hard hat and safety glasses for entry into the CAA. Candidate may obtain ear plugs and safety glasses in the Health Physics Lab on 93 foot elevation of the Control Building.

Comments:

SAT _____ **UNSAT** ____

EVALUATOR:

CUE THE CANDIDATE THAT DURING THE FACILITY WALK THROUGH YOU WILL NEED TO GO TO REACTOR WATER CLEANUP 'A' PUMP ROOM. (This area should be a High Contamination Area.)

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Informs the Health Physics Technician/Supervisor at the 93 ft HP desk that part of the Job will involve entry into the Reactor Water Cleanup (RWCU) 'A' Pump Room. Obtain the HP Pre-Job brief and permission for entry.

Standard: Candidate will inform HP of the entry into RWCU 'A' Pump Room and receive the Pre-Job brief and permission to enter a High Contamination Area.

Comments: **The Evaluator may be required to discuss the entry in private with the Health Physics personnel this is only a test and the operator will NOT be entering the RWCU 'A' Pump Room.**

SAT _____ **UNSAT** ____

Do NOT allow candidate to enter the RWCU 'A' Pump Room. This is based on ALARA considerations.

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 (*) Obtain Electronic Alarming Dosimeter (Merlin Guerlin) from the Health Physics Lab and activate at the access turnstile using appropriate Radiation Work Permit (RWP) number and enters CAA when access is granted.

Standard: Candidate will obtain a Merlin Guerlin and insert the Merlin Guerlin into the activation slot and SCAN the bar code on his TLD and follow instructions on the screen. Entering RWP number and answering the questions on the computer fields of the access terminal. Once all fields have been entered appropriately access is granted.

Comments: **The RWP Number will be either 2001-1002 or 2001-1005 either RWP number is acceptable dependent on the candidate's authorization.**

NOTE: USE OF PAPER SUITS IS HIGHLY RECOMMENDED DUE TO RADON PROBLEMS IN THE PLANT!!

SAT _____ **UNSAT** ____

Do NOT allow candidate to enter the RWCU 'A' Pump Room. This is based on ALARA considerations.

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 (*) While in CAA the candidate observes and adheres to ALL applicable Postings and entry requirements.

Standard: While in CAA the candidate observes and adheres to ALL applicable Postings and entry requirements.

Comments: **EVALUATOR SHOULD DISCUSS ACTIONS FOR ENTRY INTO A HIGH CONTAMINATION AREA.**

NOTE: None of the areas for the JPMs should access any High Radiation Areas, Contamination Areas, or High Contamination Areas.

SAT _____ **UNSAT** ____

Do NOT allow candidate to enter the RWCU 'A' Pump Room. This is based on ALARA considerations.

Item 6 (*) Exiting of the CAA the candidate enters the control point area and enters a PCM-1 Monitor.

Standard: Candidate clears PCM-1 Monitor and exits.

Comments: **If candidate shows radon contamination portions of apparel may be left with Health Physics for decay. This is NORMAL. If paper suits are used and found to have radon, they may be left in HP.**

SEQUENCE for ITEMS 6 and 7 are **NOT CRITICAL.**

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 7 (*) If hand carried materials were carried into the CAA they will be cleared through the Tool Contamination Monitor (TCM).

Standard: Candidate will place hand carried items in the TCM for counting.

Comments: **If candidate has no hand carried items this item is N/A.**

SEQUENCE for ITEMS 6 and 7 are **NOT CRITICAL.**

SAT _____ **UNSAT** ____

Item 8 (*) After clearing the PCM-1 the candidate exits through the Portal Monitor.

Standard: Candidate clears Portal Monitor and exits.

Comments:

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 9 (*) Deactivates Merlin Guerlin at terminal at final exit of session.

Standard: Candidate will deactivate his Merlin Guerlin and return it to Health Physics rack.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Entry and exit of Controlled Access Area is completed.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PERFORM AN INDEPENDENT VERIFICATION ON A PROTECTIVE TAGOUT FOR A COMPONENT

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED: BY _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: PERFORM AN INDEPENDENT VERIFICATION ON A PROTECTIVE TAGOUT FOR A COMPONENT

JPM No. GG-1-JPM-RO-ADM31 Rev. 00 Page 3 of 8

Task List No: NOB-ADMIN-001

K/A Reference and Importance Factors (RO/SRO):

K/A 2.1.2 – 3.0/4.0; 2.1.13 – 3.6/3.8

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/***NO***

Faulted JPM: ***YES***/NO

ADMINISTRATIVE JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual **X**

Setting: Classroom _____ Plant _____ Simulator **X**

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

Performance of this JPM will demonstrate the ability of an Operator to perform an independent verification on a protective tagout for a piece of plant equipment.

Reset the Simulator to IC-17.

Remote Function page E22 **e22644** *RACK OUT* HPCS pump breaker.
Place the HPCS OOSVC handswitch to OOSVC.

Install handswitch tags on components on H13-P601 Section 16C.

Place the handswitch tag for HPCS Jockey Pump on the HPCS Pump and vice versa.

Required Material(s):

01 Equipment Clearance Installation Sheet Tags for Power supplies for valves should not be hung.

02 Red tags installed on HPCS system handswitches WITH appropriate information completed on tags.

General Reference(s):

01 01-S-06-29, Independent Verification

02 01-S-06-1, Protective Tagging System

Safety Consideration(s):

01 NONE

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Perform independent verification on Equipment Clearance installation sheet for the HPCS system. Determines HPCS Pump and HPCS Jockey Pump hand switch tags are backwards and corrects and initials as installer NOT verifier.

Initial Condition(s):

The plant is operating at 100% power. The HPCS system has been declared INOP and tagged out due to pipe wall thinning issues. NPE is performing evaluations and testing on the system.

Initiating Cue(s):

The Control Room Supervisor has requested you perform the independent verification on the Equipment Clearance Installation Sheet for the HPCS system Control Room Components. Tags for the Local Valves and Valve power supplies will be completed hung and verified by other operators. The Tagging Computer is out of service.

NOTE: Hand candidate copy of Equipment Clearance Installation sheet.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) Candidate verifies tags for components on H13-P601 section 16C concerning HPCS.

Standard: Candidate verifies tagged components are in the proper position per the tag out. Candidate finds handswitch tags for HPCS Pump and HPCS Jockey Pump are backwards. Should note this to the Control Room Supervisor.

Comments: **Cue the candidate to remove the tags and return them to the Control Room Supervisor for re-issue. If the candidate checks the HPCS and HPCS Jockey Pump first (Most Likely), CUE the candidate to finish the rest of the tags prior to returning the tags to the CRS.**

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Independent Verification performed the Control Room tags and HPCS and HPCS Jockey Pump Handswitch tags removed and returned to the Control Room Supervisor for disposition.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Conditions:

The plant is operating at 100% power. The HPCS system has been declared INOP and tagged out due to pipe wall thinning issues. NPE is performing evaluations and testing on the system.

Initiating Cue(s):

The Control Room Supervisor has requested you perform the independent verification on the Equipment Clearance Installation Sheet for the HPCS system Control Room Components. Tags for the Local Valves and Valve power supplies will be completed hung and verified by other operators. The Tagging Computer is out of service

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PREPARE A PROTECTIVE TAGOUT FOR A COMPONENT

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED: BY _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: PREPARE A PROTECTIVE TAGOUT FOR A COMPONENT

JPM No. GG-1-JPM-RO-ADM32 Rev. 00 Page 2 of 11

Task List No: CRO-ADMIN-005 and CRO-ADMIN-009

K/A Reference and Importance Factors (RO/SRO):

K/A 2.2.13 – 3.6/3.8; 2.1.24 – 2.8/3.1

Time Required for Completion: 20 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

ADMINISTRATIVE JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual **X**

Setting: Classroom _____ Plant _____ Simulator **X**

MAY BE PERFORMED MANUALLY

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

Performance of this JPM will demonstrate the ability of an Operator to generate a protective tagout manually completing forms.

Required Material(s):

01 Facility prints (M-1063A & E-1226)

02 01-S-06-1, Protective Tagging System

03 SOI 04-1-01-P42-1, Component Cooling Water System

04 01-S-06-1 Attachment III, Equipment Clearance Request Form (FOR CANDIDATE)

05 01-S-06-1 Attachment IV, Equipment Clearance Installation Form

General Reference(s):

01 01-S-06-1, Protective Tagging System

02 SOI 04-1-01- P42-1, Component Cooling Water System

03 Facility prints (M-1063A & E-1226)

Safety Consideration(s):

01 NONE

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Protective Tag generated for the CCW pump C.

Initial Condition(s):

The plant is operating at 100% power. The CCW Pump C has an outer seal leak. Maintenance has requested the pump be tagged out to replace the outer seal.

Initiating Cue(s):

The Control Room Supervisor has requested you prepare a Protective Clearance for CCW pump C. The Tagging Computer is out of service.

NOTE: THIS CLEARANCE IS TO BE GENERATED MANUALLY USING FORMS.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Review the procedure for Protective Tagging 01-S-06-1.

Standard: Candidate reviews the Protective Tagging Procedure.

Comments: **If Candidate indicates he is going to retrieve the procedure you may give the candidate a copy of the procedure. 01-S-06-1 is an Information Use Procedure. Obtaining a copy of the procedure is NOT required.**

SAT _____ **UNSAT** ____

Item 2 ( ) Review the P & ID M-1063A and Electrical Prints E-1226 for boundaries for the 1P42-C001C CCW pump C.

Standard: Candidate locates the CCW Pump C on M-1063A and Electrical Prints E-1226 and identifies boundaries.

Comments:

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Identifies the following valves as boundaries, drains, or vents.

_____ P42-F011C CCW PUMP C SUCT ISOL VLV - CLOSED

_____ P42-F016C CCW PUMP C DISCHARGE ISOL VLV – CLOSED

_____ P42-F012C CCW PUMP C VENT VLV – OPEN

_____ P42-F237C CCW PUMP C CASING DRAIN VLV - OPEN

_____ P42-F013C CCW PUMP C CASING DRAIN VLV – OPEN

_____ P42-F015C CCW PUMP C DRAIN VLV – OPEN (**OPTIONAL**)

Standard: Candidate identifies above listed boundaries.

Comments: Candidate does not have to tag P42-F015C.

Candidate may tag both P42 F237C and F013C **OR** tag F237C or F013C. At least one drain must be open.

The order of operations is ONLY critical in that Discharge valve is closed before suction valve being closed, and drain valves open before vent valves opened.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 (*) Align the following handswitch.

_____ P42-C001C CCW PUMP C – **STOP/NORM** (M603C)

Standard: Candidate indicates the above listed handswitch.

Comments:

SAT _____ **UNSAT** ____

Item 5 (*) Indicates the following electrical lineup.

_____ CCW PUMP C Breaker 52-12205 – RACKED OUT/OPEN

Standard: Candidate indicates the above breaker is to be racked out and open.

Comments:

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 (*) Sequence for hanging of tags is indicated:

Standard:

1. P42-M603C CCW PUMP C HS – NORM AFTER STOP
2. 152-12205 CCW PUMP C CIRCUIT BREAKER – RACKED OUT OPEN
3. P42-F016C CCW PUMP C DISCH VALVE – CLOSED
4. P42-F011C CCW PUMP C SUCTION VALVE – CLOSED
5. P42-F237C CCW PUMP C CASING DRAIN – OPEN

AND/OR

5. P42-F013C CCW PUMP C CASING DRAIN – OPEN
5. P42-F015C CCW PUMP C DRAIN – OPEN (optional)
6. P42-F012C CCW PUMP C VENT – OPEN

Note: Handswitches should be before breakers.
Discharge valve before suction valve.
Drains before vent.

SEE ATTACHED COPY OF TAGOUT.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Protective Tag generated for the CCW Pump C.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is operating at 100% power. The CCW Pump C has an outer seal leak. Maintenance has requested the pump be tagged out to replace the outer seal.

Initiating Cue(s):

The Control Room Supervisor has requested you prepare a Protective Clearance for CCW pump C. The Tagging Computer is out of service.

U.S. NUCLEAR REGULATORY COMMISSION
JOB PERFORMANCE MEASURE JUNE 2001
JPM # RO-EPP-QUESTION 1

EVALUATOR COPY

CLOSED REFERENCE

QUESTION:

Identify five (5) Offsite State and Local agencies notified of an EMERGENCY.

ANSWER:

5 of 8 required:

Mississippi Highway Patrol _____

Claiborne County Sheriff's Office _____

Louisiana Office of Emergency Preparedness (LOEP) _____

Tensas Parish Sheriff's Office _____

Port Gibson Police Department _____

Mississippi Emergency Management Agency (MEMA) _____

Claiborne County Civil Defense _____

Louisiana Radiation Protection Division (LRPD) _____

If candidate identifies 4 of 5 this is 80% of required.

SAT _____ UNSAT_____

ADMIN JPM QUESTION 1	**NRC RECORD # N/A**
SYSTEM # ADMIN **EMERGENCY PROC. / PLAN**	**K/A GENERIC 2.4.43: 2.8**
LP# GG-1-LP-EP-EPTS6	
OBJ. 3 SRO TIER GROUP / RO TIER GROUP	
REFERENCE: 10-S-01-6 SECT. 6.1.1	NEW **MODIFIED** BANK
	RO SRO BOTH

U.S. NUCLEAR REGULATORY COMMISSION
JOB PERFORMANCE MEASURE JUNE 2001
JPM # RO-EPP-QUESTION 1

CANDIDATE COPY

CLOSED REFERENCE

QUESTION:

Identify five (5) Offsite State and Local agencies notified of an EMERGENCY.

U.S. NUCLEAR REGULATORY COMMISSION
JOB PERFORMANCE MEASURE JUNE 2001
JPM # RO-EPP-QUESTION 2

EVALUATOR COPY

OPEN REFERENCE

QUESTION:

Which personnel act as the initial communicators in an EMERGENCY and who relieves them upon ERO implementation?

ANSWER:

An On-shift Radwaste operator ( ) and a Non-Licensed Operator ( ) assume responsibility for communications/notifications initially in the Control Room.

Once the TSC is activated, the Control Room communicators turn over communications/notifications responsibility to the TSC communicators. ( )

(optional)
Once the EOF is activated, the TSC communicators turn over communications/notifications responsibility to the OEC communicators.

SAT _____ UNSAT_____

ADMIN JPM QUESTION 2	**NRC RECORD # N/A**
SYSTEM # ADMIN	**K/A GENERIC 2.4.43: 2.8**
EMERGENCY PROC. / PLAN	
LP# GG-1-LP-EP-EPTS6	
OBJ. 3 SRO TIER GROUP / RO TIER GROUP	
REFERENCE: 10-S-01-1 Sect. 6.2.6	**NEW**
01-S-10-6 Att. II	MODIFIED BANK
10-S-01-30 Sect. 6.2.3	
	RO SRO BOTH

U.S. NUCLEAR REGULATORY COMMISSION
JOB PERFORMANCE MEASURE JUNE 2001
JPM # RO-EPP-QUESTION 2

CANDIDATE COPY

OPEN REFERENCE

QUESTION:

Which personnel act as the initial communicators in an EMERGENCY and who relieves them upon ERO implementation?

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

EAL CLASSIFICATION: SCENARIO 3

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: EAL Classification: SCENARIO 3

JPM No. GG-1-JPM-SRO-A&E38 Rev. 00 Page 2 of 8

Task List No: SRO-A&E-015; SRO-A&E-041

K/A Reference and Importance Factors (RO/SRO):

K/A 2.4.41 – 4.1; 2.4.40 – 4.0; 2.4.30 – 3.6
10CFR55.45a(11)

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

ADMINISTRATIVE JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom X Plant X Simulator X

SHOULD BE PERFORMED FOLLOWING SCENARIO 3 WITH SRO CANDIDATE

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

Performance of this JPM will demonstrate the ability of a Senior Reactor Operator to properly classify emergency events per Emergency Plan Procedure 10-S-01-1 and complete the required Emergency Notification Form. Performance can be performed in the simulator, plant or in a classroom setting provided candidate has access to Emergency Plan Procedures.

Required Material(s):

01 EPP 10-S-01-1, Activation of the Emergency Plan

02 EPP 06-01, EMERGENCY NOTIFICATION FORM

General Reference(s):

01 EPP 10-S-01-1, Activation of the Emergency Plan

02 EPP 10-S-01-6, Notification of Offsite Agencies and Plant On-Call Personnel

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Emergency Plan is applied to classify the event as a SITE AREA EMERGENCY per EAL 4.3.1 and the Emergency Notification form is completed (See Attached).

Initial Condition(s):

The plant was operating at 83% power. Thunder showers are reported in Tensas Parish. The 115 KV line is out of service due to required maintenance on ESF 12 Transformer. The TBCW Pump C is red tagged for repairs. The event just observed has occurred. Chemistry and Health Physics report there is NO EVIDENCE of fuel damage or radioactive release.

Initiating Cue(s):

Determine the Emergency Action Level Classification, if any, and if required complete the required Emergency Notification Form. Communicators are available if required.

Start Time: _____
??

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) Consult EPP 10-S-01-1 "Activation of the Emergency Plan" and classifies a SITE AREA EMERGENCY.

Standard: Candidate consults EPP 10-S-01-1 "Activation of the Emergency Plan" EAL 4.3.1 and classifies a SITE AREA EMERGENCY based on Main Steam Line break outside Containment which CANNOT be isolated.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Complete the Emergency Notification form EPP 06-01 for a SITE AREA EMERGENCY.

Standard: Candidate completes Emergency Notification form EPP 06-01 with data marked with an * (See Attached).

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Emergency Plan is applied to classify the event as a SITE AREA EMERGENCY per EAL 4.3.1 and the Emergency Notification form is completed (See Attached).

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant was operating at 83% power. Thunder showers are reported in Tensas Parish. The 115 KV line is out of service due to required maintenance on ESF 12 Transformer. The TBCW Pump C is red tagged for repairs. The event just observed has occurred. Chemistry and Health Physics report there is NO EVIDENCE of fuel damage or radioactive release.

Initiating Cue(s):

Determine the Emergency Action Level Classification, if any, and if required complete the required Emergency Notification Form. Communicators are available if required.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ADMINISTRATIVE JPM
DETERMINE PLANT SAFETY INDEX (EOOS) FACTOR

REASON FOR REVISION: NEW JPM .

THIS DOCUMENT REPLACES N/A .

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title :Determine Plant Safety Index (EOOS) Factor

JPM No. GG-1-JPM-SRO-ADM35 Rev. 00 Page 2 of 9

Task List No: N/A

K/A Reference and Importance Factors (RO/SRO):

K/A GENERIC 2.1.19 – 3.0

SAFETY FUNCTION: N/A

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

Administrative JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom X Plant X Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to determine the Plant Safety Index Factor (EOOS) using a computer with an EOOS Program.

Required Material(s):

01 Computer with EOOS Program

02 EDP-045 GGNS EOOS Risk Monitor Users' Guide

General Reference(s):

01 EDP-045 GGNS EOOS Risk Monitor Users' Guide

Safety Consideration(s):

01 None

READ TO TRAINEE

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Task Standard(s):

Determines the Plant Safety Index (EOOS) with High Pressure Core Spray and Component Cooling Water Pump 'C' out of service as 7.3 ORANGE.

Initial Condition(s):

The plant is operating at 100% power. High Pressure Core Spray is out of service to repair components due to pipe wall thinning. Component Cooling Water Pump 'C' is to be tagged out for outer pump seal replacement. NO other equipment is out of service.

Initiating Cue(s):

The Plant Manager has requested you determine the Plant Safety Index (EOOS) factor and color for these two pieces of equipment out of service. You may use the STA computer in the simulator to perform this determination.

Start Time: _____

Evaluator may give candidate a copy of Engineering Desk Guide EDP-045.

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Log onto the EOOS computer.

Standard: Candidate logs onto the EOOS Computer program.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Select High Pressure Core Spray as Out of Service.

Standard: Candidate selects High Pressure Core Spray as out of service from the HPCS button or the *Take a Component Out/Return to Service* button.

Comments: Candidate may select to calculate now or wait.

Items 2 and 3 are NOT sequence critical.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Select Component Cooling Water Pump 'C' as Out of Service.

Standard: Candidate selects Component Cooling Water Pump 'C' as out of service from the *Take a Component Out/Return to Service* button.

Comments: Candidate may select to calculate now or wait.

Items 2 and 3 are NOT sequence critical.

SAT _____ **UNSAT** ____

Item 4 (*) Select *Recalculate Plant Risk Measure* button.

Standard: Candidate selects *Recalculate Plant Risk Measure* button. **Computer determines Plant Safety Index at 7.3 ORANGE.**

Comments:

Items 2 and 3 are NOT sequence critical.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Plant Safety Index calculated to be **7.3 ORANGE**.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is operating at 100% power. High Pressure Core Spray is out of service to repair components due to pipe wall thinning. Component Cooling Water Pump 'C' is to be tagged out for outer pump seal replacement. NO other equipment is out of service.

Initiating Cue(s):

The Plant Manager has requested you determine the Plant Safety Index (EOOS) factor and color for these two pieces of equipment out of service. You may use the STA computer in the simulator to perform this determination.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ADMINISTRATIVE JPM
DETERMINE RETEST REQUIREMENTS FOR HIGH PRESSURE CORE SPRAY RETURN TO SERVICE

REASON FOR REVISION: NEW JPM .

THIS DOCUMENT REPLACES N/A .

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Determine Retest Requirements For High Pressure Core Spray Return to Service

JPM No. GG-1-JPM-SRO-ADM36 Rev. 00 Page 3 of 9

Task List No: N/A

K/A Reference and Importance Factors (RO/SRO):

K/A GENERIC 2.2.21: - 3.5

SAFETY FUNCTION: N/A

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

Administrative JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom X Plant X Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to determine the retest requirements for High Pressure Core Spray to be declared Operable after having discharge piping replacement.

Required Material(s):

01 GGNS Technical Specifications

02 GGNS Surveillances

03 Section Procedure 02-S-01-17, Control of Limiting Conditions for Operation

04 System Operating Instruction 04-1-01-E22-1, High Pressure Core Spray System

05 P&ID M-1086 HPCS

General Reference(s):

01 GGNS Technical Specifications 3.5.1

02 GGNS Surveillances (06-OP-1E22-M-0001 & 06-OP-1E22-Q-0005)

03 Section Procedure 02-S-01-17, Control of Limiting Conditions for Operation

04 System Operating Instruction 04-1-01-E22-1, High Pressure Core Spray System

05 P&ID M-1086 HPCS

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Determines the following actions at a minimum that must be performed to declare the system operable.

Initial Condition(s):

The plant is operating at 100% power. High Pressure Core Spray piping as denoted on P&ID M-1086 has been replaced per MAI 2001-XXXXX, Maintenance hydros and re-testing have been completed. The Equipment Clearance is still in place. The system is ready for Operations to Return to Service.

Initiating Cue(s):

You are to identify any re-tests/lineups/paperwork required to close out the MAI and declare High Pressure Core Spray Operable.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) The following items must be completed to declare the High Pressure Core Spray System OPERABLE.

_____ Equipment Clearance tags removed

_____ System placed in Standby per SOI 04-1-01-E22-1 **(This includes a fill and vent.)**

Surveillances

_____ 06-OP-1E22-M-0001 HPCS Monthly Functional Test **(may be performed as a part of fill and vent)** (SR3.5.1.1 & 3.5.1.2)

_____ 06-OP-1E22-Q-0005 HPCS Quarterly Functional Test (SR3.5.1.4)

_____ Limiting Condition for Operation (LCO) cleared.

Standard: Candidate identifies the above list of actions to be taken to declare HPCS operable.

Comments:

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 2 ( ) Maintenance Action Item is signed off for Return to Service.

Standard: Candidate indicates MAI can be signed off completed for Operations Retest and Return to Service (RTS).

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Determines the following actions at a minimum that must be performed to declare the system operable.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is operating at 100% power. High Pressure Core Spray piping as denoted on P&ID M-1086 has been replaced per MAI 2001-XXXXX, Maintenance hydros and re-testing have been completed. The Equipment Clearance is still in place. The system is ready for Operations to Return to Service.

Initiating Cue(s):

You are to identify any re-tests/lineups/paperwork required to close out the MAI and declare High Pressure Core Spray Operable.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ADMINISTRATIVE JPM
REVIEW RADWASTE LIQUID DISCHARGE PERMIT

REASON FOR REVISION: NEW JPM .

THIS DOCUMENT REPLACES N/A .

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Administrative JPM Review Radwaste Liquid Discharge Permit

JPM No. GG-1-JPM-SRO-ADM37 Rev. 00 Page 2 of 8

Task List No: SRO-NO-010

K/A Reference and Importance Factors (RO/SRO):

K/A GENERIC 2.3.6 - 3.1
2.3.11 - 3.2

SAFETY FUNCTION: N/A

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

Administrative JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom X Plant X Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to review a Radwaste Liquid Discharge Permit.

The proper method of evaluation is by the candidate reviewing the Radwaste Discharge Permit for completion.

Required Material(s):

01 Administrative Procedure, 01-S-08-11, Radioactive Discharge Controls

02 Radioactive Discharge Permit

General Reference(s):

01 Administrative Procedure, 01-S-08-11, Radioactive Discharge Controls

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Review the Liquid Radwaste Discharge Permit denote incorrect or missing information.

Initial Condition(s):

The Radwaste Specialist has brought a Batch Liquid Radwaste Discharge Permit to the Control Room for approval.

Initiating Cue(s):

You are the Shift Manager review the Batch Liquid Radwaste Discharge Permit.

There are 5 critical deficiencies on the Discharge Permit. Typos and spelling errors do NOT COUNT.

NOTE TO EVALUATOR: Evaluator may evaluate as SAT with 4 of 5 identified.

Start Time: _____
??

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of Administrative Procedure 01-S-08-11.

Standard: Candidate obtains a controlled copy of Administrative Procedure 01-S-08-11.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Using the Batch Liquid Radwaste Discharge Permit review the permit for readiness to use.

Standard: **SEE THE ATTACHED INSTRUCTOR COPY OF BATCH LIQUID RADWASTE DISCHARGE PERMIT FOR MARKED CRITICAL ITEMS.**

Comments:

NOTE: Items marked with (*) are CRITICAL.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Batch Liquid Radwaste Discharge Permit has been reviewed and incorrect or missing information has been identified.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The Radwaste Specialist has brought a Batch Liquid Radwaste Discharge Permit to the Control Room for approval.

Initiating Cue(s):

You are the Shift Manager review the Batch Liquid Radwaste Discharge Permit.

There are 5 critical deficiencies on the Discharge Permit. Typos and spelling errors do <u>NOT</u> COUNT.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-SRO-ADM34
Revision: 00
Page: 1 of 9
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

WRITE LCO FOR INOP HIGH PRESSURE CORE SPRAY (HPCS) SYSTEM

REASON FOR REVISION: New JPM

THIS DOCUMENT REPLACES N/A

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: WRITE LCO FOR INOP HIGH PRESSURE CORE SPRAY (HPCS) SYSTEM

JPM No. GG-1-JPM-SRO-ADM34 Rev. 00 Page 2 of 9

Task List No: SRO-ADMIN-038

K/A Reference and Importance Factors (RO/SRO):

K/A 2.1.12 4.0

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

ADMINISTRATIVE JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom X Plant X Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

Performance of this JPM will demonstrate the ability of a Senior Reactor Operator to properly fill out an LCO form per Operations Department Section Procedure 02-S-01-17. Performance can be simulated in the simulator, plant or in a classroom setting provided candidate has access to 02-S-01-17 and a set of Tech. Specs.

Required Material(s):

01 02-S-01-17, Control of Limiting Conditions for Operation

02 Technical Specifications

03 LCO Form

General Reference(s):

01 02-S-01-17, Control of Limiting Conditions for Operation

02 Technical Specifications

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

LCO form filled out properly for Tech. Spec. 3.5.1 action Condition B. required action B1 & 2.

Initial Condition(s):

The plant was operating at 100 % power. The High Pressure Core Spray is tagged out for repairs due to pipe wall thinning. No other plant equipment is inoperable.

The MAI number is 2001-XXXXX1

Clearance number is 2001-1701

Initiating Cue(s):

You are the Shift Supervisor. Complete the required Tech Spec documentation for this tagout.

Start Time: _____
??

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of 02-S-01-17, "Control of Limiting Conditions for Operation"

Standard: Candidate obtains a controlled copy of 02-S-01-17.

Comments: This is an Information Use procedure and is NOT required to be obtained.

SAT _____ **UNSAT** ____

Item 2 (*) Fills in the blanks on the LCO form.

Standard: Candidate fills in all applicable blanks on the LCO form. See the attached LCO form for correct answer. Blanks marked with ** are critical.

Comments: **IF ASKED, CUE THE CANDIDATE PRESENT TIME IS WHEN IT WAS DECLARED INOP.**

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

LCO form filled out properly for Tech. Spec. 3.5.1 action Condition B. required action B1 & 2.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant was operating at 100 % power. The High Pressure Core Spray is tagged out for repairs due to pipe wall thinning. No other plant equipment is inoperable.

The MAI number is 2001-XXXXX1

Clearance number is 2001-1701

Initiating Cue(s):

You are the Shift Supervisor. Complete the required Tech Spec documentation for this tagout.

LCO REPORT

LCO NO. 2001-XXXX1

1 DATE *6/04/2000*	2 TIME *PRESENT TIME*	3 %PWR *100*	4 MODE 1
5 SYSTEM OR COMPONENT ***HIGH PRESSURE CORE SPRAY SYSTEM***			
6 T.S. / TRM NO. ***3.5.1***	7 MAI NO. 2001XXXX1	8 OTHER DOCUMENT & NO. CLEARANCE 2001-1701	
9 INITIATING CONDITION 5 ***REPAIR PIPE WALL THINNING ON HPCS***			

10 CONDITION	11 REQUIRED ACTION	12 COMPLETION TIME
B	***B.1 VERIFY BY ADMINISTRATIVE MEANS RCIC SYSTEM IS OPERABLE WHEN RCIC IS REQUIRED TO BE OPERABLE.***	***1 HOUR***
	B.2 RESTORE HPCS SYSTEM TO OPERABLE STATUS.	***14 DAYS***

13 NAME OF DUTY MANAGER NOTIFIED IF LCO ≥ 7 DAYS *N/A*	14 IF OTHER DEPARTMENT REQUIRED TO COMPLETE ACTION: NAME/DEPARTMENT NOTIFIED. (COMPLETE ATT II)
15 LCO 3.0.6 ENTERED *N/A*	16 LCO NO. EVALUATED FOR LOSS OF SAFETY FUNCTION XXX
17 SHIFT SUPERVISOR *CANDIDATE SIGNS HERE*	18 SHIFT MANAGER

19 SHIFT SUPERVISOR'S INITIAL INDICATES REQUIRED TESTING OR ACTIONS HAVE BEEN PERFORMED ON HIS SHIFT.

		24 HR		72 HR				7 DAY							14 DAY	
DATE																
00-08																
08-16																
16-24		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

															30 DAY	
DATE																
00-08																
08-16																
16-24	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

20 LCO RESTORED DATE / TIME	21 COMMENTS / CORRECTIVE ACTION
22 SHIFT SUPERVISOR	23 SHIFT SUPERINTENDENT

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-NLO-EP026
Revision: 00
Page: 1 of 12
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ALIGN FIRE WATER FOR INJECTION TO THE REACTOR VIA LPCS AND RHR 'C' PER EP-2 ATTACHMENT 26

REASON FOR REVISION: update for NRC Exam 6/2001.

THIS DOCUMENT REPLACES JPM exists as a part of EP Attachment LOR JPM.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: ALIGN FIRE WATER FOR INJECTION TO THE REACTOR VIA LPCS AND RHR 'C' PER EP-2 ATTACHMENT 26

JPM No. GG-1-JPM-NLO-EP026 Rev. 00 Page 2 of 12

Task List No: CRO-EP-026; AON-EP-007

K/A Reference and Importance Factors (RO/SRO):

K/A 286000 A1.05: 3.2/3.2
295031 EA1.08: 3.8/3.9
2.1.30: 3.9/3.4; 2.4.35: 3.3/3.5

SAFETY FUNCTION – 2 & 8
RO Group 2
SRO Group 2
10 CFR 55.45 (a) (6)

Time Required for Completion: 20 Minutes (approximate).

Time Critical: YES/**NO**
Faulted JPM: YES/**NO**

ENTERS RCA
Abnormal procedure implementation in the plant.

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to perform EP-2 Attachment 26 for LPCS and RHR 'C'. This attachment aligns LPCS and RHR 'C' to the Fire Protection Water System for injection of fire water into the Reactor during a LOCA.

This JPM will be performed in the Auxiliary Building 119 ft elevation.

Contact Radiation Protection prior to entry into the Piping Penetration Room.

Required Material(s):

01 05-S-01-EP-2 Attachment 26 – Injection into RPV with Fire Protection Water System

02 Fire Spanner wrench

General Reference(s):

01 05-S-01-EP-2 Attachment 26 – Injection into RPV with Fire Protection Water System

Safety Consideration(s):

01 Observe radiological conditions in the plant and ALARA.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Fire hoses have been attached to LPCS and RHR'C' injection lines per EP-2 Attachment 26 paths 2 & 3.

Initial Condition(s): (The location for the initial conditions to be given is Control Room or in the Auxiliary Building.)

A LOCA has occurred. The reactor is shutdown with RPV level still lowering. The SRO with the Command Function is implementing EP-2 actions.

Initiating Cue(s):

The SRO with the Command Function has directed you to obtain EP-2 Attachment 26 Injection into RPV with Fire Protection Water System. Align LPCS and RHR 'C' for injection with Fire Water. Plant Services is dispatching a ladder and extra fire hoses to the area.

Give the candidate a copy of Attachment 26.

Start Time: _____
??

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a fire spanner wrench from a fire locker.

Standard: Candidate has obtained a fire spanner wrench from a fire locker.

Comments: Any Fire Locker in the plant has fire spanner wrenches in the pocket of the fire turnout gear. **Once candidate finds a fire locker and indicates spanners are there, cue the candidate they have a spanner.**

SAT _____ **UNSAT** ____

PATH 3 MAY BE DONE PRIOR TO PATH 2 SEQUENCE OF PATHS IS NOT CRITICAL.

FOR RHR 'C' path # 2

Item 2 (*) Locate fire hose station 13B in area 9 119 ft by the stairwell and connects extra length of fire hose.

Standard: Locates fire hose station 13B on 119 ft elevation and connects extra length of fire hose.

Comments: Do not let the candidate remove the hose from the reel or remove the nozzle from the hose.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Locate E12-F056C and E12-F057C, RPV Fill Connection.

Standard: Locates E12-F056C and E12-F057C RPV Fill Connection in the Piping Penetration Room in area 9/10 119 ft.

Comments: Valves are located straight ahead from the door in the overhead.

SAT _____ **UNSAT** ____

Item 4 (*) Connects the fire hose to E12-F056C and E12-F057C.

Standard: Hose is connected to E12-F056C and E12-F057C.

Comments: **CUE the candidate the fire hose is connected to E12-F056C and E12-F057C.**

SAT _____ **UNSAT** ____

ITEM 6 MAY BE DONE BEFORE ITEM 5 SEQUENCE IS NOT CRITICAL.

Item 5 (*) Locate P64-FA12V fire hose isolation valve and opens the valve.

Standard: Locates P64-FA12V and opens the valve.

Comments: **Cue the candidate the resistance is found on the valve in the counter clockwise direction. P64-FA12V is the hose station isolation valve.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 (*) Open E12-F056C and E12-F057C RPV Fill Connection isolation valves.

Standard: E12-F056C and E12-F057C are open.

Comments: **Cue the candidate E12-F056C and E12-F057C are open.**

SAT _____ **UNSAT** ____

FOR LPCS path # 3

Item 7 (*) Locate fire hose station 14B in area 9 119 ft outside the switchgear room.

Standard: Locates fire hose station 14B on 119 ft elevation.

Comments: Do not let the candidate remove the hose from the reel or remove the nozzle from the hose.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 (*) Locate E21-F013 and E21-F014, RPV Fill Connection.

Standard: Locates E21-F013 and E21-F014 RPV Fill Connection in the Piping Penetration Room in area 9/10 119 ft.

Comments: Valves are located in the far left corner of the room in the overhead between E21-F005 and the wall.

SAT _____ **UNSAT** ____

Item 9 (*) Connects the fire hose to E21-F013 and E21-F014.

Standard: Hose is connected to E21-F013 and E21-F014.

Comments: **CUE the candidate the fire hose is connected to E21-F013 and E21-F014.**

SAT _____ **UNSAT** ____

ITEM 11 MAY BE DONE BEFORE ITEM 10 SEQUENCE IS NOT CRITICAL.

Item 10 (*) Locate P64-FA13B fire hose isolation valve and opens the valve.

Standard: Locates P64-FA13B and opens the valve.

Comments: Cue the candidate the resistance is found on the valve in the counter clockwise direction. P64-FA13B is the hose station isolation valve.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 11 (*) Open E21-F013 and E21-F014 RPV Fill Connection isolation valves.

Standard: E21-F013 and E21-F014 are open.

Comments: Cue the candidate E21-F013 and E21-F014 are open.

SAT _____ **UNSAT** ____

TERMINATING CUE(s)

The candidate reports to the SRO with the Command Function that Attachment 26 is connected for RHR 'C' and LPCS.

STOP TIME _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

A LOCA has occurred. The reactor is shutdown with RPV level still lowering. The SRO with the Command Function is implementing EP-2 actions.

Initiating Cue(s):

The SRO with the Command Function has directed you to obtain EP-2 Attachment 26 Injection into RPV with Fire Protection Water System. Align LPCS and RHR 'C' for injection with Fire Water. Plant Services is dispatching a ladder and extra fire hoses to the area.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

TRANSFER PLANT DC INVERTER FROM NORMAL TO ALTERNATE POWER SOURCE

REASON FOR REVISION: update JPM for NRC Examination 6-2001

THIS DOCUMENT REPLACES GG-1-JPM-NLO-L6201.00

REVIEW / APPROVAL:

PREPARED BY: _____DATE:_____

REVIEWED BY: _____DATE:_____

APPROVED BY: _____DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

Task List No: NOB-L62-003

K/A Reference and Importance Factors (RO/SRO):

K/A 262002 A3.01 – 2.8/3.1; 2.1.20 – 4.3/4.2; 2.1.23 - 3.3/3.5
2.1.29 – 3.4/3.3; 2.1.30 – 3.9/3.4

SAFTEY FUNCTION - 6
RO GROUP 2
SRO GROUP 2
10CFR55.45a (6)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to transfer the Plant DC Inverters from the normal power source to the alternate power source.

The proper method of evaluation is by simulation at the 1Y87 inverter.

The candidate should not manipulate any controls or switches on the inverter while performing this JPM.

If requested, the evaluator should provide the candidate with a controlled copy of SOI 04-1-01-L62-1, Sect. 5.2.

Required Material(s):

01 SOI 04-1-01-L62-1 Sect. 5.2

General Reference(s):

01 SOI 04-1-01-L62-1 Sect. 5.2

Safety Consideration(s):

01 Candidate should not manipulate any controls on the inverter while performing this JPM.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Inverter 1Y87 transferred from normal to alternate power source.

Initial Condition(s):

The plant is at 100% power. The Division I battery chargers (1A4 and 1A5) are to be tagged out for maintenance. The Alternate Feeder Breaker, 156121, is closed and AC power is available to Inverter 1Y87. The Shift Supervisor is preparing the Information Tags for the Manual Bypass Switch and the Alternate Source A.C. breaker. The Information tags will be hung by another operator.

Initiating Cue(s):

The Plant Supervisor has requested you to transfer inverter 1Y87 from the normal to the alternate power source.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of SOI 04-1-01-L62-1.

Standard: Candidate obtains a controlled copy of SOI 04-1-01-L62-1.

Comments:

SAT _____ **UNSAT** ____

Item 2 ( ) Locate Inverter 1Y87 and verify the IN SYNC amber light is illuminated.

Standard: Candidate locates Inverter 1Y87 (located in Div. I Switchgear room, 111' el., Control Building) and states he would verify the IN SYNC light is illuminated.

Comments: **If asked, the evaluator should cue the candidate that the IN SYNC light is illuminated.**

SAT _____ **UNSAT** ____

Item 3 (*) Depress the ALTERNATE SOURCE TO LOAD PUSHBUTTON.

Standard: Candidate states he would depress the ALTERNATE SOURCE TO LOAD PUSHBUTTON.

Comments: Cue the candidate that the ALTERNATE SOURCE TO LOAD PUSHBUTTON is depressed.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 ( ) Verify the following:

* INVERTER SUPPLYING LOAD LIGHT GOES OUT
* ALTERNATE SOURCE SUPPLYING LOAD LIGHT COMES ON
* BOTH AC OUTPUT METERS INDICATE "0" AMPS

Standard: Candidate states he or she would verify the INVERTER SUPPLYING LOAD LIGHT goes out, the ALTERNATE SOURCE SUPPLYING LOAD comes on and both AC output meters indicate "0" amps.

Comments: **If asked, the evaluator should cue the candidate that the INVERTER SUPPLYING LOAD light is out, the ALTERNATE SOURCE SUPPLYING LOAD light is on and both AC output meters indicate "0" amps.**

SAT _____ **UNSAT** _____

Item 5 (*) Place the Manual Bypass Switch in the ALTERNATE SOURCE TO LOAD position.

Standard: Candidate states he would place the Manual Bypass Switch in the ALTERNATE SOURCE TO LOAD position.

Comments: Cue the candidate that the MANUAL BYPASS SWITCH is turned to the right.

SAT _____ **UNSAT** _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 ( ) Verify that the FAN FAILURE LIGHT comes on.

Standard: Candidate states he or she would verify that the FAN FAILURE LIGHT comes on.

Comments: **If asked, the evaluator should cue the candidate that the FAN FAILURE LIGHT is on.**

SAT _____ **UNSAT** _____

TERMINATING CUE(s)

Inverter 1Y87 is powered from the Alternate Power source.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is at 100% power.

The Division I battery chargers (1A4 and 1A5) are to be tagged out for maintenance.

The Alternate Feeder Breaker, 156121, is closed and AC power is available to Inverter 1Y87.

The Shift Supervisor is preparing the Information Tags for the Manual Bypass Switch and the Alternate Source A.C. breaker.

The Information tags will be hung by another operator.

Initiating Cue(s):

The Plant Supervisor has requested you to transfer inverter 1Y87 from the normal to the alternate power source.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

LINEUP MAKEUP NITROGEN TO ADS VALVE ACCUMULATORS

REASON FOR REVISION: update JPM for NRC Exam 6/2001.

THIS DOCUMENT REPLACES GG-1-JPM-NLO-P5301.00

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: LINEUP MAKEUP NITROGEN TO ADS VALVE ACCUMULATORS

JPM No. GG-1-JPM-NLO-P5301 Rev. 01 Page 3 of 9

Task List No: AON-EP-002

K/A Reference and Importance Factors (RO/SRO):

K/A 218000 A2.03: 3.4/3.6
295019 AA1.01: 3.5/3.3; AA1.02: 3.3/3.1
2.1.20: 4.3/4.2; 2.1.23: 3.9/4.0; 2.1.29: 3.4/3.3;
2.1.30: 3.9/3.4

SAFETY FUNCTION – 3 & 8
RO Group 2
SRO Group 2
10 CFR 55.45 (a) (6)

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**
Faulted JPM: YES/**NO**

ENTERS RCA
Abnormal procedure implementation in the plant.

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM evaluates a candidate's ability to locate and lineup valves for establishment of makeup nitrogen to the ADS accumulators. This task may be required by Emergency Procedures to sustain safety/relief valve operation following a loss of instrument air.

Performance of this task requires the installation of nitrogen bottles and a regulator, set at 165 psig, at the test connection upstream of isolation valve P53-FA01. During simulation of this JPM, the evaluator will inform the candidate that the installation has been accomplished.

This JPM will be performed on the 139' and the 166' elevations of the Auxiliary building.

Required Material(s):

01 05-S-01-EP-2 Attachment 7, Defeating Auxiliary Building, Containment, and Drywell Instrument Air Isolation Interlocks.

02 tye-wrap cutting device

General Reference(s):

01 05-S-01-EP-2 Attachment 7, Defeating Auxiliary Building, Containment, and Drywell Instrument Air Isolation Interlocks.

02 P&ID, M-1067

03 ONEP 05-1-02-V-9, Loss of Instrument Air

Safety Consideration(s):

01 **Ensure no valves are physically manipulated.**

02 **Observe all Posted Radiological Area Postings.**

03 **Minimize time spent in Radiation areas.**

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

The nitrogen makeup is lined up to the ADS valve accumulators via the instrument air lines.

Initial Condition(s): (The location for the initial conditions to be given is the Control Room or Auxiliary Building.)

The Control Room Supervisor is currently directing operator activities per EP-2. Containment and drywell instrument air isolation is in effect and cannot be defeated. Maintenance has installed nitrogen bottles and a pressure regulator set at 165 psig to the instrument air test connection downstream of P53-FA01. Valve P53-F003 is CLOSED.

Initiating Cue(s):

The Control Room Supervisor has given you a controlled copy of Attachment 7, Defeating Auxiliary Building, Containment, and Drywell Instrument Air Isolation Interlocks and directed you to lineup makeup nitrogen to the ADS valve accumulators.

Start Time: _____
??

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Step 1 ( ) Locate test connection valve P53-FAO2 and CLOSE or CHECK CLOSED.

Standard: Candidate locates the test connection valve P53-FAO2 (Area 9, 166' el.) and verifies valve is closed by attempting to turn handwheel clockwise.

Comments: Valve should be in the CLOSED position. **If asked, cue valve has resistance in the clockwise direction.**

SAT _____ **UNSAT** ____

Step 2 (*) Locate test connection isolation valve P53-FAO1 and verify nitrogen bottles have been installed with a regulator.

Standard: Candidate locates test connection isolation valve P53-FAO1 (Area 9, 139' el.) and verifies nitrogen bottles and regulator are installed.

Comments: **If asked, cue the candidate that the bottle and regulator, set at 165 psig, is installed on the test connection downstream of P53-FA01.**

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Step 3 (*) Open test connection isolation valve P53-FAO1.

Standard: Candidate opens test connection isolation valve, P53-FA01 until fully open and observes the response of the pressure regulator.

Comments: Candidate should state he would open the valve by turning the handwheel counterclockwise until it mechanically stops. **If asked, cue the candidate that initial flow noise is heard and the regulator is responding properly.**

SAT _____ **UNSAT** ____

Step 4 (*) Unlock and open P53-F043.

Standard: Candidate locates, unlocks and opens P53-F043 to the full open position.

Comments: Candidate locates P53-F043 (Area 9, 166' el.), and states he would remove the blue tye wrap and open the valve by turning the handwheel counterclockwise until it mechanically stops. **If asked, cue valve has resistance in the clockwise direction.**

SAT _____ **UNSAT** ____

Step 5 ( ) Complete alteration tracking sheet for Compressed Gas Bottles installed.

Standard: Candidate initials Alteration Tracking Sheet for Compressed Gas Bottles installed.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Temporary nitrogen is lined up to the ADS valve accumulators.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The Control Room Supervisor is currently directing operator activities per EP-2. Containment and drywell instrument air isolation is in effect and cannot be defeated. Maintenance has installed nitrogen bottles and a pressure regulator set at 165 psig to the instrument air test connection downstream of P53-FA01. Valve P53-F003 is CLOSED.

Initiating Cue(s):

The Control Room Supervisor has given you a controlled copy of Attachment 7, Defeating Auxiliary Building, Containment, and Drywell Instrument Air Isolation Interlocks and directed you to lineup makeup nitrogen to the ADS valve accumulators.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

OPERATE THE CRD SYSTEM TO BRING THE REACTOR CRITICAL

REASON FOR REVISION: update JPM for NRC Examination 6-2001.

THIS DOCUMENT REPLACES OP-LOR-JPM-CRO-C11-007-01.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: OPERATE THE CRD SYSTEM TO BRING THE REACTOR CRITICAL

JPM No. GG-1-JPM-RO-C1124 Rev. 00 Page 2 of 15

Task List No: CRO-C11(2)-004

K/A Reference and Importance Factors (RO/SRO):

K/A 201005 A3.01: 3.5/3.5; A3.02: 3.5/3.5; A3.03: 3.4/3.3
A4.01: 3.7/3.7; A4.02: 3.7/3.7
2.1.30: 3.9/3.4; 2.1.31: 4.2/3.9
292008 K1.01 - K1.08: RO 3.3-4.3 SRO 3.4-4.3

SAFETY FUNCTION – 1 & 7
RO Group 1
SRO Group 1
10CFR55.45a(1) & (2)

Time Required for Completion: 40 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

LOW POWER JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to bring the reactor critical using the CRD system and RCIS per the Integrated Operating Instructions.

Other control room personnel perform some actions required for this evolution. Cues will be provided to simulate these required actions.

Initialize the simulator at a cold, xenon free initial condition (IC-4) with the reactor slightly subcritical. Withdraw control rods in sequence per the Control Rod Movement Sequence Sheet.

Step 37 Control Rod 32-13 at 42 6-37 at 42
48-37 at 42

Allow the SRMs and Reactor Period to stabilize. Ensure at least one SRM and one IRM chart recorder is operating in Fast Speed. Verify all IRMs and SRMs have sufficient chart paper and are operating properly. Place the Simulator in FREEZE.

NOTE: Due to time constraints, this JPM is considered completed when the candidate reaches Range 4 of the IRMs. This is noted by the candidate informing the Control Room Supervisor that the reactor is passing through Range 4 of the IRMs. At this time the evaluator may terminate the JPM.

All control room operations will be performed on panel 1H13-P680 unless otherwise noted.

Required Material(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 SOI 04-1-01-C11-2, Rod Control and Information System
03 Control Rod Movement Sequence Sheet
04 SOI 04-1-01-C51-1, Neutron Monitoring System
05 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680

General Reference(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 SOI 04-1-01-C11-2, Rod Control and Information System
03 SOI 04-1-01-C51-1, Neutron Monitoring System
04 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680

Safety Consideration(s):

01 None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Withdraw control rods to bring the reactor critical and raise power to Range 4 on the IRMs.

Initial Condition(s):

A plant startup following a refueling outage is in progress and rod withdrawal has commenced. All steps of IOI-1 up to step 5.31 have been completed. You are on Step 37 of the Control Rod Movement Sequence Sheet and control rods have been withdrawn in the present gang to position 42. Reactor Engineering has estimated criticality at some point on Step 38. The STA is available for Movement sheet verifications. Another RO is monitoring Reactor level and pressure.

Initiating Cue(s):

The Control Room Supervisor has directed you to withdraw Control Rods to bring the reactor critical and inform him when IRMs have reached Range 4.

Start Time: _____
??

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of SOI 04-1-01-C11-2 and IOI 03-1-01-1 and review precautions and limitations for control rod withdrawal and reactor criticality.

Standard: Candidate obtains a controlled copy of SOI 04-1-01-C11-2 and IOI 03-1-01-1 and reviews procedures.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Withdraw control rods per the Control Rod Movement Sequence Sheet.

Standard: Candidate withdraws control rods per Control Rod Movement Sequence Sheet Step 37 from Notch 42 to position 48 by operating the RCIS Rod Motion Control on P680-6C. Initials Control Rod Movement Sheet. (Not Critical)

Comments: **When asked, cue the candidate that the STA has verified the control rod positions.** NOTE: The "CRD DRIVE WTR TO RX DP HI" alarm (P680-4A1-A7) may annunciate due to the changes in the CRD Drive Water pressure when the control rods are withdrawn. The candidate may desire to adjust the CRD system pressures and flows.

Simulator Operator: If the candidate requests CRD adjustment, act as the CRO and adjust CRD as requested by the candidate. (NOTE: No adjustments are required.)

The "CONT ROD WITHDRAWAL BLOCK" alarm (P680-4A2-C5) may annunciate if the candidate uses the wrong sequence or tries to withdraw control rods out of alignment and in "GANG" mode. Candidate must be able to recognize and correct cause of rod blocks.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Perform Control Rod Coupling Check for each control rod withdrawn to position 48 (fully withdrawn).

Standard: Candidate performs a Control Rod Coupling Check for each control rod withdrawn to position 48 by attempting to withdraw the control rod past position 48 and verifying the absence of the "CONT ROD OVER TRAVEL" annunciator (P680-4A2-E5).

Comments: May be performed either in gang or individual control rod mode. May be accomplished when control rods initially reach the notch 48 position without another defined withdrawal of the control rods.

SAT _____ **UNSAT** ____

Item 4 (*) Continue withdrawing control rods per the Control Rod Movement Sequence Sheet until the reactor is critical.

Standard: Candidate withdraws control rods per the Control Rod Movement Sequence Sheet by operating the RCIS Rod Motion Controls on P680-6C until Source Range neutron count rate begins to rise without control rod motion. Candidate should state "the Reactor is Critical".

Comments: Control rod position where the reactor is called critical is **NOT** a critical item. **The Reactor must NOT be taken critical in Continuous Rod Motion (03-1-01-1 section 2.1.6), this action constitutes a failure of the critical item.** **NOTE:** The SRM PERIOD annunciator (P680-7A-C10), that indicates a period of 50 seconds or greater, may alarm briefly as control rods are being withdrawn but should clear when control rod motion stops.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 ( ) Determine Reactor Period.

Standard: Determine Reactor Period (1.44 times "doubling time". Doubling time is the time required for the reactor to raise power by a factor of 2.).

Comments: **Cue the candidate, the CRO has logged the critical data, denoted the time of criticality on the SRM and IRM recorders, and made an announcement over the PA that the Reactor is critical.**

Rx Period _____ (optional)

SAT _____ **UNSAT** ____

Item 6 ( ) Continue withdrawal as necessary to reach and maintain a reactor period of > 50 seconds.

Standard: Withdraws control rods in accordance with the Control Rod Movement Sequence Sheet to establish a reactor period of > 50 seconds as indicated on the SRM Period Meters (1C51-NI-R601 A, B, C, D, E, F on P680-7B)

Comments: Candidate may not perform this item depending upon the reactor period obtained when the reactor went critical. **The Item becomes critical if the candidate establishes and maintains a period < 50 seconds. (03-1-01-1 section 2.1.4)**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 7 (*) Observe SRM/IRM overlap of at least ½ decade on all operable channels.

Standard: Verifies that the IRM/APRM LVL DIV 1 & 3 (1C51-NR-R603A & C on P680-5B) and IRM/APRM LVL DIV 2 & 4 (1C51-NR-R603B & D on P680-7B) show a rise in neutron level (>2/40 on range 1) before the SRM LOG COUNT RATE A, C, E & B, D, F (1C51-NR-R602A & B on P680-7B) reaches 1.0×10^5 CPM. The SRM UPSC ALM/INOP annunciator (P680-7A-B10) will annunciate when count rate level exceeds 1.0×10^5 CPM and may not clear until the candidate withdraws the SRM detectors out of the core. (See Item 8)

Comments:

SAT _____ **UNSAT** _____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 ( ) Withdraw SRMs, after checking SRM/IRM overlap, as necessary to maintain SRM count rate between 1.0×10^2 and 1.0×10^5 counts.

Standard: Withdraws SRMs, after checking SRM/IRM overlap, by selecting the SRM A, B, C, D, E, F SEL pushbutton (P680-7C) and energizing the circuit by depressing the POWER ON pushbutton (the POWER ON pushbutton will back light). DRIVE OUT/DRIVING OUT pushbutton will back light when depressed and SRMs are selected and the detectors are moving. The detectors are selected as necessary to maintain count rates between 1.0×10^2 and 1.0×10^5 counts.

Comments: NOTE: If count rate exceeds 1.0×10^5 counts, the SRM UPSC ALM/INOP annunciator (P680-7A-B10) will alarm. If count rate drops below between 1.0×10^2 counts, the SRM DET RTRACT NOT PERM annunciator (P680-7A-C11) will alarm.

SAT _____ **UNSAT** _____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 9 (*) Range up the IRMs as power rises to keep the IRMs on scale.

Standard: Ranges up the IRMs by observing the IRM/APRM LVL recorders (1C51-NR-R603A, B, C, D on P680-5B & 7B) and depresses the appropriate UP IRM Range pushbuttons on P680-7C2 as power rises.

Comments: NOTE: The UP pushbuttons will back light when the IRM level has exceeded approximately 75% of scale informing the candidate to range up to the next scale. A CONT ROD WITHDRAWAL BLOCK annunciator (P680-4A2-C5) may occur if the candidate allows any IRMs to exceed 108/125 of IRM recorder scale and will be indicated by the IRM UPSC ALM annunciator (P680-7A-A9).

NOTE: At no time should a full reactor scram occur (a half scram is acceptable).

Should the IRMs exceed the trip setpoint of 120/125 of IRM recorder scale the respective RPS CH A, C, B, or D IRM UPSC TRIP/INOP annunciator (P680-5A-A8, B8 and 7A-A8, B8) will alarm and a RX SCRAM TRIP annunciator (P680-7A-A2) will alarm and all control rods will scram if RPS A and B trip.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 ( ) Fully withdraw the SRMs when all the range switches are on Range 3 or above.

Standard: Fully withdraws the SRMs per the C51 SOI when all the IRMs are on Range 3 or above by selecting the SRM A, B, C, D, E, & F SEL pushbuttons (P680-7C2) and energizing the circuit by depressing the POWER ON pushbutton. The POWER ON pushbutton will back light. The DRIVE OUT/DRIVING OUT pushbutton is depressed and the pushbutton will illuminate.

Comments: NOTE: When the respective SRM detector is fully withdrawn, the DIVING OUT lamp will de-energize. The candidate may de-select the SRM as these lights go out. Use of procedure as reference not required. May review in preparation before moving rods.

SAT _____ **UNSAT** ____

Item 11 (*) Raise reactor power to Range 4 of the IRMs.

Standard: Reactor power rises to Range 4 on all 8 IRM/APRM LVL recorders as indicated by the numerical range indicators on P680-7C2.

Comments: Candidate may or may not need to withdraw control rods to achieve this.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

The Control Room Supervisor is informed that the Reactor is critical on Range 4 of all IRMs.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

A plant startup following a refueling outage is in progress and rod withdrawal has commenced. All steps of IOI-1 up to step 5.31 have been completed. You are on Step 37 of the Control Rod Movement Sequence Sheet and control rods have been withdrawn in the present gang to position 42. Reactor Engineering has estimated criticality at some point on Step 38. The STA is available for Movement sheet verifications. Another RO is monitoring Reactor level and pressure.

Initiating Cue(s):

The Control Room Supervisor has directed you to withdraw Control Rods to bring the reactor critical and inform him when IRMs have reached Range 4.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PERFORM ATTACHMENT III OF SHUTDOWN FROM REMOTE SHUTDOWN PANELS ONEP

REASON FOR REVISION: update for NRC Exam 6/2001.

THIS DOCUMENT REPLACES GG-1-JPM-RO-C6108.00 .

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Perform Attachment III of Shutdown from Remote Shutdown Panels ONEP

JPM No. GG-1-JPM-RO-C6108 Rev. 01 Page 2 of 13

Task List No: CRO-C61-001

K/A Reference and Importance Factors (RO/SRO):

K/A 295016 AA1.07: 4.2/4.3; AK2.02: 4.0/4.1
2.1.30: 3.9/3.4; 2.4.35: 3.3/3.5

SAFETY FUNCTION – 7
RO Group unclassified
SRO Group unclassified
10 CFR 55.45 (a) (6 & 12)

Time Required for Completion: 30 Minutes (approximate).

Time Critical: YES/**NO**
Faulted JPM: YES/**NO**

ENTERS RCA
Abnormal procedure implementation in the plant.

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to perform Attachment III of the Shutdown from Remote Shutdown Panels ONEP. This attachment transfers control of selected Division I components from the Control Room to local Alternate Shutdown Panels. This task may be required by the Off Normal Event Procedure Shutdown from the Remote Shutdown Panels in the event of a fire in the Main Control Room.

This JPM will be performed in the Division I Switchgear room 111 ft elevation Control Building and 166 ft and 119 ft elevations of the Auxiliary Building. Prior to conducting this JPM, access permission must be obtained from the Shift Manager to allow entry into the affected cabinet(s) and to the required panel(s).

Required Material(s):

01 Attachment III of 05-1-02-II-1 - Shutdown from the Remote Shutdown Panels

02 Keys to the Remote Shutdown Panel Cabinet

03 Key to cover for Handswitch C61-HSS-M150 on Alternate Shutdown Panel H22-P152 (located in the Remote Shutdown Panel Cabinet)

General Reference(s):

01 Attachment III of 05-1-02-II-1

Safety Consideration(s):

01 Exercise extreme caution in and around Remote Shutdown Panels and Alternate Shutdown Panels.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

The Alternate Shutdown Panel Controls and H22-P152 have been shifted to support local control of Division I components.

Initial Condition(s): (The location for the initial conditions to be given is Control Room.)

During a fire in the Control Room, the SRO with the Command Function has determined that the Control Room must be evacuated and assigns operators to man the Remote Shutdown Panels. The Reactor is shutdown and RCIC and Main Steam Bypass valves are controlling reactor parameters. Section B of the ONEP is being utilized.

Initiating Cue(s):

The SRO with the Command Function has directed you to obtain a controlled copy of Attachment III of the Shutdown from Remote Shutdown Panels ONEP and complete the handswitch lineup.

Start Time: _____
??

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain Attachment III from the Remote Shutdown Panels Cabinet and the key for H22-P152 handswitch cover.

Standard: Candidate has obtained Attachment III and the key for C61-HSS-M150 on H22-P152.

Comments: **Provide the candidate with the Attachment III. Once the candidate notes the key is required to gain access to the handswitch have the candidate leave the KEY in the Remote Shutdown Panel Cabinet.**

SAT _____ **UNSAT** ____

Item 2 (*) Locate Alternate Shutdown Panel H22-P152 and C61-HSS-M150.

Standard: Candidate has located panel H22-P152 and handswitch C61-HSS-M150.

Comments: Panel is located in **Division I Switchgear Room with Bus 15AA on 111 ft elevation of the Control Building.**

DO NOT LET CANDIDATE OPEN COVER FOR C61-HSS-M150.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Opens the cover for C61-HSS-M150 and places the handswitch in ON.

Standard: Candidate indicates they would open the cover and place the handswitch in the ON position.

Comments: **CUE the candidate handswitch C61-HSS-M150 is in the ON position.**

SAT _____ **UNSAT** ____

Item 4 ( ) Observes that lockout relays R1-R36 trip to the LOCKOUT position.

Standard: Candidate indicates they would observe R1 - R36 in the LOCKOUT (trip) position.

Comments: **CUE the candidate R1 - R36 are in the LOCKOUT position.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 (*) Locate Alternate Shutdown Panel H22-P299.

Standard: Candidate has located panel H22-P299.

Comments: Panel is located in **Division I Switchgear Room with Bus 15AA on 111 ft elevation of the Control Building.**

SAT _____ **UNSAT** ____

Item 6 (*) At H22-P299, places the following handswitches in LOCAL position:
C61-HSS-M512 through M520

Standard: Candidate has placed handswitches in LOCAL:

C61-HSS-M512 _____	**C61-HSS-M517** _____
C61-HSS-M513 _____	**C61-HSS-M518** _____
C61-HSS-M514 _____	**C61-HSS-M519** _____
C61-HSS-M515 _____	**C61-HSS-M520** _____
C61-HSS-M516 _____	

on H22-P299.

Comments: **Cue the candidate that you understand the positions of the handswitches.**

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

NOTE: Panels in the Auxiliary Building may be done in any order.

Item 7 (*) Locate Alternate Shutdown Panel H22-P295.

Standard: Candidate has located panel H22-P295.

Comments: Panel is located in Division I Switchgear Room in **Area 7 119 ft elevation of the Auxiliary Building**.

SAT _____ **UNSAT** ____

Item 8 (*) At H22-P295, places the following handswitches in LOCAL position:
C61-HSS-M500 through M503

Standard: Candidate has placed handswitches in LOCAL:

C61-HSS-M500 _____ **C61-HSS-M502** _____
C61-HSS-M501 _____ **C61-HSS-M503** _____

on H22-P295.

Comments: **Cue the candidate that you understand the positions of the handswitches.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 9 (*) Locate Alternate Shutdown Panel H22-P296.

Standard: Candidate has located panel H22-P296.

Comments: Panel is located in **Division I Switchgear Room in area 9 119 ft elevation of the Auxiliary Building.**

SAT _____ **UNSAT** ____

Item 10 (*) At H22-P296, places the following handswitches in LOCAL position:
C61-HSS-M504 through M508

Standard: Candidate has placed handswitches in LOCAL:

C61-HSS-M504 _____ **C61-HSS-M507** _____
C61-HSS-M505 _____ **C61-HSS-M508** _____
C61-HSS-M506 _____

on H22-P296.

Comments: **Cue the candidate that you understand the positions of the handswitches.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 11 (*) Locate Alternate Shutdown Panel H22-P298.

Standard: Candidate has located panel H22-P298.

Comments: Panel is located in Division I Switchgear Room in area 7 166 ft elevation of the Auxiliary Building.

SAT _____ **UNSAT** ____

Item 12 (*) At H22-P298, places the following handswitches in LOCAL position:
C61-HSS-M510 and M511

Standard: Candidate has placed handswitches in LOCAL:

C61-HSS-M510 _____ **C61-HSS-M511** _____

on H22-P298.

Comments: **Cue the candidate that you understand the positions of the handswitches.**

SAT _____ **UNSAT** ____

TERMINATING CUE(s)

The candidate reports to the SRO with the Command Function that Attachment III of the Shutdown from the Remote Shutdown Panels ONEP 05-1-02-II-1 is complete.

STOP TIME _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

During a fire in the Control Room, the SRO with the Command Function has determined that the Control Room must be evacuated and assigns operators to man the Remote Shutdown Panels. The Reactor is shutdown and RCIC and Main Steam Bypass valves are controlling reactor parameters. Section B of the ONEP is being utilized.

Initiating Cue(s):

The SRO with the Command Function has directed you to obtain a controlled copy of Attachment III of the Shutdown from Remote Shutdown Panels ONEP and complete the handswitch lineup.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

SHUTDOWN SUPPRESSION POOL COOLING AND RETURN TO STANDBY LPCI LINEUP (FAULTED –VALVE FAILS ON STROKE MID POSITION)

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: SHUTDOWN SUPPRESSION POOL COOLING AND RETURN TO STANDBY LPCI LINEUP (FAULT – VALVE FAILS ON STROKE MID POSITION)

JPM No. GG-1-JPM-RO-E1230 Rev. 00 Page 2 of 13

Task List No: CRO-E12-019

K/A Reference and Importance Factors (RO/SRO):

K/A 219000 A2.04: 3.1/3.2; A3.01: 3.3/3.3; A4.01: 3.8/3.7
A4.02: 3.7/3.5; A4.03: 2.9/2.9; A4.04: 3.0/2.9
A4.08: 2.9/2.9
2.1.31: 4.2/3.9

SAFETY FUNCTION – 5
RO Group 2
SRO Group 2
10CFR55.45a(3 & 4)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to operate the Residual Heat Removal (RHR) System in Suppression Pool Cooling mode and actions to be taken when a valve fails to operate properly.

Initialize the simulator in any IC. Startup Suppression Pool Cooling on RHR ‘A’.

Upon receipt of ADS RHR A Pressure Permissive annunciator insert malfunction **e12188f MOV OVERLOAD Power loss on E12-F024A**

Required Material(s):

01 ARI 04-1-02-1H13-P601, Alarm Response Instructions for H13-P601
02 SOI 04-1-01-E12-1, Residual Heat Removal System

General Reference(s):

01 ARI 04-1-02-1H13-P601, Alarm Response Instructions for H13-P601
02 SOI 04-1-01-E12-1, Residual Heat Removal System

Safety Consideration(s):

01 None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

RHR 'A' is returned to LPCI standby.

Initial Condition(s):

Residual Heat Removal 'A' is operating in Suppression Pool Cooling.

Initiating Cue(s):

The Control Room Supervisor has directed you to shutdown Suppression Pool Cooling on RHR 'A'. Another operator will place RHR 'A' in the LPCI Standby lineup. Another operator will secure Standby Service Water 'A'.

Start Time: _____
??

EVALUATOR NOTE: THERE ARE TWO POSSIBLE SUCCESS PATHS TO THE JPM.

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of SOI 04-1-01-E12-1 and review precautions and limitations for feeding the reactor.

Standard: Candidate obtains a controlled copy of SOI 04-1-01-E12-1 and reviews procedures.

Comments:

SAT _____ **UNSAT** ____

Item 2 ( ) Place RHR A MOV Test Switch to TEST.

Standard: Candidate places RHR A MOV TEST Switch to TEST on H13-P601 section 20B.

Comments:

SAT _____ **UNSAT** ____

If asked, cue the candidate Tech Spec 3.6.2.1 for Suppression Pool Temperature has be verified in compliance.

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Close E12-F024A, RHR A TEST RN TO SUPP POOL.

Standard: Candidate closes E12-F024A, RHR A TEST RN TO SUPP POOL.

Comments: **NOTE: 90 seconds after the valve begins stroke E12-F024A (40% Valve position) will bind and loose power in mid position.**

SIMULATOR OPERATOR INSERT MALFUNCTION FOR E12188F, VALVE FAILURE MALFUNCTION TAKES EFFECT AND STOPS VALVE MOTION.

SAT _____ **UNSAT** ____

WHEN CANDIDATE OBSERVES E12-F024A LOSS OF POWER FAILURE MID POSITION ONE OF THE FOLLOWING SHOULD BE CONDITIONS.

IF THE CANDIDATE NOTES FAILURE OF E12-F024A PRIOR TO SECURING RHR 'A' PUMP, THE CANDIDATE SHOULD LEAVE THE PUMP OPERATING AND REPORT THE FAILURE TO THE CONTROL ROOM SUPERVISOR. PROCEED TO ITEM 4.

IF THE CANDIDATE SECURES THE PUMP WITH E12-F024A PARTIALLY OPEN, RHR A DISCHARGE PRESSURE ABNORMAL ANNUNCIATOR WILL COME IN. PROCEED TO ITEM 13.

Item 4 (*) Dispatch an operator to reset the circuit breaker for E12-F024A 52-153122.

Standard: Candidate dispatches an operator to reset and close breaker 52-153122.

Comments: **SIMULATOR OPERATOR Remove Malfunction e12188f. Cue the candidate breaker 52-153122 is reset and closed.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 (*) Place handswitch for E12-F024A, RHR A TEST RETURN to CLOSE

Standard: Candidate closes E12-F024A.

Comments:

SAT _____ **UNSAT** ____

Item 6 ( ) Check E2-F064A, RHR A Minimum Flow Valve opens when flow drops to <1154 GPM after time delay and prior to pump stop.

Standard: Candidate observes E12-F064A open.

Comments:

SAT _____ **UNSAT** ____

Item 7 (*) Stop RHR PMP A.

Standard: Candidate stops RHR Pump A on H13-P601 section 20C.

Comments: If ITEM 13 was performed because the Pump was previously stopped. Skip this ITEM.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 (*) Open E12-F048A, RHR Heat Exchanger Bypass Valve.

Standard: Candidate opens E12-F048A on H13-P601 section 20C and observes indicator on section 20B indicates 100%.

Comments:

SAT _____ **UNSAT** ____

Item 9 ( ) Open E12-F003A, RHR Heat Exchanger Outlet Valve.

Standard: Candidate observes indicator on H13-P601 section 20B indicates 100% for E12-F003A.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 ( ) Check open E12-F064A, RHR A Minimum Flow Valve.

Standard: Candidate observes red light indication illuminated for E12-F064A on H13-P601 section 20C.

Comments:

SAT _____ **UNSAT** ____

Item 11 ( ) Vent RHR A.

Standard: Candidate vents RHR A per section 5.1.2e.

Comments: **Cue the candidate RHR A is vented.**

SAT _____ **UNSAT** ____

Item 12 ( ) Check open E12-F064A.

Standard: Candidate observes red light indication illuminated for E12-F064A on H13-P601 section 20C.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 12 ( ) Stop RHR RM A Fan Coil on H13-P870 section 1C.

Standard: Candidate stops RHR RM A Fan Coil Unit on H13-P870 section 1C.

Comments:

SAT _____ **UNSAT** ____

IF RHR A PUMP WAS STOPPED WITH E12-F024A PARTIALLY OPEN THE RHR A DISCH PRESSURE ABNORMAL ALARM WILL BE RECEIVED. IF THIS OCCURS ITEM 13 MUST BE PERFORMED PRIOR TO SECURING THE RHR A LINEUP. THEN ITEM 14 IS COMPLETED.

Item 13 (*) Rack out RHR A pump Breaker 152-1509.

Standard: Candidate dispatches an operator to rack out RHR A Pump Breaker.

Comments: **SIMULATOR OPERATOR remote function e12640 to OUT.**

SAT _____ **UNSAT** ____

Return to Item 4.

Item 14 (*) Rack in RHR A pump Breaker 152-1509.

Standard: Candidate dispatches an operator to rack in RHR A Pump Breaker.

Comments: **SIMULATOR OPERATOR remote function e12640 to IN.**

SAT _____ **UNSAT** ____

IF CANDIDATE CALLS END OF TASK WITH THE RHR A PUMP BREAKER RACKED IN WITH A DISCHARGE PRESSURE ABNORMAL ANNUNCIATOR ILLUMINATED, THIS CONSTITUTES A FAILURE OF THE JPM.

TERMINATING CUE(s):

RHR A is aligned for LPCI standby with Suppression Pool Cooling secured.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

Residual Heat Removal ‘A’ is operating in Suppression Pool Cooling.

Initiating Cue:

The Control Room Supervisor has directed you to shutdown Suppression Pool Cooling on RHR ‘A’. Another operator will place RHR ‘A’ in the LPCI Standby lineup. Another operator will secure Standby Service Water ‘A’.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

MANUALLY INITIATE ADS (FAULTED)

REASON FOR REVISION: update JPM for NRC Examination 6-2001

THIS DOCUMENT REPLACES OP-LOR-JPM-CRO-E22-F01-00

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: MANUALLY INITIATE ADS (FAULTED)

JPM No. GG-1-JPM-RO-E2223 Rev. 00 Page 2 of 10

Task List No: CRO-E22(1)–002

K/A Reference and Importance Factors (RO/SRO):

K/A 218000 A3.01 – 4.2/4.3; A4.01 – 4.4/4.4;
A4.02 – 4.2/4.2; A4.10 – 3.8/3.8;
2.1.30 – 3.9/3.4

SAFTEY FUNCTION - 3
RO GROUP 1
SRO GROUP 1
10CFR55.45a (3 & 6)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to manually initiate the Automatic Depressurization System (ADS) as required by the Emergency Procedures.

This JPM should be performed in the simulator. Initialize the simulator to IC - 17 and perform the following:

Override annunciators **P601-18A-F2; P601-19A-F2; P601-19A-C5 OFF**
Disable the **ADS A/B/E/F MANUAL INITIATIO**N pushbuttons by toggling all four to the **NORM** status
Place the **ADS MANUAL INHIBIT A/B** handswitches in **INHIBIT**
Disable the handswitch for ADS valve **B21 F041K** on P601 to **OFF**
Insert malfunctions **e22052** HPCS trip and **e51044** RCIC trip
Enter malfunction **RR063A @ 20%**
Place the Reactor Mode Switch in **SHUTDOWN**

Allow Reactor level to lower to –167 inches
Freeze the simulator with reactor pressure elevated.

THE ULTIMATE GOAL OF THIS JPM IS TO ENSURE THAT THE CANDIDATE IS ABLE TO ACCOMPLISH THE TASK OF OPENING 8 ADS/SRV'S IN AN EMERGENCY SITUATION.

Required Material(s):

01 SOI 04-1-01-B21-1 Sect. 5.1

General Reference(s):

01 SOI 04-1-01-B21-1 Sect. 5.1

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Open 8 ADS/RSV's. One non-ADS valve will have to be opened due to a failure of B21 F041K failure to open with its handswitch.

Initial Condition(s):

The plant has experienced a LOCA and the Emergency Procedures are being implemented. Division 1 and 2 Low Pressure ECCS systems have AUTO initiated.

Initiating Cue(s):

The Control Room Supervisor has determined that it is necessary to perform an emergency depressurization of the reactor vessel. He has directed you to manually initiate the Automatic Depressurization System (ADS).

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Verify at least one low pressure ECCS pump is running.

Standard: Verifies red indicating light energized for any one of the following pumps: E21-C001 (LPCS PMP) or E12-C002A (RHR A PMP) or E12-C002B (RHR B PMP) or E12-C002C (RHR C PMP) on P601.

Comments: Candidate may verify one of the following to satisfy Item 1: ADS A LPCS/RHR A PERM (P601-18A-E2) or ADS B RHR B/RHR C PERM (P601-19A-E2) annunciators **OR** discharge pressure indication of approximately 350 psig on RHR A or RHR B HX PRESS indicators 1E12-PI-R606A-1 (RHR A) and 1E12-PI-R606B-1 (RHR B) on P601.

SAT _____ **UNSAT** ____

Item 2 ( ) Arm and depress the ADS LOGIC A and E MAN INIT pushbuttons on 1H13-P601.

Standard: ADS LOGIC A and E MAN INIT pushbuttons are armed and depressed.

Comments: Completion of JPM Item 2 will not result in completion of this task; therefore, this task is not critical.

If asked for guidance from the SRO, cue the candidate that the SRO wants the valves opened with the handswitches.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 ( ) Arm and depress the ADS LOGIC B and F MAN INIT pushbuttons on 1H13-P601.

Standard: ADS LOGIC B and F MAN INIT pushbuttons are armed and depressed.

Comments: Completion of JPM Item 3 will not result in completion of this task; therefore, this task is not critical.

If asked for guidance from the SRO, cue the candidate that the SRO wants the valves opened with the handswitches.

SAT _____ **UNSAT** ____

Item 4 (*) Place the keylocked handswitches for eight ADS/SRVs in the OPEN position.

Standard: Keylocked handswitches for **AT LEAST EIGHT** of the 20 ADS/SRVs valves are in the OPEN position with OPEN indication for at least eight of those valves.

Comments: **If candidate attempts to open B21 F041K, he should recognize it failed to open with the handswitch. If asked for guidance from the SRO, cue the candidate to open a non-ADS valve.**

SAT _____ **UNSAT** _

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 ( ) Check eight ADS/SRVs open.

Standard: Checks tailpipe pressure indicating lights on 1H13-P601 are red for the eight ADS/SRVs opened.

Comments: Candidate may note annunciators on H13-P601 indicating ADS/SRVs open have illuminated.

SAT _____ **UNSAT** ____

TERMINATING CUE(s)

Eight ADS/SRVs are open.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant has experienced a LOCA and the Emergency Procedures are being implemented. Division 1 and 2 Low Pressure ECCS systems have AUTO initiated.

Initiating Cue(s):

The Control Room Supervisor has determined that it is necessary to perform an emergency depressurization of the reactor vessel. He has directed you to manually initiate the Automatic Depressurization System (ADS).

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-RO-E5101
Revision: 01
Page: 1 of 16
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

RCIC MANUAL STARTUP (STEAM LEAK)

REASON FOR REVISION: Change to incorporate IRS's and format for NRC Exam.

THIS DOCUMENT REPLACES GG-1-JPM-RO-E5101.01

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: RCIC Manual Startup (Faulted)

JPM No. GG-1-JPM-RO-E5101 Rev. 01 Page 2 of 16

Task List No: CRO-E51-003

K/A Reference and Importance Factors (RO/SRO):

K/A 217000 A2.03 - 3.4/3.3; A2.15 - 3.8/3.8; A3.01 – 3.5/3.5; A3.06 - 3.5/3.4; A4.01 – 3.7/3.7; A4.03 - 3.4/3.3; A4.04 – 3.6/3.6; A4.10 - 3.6/3.5; 2.1.28 – 3.2/3.3; 2.1.30 – 3.9/3.4; 2.4.31 – 3.3/3.4; 2.4.46 – 3.5/3.6; 2.4.49 – 4.0/4.0; 2.4.50 – 3.3/3.3

SAFETY FUNCTION – 4 & 2
RO GROUP 1
SRO GROUP 1
10CFR55.45a (3 & 6)

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to recognize and correct a failure of RCIC Steam Supply Valves, E51-F063 and E51-F064, to isolate upon a steam leak in the RCIC steam supply line. The performance of this task may be required during operation of the RCIC System.

This JPM will be performed in the simulator. To establish the initial conditions for performance of this JPM, initialize the simulator to IC-17. With all systems in the normal lineup, place SSW Subsystem A in service in accordance with SOI 04-1-01-P41-1. Ensure SSW Subsystem A has flow coming to the plant.

Defeat all RCIC Isolations and Non-Mechanical Turbine Trips using the following remote functions:

E51319 Division I
E51320 Division II

Insert the following malfunctions:

E51049 RCIC Steam Line Leak at (100 %) on Trigger 1 with a 60 sec. time delay. Enter Trigger 1 when E51 F045 is opened.

All control room operations will be performed on panel 1H13-P601, unless noted otherwise.

Required Material(s):

01 SOI 04-1-01-E51-1 "RCIC System"

General Reference(s):

01 SOI 04-1-01-E51-1 "RCIC System"
02 ARI 04-1-02-P601-21A C1,D1,G3,H2,H3

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

The E51-F063, RCIC STM SPLY DWL INBD ISOL, E51-F064, RCIC STM SPLY DWL OTBD ISOL and E51-F076 RCIC STM SPLY WARMUP VLV (If open) are closed.

Initial Condition(s):

The reactor is operating at rated conditions. RCIC is in Standby, Health Physics has been notified of the RCIC run and has placed an air sampler in the room, the test return valves to the CST, P11-F064 and P11-F065, are open, and the RCIC turbine trip lever has been checked for binding. SSW Subsystem A is in operation in accordance with SOI 04-1-01-P41-1. Nuclear Plant Engineering is in the process of performing a RCIC flow analysis study.

Initiating Cue(s):

The Control Room Supervisor has directed you to perform a controlled manual startup of the RCIC System and place RCIC in the CST to CST mode of operation with a flow of 800 gpm at a discharge pressure of 300 psig.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain controlled copy of Reactor Core Isolation Cooling System SOI.

Standard: Candidate has obtained a controlled copy of the Reactor Core Isolation Cooling System SOI, 04-1-01-E51-1.

Comments: **If asked cue the candidate that a NLO will monitor Suppression Pool Temperature, GETARS is operating, and oil levels on RCIC have been verified satisfactory.**

SAT _____ **UNSAT** ____

Item 2 ( ) Start the RCIC RM FAN COIL UNIT.

Standard: The candidate starts the fan coil unit using the RCIC RM FAN COIL UNIT handswitch on panel P870-1C, as indicated by the illuminated red light above the handswitch.

Comments: The candidate should note that SSW A is operating with flow coming to the plant.

SAT _____ **UNSAT** ____

Item 3 ( ) Close E51 F268, Press Lock Isol for F013.

Standard: The candidate directs another operator to close E51 F268.

Comments: **If candidate directs another operator to close E51 F268, cue candidate that E51 F268 is closed.**

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 (*) Shift the RCIC FLO CONT to MANUAL.

Standard: The candidate shifts the flow controller to MANUAL using the M/A switch on flow controller E51-FK-R600 on panel P601-21B.

Comments:

SAT _____ **UNSAT** ____

Item 5 (*) Reduce the RCIC FLO CONT output to minimum.

Standard: The candidate reduces the flow controller output to minimum using the CLOSE pushbutton on flow controller E51-FK-R600 on panel P601-21B, as indicated by the controller output set to 0.

Comments:

SAT _____ **UNSAT** ____

Item 6 ( ) Place the RCIC DIV I and DIV II MOV TEST switches to TEST.

Standard: Places the RCIC DIV I and DIV II MOV TEST switches to TEST.

Comments: The RCIC SYS OOSVC (P601-21A-H5) annunciator on P601-21A will alarm and the white RCIC DIV I and DIV II MOV IN TEST status lights on P601-21A will illuminate.

This item may be performed out of sequence prior to MOV operation.

SAT _____ **UNSAT** _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 7 (*) Open MOV-F046.

Standard: The candidate opens F046 using the RCIC WTR TO TURB LUBE OIL CLR handswitch on panel P601-21C, as indicated by the illuminated red light above the valve handswitch.

Comments:

SAT _____ **UNSAT** ____

Item 8 ( ) Start the Turbine Gland Seal Compressor.

Standard: The candidate starts the compressor using the RCIC GL SEAL COMPR handswitch on panel P601-21C, as indicated by the illuminated red light above the compressor handswitch.

Comments:

SAT _____ **UNSAT** ____

Item 9 (*) Open F095.

Standard: The candidate opens F095 using the RCIC STM SPLY BYP VLV handswitch on panel P601-21C, as indicated by the illuminated red light above the valve handswitch and by increasing RPM on the turbine.

Comments: The RCIC turbine should begin to roll as indicated by the RCIC TURB SPD meter on P601-21B.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) After six seconds, open MOV-F045.

Standard: After a minimum of six seconds, the candidate opens F045 using the RCIC STM SPLY TO RCIC TURB handswitch on panel P601-21C, as indicated by the illuminated red light above the valve handswitch.

Comments: The F095 will close approximately 15 seconds after the F045 begins to Open.

SAT _____ **UNSAT** ____

SIMULATOR OPERATOR ACTIVATE TRIGGER 1.
ENSURE BREAK IS INSERTED AT 100%.
STEAM LEAK WILL BE INSERTED WHEN E51-F045 OPENS.

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

THIS ITEM WILL OCCUR WHEN ANNUNCIATORS ARE RECEIVED DENOTING THE STEAM LEAK.

Item 11 (*) Close E51-F063, RCIC STM SPLY DWL INBD ISOL, E51-F064, RCIC STM SPLY DWL OTBD ISOL and E51-F076, RCIC STM SPLY WARMUP VLV (If open).

Standard: Candidate closes the E51-F063, RCIC STM SPLY DWL INBD ISOL, E51-F064, RCIC STM SPLY DWL OTBD ISOL, and E51-F076, RCIC STM SPLY WARMUP VLV (If open) using the valve handswitches on 1H13-P601.

Comments: This step is required to be performed prior to the candidate completing the JPM, in response to one or more of the following annunciators, prior to the completion of the JPM:

1H13-P601-21A-C1, RCIC DIV 1 STM LINE DP HI
1H13-P601-21A-D1, RCIC DIV 2 STM LINE DP HI
1H13-P601-21A-H2, RCIC PIPE/EQUIP AMBIENT TEMP HI
1H13-P601-21A-H3, RCIC EQUIP AREA DT HI
1H13-P601-21A-G3, RCIC EQUIP AREA TEMP HI

These annunciators will annunciate during the JPM, due to the steam leak malfunction. This will occur at different times during the JPM, dependent upon the speed of the candidate performing the JPM.

If the candidate asks the SRO if he wants the RCIC Steam Isolation Valves closed, cue the candidate take action according to the Alarm Response Instruction.

If the candidate announces annunciator to SRO and asks what should be done, cue the candidate, as the SRO, to take action according to the Alarm Response Instruction.

SAT _____ **UNSAT** _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 12 (*) Raise turbine speed to develop greater than 2000 rpm.

Standard: The candidate raises turbine speed to develop greater than 2000 rpm using the RCIC FLOW CONT in MANUAL by depressing the OPEN pushbutton until turb. speed is >2000 rpm, as indicated on RCIC TURB SPEED indicator E51-R605 on panel P601-21B.

Comments: Flow greater than 95 gpm to the CST should be established (Items 11, 12 and 13) as soon as RCIC pressure exceeds 125 psig to minimize the amount of CST water pumped to the Suppression Pool via the RCIC minimum flow line.

Once Item 11 occurs, this step is not critical.

SAT _____ **UNSAT** ____

Item 13 (*) Open F059.

Standard: The candidate opens F059, when discharge pressure is above 125 psig, using the RCIC OTBD TEST RTN TO CST handswitch on panel P601-21C, as indicated by the illuminated red light above the valve handswitch.

Comments: **Once Item 11 occurs, this step is not critical.**

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 14 (*) Open F022.

Standard: The candidate opens F022 using the RCIC INBD TEST RTN TO CST handswitch on panel P601-21C, as indicated the illuminated red light above the valve handswitch.

Comments: **Once Item 11 occurs, this step is not critical.**

SAT _____ **UNSAT** ____

Item 15 (*) Throttle open F551.

Standard: The candidate throttles open F551 using the RCIC TEST RTN FCV TO CST handswitch on panel P601-21C.

Comments: The F551 valve does not have a remote position indicator, therefore the candidate has to estimate position based upon the changes observed in the RCIC system discharge pressure and flow.

If the candidate requests an operator to locally verify the F551 valve open after he or she has held the handswitch in the open position for approximately 30 seconds, then cue the operator that the F551 valve is open.

Once Item 11 occurs, this step is not critical.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 16 (*) Varies turbine speed and throttles FV-551 as necessary to obtain 800 gpm RCIC flow and 300 psig RCIC discharge pressure.

Standard: The candidate varies turbine speed to obtain 800 gpm (± 50 gpm) as indicated on RCIC PUMP DISCH FLOW indicator E51-FI-R606 by using the OPEN and CLOSE pushbutton on flow controller E51-FK-R600 on panel P601-21B and throttles RCIC TEST RETURN FCV TO CST, F551 to obtain 300 psig (± 50 psig) on RCIC DISCH PRESS gauge E51-PI-R601 on panel P601-21B.

Comments: Many adjustments will be needed to obtain desired values.

Once Item 11 occurs, this step is not critical.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 17 ( ) Return the RCIC DIV I and DIV II MOV TEST switches to NORMAL.

Standard: Returns the RCIC DIV I and DIV II MOV TEST switches to NORMAL.

Comments: The RCIC SYS OOSVC (P601-21A-H5) annunciator on P601-21A will clear and the white RCIC DIV I and DIV II MOV IN TEST status lights on P601-21A will de-energize.

The switch is allowed to stay in test as long as the MOV's are being operated but, should be returned to normal after valves have stroked. Switch must not remain in test greater than 8 hours.

NOTE The MOV test switches may be taken to NORMAL prior to closing the steam isolation valves to prevent the valves from tripping on thermal overloads during closure.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

The E51-F063, RCIC STM SPLY DWL INBD ISOL, E51-F064, RCIC STM SPLY DWL OTBD ISOL and E51-F076, RCIC STM SPLY WARMUP VLV (If open) are closed.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The reactor is operating at rated conditions. RCIC is in Standby, Health Physics has been notified of the RCIC run and has placed an air sampler in the room, the test return valves to the CST, P11-F064 and P11-F065, are open, and the RCIC turbine trip lever has been checked for binding. SSW Subsystem A is in operation in accordance with SOI 04-1-01-P41-1. Nuclear Plant Engineering is in the process of performing a RCIC flow analysis study.

Initiating Cue(s):

The Control Room Supervisor has directed you to perform a controlled manual startup of the RCIC System and place RCIC in the CST to CST mode of operation with a flow of 800 gpm at a discharge pressure of 300 psig.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

DEFEAT RC&IS CONTROL ROD DRIVE BLOCKS (EP-2 ATTACHMENT 20)

REASON FOR REVISION: update JPM for NRC exam 6/2001.

THIS DOCUMENT REPLACES GG-1-JPM-RO-EP030.00.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: DEFEAT RC&IS CONTROL ROD DRIVE BLOCKS (EP-2 ATT. 20)

JPM No. GG-1-JPM-RO-EP030 Rev. 01 Page 3 of 12

Task List No: CRO-EP-020

K/A Reference and Importance Factors (RO/SRO):

K/A 201005 A2.03: 3.2/3.2; A2.06: 3.2/3.2
295037 EK2.12: 3.6/3.8; EK3.07: 4.2/4.3; EA1.08: 3.6/3.6
295015 AA1.04: 3.4/3.7
2.1.20: 4.3/4.2; 2.1.30: 3.9/3.4

SAFETY FUNCTION – 1 & 7
RO Group 1
SRO Group 1
10 CFR 55.45 (a)(3 & 6)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

CONTROL ROOM

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X (CONTROL ROOM) Simulator _____

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to defeat RCIS control rod drive blocks during an ATWS. This allows the insertion of control rods using normal control rod drive system. This is Attachment 20 of EP-2 RPV Control.

Inform the On-Duty Shift Manager and obtain permission to open the Main Control Room and Upper Control Room Back Panels.

The proper method of evaluation is by simulation in the Main Control Room.

Required Material(s):

01 Emergency Operating Procedure 05-S-01-EP-2, RPV Control Attachment 20, Defeating RC&IS Control Rod Drive Blocks
02 Flashlight
03 Laser Pointer (optional)

General Reference(s):

01 Emergency Operating Procedure 05-S-01-EP-2, RPV Control Attachment 20, Defeating RC&IS Control Rod Drive Blocks

Safety Consideration(s):

01 Contact Shift Manager and obtain permission to enter Main Control Room and Upper Control Room back panels.
02 Candidate should not touch any of the relays or terminal boards in the back panels, use the flashlight and laser pointer to denote actions to be taken in the panels.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

RC&IS control rod blocks are defeated using Attachment 20 of EP-2.

Initial Condition(s): (The location for the initial conditions to be given is the Control Room.)

The plant is at 30% power in an ATWS condition. The Control Room Supervisor is directing actions per EP-2A.

Initiating Cue(s):

The Control Room Supervisor has directed you to defeat RC&IS Control Rod Drive Blocks per EP-2 Attachment 20.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) Locate the Main Control Room Emergency Locker and the Emergency Procedure Jumper Kits.

Standard: Candidate locates the Main Control Room Emergency Locker and the Emergency Procedure Jumper Kits

Comments: (located in the Main Control Room just inside the door coming from the Control Building elevator)

SAT _____ **UNSAT** ____

Item 2 ( ) Obtain a controlled copy of EP-2 Attachment 20.

Standard: Candidate obtains a controlled copy of EP-2 Attachment 20.

Comments: **When the candidate locates the Attachment the evaluator may provide the candidate a copy of the procedure.**

SAT _____ **UNSAT** ____

Item 3 (*) Inspect Jumper Kit for two (2) jumpers.

Standard: Candidate locates jumper kit and verifies there are two (2) jumpers.

Comments: **NOTE: Once the candidate locates the jumpers have the candidate leave the jumpers in the locker.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 (*) Locate Main Control Room Panel H13-P618 Bay C.

Standard: Candidate locates Main Control Room Panel H13-P618 Bay C.

Comments:

SAT _____ **UNSAT** ____

Item 5 (*) Locates the affected relay C11A-K08 (3rd row of agastat relays from top, 6th relay from left)

Standard: Candidate locates the affected relay C11A-K08 (3rd row of agastat relays from top, 6th relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 (*) Install Jumper between Terminals M1 and T1 on relay C11A-K08.

Standard: Candidate locates terminals M1 and T1 and indicates the installation of a jumper between Terminals M1 and T1 on relay C11A-K08.

Comments: **Candidate should point out terminals M1 and T1.**

SAT _____ **UNSAT** ____

Item 7 ( ) Initials Alteration Tracking Sheet for Jumper 1 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 1.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 (*) Locate Upper Control Room Panel H13-P629 Bay C.

Standard: Candidate locates Upper Control Room Panel H13-P629 Bay C.

Comments:

SAT _____ **UNSAT** ____

Item 9 (*) Locates the affected relay C11A-K1 (4th row of agastat relays from top, 1st relay from left)

Standard: Candidate locates the affected relay C11A-K1 (4th row of agastat relays from top, 1st relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Install Jumper between Terminals M1 and T1 on relay C11A-K1.

Standard: Candidate locates terminals M1 and T1 and indicates the installation of a jumper between Terminals M1 and T1 on relay C11A-K1.

Comments: **Candidate should point out terminals M1 and T1.**

SAT _____ **UNSAT** ____

Item 11 ( ) Initials Alteration Tracking Sheet for Jumper 2 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 2.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Inform the Control Room Supervisor that EP-2 Attachment 20 has been installed to defeat RC&IS Control Rod Drive Blocks.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is at 30% power in an ATWS condition. The Control Room Supervisor is directing actions per EP-2A.

Initiating Cue(s):

The Control Room Supervisor has directed you to defeat RC&IS Control Rod Drive Blocks per EP-2 Attachment 20.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-RO-EP031
Revision: 00
Page: 1 of 16
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

DEFEAT RPS LOGIC TRIPS (EP-2 ATTACHMENT 19)

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: DEFEAT RPS LOGIC TRIPS (EP-2 ATT. 19)

JPM No. GG-1-JPM-RO-EP031 Rev. 00 Page 3 of 16

Task List No: CRO-EP-019

K/A Reference and Importance Factors (RO/SRO):

K/A 212000 A4.14: 3.8/3.8; A4.17: 4.1/4.1
295037 EK2.01: 4.2/4.3; EK3.07: 4.2/4.3; EA1.01: 4.6/4.6
295015 AA1.02: 4.0/4.2
2.1.20 – 4.3/4.2; 2.1.30 – 3.9/3.4

SAFETY FUNCTION –7
RO Group 1
SRO Group 1
10 CFR 55.45 (a)(3 & 6)

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: YES/**NO**

CONTROL ROOM

APPLICABLE METHOD OF TESTING

Performance: Simulate X Actual _____

Setting: Classroom _____ Plant X Simulator _____
(CONTROL ROOM)

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to defeat RPS Logic trips during an ATWS. This allows the RPS Scram signal to be reset closing the scram inlet and outlet valves and draining the Scram Discharge Volume. This is Attachment 19 of EP-2 RPV Control.

Inform the On-Duty Shift Manager and obtain permission to open the Main Control Room and Upper Control Room Back Panels.

The proper method of evaluation is by simulation in the Main Control Room.

Required Material(s):

01 Emergency Operating Procedure 05-S-01-EP-2, RPV Control Attachment 19, Defeating RPS Logic Trips
02 Flashlight
03 Laser Pointer (optional)

General Reference(s):

01 Emergency Operating Procedure 05-S-01-EP-2, RPV Control Attachment 19, Defeating RPS Logic Trips

Safety Consideration(s):

01 Contact Shift Manager and obtain permission to enter Main Control Room and Upper Control Room back panels.
02 Candidate should not touch any of the relays or terminal boards in the back panels, use the flashlight and laser pointer to denote actions to be taken in the panels.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

RPS logic trips are defeated using Attachment 19 of EP-2.

Initial Condition(s): (The location for the initial conditions to be given is the Control Room.)

The plant is at 30% power in an ATWS condition. The Control Room Supervisor is directing actions per EP-2A.

Initiating Cue(s):

The Control Room Supervisor has directed you to defeat RPS Logic Trips per EP-2 Attachment 19.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 (*) Locate the Main Control Room Emergency Locker and the Emergency Procedure Jumper Kits.

Standard: Candidate locates the Main Control Room Emergency Locker and the Emergency Procedure Jumper Kits

Comments: (located in the Main Control Room just inside the door coming from the Control Building elevator)

SAT _____ **UNSAT** ____

Item 2 ( ) Obtain a controlled copy of EP-2 Attachment 19.

Standard: Candidate obtains a controlled copy of EP-2 Attachment 19.

Comments: **When the candidate locates the Attachment the evaluator may provide the candidate a copy of the procedure.**

SAT _____ **UNSAT** ____

Item 3 (*) Inspect Jumper Kit for four (4) jumpers.

Standard: Candidate locates jumper kit and verifies there are four (4) jumpers.

Comments: **NOTE: Once the candidate locates the jumpers have the candidate leave the jumpers in the locker.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 (*) Locate Main Control Room Panel H13-P692 Bay B.

Standard: Candidate locates Main Control Room Panel H13-P692 Bay B.

Comments:

SAT _____ **UNSAT** ____

Item 5 (*) Locates the affected relays C71-K9B (2nd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K9B (2nd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

Item 6 (*) Locates the affected relays C71-K15B (3rd row of agastat relays from top, 3rd relay from left)

Standard: Candidate locates the affected relay C71-K15B (3rd row of agastat relays from top, 3rd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 7 (*) Install jumper between Terminals T1 on relay C71-K9B and T1 on relay C71-K15B.

Standard: Candidate locates terminals T1 on relay C71-K9B and T1 on relay C71-K15B and indicates the installation of a jumper between the terminals.

Comments: **Candidate should point out the terminals.**

SAT _____ **UNSAT** ____

Item 8 ( ) Initials Alteration Tracking Sheet for Jumper 1 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 1.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 9 (*) Locate Main Control Room Panel H13-P694 Bay B.

Standard: Candidate locates Main Control Room Panel H13-P694 Bay B.

Comments:

SAT _____ **UNSAT** ____

Item 10 (*) Locates the affected relays C71-K9D (2nd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K9D (2nd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

Item 11 (*) Locates the affected relays C71-K15D (3rd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K15D (3rd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 12 (*) Install jumper between Terminals T1 on relay C71-K9D and T1 on relay C71-K15D.

Standard: Candidate locates terminals T1 on relay C71-K9D and T1 on relay C71-K15D and indicates the installation of a jumper between the terminals.

Comments: **Candidate should point out the terminals.**

SAT _____ **UNSAT** ____

Item 13 ( ) Initials Alteration Tracking Sheet for Jumper 2 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 2.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 14 (*) Locate Upper Control Room Panel H13-P691 Bay B.

Standard: Candidate locates Upper Control Room Panel H13-P691 Bay B.

Comments:

SAT _____ **UNSAT** ____

Item 15 (*) Locates the affected relays C71-K9A (2nd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K9A (2nd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

Item 16 (*) Locates the affected relays C71-K15A (3rd row of agastat relays from top, 3rd relay from left)

Standard: Candidate locates the affected relay C71-K15A (3rd row of agastat relays from top, 3rd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 17 (*) Install jumper between Terminals T1 on relay C71-K9A and T1 on relay C71-K15A.

Standard: Candidate locates terminals T1 on relay C71-K9A and T1 on relay C71-K15A and indicates the installation of a jumper between the terminals.

Comments: **Candidate should point out the terminals.**

SAT _____ **UNSAT** ____

Item 18 ( ) Initials Alteration Tracking Sheet for Jumper 3 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 3.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 19 (*) Locate Upper Control Room Panel H13-P693 Bay B.

Standard: Candidate locates Upper Control Room Panel H13-P693 Bay B.

Comments:

SAT _____ **UNSAT** ____

Item 20 (*) Locates the affected relays C71-K9C (2nd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K9C (2nd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

Item 21 (*) Locates the affected relays C71-K15C (3rd row of agastat relays from top, 2nd relay from left)

Standard: Candidate locates the affected relay C71-K15C (3rd row of agastat relays from top, 2nd relay from left).

Comments: **Candidate should point out the relay.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 22 (*) Install jumper between Terminals T1 on relay C71-K9C and T1 on relay C71-K15C.

Standard: Candidate locates terminals T1 on relay C71-K9C and T1 on relay C71-K15C and indicates the installation of a jumper between the terminals.

Comments: **Candidate should point out the terminals.**

SAT _____ **UNSAT** ____

Item 23 ( ) Initials Alteration Tracking Sheet for Jumper 4 installed.

Standard: Candidate initials Alteration Tracking Sheet for Jumper 4.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Inform the Control Room Supervisor that EP-2 Attachment 19 has been installed to defeat RPS Logic Trips.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

The plant is at 30% power in an ATWS condition. The Control Room Supervisor is directing actions per EP-2A.

Initiating Cue(s):

The Control Room Supervisor has directed you to defeat RPS Logic Trips per EP-2 Attachment 19.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ALIGN FEEDWATER SYSTEM FOR STARTUP LEVEL CONTROL (FAULTED –VALVE FAILS OPEN)

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: ALIGN FEEDWATER SYSTEM FOR STARTUP LEVEL CONTROL
(FAULT – VALVE FAILS OPEN)

JPM No. GG-1-JPM-RO-N2120 Rev. 00 Page 2 of 15

Task List No: CRO-N21-025

K/A Reference and Importance Factors (RO/SRO):

K/A 259002 A1.05: 2.9/2.9
2.1.31: 4.2/3.9
295008 AA1.01: 3.7/3.7; AA1.08: 3.5/3.5; AA2.02: 3.4/3.4

SAFETY FUNCTION – 2
RO Group 2
SRO Group 2
10CFR55.45a(6)

Time Required for Completion: 15 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

LOW POWER JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to align the Condensate and Feedwater Systems for Startup Level control during a reactor startup.

Initialize the simulator at a cold, xenon free initial condition (IC-5) with the reactor in startup conditions with the Main Steam Bypass Valves not in service. One Condensate Pump will be in operation through Long Cycle Cleanup.

Adjustments may need to be made to RWCU Blowdown G33-F033 to maintain level less than 36 inches.

c34r602_e SU LEVEL CONTROLLER OUTPUT to 100% on TRIGGER 1
io_dic34r602_aut SU LEVEL AUTO PUSHBUTTON DEPRESSED on TRIGGER 1

Required Material(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 ONEP 05-1-02-V-6, Feedwater Control Failure Max Demand
03 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680
04 SOI 04-1-01-N21-1, Feedwater System

General Reference(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 ONEP 05-1-02-V-6, Feedwater Control Failure Max Demand
03 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680
04 SOI 04-1-01-N21-1, Feedwater System

Safety Consideration(s):

01 None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Startup Level Control has been established using the S/U Level Control Bypass valve N21-F040 and N21-F513, S/U Level Control Valve is isolated using N21-F001.

Initial Condition(s):

A plant startup following a refueling outage is in progress. The Condensate and Feedwater Systems are operating in Long Cycle Cleanup. Chemistry has notified the Control Room Feedwater chemistry is ready to support feeding the Reactor. Iron Content is <100 ppb. Condensate Storage Tank Level has been verified to support feeding the Reactor. Another RO is monitoring the Reactor and nuclear instrumentation.

Initiating Cue(s):

The Control Room Supervisor has directed you to establish Feedwater control on the Startup Level Controller in Automatic at 36 inches per IOI 03-1-01-1 Section 6.2.5. Hotwell Temperature has been verified >80 0F.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of IOI 03-1-01-1 and review precautions and limitations for feeding the reactor.

Standard: Candidate obtains a controlled copy of IOI 03-1-01-1 and reviews procedures.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Close N21-F510, FW CU RECIRC VLV by lowering its controller to 0%.

Standard: Candidate adjusts controller for N21-F510, FW CU RECIRC VLV to 0% and observes valve position to 0%.

Comments: Controller is on H13-P680 section 1D.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 ( ) Verify N23-F054, HTR DRN PMP COMMON DISCH VLV is closed.

Standard: Candidate may use either PDS computer display of N23 or contact a local operator to verify N23-F054 is closed. **Either is acceptable.**

Comments: **If local operator is contacted to verify N23-F054 is closed, cue the candidate N23-F054 has been verified closed.**

SIMULATOR OPERATOR Remote function fw197 to CLOSE.

SAT _____ **UNSAT** ____

Item 4 ( ) Open N23-F078, HEATER DRAIN PMPS DISCHARGE HDR MOV.

Standard: Candidate contacts a local operator to open N23-F078, HEATER DRAIN PMPS DISCHARGE HDR MOV using the local handswitch.

Comments: C**ue the candidate N23-F078 is open.**

SIMULATOR OPERATOR Remote function fw196 OPEN.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 (*) Close N21-F003, CLEANUP RECIRC LINE ISOL.

Standard: Candidate closes N21-F003, CLEANUP RECIRC LINE ISOL on H13-P870 section 6C.

Comments:

SAT _____ **UNSAT** ____

Item 6 (*) Open N21-F001, SU FCV OUTL ISOL VLV.

Standard: Candidate opens N21-F001, SU FCV OUTL ISOL VLV on H13-P870 section 6C.

Comments:

SAT _____ **UNSAT** ____

Item 7 (*) Close N21-F040, FW SU BYP VLV.

Standard: Candidate closes N21-F040, FW SU BYP VLV on H13-P680 section 1C.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 ( ) Verify RX WTR LVL SU CONT is in MAN and at 0% output.

Standard: Candidate verifies RX WTR LVL SU CONT is in MAN and at 0% on H13-P680 section 1B.

Comments:

SAT _____ **UNSAT** ____

Item 9 (*) Open B21-F065A and F065B, FW INL SHUTOFF VALVES.

Standard: Candidate opens B21-F065A and F065B, FW INL SHUTOFF VALVES on H13-P680 section 2C.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Control reactor water level between 32 - 40 inches by adjusting ⇧ and ⇩ pushbuttons on RX WTR LVL SU CONT, C34-R602 maintaining the RX WTR LVL HI/LO annunciator clear.

Standard: Candidate controls reactor water level between 32 - 40 inches by adjusting ⇧ and ⇩ pushbuttons on RX WTR LVL SU CONT, C34-R602 on maintaining the RX WTR LVL HI/LO annunciator clear.

Comments: Controller is located on H13-P680 section 1D.
NOTE: Receipt of the HI/LO Reactor level annunciator does NOT constitute a failure of this item. A low-level scram DOES constitute a failure.

If asked or if candidate requires direction, cue the candidate to continue to transfer Startup Level Control to AUTOMATIC.

SAT _____ **UNSAT** ____

Item 11 ( ) Ensure feedwater level control pushbutton AUTO LEVEL is illuminated.

Standard: Candidate verifies AUTO LEVEL pushbutton for feedwater level control on H13-P680 section 2C is illuminated.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 12 (*) Place RX WTR LVL SU CONT, C34-R602 in AUTO and using SET ⇧ and ⇩ pushbuttons slowly adjust setpoint to approximately 36 inches while maintaining the RX WTR LVL HI/LO annunciator clear.

Standard: Candidate places RX WTR LVL SU CONT, C34-R602 in AUTO and using SET ⇧ and ⇩ pushbuttons slowly adjusts setpoint to approximately 36 inches while maintaining the RX WTR LVL HI/LO annunciator clear.

Comments: **NOTE: Receipt of the HI/LO Reactor level annunciator does NOT constitute a failure of this item. A low-level scram DOES constitute a failure.**

SIMULATOR OPERATOR: ACTIVATE TRIGGER 1 TO FAIL Startup Level Control Valve N21-F513 FULL OPEN.

SAT _____ **UNSAT** ____

Item 11 ( ) Recognize reactor level rising and the failure of N21-F513 full OPEN.

Standard: Candidate observes reactor level rising and N21-F513 full open and reports this to Control Room Supervisor.

Comments: High reactor level annunciator will be received.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 14 ( ) Place RX WTR LVL SU CONT, C34-R602 in MAN and using ⇩ pushbutton attempt to close N21-F513.

Standard: Candidate places RX WTR LVL SU CONT, C34-R602 in MAN and using ⇩ pushbutton attempt to close N21-F513.

Comments: **NOTE: This action will NOT work. Candidate may elect to isolate N21-F513 and not perform this item.**

SAT _____ **UNSAT** ____

Item 15 (*) Close N21-F001, SU FCV OUTL ISOL VLV.

Standard: Candidate closes N21-F001, SU FCV OUTL ISOL VLV on H13-P870 section 6C.

Comments: This is an ONEP Immediate Action.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 16 (*) Open N21-F040, FW SU BYP VLV as necessary to control reactor water level.

Standard: Candidate opens N21-F040, FW SU BYP VLV on H13-P680 section 1C as necessary to control level.

Comments: **NOTE: Based on Reactor Water Level candidate may not perform this action. Evaluator may ask follow up question to determine methods to be used to control reactor water level to prevent low level.**

Candidate should report to Control Room Supervisor actions taken for level control.

After the evaluator is satisfied with level control method the evaluator may terminate JPM.

SAT _____ **UNSAT** _____

TERMINATING CUE(s):

Startup Level Control has been established using the S/U Level Control Bypass valve N21-F040 and N21-F513, S/U Level Control Valve is isolated using N21-F001.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

A plant startup following a refueling outage is in progress. The Condensate and Feedwater Systems are operating in Long Cycle Cleanup. Chemistry has notified the Control Room Feedwater chemistry is ready to support feeding the Reactor. Iron Content is <100 ppb. Condensate Storage Tank Level has been verified to support feeding the Reactor. Another RO is monitoring the Reactor and nuclear instrumentation.

Initiating Cue(s):

The Control Room Supervisor has directed you to establish Feedwater control on the Startup Level Controller in Automatic at 36 inches per IOI 03-1-01-1 Section 6.2.5. Hotwell Temperature has been verified >80 0F.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

ALIGN FEEDWATER SYSTEM FOR STARTUP LEVEL CONTROL (FAULTED –VALVE FAILS OPEN)

REASON FOR REVISION: NEW JPM.

THIS DOCUMENT REPLACES N/A.

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: ALIGN FEEDWATER SYSTEM FOR STARTUP LEVEL CONTROL
(FAULT – VALVE FAILS OPEN)

Task List No: CRO-N21-025

K/A Reference and Importance Factors (RO/SRO):

K/A 259002 A1.05: 2.9/2.9
2.1.31: 4.2/3.9
295008 AA1.01: 3.7/3.7; AA1.08: 3.5/3.5; AA2.02: 3.4/3.4

SAFETY FUNCTION – 2
RO Group 2
SRO Group 2
10CFR55.45a(6)

Time Required for Completion: 25 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

LOW POWER JPM

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to align the Condensate and Feedwater Systems for Startup Level control during a reactor startup.

Initialize the simulator at a cold, xenon free initial condition (IC-5) with the reactor in startup conditions with the Main Steam Bypass Valves not in service. One Condensate Pump will be in operation through Long Cycle Cleanup.

Adjustments may need to be made to RWCU Blowdown G33-F033 to maintain level less than 36 inches.

c34r602_e SU LEVEL CONTROLLER OUTPUT to 100% on TRIGGER 1

Required Material(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 ONEP 05-1-02-V-6, Feedwater Control Failure Max Demand
03 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680
04 SOI 04-1-01-N21-1, Feedwater System

General Reference(s):

01 IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load
02 ONEP 05-1-02-V-6, Feedwater Control Failure Max Demand
03 ARI 04-1-02-1H13-P680, Alarm Response Instructions for H13-P680
04 SOI 04-1-01-N21-1, Feedwater System

Safety Consideration(s):

01 None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Startup Level Control has been established using the S/U Level Control Bypass valve N21-F040 and N21-F513, S/U Level Control Valve is isolated using N21-F001 OR N21-F513 is in MANUAL and throttled to control flow.

Initial Condition(s):

A plant startup following a refueling outage is in progress. The Condensate and Feedwater Systems are operating in Long Cycle Cleanup. Chemistry has notified the Control Room Feedwater chemistry is ready to support feeding the Reactor. Iron Content is <100 ppb. Condensate Storage Tank Level has been verified to support feeding the Reactor. Another RO is monitoring the Reactor and nuclear instrumentation.

Initiating Cue(s):

The Control Room Supervisor has directed you to establish Feedwater control on the Startup Level Controller in Automatic at 36 inches per IOI 03-1-01-1 Section 6.2.5. Hotwell Temperature has been verified >80 0F.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of IOI 03-1-01-1 and review precautions and limitations for feeding the reactor.

Standard: Candidate obtains a controlled copy of IOI 03-1-01-1 and reviews procedures.

Comments:

SAT _____ **UNSAT** ____

Item 2 (*) Close N21-F510, FW CU RECIRC VLV by lowering its controller to 0%.

Standard: Candidate adjusts controller for N21-F510, FW CU RECIRC VLV to 0% and observes valve position to 0%.

Comments: Controller is on H13-P680 section 1D.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 ( ) Verify N23-F054, HTR DRN PMP COMMON DISCH VLV is closed.

Standard: Candidate may use either PDS computer display of N23 or contact a local operator to verify N23-F054 is closed. **Either is acceptable.**

Comments: **If local operator is contacted to verify N23-F054 is closed, cue the candidate N23-F054 has been verified closed.**

SIMULATOR OPERATOR Remote function fw197 to CLOSE.

SAT _____ **UNSAT** ____

Item 4 ( ) Open N23-F078, HEATER DRAIN PMPS DISCHARGE HDR MOV.

Standard: Candidate contacts a local operator to open N23-F078, HEATER DRAIN PMPS DISCHARGE HDR MOV using the local handswitch.

Comments: C**ue the candidate N23-F078 is open.**

SIMULATOR OPERATOR Remote function fw196 OPEN.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 (*) Close N21-F003, CLEANUP RECIRC LINE ISOL.

Standard: Candidate closes N21-F003, CLEANUP RECIRC LINE ISOL on H13-P870 section 6C.

Comments:

SAT _____ **UNSAT** ____

Item 6 (*) Open N21-F001, SU FCV OUTL ISOL VLV.

Standard: Candidate opens N21-F001, SU FCV OUTL ISOL VLV on H13-P870 section 6C.

Comments:

SAT _____ **UNSAT** ____

Item 7 (*) Close N21-F040, FW SU BYP VLV.

Standard: Candidate closes N21-F040, FW SU BYP VLV on H13-P680 section 1C.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 ( ) Verify RX WTR LVL SU CONT is in MAN and at 0% output.

Standard: Candidate verifies RX WTR LVL SU CONT is in MAN and at 0% on H13-P680 section 1B.

Comments:

SAT _____ **UNSAT** ____

Item 9 (*) Open B21-F065A and F065B, FW INL SHUTOFF VALVES.

Standard: Candidate opens B21-F065A and F065B, FW INL SHUTOFF VALVES on H13-P680 section 2C.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Control reactor water level between 32 - 40 inches by adjusting ⇧ and ⇩ pushbuttons on RX WTR LVL SU CONT, C34-R602 maintaining the RX WTR LVL HI/LO annunciator clear.

Standard: Candidate controls reactor water level between 32 - 40 inches by adjusting ⇧ and ⇩ pushbuttons on RX WTR LVL SU CONT, C34-R602 on maintaining the RX WTR LVL HI/LO annunciator clear.

Comments: Controller is located on H13-P680 section 1D.
NOTE: Receipt of the HI/LO Reactor level annunciator does NOT constitute a failure of this item. A low-level scram DOES constitute a failure.

If asked or if candidate requires direction, cue the candidate to continue to transfer Startup Level Control to AUTOMATIC.

SAT _____ **UNSAT** ____

Item 11 ( ) Ensure feedwater level control pushbutton AUTO LEVEL is illuminated.

Standard: Candidate verifies AUTO LEVEL pushbutton for feedwater level control on H13-P680 section 2C is illuminated.

Comments:

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*).** Sequence is assumed unless denoted in the **Comments**.

Item 12 (*) Place RX WTR LVL SU CONT, C34-R602 in AUTO and using SET ⇧ and ⇩ pushbuttons slowly adjust setpoint to approximately 36 inches while maintaining the RX WTR LVL HI/LO annunciator clear.

Standard: Candidate places RX WTR LVL SU CONT, C34-R602 in AUTO and using SET ⇧ and ⇩ pushbuttons slowly adjusts setpoint to approximately 36 inches while maintaining the RX WTR LVL HI/LO annunciator clear.

Comments: **NOTE: Receipt of the HI/LO Reactor level annunciator does NOT constitute a failure of this item. A low-level scram DOES constitute a failure.**

SIMULATOR OPERATOR: ACTIVATE TRIGGER 1 TO FAIL Startup Level Control Valve N21-F513 FULL OPEN.

SAT _____ **UNSAT** ____

Item 11 ( ) Recognize reactor level rising and the failure of N21-F513 full OPEN.

Standard: Candidate observes reactor level rising and N21-F513 full open and reports this to Control Room Supervisor.

Comments: High reactor level annunciator will be received.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 14 (*) Place RX WTR LVL SU CONT, C34-R602 in MAN and using ⇩ pushbutton attempt to close N21-F513.

Standard: Candidate places RX WTR LVL SU CONT, C34-R602 in MAN and using ⇩ pushbutton attempt to close N21-F513.

Comments: **Candidate may elect to isolate N21-F513 and not perform this item. If isolated using N21-F001 this item is NOT critical.**

SAT _____ **UNSAT** ____

Item 15 (*) Close N21-F001, SU FCV OUTL ISOL VLV.

Standard: Candidate closes N21-F001, SU FCV OUTL ISOL VLV on H13-P870 section 6C.

Comments: **If manual control of the controller and feed flow is lowered with the controller, then this item is NOT critical.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 16 (*) Open N21-F040, FW SU BYP VLV as necessary to control reactor water level.

Standard: Candidate opens N21-F040, FW SU BYP VLV on H13-P680 section 1C as necessary to control level.

Comments: **NOTE: Based on Reactor Water Level candidate may not perform this action. Evaluator may ask follow up question to determine methods to be used to control reactor water level to prevent low level. This item is critical if N21-F001 is closed.**

Candidate should report to Control Room Supervisor actions taken for level control.

After the evaluator is satisfied with level control method the evaluator may terminate JPM.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Startup Level Control has been established using the S/U Level Control Bypass valve N21-F040 and N21-F513, S/U Level Control Valve is isolated using N21-F001 OR N21-F513 is in MANUAL and flow is being controlled.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

A plant startup following a refueling outage is in progress. The Condensate and Feedwater Systems are operating in Long Cycle Cleanup. Chemistry has notified the Control Room Feedwater chemistry is ready to support feeding the Reactor. Iron Content is <100 ppb. Condensate Storage Tank Level has been verified to support feeding the Reactor. Another RO is monitoring the Reactor and nuclear instrumentation.

Initiating Cue(s):

The Control Room Supervisor has directed you to establish Feedwater control on the Startup Level Controller in Automatic at 36 inches per IOI 03-1-01-1 Section 6.2.5. Hotwell Temperature has been verified >80 0F.

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PARALLELING AN OFFSITE POWER SOURCE TO DIVISION I DIESEL GENERATOR (FAULTED)

REASON FOR REVISION: Change to incorporate IRS's and format for NRC exam.

THIS DOCUMENT REPLACES OP-LOR-JPM-CRO-P75-F13-00

REVIEW / APPROVAL:

PREPARED BY: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: Paralleling an Offsite Power Source to Division I Diesel Generator (Faulted)

JPM No. GG-1-JPM-RO-P7530 Rev. 00 Page 2 of 13

Task List No: CRO-P75-008

K/A Reference and Importance Factors (RO/SRO):

K/A 264000 A2.01 - 3.5/3.6; A2.03 - 3.4/3.4; A2.05 – 3.5/3.5; A4.05 - 3.6/3.7; 2.1.28 – 3.2/3.3; 2.1.31 –4.2/3.9; 2.1.32 – 3.4/3.8; 2.4.10 – 3.0/3.1; 2.4.45 - 3.3/3.6;

SAFETY FUNCTION – 6
RO GROUP 1
SRO GROUP 1
10CFR55.45a (8)

Time Required for Completion: 14 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to recognize that a trip condition exists on the Div. I diesel generator. The performance of this task may be required as part of the recovery from ONEP 05-1-02-VI-2, Hurricanes, Tornados and Severe Weather.

This JPM will be performed in the simulator. To establish the initial conditions for performance of this JPM, initialize the simulator to any full power IC. With the plant in a stable condition, manually start Div. I D/G, parallel it to the grid, and separate from offsite power.

Trigger Command page event 2 *event action* iodir21m606a(2)
***Command* imf p864_1a_d_2 (2 30) 1**
Annunciator H13-P864 1A-D2 Division 1 DG Trouble will come on 30 seconds after Breaker 152-1514 closes.

All control room operations will be performed on panel 1H13 – P864, unless noted otherwise.

Required Material(s):

01 SOI 04-1-01-P75-1 Standby Diesel Generator System
02 ARI 04-1-02-1H22-P400-1A-B9
03 ARI 04-1-02-1H13-P864-1A-D2
04 Headset communications

General Reference(s):

01 SOI 04-1-01-P75-1 Standby Diesel Generator System
02 ARI 04-1-02-1H22-P400-1A-B9
03 ARI 04-1-02-1H13-P864-1A-D2

Safety Consideration(s):

01 None

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

The Div. I Diesel Generator is tripped due to HIGH BEARING TEMPERATURE.

Initial Condition(s):

Bus 15AA has been separated from offsite power per the SOI and is being supplied by Diesel Generator 11 for Ops retest.

Initiating Cue(s):

The Control Room Supervisor has directed you to parallel the Div. I Diesel Generator to ESF Transformer 11. Another operator will be assigned to shutdown the Div. 1 Diesel Generator.

Start Time: _____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain controlled copy of Standby Diesel Generator System SOI.

Standard: Candidate has obtained a controlled copy of the Standby Diesel Generator System SOI (04-1-01-P75-1).

Comments: **When annunciator P864-1A-D2, DIV I DSL ENG TROUBLE, comes in, the candidate should consult with the NOB stationed at the Div. 1 Diesel. If asked Cue the candidate, as the NOB, that the alarm is TRIP HIGH TEMP BEARINGS (1H22-P400-1A-B9). Cue the candidate that the CYLINDER #6 LEFT BEARING TEMP is 240^{0}F and rising. If asked, cue the candidate that you do not have a copy of the P400 ARI's down at the diesel.**

SAT _____ **UNSAT** ____

Item 2 ( ) Select the phase of bus voltage to be monitored.

Standard: Selects the phase of bus voltage to be monitored by selecting position "A-B", "B-C", or "C-A" using the BUS 15AA VOLT SEL switch on P864-1C.

Comments: Note: Selecting any position is acceptable with the exception of selecting "OFF".

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 (*) Place breaker 152-1514 Synchronizing switch to "ON".

Standard: Places 152-1514 Synchronizing switch to "ON" by turning keylocked switch SYN CONT FDR BKR 152-1514 handswitch to "ON" on P864-1C.

Comments:

SAT _____ **UNSAT** ____

Item 4 (*) Defeat the Standby Diesel Generator 11 output breaker parallel interlock.

Standard: Defeats the Standby Diesel Generator 11 output breaker parallel interlock by placing the keylocked switch DG 11 PRL CONT to the "PRL" position on P864-1C.

Comments: Candidate should ensure that DG 11 PRL CONT switch spring returns to "OFF". This step is not critical if the diesel is already tripped.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 5 ( ) Adjust the Standby Diesel Generator 11 running voltage about 50 volts above incoming voltage.

Standard: Adjusts the Standby Diesel Generator 11 running voltage 50 ± 25 volts above incoming voltage by adjusting the DG 11 VR AUTO SET PT CONT (P864-1C) in the "RAISE" or "LOWER" position to establish 50 ± 25 volts greater on meter RUNNING VOLT (P864-1B) than the voltage on INCM VOLT (P864-1B) meter.

Comments: Note: Meter increments are 0.1 KV (100 volts).

SAT _____ **UNSAT** ____

Item 6 ( ) Adjust the Standby Diesel Generator 11 speed to bring the frequency within the range of bus frequency.

Standard: Adjusts the Standby Diesel Generator 11 speed to bring the frequency within the range of bus frequency by adjusting the DG 11 GOV MAN CONT (P864-1C) in the "RAISE" or "LOWER" position to establish the synchroscope (P864-1B) rotating slowly in the SLOW direction (counter-clockwise).

Comments: Speed of synchroscope rotation is a matter of personal preference, however, synchroscope rotation should be approximately 15 seconds per revolution. The direction of rotation must be in the SLOW direction. Many adjustments of the DG 11 GOV MAN CONT (P864-1C) may be made to establish the desired speed of rotation.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 7 (*) Close breaker 152-1514.

Standard: Closes breaker 152-1514 by turning the BUS 15AA FDR FM ESF XFMR 21 152-1514 (P864-1C) handswitch to the "CLOSE" position. Immediately after closing the breaker, observes the breaker closing light (red indication light P864-1C) energized and if breaker indicates not closed (green indication light P864-1C), returns the breaker handswitch to the "TRIP" position.

Comments: Due to the many variables of the synchronization process and the synchronization check relay circuit, it is possible that the breaker may not close on the initial attempt. **This is not considered a failure of the JPM.** If this occurs, the candidate should readjust the Diesel Generator speed and attempt to synchronize again. Note: White synchronization lights on P864-1B will be de-energized when the generator and the bus are in sync.

This step is not critical if the diesel has already been tripped.

SAT _____ **UNSAT** ____

Item 8 ( ) Turn the synchroscope off as soon as Standby Diesel Generator load has stabilized.

Standard: Turns the synchroscope off by placing the SYNC CONT FDR 152-1514 to "OFF" on P864-1C after observing stable load.

Comments:

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

THIRTY SECONDS AFTER 152-1514 IS TAKEN TO CLOSE DIV I DSL TROUBLE WILL ANNUNCIATE.

Item 9 ( ) Consults ARI for annunciator P864-1A-D2, DIV I DSL ENG TROUBLE, and P400-1A-B9 TRIP HIGH TEMP BEARINGS and concludes that the diesel should have tripped but did not.

Standard: Candidate has consulted ARI for annunciator P864-1A-D2, DIV I DSL ENG TROUBLE and P400-1A-B9 TRIP HIGH TEMP BEARINGS and concludes that the diesel should have tripped but did not.

Comments: **This step can be performed out of sequence. Candidate may already know this is a diesel trip and take actions without ARI.**

When annunciator P864-1A-D2, DIV I DSL ENG TROUBLE, comes in, the candidate should consult with the NOB stationed at the Div. 1 Diesel.
If asked Cue the candidate, as the NOB, that the alarm is TRIP HIGH TEMP BEARINGS (1H22-P400-1A-B9). Cue the candidate that the CYLINDER #6 LEFT BEARING TEMP is 2400F and rising.
If asked, cue the candidate that you do not have a copy of the P400 ARI's down at the diesel.

SAT _____ **UNSAT** ____

NOTE: **Critical items** denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Perform the immediate operator actions of the TRIP HIGH TEMP BEARINGS ARI.

Standard: Performs the immediate operator actions of the TRIP HIGH TEMP BEARINGS ARI:

* **Trip Div. I Diesel Generator**
____ Div. I Gen. output breaker trips 152-1508
____ Lube Oil Heater Pump C009A starts
____ Jacket Water Heater Circ. pump C006A starts

Comments: **Note: This step may be performed out of sequence. Tripping of the Div. I Diesel is the only critical item in this step.**

If the candidate asks the SRO for direction, cue the candidate to take the actions of the ARI.

It is acceptable for the candidate to use the remote engine shutdown pushbutton or have the local operator use his shutdown pushbutton.

Simulator operator will need to trip the Div I Diesel if the candidate directs the local operator to trip the diesel.

Cue the candidate, if asked, that the Lube Oil pump C009A and jacket water Heater Circ pump C006A are running. Once this step is performed, the remainder of the JPM is not to be completed.

Cue the candidate when the automatic actions of the ARI are completed, that another operator will secure the diesel per P75 SOI.

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

The Div. I Diesel Generator is tripped due to high bearing temperature.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

Bus 15AA has been separated from offsite power per SOI and is being supplied by Diesel Generator 11 for Ops retest.

Initiating Cue(s):

The Control Room Supervisor has directed you to parallel the Div. I Diesel Generator to ESF Transformer 11. Another operator will be assigned to shutdown the Div. 1 Diesel Generator.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-RO-T4801
Revision: 01
Page: 1 of 13
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PLACE SBGT TRAIN IN STANDBY WITH AN AUTO START SIGNAL PRESENT (FAULTED)

REASON FOR REVISION: update JPM for NRC Examination 6-2001.

THIS DOCUMENT REPLACES GG-1-JPM-RO-T4801.00.

REVIEW / APPROVAL:

PREPARED BY: _____DATE: _____

REVIEWED BY: _____DATE: _____

APPROVED BY: _____DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: PLACE SBGT TRAIN IN STANDBY WITH AN AUTO START SIGNAL PRESENT (FAULTED)

Task List No: CRO-T48-003

K/A Reference and Importance Factors (RO/SRO):

K/A 261000 A4.03 – 3.0/3.0; A4.02 – 3.1/3.1; A4.09 – 2.7/2.7
2.1.30 – 3.9/3.4; 2.1.31 – 4.2/3.9

SAFETY FUNCTION – 9
RO Group 1
SRO Group 1
10CFR55.45a(9)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to place Standby Gas Treatment (SBGT) System in Standby with an Automatic Initiation signal and perform a follow up manual start. The performance of this task is required if SBGT is in Standby with an automatic initiation signal and a subsequent plant condition requires operation of the SBGT System.

The proper method of evaluation is by performance in the simulator.

Initialize the simulator to an IC with the plant at 100 % power.

Insert malfunction rr063a at 50% Recirc Loop A leak and allow the simulator to stabilize.

Follow up malfunctions are:

Place on Trigger 1
rm157n PRM FPS Vent Exh D17K618 B/C High Rad
rm157o PRM FPS Vent Exh D17K618 A/D High Rad

All control room operations will be performed on panel 1H13-P870 unless otherwise noted.

Required Material(s):

01 SOI 04-1-01-T48-1, Standby Gas Treatment System

General Reference(s):

01 SOI 04-1-01-T48-1, Standby Gas Treatment System

02 ARI 04-1-02-P601-19A-B10 & C10
ARI 04-1-02-P870-8A-F3

03 EOP 05-S-01-EP-4

Safety Consideration(s):

01 None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Standby Gas Treatment 'B' has been manually restarted following being placed in Standby with an automatic initiation signal.

Initial Condition(s):

A LOCA is in progress. Standby Gas Treatment Trains A & B are operating.

Initiating Cue(s):

The Control Room Supervisor has directed place Standby Gas Treatment Train 'B' in STANDBY. Health Physics has been notified of the evolution.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of SOI 04-1-01-T48-1.

Standard: Candidate obtains a controlled copy of SOI 04-1-01-T48-1.

Comments:

SAT _____ **UNSAT** ____

Item 2 ( ) Check that the following are operating on SBGT Train 'A':

_____ Annunciator "SGTS DIV 1 OPER" P870-2A-A3

_____ SGTS Filter Train Fan A is running

_____ Enclosure Building Recirculation Fan A is running

_____ Dampers and valves F001, F004, F006, F007, F009, F011, F013, F015, F017, F019, F021, F023, AND F025 are OPEN.

_____ Dampers and valves M41-F036, M41-F008, T41-F007, T42-F004, T42-F011, T42-F019 are CLOSED.

Standard: Candidate observes the above indications.

Comments: **May not be performed based on Initial Conditions given.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 ( ) Check that the following are operating on SBGT Train 'B':

_____ Annunciator "SGTS DIV 2 OPER" P870-8A-A3

_____ SGTS Filter Train Fan B is running

_____ Enclosure Building Recirculation Fan B is running

_____ Dampers and valves F002, F003, F005, F008, F010, F012, F014, F016, F018, F020, F022, F024 AND F026 are OPEN.

_____ Dampers and valves M41-F037, M41-F007, T41-F006, T42-F003, T42-F012, T42-F020 are CLOSED.

Standard: Candidate observes the above indications.

Comments: **May not be performed based on Initial Conditions given.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 ( ) Monitor SGTS A and B filter differential pressure, filter flow and Enclosure Building Pressure chart recorders:

_____ T48-R601A & B SGTS FLTRA & B DP

_____ R600A & B SGTS FLTR TR A & B FLO

_____ R602A & B ENCL BLDG PRESS

Standard: Candidate observes indications are acceptable and no annunciators associated with FLTR DP, FLTR Flow and Enclosure Building Pressure.

Comments: **Candidate may inform the SRO of indications on SBGT prior to securing 'B' Train. This is acceptable.**

SAT _____ **UNSAT** ____

Item 5 (*) Place SGTS DIV 2 MODE SEL keylock switch to STDBY position and observe amber light illuminates.

Standard: Candidate **places keylock switch for SGTS DIV 2 MODE SEL to STBY** and observes amber light illuminated and white light extinguishes.

Comments: **NOTE: Light is non-critical.**
Annunciator H13-P870 8A-F3 "SGTS DIV 2 IN STBY MODE" will illuminate.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 (*) Reset Manual Initiation signal for filter train by turning SGTS DIV 2 MAN INIT RESET keylock switch to RESET position and back to NORM.

Standard: Candidate places the keylock switch SGTS DIV 2 MAN INIT RESET to RESET and back to NORM on panel P870 section 8B.

Comments:

SAT _____ **UNSAT** ____

Item 7 (*) Stop B SGTS filter train fans by taking ENCL BLDG RECIRC FAN B handswitch to STOP.

Standard: Candidate places handswitch for ENCL BLDG RECIRC FAN B to STOP and observes the green light illuminated on Panel P870 section 8C.

Comments: **Items 7 and 8 may be performed in any order.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 (*) Stop B SGTS filter train fans by taking SGTS FLTR TR B EXH FAN handswitch to STOP.

Standard: Candidate places handswitch for SGTS FLTR TR B EXH FAN to STOP and observes the green light illuminated on Panel P870 section 8C.

Comments: **Items 7 and 8 may be performed in any order.**

SAT _____ **UNSAT** ____

Item 9 ( ) Verify adequate enclosure building vacuum draw down still exists.

Standard: Candidate observes Enclosure Building pressure is adequate T48-PDR-R602 A & B on panel P870 sections 2B and 8B.

Comments: **Candidate will report the 'B' Standby Gas Treatment Train is in Standby.**

SIMULATOR OPERATOR INSERT MALFUNCTIONS as follows:

rm157n PRM FPS VENT EXH D17K618A/D HIGH RAD
rm157o PRM FPS VENT EXH D17K618B/C HIGH RAD

OBSERVE ANNUNCIATORS P601-19A-B10 and C10 COME IN. IF ASKED BY THE CANDIDATE, CUE THE CANDIDATE TO RESPOND TO THE ANNUNCIATORS.

SBGT B WILL NOT AUTO RESTART.

AS CONTROL ROOM SUPERVISOR ANNOUNCE ENTRY INTO EP-4 ORDER THE IMMEDIATE RESTART OF SBGT TRAIN B PER EP-4.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Manually initiate SBGT B by simultaneously depressing the SGTS DIV 2 MAN INIT pushbuttons OR place the SGTS DIV 2 MODE SEL keylock switch to AUTO.

Standard: Candidate simultaneously depresses the SGTS DIV 2 MAN INIT pushbuttons on P870 section 8B and observes the white lights extinguish over the pushbuttons OR places SGTS DIV 2 MODE SEL keylock switch to AUTO and observes the amber light extinguish and white light illuminate.

Comments: **NOTE: Either method is acceptable and will accomplish the same end point.**

SAT _____ **UNSAT** ____

Item 11 ( ) Observe SGTS FLTR TR B EXH FAN and ENCL BLDG RECIRC FAN B start.

Standard: Candidate observes SGTS FLTR TR B EXH FAN and ENCL BLDG RECIRC FAN B start as indicated by red light illuminated on P870 section 8C for each fan. Annunciator P870 8A-F3 will clear if the MODE SELECT switch is returned to AUTO.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Report to the Control Room Supervisor, ”Standby Gas Treatment Train ‘B’; has been restarted” following being placed in standby.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

A LOCA is in progress. Standby Gas Treatment Trains A & B are operating.

Initiating Cue(s):

The Control Room Supervisor has directed place Standby Gas Treatment Train 'B' in STANDBY. Health Physics has been notified of the evolution.

ENTERGY

GRAND GULF NUCLEAR STATION

JOB PERFORMANCE MEASURE

Number: GG-1-JPM-RO-T4801
Revision: 02
Page: 1 of 13
Rtype:
QA Record
Number of pages _____
Date _____ Initials _____

TRAINING PROGRAM:

OPERATOR TRAINING

TITLE:

PLACE SBGT TRAIN IN STANDBY WITH AN AUTO START SIGNAL PRESENT (FAULTED)

REASON FOR REVISION: MODIFIED INITIAL CONDITIONS.

THIS DOCUMENT REPLACES GG-1-JPM-RO-T4801.00.

REVIEW / APPROVAL:

PREPARED BY: _____DATE: _____

REVIEWED BY: _____DATE: _____

APPROVED BY: _____DATE: _____
Facility Representative

DATE TRANSMITTED TO RM	INITIAL RECEIPT BY RM (DATE/INITIAL)	RETURNED FOR CORRECTIONS (DATE/INITIAL)	RETURN RECEIPT (DATE/INITIAL)	FINAL ACCEPTANCE BY RM (DATE/INITIALS)

GRAND GULF NUCLEAR STATION
JOB PERFORMANCE MEASURE WORKSHEET

Task Title: PLACE SBGT TRAIN IN STANDBY WITH AN AUTO START SIGNAL PRESENT (FAULTED)

Task List No: CRO-T48-003

K/A Reference and Importance Factors (RO/SRO):

K/A 261000 A4.03 – 3.0/3.0; A4.02 – 3.1/3.1; A4.09 – 2.7/2.7
2.1.30 – 3.9/3.4; 2.1.31 – 4.2/3.9

SAFETY FUNCTION – 9
RO Group 1
SRO Group 1
10CFR55.45a(9)

Time Required for Completion: 10 Minutes (approximate).

Time Critical: YES/**NO**

Faulted JPM: **YES**/NO

APPLICABLE METHOD OF TESTING

Performance: Simulate _____ Actual X

Setting: Classroom _____ Plant _____ Simulator X

EVALUATION

Date Performed: _____

Performer: _____ SSN: _____ License: RO/SRO

Score: PASS _____ FAIL _____ Time to complete: _____

Evaluator Signature: _____ Date: _____

DISCUSSION

This JPM will evaluate the candidate's ability to place Standby Gas Treatment (SBGT) System in Standby with an Automatic Initiation signal and perform a follow up manual start. The performance of this task is required if SBGT is in Standby with an automatic initiation signal and a subsequent plant condition requires operation of the SBGT System.

The proper method of evaluation is by performance in the simulator.

Initialize the simulator to an IC with the plant at any power.

Insert malfunction
rm157l PRM FHA Vent Exh D17K617 B/C High Rad
rm157m PRM FHA Vent Exh D17K617 A/D High Rad
Allow the simulator to stabilize.

Follow up malfunctions are:

Place on Trigger 1
rm157n PRM FPS Vent Exh D17K618 B/C High Rad
rm157o PRM FPS Vent Exh D17K618 A/D High Rad

All control room operations will be performed on panel 1H13-P870 unless otherwise noted.

Required Material(s):

01 SOI 04-1-01-T48-1, Standby Gas Treatment System

General Reference(s):

01 SOI 04-1-01-T48-1, Standby Gas Treatment System

02 ARI 04-1-02-P601-19A-B10 & C10
ARI 04-1-02-P870-8A-F3

03 EOP 05-S-01-EP-4

Safety Consideration(s):

01	None.

READ TO TRAINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. Prior to actually starting the performance of this JPM, I will answer any questions you have. For each step you perform, describe or state what indications you are observing and what indications you expect to see in response to your action. When you have completed the task, inform me.

Task Standard(s):

Standby Gas Treatment 'B' has been manually restarted following being placed in Standby with an automatic initiation signal.

Initial Condition(s):

Both Standby Gas Trains are operating for an I&C Surveillance on Fuel Handling Area Radiation Level.

Initiating Cue(s):

The Control Room Supervisor has directed place Standby Gas Treatment Train 'B' in STANDBY. Health Physics has been notified of the evolution.

Start Time: _____
??

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 1 ( ) Obtain a controlled copy of SOI 04-1-01-T48-1.

Standard: Candidate obtains a controlled copy of SOI 04-1-01-T48-1.

Comments:

SAT _____ **UNSAT** ____

Item 2 ( ) Check that the following are operating on SBGT Train 'A':

_____ Annunciator "SGTS DIV 1 OPER" P870-2A-A3

_____ SGTS Filter Train Fan A is running

_____ Enclosure Building Recirculation Fan A is running

_____ Dampers and valves F001, F004, F006, F007, F009, F011, F013, F015, F017, F019, F021, F023, AND F025 are OPEN.

_____ Dampers and valves M41-F036, M41-F008, T41-F007, T42-F004, T42-F011, T42-F019 are CLOSED.

Standard: Candidate observes the above indications.

Comments: **May not be performed based on Initial Conditions given.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 3 ( ) Check that the following are operating on SBGT Train 'B':

_____ Annunciator "SGTS DIV 2 OPER" P870-8A-A3

_____ SGTS Filter Train Fan B is running

_____ Enclosure Building Recirculation Fan B is running

_____ Dampers and valves F002, F003, F005, F008, F010, F012, F014, F016, F018, F020, F022, F024 AND F026 are OPEN.

_____ Dampers and valves M41-F037, M41-F007, T41-F006, T42-F003, T42-F012, T42-F020 are CLOSED.

Standard: Candidate observes the above indications.

Comments: **May not be performed based on Initial Conditions given.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 4 ( ) Monitor SGTS A and B filter differential pressure, filter flow and Enclosure Building Pressure chart recorders:

_____ T48-R601A & B SGTS FLTRA & B DP

_____ R600A & B SGTS FLTR TR A & B FLO

_____ R602A & B ENCL BLDG PRESS

Standard: Candidate observes indications are acceptable and no annunciators associated with FLTR DP, FLTR Flow and Enclosure Building Pressure.

Comments: **Candidate may inform the SRO of indications on SBGT prior to securing 'B' Train. This is acceptable.**

SAT _____ **UNSAT** ____

Item 5 (*) Place SGTS DIV 2 MODE SEL keylock switch to STDBY position and observe amber light illuminates.

Standard: Candidate **places keylock switch for SGTS DIV 2 MODE SEL to STBY** and observes amber light illuminated and white light extinguishes.

Comments: **NOTE: Light is non-critical.**
Annunciator H13-P870 8A-F3 "SGTS DIV 2 IN STBY MODE" will illuminate.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 6 (*) Reset Manual Initiation signal for filter train by turning SGTS DIV 2 MAN INIT RESET keylock switch to RESET position and back to NORM.

Standard: Candidate places the keylock switch SGTS DIV 2 MAN INIT RESET to RESET and back to NORM on panel P870 section 8B.

Comments:

SAT _____ **UNSAT** ____

Item 7 (*) Stop B SGTS filter train fans by taking ENCL BLDG RECIRC FAN B handswitch to STOP.

Standard: Candidate places handswitch for ENCL BLDG RECIRC FAN B to STOP and observes the green light illuminated on Panel P870 section 8C.

Comments: **Items 7 and 8 may be performed in any order.**

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 8 (*) Stop B SGTS filter train fans by taking SGTS FLTR TR B EXH FAN handswitch to STOP.

Standard: Candidate places handswitch for SGTS FLTR TR B EXH FAN to STOP and observes the green light illuminated on Panel P870 section 8C.

Comments: **Items 7 and 8 may be performed in any order.**

SAT _____ **UNSAT** ____

Item 9 ( ) Verify adequate enclosure building vacuum draw down still exists.

Standard: Candidate observes Enclosure Building pressure is adequate T48-PDR-R602 A & B on panel P870 sections 2B and 8B.

Comments: **Candidate will report the 'B' Standby Gas Treatment Train is in Standby.**

SIMULATOR OPERATOR INSERT MALFUNCTIONS as follows:

rm157n PRM FPS VENT EXH D17K618A/D HIGH RAD
rm157o PRM FPS VENT EXH D17K618B/C HIGH RAD

OBSERVE ANNUNCIATORS P601-19A-B10 and C10 COME IN. IF ASKED BY THE CANDIDATE, CUE THE CANDIDATE TO RESPOND TO THE ANNUNCIATORS.

SBGT B WILL NOT AUTO RESTART.

AS CONTROL ROOM SUPERVISOR ANNOUNCE ENTRY INTO EP-4 ORDER THE IMMEDIATE RESTART OF SBGT TRAIN B PER EP-4.

SAT _____ **UNSAT** ____

NOTE: Critical items denoted by **(*)**. Sequence is assumed unless denoted in the **Comments**.

Item 10 (*) Manually initiate SBGT B by simultaneously depressing the SGTS DIV 2 MAN INIT pushbuttons OR place the SGTS DIV 2 MODE SEL keylock switch to AUTO.

Standard: Candidate simultaneously depresses the SGTS DIV 2 MAN INIT pushbuttons on P870 section 8B and observes the white lights extinguish over the pushbuttons OR places SGTS DIV 2 MODE SEL keylock switch to AUTO and observes the amber light extinguish and white light illuminate.

Comments: **NOTE: Either method is acceptable and will accomplish the same end point.**

SAT _____ **UNSAT** ____

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Standard: Candidate observes SGTS FLTR TR B EXH FAN and ENCL BLDG RECIRC FAN B start as indicated by red light illuminated on P870 section 8C for each fan. Annunciator P870 8A-F3 will clear if the MODE SELECT switch is returned to AUTO.

Comments:

SAT _____ **UNSAT** ____

TERMINATING CUE(s):

Report to the Control Room Supervisor, ”Standby Gas Treatment Train ‘B’; has been restarted” following being placed in standby.

STOP TIME: _____

OVERALL COMMENTS:

ADDITIONAL QUESTION ASKED AFTER THE PERFORMANCE OF THE JPM TO CLARIFY THE TRAINEE'S ACTION OR UNDERSTANDING OF TASK PERFORMED:

Question _____ K/A _____ Rating _____

Expected Response Time _____

Reference(s) Required: Yes / No Reference(s):

Question:

Trainee's Response / Comments:

Correct Response:

THIS PAGE MAY BE GIVEN TO THE TRAINEE

Initial Condition(s):

Both Standby Gas Trains are operating for an I&C Surveillance on Fuel Handling Area Radiation Level.

Initiating Cue(s):

The Control Room Supervisor has directed place Standby Gas Treatment Train 'B' in STANDBY. Health Physics has been notified of the evolution.