	ES-	-301	Control Room Systems and Facility W	alk-Through Tes	t Outline Fo	orm ES-301-2				
	Fac	ility:	Millstone 3	Date of Examir	nation: <u>April 17-21, 2000</u>					
	Exa	Im Leve	el (circle one): RO / SRO(I)	Operating Test	: No.: <u>Set 1</u>					
	B.1	Contr	ol Room Systems							
			System / JPM Title		Type Code*	Safety Function				
~	·a.	#26	Test Start Emergency Diesel (41.7 / 45	5.5 to 45.8)	D, S	6				
ý	b.	#141	Manual Makeup (41.7 / 45.5 to 45.8)		M, S	2				
	c.	#136	(Previous NRC Exam) Swap RHR Trai to 45.8)	ns (41.7 / 45.5	D, L, S	4.1				
,	d.	#48	Manual Main Steamline Isolation (41.7	/ 45.5 to 45.8)	D, A, S	4.2				
	∕e.	#50a	(Previous NRC Exam) RCS Pressure C 43.5/ 45.3 / 45.13)	Control (41.5 /	D, A, S	3				
/	f.	#51C	E-0 Immediate Actions, Reactor Fails to 43.5 / 45.13)	o Trip (41.10 /	D, A, S	1				
i	<u>g</u> .	New	Radiation Monitor Alarm - Place SLCRS (41.2 to 41.9 / 45.7 to 45.8)	S in Service	N, S	9				
	B.2	Facilit	y Walk-Through							
	а.	#65	Align Charging Pump Mechanically (43	5 / 45.13)	D, R	2				
	b.	#95	Energize a VIAC (41.7 / 45.5 /45.6)		D	6				
	C.	#91	1 Loss of Instrument Air (41.10 / 43.5 to 45.13) M, A 8							
<u></u>	*Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)Iternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA									

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ES-301 Control Room Systems and Facility Walk-Through Test Outline Form ES-301									
	Fac	cility:	Millstone 3	April 17-21, 2	000				
	Exa	am Leve	el (circle one): RO / SRO(I)	Set 2					
	B.1	Contr	rol Room Systems						
			System / JPM Title	Type Code*	Safety Function				
Ì	a. #50a (Previous NRC Exam) RCS Pressure Control (41.5 / D, A, S 43.5 / 45.3 / 45.13)								
/	þ.	#51C	E-0 Immediate Actions, Reactor F 43.5 / 45.13)	ails to Trip (41.10 /	D, A, S	1			
V	• C.	New	Radiation Monitor Alarm - Place S to 41.9 / 45.7 to 45.8)	LCRS in Service (41.2	N, S	9			
	∕d.	#108	(Previous NRC Exam) Energize En SBO Diesel (41.7 / 45.5 / 45.6)	mergency Bus from	D, S	6			
,	∕e.	#36	RCS Cooldown using Atmospheric 45.6)	: Dumps (41.7 / 45.5 /	M, S	4.2			
~	f.	New	Lineup RHR for Injection Mode (41	.7 / 45.5 to 45.8)	N, L, S	4.1			
~	g.	#73	Raise Accumulator Pressure (41.7	/ 45.5 to 45.8)	D, S	2			
	B.2	Facilit	y Walk-Through						
	a.	#16	Spent Fuel Pool Makeup (41.5 / 43	3.5 / 45.3 / 45.13)	D, A, R	8			
	b.	#83	D, R	5					
	C.	#15a	Local Start of Emergency Diesel (4	1.7 / 45.5 / 45.6)	D, A	6			
	*Typ path	e Codes , (C)ontr	s: (D)irect from bank, (M)odified from ba ol room, (S)imulator, (L)ow-Power, (R)0	nk, (N)ew, (A)lternate CA		· .			

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ES-301	Control Room Systems and Facility Walk	-Through Test	Outline Fo	rm ES-301-2						
Facility:	nation: <u>April 17</u>	on: <u>April 17-21, 2000</u>								
B.1 Cont	rol Room Systems	sportaing room		<u>/</u>						
	System / JPM Title		Type Code*	Safety Function						
a. #136	(Previous NRC Exam) Swap RHR Trains to 45.8)	(41.7 / 45.5	D, L, S	4.1						
b. #48	(ESF) Manual Main Steamline Isolation (4 45.8)	1.7 / 45.5 to	D, A, S	4.2						
С.										
d.	· · · · · · · · · · · · · · · · · · ·									
e.			-							
f.										
g.										
B.2 Facili	ty Walk-Through									
a. #65	Align Charging Pump Mechanically (43.5	/ 45.13)	D, R	2						
b. #95	Energize a VIAC (41.7 / 45.5 / 45.6)		D	6						
c. #91	Loss of Instrument Air (41.10 / 43.5 to 45.	13)	M, A	8						
*Type Cod (A)lternate	*Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)Iternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA									

NUREG-1021, Revision 8

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JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: TEST START OF THE "B" EDG FROM MB8

JPM ID Number: 026 Revision: 4, Chg. 2 02/21/00

II. Initiated:

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D. L. Minnich Developer

III. Reviewed:

R. T. Carr

Technical Reviewer

IV. Approved:

martin

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

9/9/97 Date

9/27/97 Date

2/25/00 Date

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone	Unit 3	Student:	
JPM ID Number:2	6	Revision:	4, Chg. 2
Task Title:	ART OF THE "B" EDG FROM	MB8	
System: EDG			
Time Critical Task:	() YES (X) NO		
Validated Time (minute	es): <u>18</u>		
Task Number(s): _06 Applicable To: SI	04-01-016 RO RO	F	νEΟ
K/A Number: 064-	000-A4.01	K/A Rating:	4.0 / 4.3
Method of Testing:	Simulated Performance:	Act	ual Performance: X
Location:	Classroom: Sim	ulator: X	In-Plant::
<u>Task Standards:</u>	Satisfactorily start the "B" En using OP 3346A.	nergency Dies	el Generator from MB8
Required Materials:	None. Stop watch		
General References:	OP 3346A, Rev. 20		

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 026		Revision: 4, Chg. 2
Simulator Requirements:	1.	Reset to IC-14
	2.	Place the simulator in "Run" and check that the IC is stable. It is not necessary to place the simulator in "freeze".
	3.	Commence the JPM evaluation after the examinee has received the initial conditions and initiating cues.
	Арр	roximate simulator setup time is 3-5 minutes.
Initial Conditions:	The read sent chec Dies B Op The Ops	plant is in a normal electric plant lineup with both EDGs by for automatic loading. The Outside Rounds PEO has been to the "B" EDG enclosure and completed the preliminary eks for starting the "B" EDG. The prestart portions of the el Generator Data Sheet (OPS Forms 3346A-13) and Diesel berating Log (OPS Form 3346A-15) have been completed. SBO diesel is not running. The other RO is filling out the Forms.
Initiating Cues:	The MB8 EDG	US has directed you to conduct a start of the "B" EDG from using OP 3346A, Section 4.4 starting with step 4.4.4. The is to be paralleled to the bus and loaded to 4500KW.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

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JPM Numbe	er: _	026		ł	Revision:	4, Chg. 2
 Task Title:	_	TEST START	OF THE "B" EDG FRC	DM MB8		
Start Time:						
STEP	1	<u> </u>	Performance Step:	OPEN 3SWP*AC (MB1). (Step 4.4.	V39B, "DO 4)	B OUT"
GRADE _		<u> </u>	Standards:	Depresses the "o 3SWP*AOV39B of that the indicating OFF, red ON.	pen" pushl on MB1 an g lights shif	outton for d observes t to green
			Grade:	SAT	UNSA	т
STEP _	2		Performance Step:	VERIFY "EDG B" (MB8), in "AUTO' "MANUAL". (Step	"VOLT RE ' (preferred 9 4.4.5)	EG SEL" I) or
GRADE _			Standards:	Observes the cor diesel generator aligned to the "Al	ntrol switch voltage reg JTO" positi	for the "B" Julator is Jon.
			Grade:	SAT	UNSA	т
STEP _	3		Performance Step:	REQUEST Opera RESET" button (3 CHECK white "R START" (3EGS*F 4.4.6)	ator press " 3EGS*PNL EADY FOF PNLB) light	EXCITER B), and AUTO tit. (Step
GRADE _			Standards:	Contacts the Out and directs the "e pressed and che auto start " light li	side Round exciter rese cks the "rea it.	ds PEO tr button ady for
			Grade:	SAT	UNSA	т
			Cue:	Inform the exami	nee that th	e exciter

JPM Number: 026

Revision: 4, Chg. 2

/ Task Title:

TEST START OF THE "B" EDG FROM MB8

has been reset and 'ready for auto
start' light is lit.Cue:Prior to the next step, inform the
examinee that the rocker arm prelube
pump has not been run in the last 24
hours.

	STEP		<u> </u>	Performance Step:	START EGO*P1B, " (MB8). [SER 102-81	PRELUBE" pump]. (Step 4.4.7)
j	GRADE			Standards:	Rotates the control s diesel generator rock pump to the "start" p observes that the ind to green OFF, red O time that the prelube started.	switch for the "B" ker arm prelube osition and dicating lights shift N. Also notes the pump was
				Grade:	SAT	
	STEP	5		Performance Step:	WHEN two minutes	have elapsed, RELURE" pump
					(MB8). (Step 4.4.8)	
	GRADE			Standards:	After the prelube pur minutes, rotates the the "B" diesel genera prelube pump to the and observes the ind to green ON, red OF	np has run for 2 control switch for ator rocker arm "stop" position dicating lights shift F.
				Grade:	SAT	

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	JPM Number: 026			Revision:	4, Chg. 2
i.	Task Title: TEST START	OF THE "B" EDG FR	OM MB8		
	0750				
	SIEP <u>6</u>	Performance Step:	to bus 34D. (Step	esel is <u>not</u> p p 4.4.9)	aralleled
	GRADE	Standards:	As part of the init examinee was to was not running. diesel breaker (3 OPEN) on MB8 a	ial conditio Id that the May check BGS-ACB- as a second	ns, the SBO diesel the SBO BG-A is d check.
		Grade:	SAT	UNSA	т
		Cue:	If the examinee a of the SBO provid The SBO diesel i	isks the US de the follo s not runni	the status wing Cue: ng.
,		Cue:	Prior to the next s may request plan Caution in the pro- his requests prov cues:	step, the ex it status ba ocedure. Ba ide the app	raminee sed on the ased on propriate
			 The oppoperable The oppnot operable The oppnot operable Severe vanot exist The grid of offsite anticipat 	osite train o osite train o ating veather cou is stable a power is n ed.	diesel is diesel is nditions do nd a loss iot
		Comment:	The RO may requ	uest the sto	pwatch to

The RO may request the stopwatch to time the EDG start or they may use the computer.

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JPM Number: 026 Rev						:4, Chg. 2		
)	Task Title:	•	TEST STAR	OF THE "B" EDG FR	OM MB8			
	STEP	7		Performance Step: CHECK that the following condition do <u>not</u> exist:				
					• Emergency diese A is inoperable	el generator		
					 Emergency diese A is operating in 	el generator parallel.		
					Severe weather			
					Other possible lo power (LOP) con (Step 4.4.10)	ss of offsite dition.		
)	GRADE			Standards:	Checks MB8 indications for of the other diesel general offsite power. Asks the US status of the other parame	or the status tor and 5 for the eters.		
				Grade:	SAT UNS	GAT		
				Cue:	Provide the appropriate co above this step based on questions from the examin	ues as listed the nee.		
	STEP	8	X	Performance Step:	PLACE diesel generator E SEL" switch (MB8) in "PAI (Step 4.4.11)	3 "MODE RALLEL".		
	GRADE		<u> </u>	Standards:	Rotates the "B" diesel ger selector switch to the "par position.	erator mode allel"		
				Grade:	SAT UNS	AT		

JPM Number:	026		Revisi	ion: <u>4, Chg. 2</u>	
Task Title:	TEST START	OF THE "B" EDG FROM MB8			
STEP 9	<u> </u>	Performance Step:	PLACE diesel generator B "START" switch (MB8) in "START". (Step 4.4.12)		
GRADE	X	Standards:	Rotates the start switch for the B diesel generator to the "start" position and observes that exciter volts, generator volts and generator frequency meters will move off their bottom pegs as EDG comes up to speed.		
		Grade:	SAT U		
		Comments:	The examinee should r of time for the diesel to be used to complete fo is not necessary to con to satisfy the critical na- step.	note the length start. This will rm 3346A-13. It nplete the form ture of this	
STEP 10		Performance Step:	<u>CHECK diesel generate</u> <u>light (MB8) lit. WHEN</u> d 514 RPM (60 Hz), CHE generator a (B) "LOAD" (Step 4.4.13)	or <u>B "LOAD"</u> liesel speed is CK diesel ' lamp is lit.	
GRADE		Standards:	When the "B" diesel ge frequency meter indicat observes that the white on.	nerator tes 60 Hz, e "LOAD" light is	
		Grade:	SAT U	NSAT	

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	JPM Num	ber:	026			Revision: _4	, Chg. 2
Task Title: TEST STAF			TEST START	OF THE "B" EDG FRO	OM MB8		
	STEP	11		Performance Step:	COMPLETE ir Form 3346A-1 Data Sheet". (nitial portion of O 3, "Diesel Gener Step 4.4.14)	PS ator
	GRADE		- <u></u>	Standards:	Completes the started and the	e section for time e diesel starting f	diesel ime.
				Grade:	SAT	UNSAT	
				Cue:	You may need that the other sheet.	to inform the ex RO is filling out t	aminee ne log
	STEP	12	<u> </u>	Performance Step:	<u>IF</u> diesel gene paralleled to b 4.12. (Step 4.4	rator B is to be us 34D, Go To S l.15)	ection
	GRADE			Standards:	Proceeds to se	ection 4.12.	
\smile				Grade:	SAT	UNSAT	****
				Cue:	If necessary, n initiating cues with, parallel a MB8.	emind examinee are to start EDG nd load to 4500k	that along (W from
	STEP	13		Performance Step:	<u>IF</u> paralleling d Room, PERFC (MB8): <u>IF</u> "COI is selected to " <u>ILCO 9999NY1I</u> MODE" switch (3EGS*PNLB)	liesel from Contro DRM the following NTROL MODE" s LOCAL", using k \underline{a} , PLACE "CON in "REMOTE" . (Step 4.12.1.a)	ol 9 switch ey # TROL
γ	GRADE			Standards:	Contacts Outs check the posi Mode" switch.	ide Rounds PEC tion of the "Conti	rol
\bigcirc				Grade:	SAT	UNSAT	
				0 -5 47			

•	JPM Num	ber: <u>02</u>	:6			Revision:	4, Chg. 2
\bigcirc	Task Title	: <u>TE</u>	ST START	OF THE "B" EDG FRO	OM MB8		
				Cue:	If the examinee of provide the follow "Control Mode" s	contacts the wing Cue: witch is in '	e PEO, The 'Remote''.
	STEP	14	<u> </u>	Performance Step:	PLACE diesel ge "SYNC SEL" swi 4.12.1.b)	enerator B t tch in "ÓN"	o bus 34D . (Step
	GRADE		<u>x</u>	Standards:	Places the "B" tra diesel generator synchronizing se rotates the handl Will also observe synchroscope.	ain handle i to bus 34D lector switc le to the "or rotation of	into the "B" ch and n" position. the
				Grade:	SAT	UNSA	т
\bigcirc							
	STEP			Performance Step:	<u>IF</u> 34C-1T-2, "34 CHECK SBO D/0 34B. (Step 4.12.7	ID-34B TIE G <u>not</u> parall 1.c)	" is closed, eled to bus
	GRADE	·····		Standards:	Observes that 34 closed. Checks th not in parallel wit	D-1T-2 tie hat the SB0 h bus 34B.	breaker is D D/G is
				Grade:	SAT	UNSA	т

	JPM Numl	oer: _0	26			Revision:	4, Chg. 2
	Task Title:	TE	ST START	OF THE "B" EDG FRO	DM MB8		
	STEP	16	<u> </u>	Performance Step:	SYNCHRONI follows:	ZE diesel to b	us 34D as
					a. ADJUS "SPEE slow ro fast dir	ST diesel gene D/LOAD" swite station of syncl ection.	rator B ch to obtain hroscope in
					b. Using t ADJUS regulat voltage "RUNN • "AU" • "MA (Step 4.12.1.c	the selected re T "EDG B" vo or to obtain "If slightly greate ING" voltage: TO VOLT REG N VOLT REG	egulator, Itage NCOMING" er than GULATOR" ULATOR"
\bigcirc	GRADE		<u> </u>	Standards:	Rotates the "E Speed/Load s positions as n synchroscope fast direction.	B" diesel gener witch to the "ra ecessary so the is rotating slo	rator aise/lower" ne wly in the
	GRADE		<u> </u>	Standards:	Rotates the "E voltage regula "raise/lower" p until the "INCO slightly higher voltage.	B" diesel gener Itor adjust swit Dositions as ne DMING" voltag Than the "RUI	rator ich to the icessary je is NNING"
				Grade:	SAT	UNSA	Τ
	STEP	17	<u> </u>	Performance Step:	<u>WHEN</u> the syn slowly in fast of minutes before CLOSE DGB* (Step 4.12.1.e	nchroscope is direction <u>AND</u> e twelve o'cloo 34D-2, "EDG e)	rotating is at five ck position, B SPLY".
\bigcirc	GRADE		_ <u>x</u> _	Standards: 11 of 17	When the syn	chroscope is a	at the five

	JPM Num	iber:	026 Revision: 4, Chg. 2				
	Task Title: TEST START OF THE "B"				OM MB8		
					minutes to twelve rotates the contro generator "B" sup "close" position ar indicating lights sh ON.	o'clock position, I switch for diesel ply breaker to the nd observes the hift to green OFF, red	
				Grade:	SAT		_
	STEP	18	<u></u>	Performance Step:	Using the diesel g "SPEED/LOAD" so to a minimum of 2 "KW". (Step 4.12.7	lenerator B witch, LOAD diesel 200kW as read on 1.f)	
)	GRADE		_ <u>X</u>	Standards:	Observes the load Rotates the "spee "raise/lower" positi load the diesel to a	I on the diesel. d/load" switch to the ions as necessary to at least 200kW.	
				Grade:	SAT		_
	STEP	19		Performance Step:	PLACE diesel gen "SYNC SEL" switc 4.12.1.g)	erator B to bus 34D h in "OFF". (Step	
	GRADE			Standards:	Rotates the diesel 34D synchronizing the "off" position.	generator "B" to bus selector switch to	
				Grade:	SAT		_

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	JPM Num	ber:	026			Revision:	4, Chg. 2
ł	Task Title:	: .	TEST STAR	T OF THE "B" EDG FR	OM MB8		
	STEP	_20		Performance Step:	OBSERVE the limits:	following load	d/duration
-					<u>Load</u> ≤5000 kW 5000-5335 kW 5335-5500 kW 5500-6000 kW > 6000 kW (Step 4.12.3)	Maximum D 8,760 Hrs. 2000 Hrs. 160 Hrs. 30 min Prohibited	<u>uration</u>
	GRADE			Standards:	The initial condi diesel was to be Consequently, i for a prolonged	itions stated t e loaded to 4 t may run at t period of time	hat the 500kW. this load e.
				Grade:	SAT	UNSA	Г
				Cue:	If the examinee amount the dies provide the folic EDG is to be los	questions to sel is to be loa wing Cue: Tl aded to 4500	what aded, ne "B" kW.
	STEP	_21		Performance Step:	NOTIFY Engine any operation w 5000kW, includi of operation abo 4.12.4)	ering Depart ith load great ing load and ove 5000kW.	ment of ter than duration (Step
	GRADE			Standards:	Since the diese 4500kW, no act	l is only to be ion is require	loaded to d.
				Grade:	SAT	UNSAT	r

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	JPM Numb	er: 026	<u>}</u>			Revision:	4, Chg. 2
	Task Title:	TES	T START	OF THE "B" EDG FRO	DM MB8		
	STEP	22	<u> </u>	Performance Step:	Using ADJUST I one of the follow • "SPEED/LOA • "GOVERNOF (3EGS*PN (Step 4.12.5)	oad as requ ing: \D" (MB8) R CONTROL NLB)	ired using _"
	GRADE		<u> </u>	Standards:	Rotates the "SPE the "raise/lower" necessary to incl the caution limit of is approximately Consequently, pi 450-500kW per r Total time to read 9 minutes +/- 1.5 initial KW load.	EED/LOAD" directions a rease load. of normal loa 10%/min. icks up appr minute. ch 4500KW minutes ba	switch in s Observes ading rate oximately should be sed in
)				Grade:	SAT	UNSA	г
	STEP	23		Performance Step:	Using appropriate control, PERFOF adjust reactive lo • ADJUST voltag desired reading (directed) on "MVA • ADJUST voltag desired reading (directed) on "KIL (3EDG*PNLB). (Step 4.12.6)	e voltage re RM the follow ad: 0.6 if not otl AR" (MB8). ge regulator 600 if not of OVARS"	gulator ving to to the herwise to the therwise
	GRADE _			Standards:	Rotates the "B" d voltage regulator "raise/lower" posi maintain approxit MVAR/MWe.	liesel genera switch to th itions as neo mately 0.6	ator le cessary to
7				Grade:	SAT	UNSAT	Γ

JPM Number: 026

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Revision: 4, Chg. 2

 Task Title:
 TEST START OF THE "B" EDG FROM MB8

Terminating Cue: When the examinee has either made an adjustment to maintain the MVAR/MWe load, inform him that "The evaluation for this JPM is completed".

Stop Time: _____

VERIFICATION OF JPM COMPLETION

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JPM Number:	026					Revision:	4, Chg. 2
Date Performed:							
Student:							
Evaluator:							
For the student to a correctly. If task is achieve a satisfacto	chieve a satisfacto Fime Critical, it <u>MU</u> ry grade.	ory grade J <u>ST</u> be co	, <u>ALL</u> cr omplete	itical ste d within	eps mu the sp	st be complecified time	eted to
Time Critical Task?		YES		NO _	<u>x</u>		
Validated Time (min	utes):	18	-				
Actual Time to Com	olete (minutes):						
Result of JPM:			("S" fo	r satisfa	ctory, '	'U" for unsat	tisfactory)
Result of oral questi	ons (if applicable):						
Number of Ques	tions:						
Number of Corre	ct Responses:		. .				
	Score:	<u>.</u>					
Areas for Improvem	ent:						

STUDENT HANDOUT

JPM Number:

026

Initial Conditions:

The plant is in a normal electric plant lineup with both EDGs ready for automatic loading. The Outside Rounds PEO has been sent to the "B" EDG enclosure and completed the preliminary checks for starting the "B" EDG. The prestart portions of the Diesel Generator Data Sheet (OPS Forms 3346A-13) and Diesel B Operating Log (OPS Form 3346A-15) have been completed. The SBO diesel is not running. The other RO will be filling out the Ops forms.

Initiating Cues:

The US has directed you to conduct a start of the "B" EDG from MB8 using OP 3346A, Section 4.4 starting with step 4.4.4. The EDG is to be paralleled to the bus and loaded to 4500KW.

I. JPM Title: RCS Cooldown per E-3 SGTR using the Atmospheric Steam Dump Bypasses

ID Number: JPM-036-1A Revision: 0

II. Initiated:

Villing (o J. William Côté Developer

02/10/00 Date

III. Reviewed:

Nartin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear raining Supervisor

2/25/00 Date

Date

Facility: <u>Millstone Unit 3</u>					
JPM Tracking Number:	036-1A	Validation Time: <u>10</u>	minutes		
Task Title: <u>RCS Cooldo</u>	wn per E-3 SGTR using the	e Atmospheric Steam Dun	<u>np Bypasses</u>		
Time Critical Task: () Y	YES (X)NO				
Task Number: 000*0	26*05*01				
K/A Number: 000-038-EA	<u>1.16</u>	K/A Rating:	<u>4.4/4.3</u>		
Applicable Methods of Tes	sting:				
Simulate Performance		Actual Performance	_X		
Classroom	Simulator <u>X</u>	_ Plant			
Task Standards:	Satisfactorily complete the less than the required tem	e RCS cooldown at the ma perature per EOP 35 E-3.	ximum rate to		
Required Materials:	None.				
General References:	EOP 35 E-3 Rev.13				

READ TO THE EXAMINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed. **Note**: I will role play as the second control board operator and in particular monitor PZR level. If PZR level decreases to less than 16%, I will start the second charging pump and will inform you of this fact.

Initial Conditions: An event occurred which resulted in the control room team manually tripping the reactor and initiating an SI. A Loss of Off Site Power occurred upon SI initiation. The US initiated ruptured S/G actions and identified a rupture in S/G "B" through RMS indications and samples. The control room team has carried out EOP actions through E-3, step 13.

Initiating Cues: The US has directed you to conduct an RCS cooldown starting with the note prior to step 14 and complete the actions of step 14.

Simulator Condition:

- 1. RESET to IC-14, 100% steady state power, MOL.
- 2. Insert malfunction SG01B at 40% severity S/G "B" tube rupture of 400 gpm.
- 3. Place the simulator in "RUN", allow the radiation levels to increase on ARC-21 until the "Radiation Alert" and "Rad Hi" annunciators are received. Then trip the reactor and initiate an SI. Upon SI initiation insert ED01, Loss of Offsite Power.
- 4. Carry out the actions of E-0, Transition to E-3 and carry out the first 13 steps.
- 5. Acknowledge and clear annunciators and place the simulator in "FREEZE".
- 6. After the examinee has received the initiating cues and initial conditions, place the simulator in "RUN".

Approximate setup time is 20 - 25 minutes.

·	Facility:	Millstone Uni	<u>t 3</u>	System: <u>E</u>	<u>=30</u>
\cup	JPM Numbe	er: <u>036-1A</u>			
	Task Title:	RCS Cooldown p	er E-3 SGTR using the	Atmospheric Steam Dump Byp	<u>asses</u>
	NOTE	E Critical Steps m	Denote Critical Steps ust be completed corre	with an "X" ectly to achieve a satisfactory gra	ade
	Start Time:				
			Comments:	The note prior to step 14 has the operator block the Low Steam Pressure SI when pressurizer pressure is LESS THAN 2000 pWhen the conditions are met, the action can be taken by the operany time during this JPM.	ne Line osia. his rator at
\bigcirc			Comments:	The note prior to step 14 has the operator bypass the Low-Low T interlock if the conditions are m However, the operator can was bypass the interlock until the cooldown is attempted.	ne Favg et. ait to
				The examinee may immediately recognize that the Steam dump unavailable due to the loss of C Power and shift actions to the F so immediately go to step 2	y os are Offsite RNO. If
	STEP _	1	Performance Step:	Bypass the Low-Low Tavg inter Tavg drops to 553°F.	rlock if
	GRADE _		Standards:	Rotates the INTLK - TRA bypas switch MSS*N05 to the "BYP IN (LO-LO Tave (P-12) Bypass)" p and releases the switch back to "ON" position.	ss NTLK position o the
\bigcirc	GRADE _		Standards:	Rotates the INTLK - TRB bypas switch MSS*N06 to the "BYP IN (LO-LO Tave (P-12) Bypass)" p	ss NTLK position

÷	Facility:	Millstone Unit	<u>: 3</u>	Syst	tem: _	E30
\bigcirc	JPM Number:	036-1A				
	Task Title: <u>R(</u>	<u>CS Cooldown pe</u>	er E-3 SGTR using the	Atmospheric Stear	<u>n Dump B</u>	<u>ypasses</u>
	NOTE (Critical Steps m	Denote Critical Steps v ust be completed corre	with an "X" ectly to achieve a sa	itisfactory	grade
				and releases the s "ON" position.	witch back	k to the
	STEP 2	<u> </u>	Performance Step:	Initiate RCS Cool Determine required temperature withou lower pressure).	down d core exit ut interpola	t ating (use
			Comments:	The following num examiner in detern correctness of this	bers are to nining the step.	o aid the
\bigcirc				Lowest Ruptured SG_Pressure (psig) 1085 985 885 785	<u>Core EX</u> <u>Tempera</u> NORM A 516 504 490 476	<u>XIT</u> ature (°F) ADVERSE 470 453 434 413
	GRADE		Standards:	Checks the "B" S/C indicators (MSS*P based on the indic the required core e	G pressure 1524A/526 ation, dete exit tempe	e A) and ermines rature.
	STEP <u>3</u>		Performance Step:	Dump steam to co SGs at maximum r Verify annunciator AVAIL FOR STM I 5-6) - LIT.	ndenser fr ^r ate. CONDEN DUMP C-9	om intact SER (MB4D
$\overline{}$	GRADE		Standards:	Checks annunciate annunciator 5-6, is shifts actions to the	or panel M 3 NOT LIT e RNO Co	IB4D, and lumn.

	Facility:		Millstone Uni	<u>t 3</u>	System: <u>E30</u>
1	JPM Num	ber:	036-1A		
	Task Title	: <u>RC</u>	<u>S Cooldown p</u>	er E-3 SGTR using the	e Atmospheric Steam Dump Bypasses
	NO	TE C	ritical Steps m	Denote Critical Steps ust be completed corre	with an "X" ectly to achieve a satisfactory grade
	STEP	4		Performance Step:	Recognize that a loss of air has occurred and the atmospheric bypass valves need to be used. "Response Not Obtained" column
	GRADE		. <u> </u>	Standards:	Realizes the atmospheric steam dump valves are not functional.
į				Comments:	When a loss of air occurs, the atmospheric dump valves are no longer functional
	STEP	_5	<u> </u>	Performance Step:	OPEN the Atmospheric Relief Bypass Valves for the intact SGs.
	GRADE		<u> </u>	Standards:	Depresses the "open" pushbutton for the atmospheric relief bypass valves (3MSS*MOV74A) (3MSS*MOV74C) (3MSS*MOV74D) and observes the indicating lights shift to green OFF, red ON.
				Comments:	The maximum rate requirement of the original step is meant to apply to this step in the RNO column. This means the valves are full open.
				Comments:	The opening of MOV74B will cause a release and constitute Failure of the critical nature of this step.

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	Facility:	Millstone Uni	<u>t 3</u>	System: <u>E30</u>
	JPM Number:	<u>036-1A</u>		
	Task Title: <u>R</u>	CS Cooldown p	er E-3 SGTR using the	e Atmospheric Steam Dump Bypasses
	NOTE	Critical Steps m	Denote Critical Steps ust be completed corre	with an "X" ectly to achieve a satisfactory grade
	STEP 6	X	Performance Step:	Verify core exit TCs - LESS THAN REQUIRED TEMPERATURE.
	GRADE	X	Standards:	Displays the core exit thermocouple map on the computer display screen. Monitors the temperatures to ensure temperature is decreasing and drops below that temperature determine in JPM Step 2.
j			Comment:	If time is a consideration: Once the examinee has demonstrated control of the cooldown, The evaluator may assign a new temperature for the examinee to maintain the plant less than.
	STEP 7	X	Performance Step:	Stop RCS cooldown.
	GRADE	X	Standards:	* Depresses the "close" pushbutton for the atmospheric relief bypass valves (3MSS*MOV74A) (3MSS*MOV74C) (3MSS*MOV74D) and observes the indicating lights shift to green ON, red OFF.
	STEP 8		Performance Step:	Maintain core exit TCs - LESS THAN REQUIRED TEMPERATURE
/	GRADE		Standards:	Monitors the core exit thermocouple map on the computer display screen to ensure core exit temperature

remains below that temperature

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	Facility:	Millstone Unit 3	System: <u>E30</u>
1	JPM Number:	036-1A	
	Task Title: <u>RC</u>	S Cooldown per E-3 SGTR using the	Atmospheric Steam Dump Bypasses
	NOTE C	Denote Critical Steps v ritical Steps must be completed corre	with an "X" ectly to achieve a satisfactory grade
			determined in JPM Step 2.
	STEP 9	Performance Step:	Inform the US that the required RCS cooldown is complete.
	GRADE	Standards:	Informs the US that he has completed the required RCS cooldown in accordance with E-3, Step 14.
	Terminating Cu	e: The evaluation for this JPM is co	ncluded.
	Stop Time:		

VERIFICATION OF COMPLETION

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Job Performance Measure Number:	<u>036-1A</u>	Revision: 0
Date Performed:		
Examinee:		
Evaluator:		
Validated Time (min):10	Actual time to Complete (r	min):
Result of JPM:	(Denote by an S for satisfa unsatisfactory)	actory or a U for
Result of oral questions:	Number of Questions:	
	Number of Correct Respor	nses:

Score _____%

EXAMINEE HANDOUT

INITIAL CONDITIONS AND INITIATING CUES

JPM Tracking Number: ___036-1A

Note:

Initial Conditions: An event occurred which resulted in the control room team manually tripping the reactor and initiating an SI. Upon SI Initiation a loss of offsite power occurred. The US initiated ruptured S/G actions and identified a rupture in S/G "B" through RMS indications and samples. The control room team has carried out EOP actions through E-3, step 13.

Initiating Cues: The US has directed you to conduct an RCS cooldown starting with the note prior to step 14 and complete the actions of step 14.

The instructor/evaluator will role play as the second control board operator and in particular monitor PZR level. If PZR level decreases to less than 16%, the instructor will start the second charging pump and will inform you of this fact.

I. JPM Title: MANUALLY PERFORM MSLI

ID Number: JPM-048

Revision: <u>3 chg1</u>

II. Initiated:

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R.L. Lueneburg Developer

III. Reviewed:

Mart

Technical Reviewer

Instructional Reviewer

IV. Approved:

Operations Manager

Nuclear Training Supervisor

2/21/00

<u>9/15/97</u> Date

2/24/00 Date

<u>2-21-0</u> Date

Date

12.50 Date

Facility: <u>Millstone Unit 3</u>			Examinee:		
JPM Tracking Number: <u>048</u>				Validation Time:	<u>3</u> minutes
Task Title: <u>MAN</u>	Task Title: MANUALLY PERFORM MSLI				
Time Critical Task: () YES (X) NO					
Task Number: 000*011*05*01					
K/A Number: <u>000 EA1.04</u>			K/A Rating:	<u>4.3 / 4.3</u>	
Applicable Methods of Testing:					
Simulate Performa	ance			Actual Performance	e <u>X</u>
Classroom		Simulator	X	_	Plant
Task Standards:	Sa gu	Satisfactorily perform a main steam line isolation using the guidance in E-0			
Required Material	<u>s:</u> No	one.			
General References:		OP 35 E-0 Rev. 1	7		

READ TO THE EXAMINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed.

Initial Conditions: A loss of coolant accident has occurred. A reactor trip and SI have been initiated. The control room team has carried out the immediate actions of EOP 35 E-0. The annunciator "master/silence" switch is in silence.

Initiating Cues: The US has directed you to perform Step 10 of EOP 35 E-0.

Simulator Condition:

- 1. RESET to IC-14, 100% steady state conditions.
- 2. Insert malfunction RP08A and RP08B MSLI fails to actuate.
- 3. To cause both (MB5 and MB2) MSLI push-buttons to be inoperable, enter the following I/O overrides:

System = RP

Tag Number	Value	<u>System</u>	
PB1-3MSS-SLI	Activate Off	RP	
PB2-3MSS-SLI	Activate Off	RP	

- 4. Place the simulator in "RUN" and insert malfunction RC03A Loop 1 Cold Leg LOCA at 100% severity.
- 5. Place the annunciator "master/silence" switch to "silence".
- 6. Perform EOP 35 E-0 actions up to, and including step 9. Do not acknowledge or clear annunciators at this time.
- 7. Place the simulator in "FREEZE".
- 8. After the examinee has received the initiating cues and initial conditions, place the simulator in "RUN".

Approximate setup time is 7 minutes.

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-	Facility:	Millstone Uni	<u>it 3</u>	System: <u>E00</u>	
\bigcirc	JPM Number:	<u>048</u>			
	Task Title:	MANUALLY	PERFORM MSLI		
	NOTE C	critical Steps m	Denote Critical Steps oust be completed corre	with an "X" ectly to achieve a satisfactory grade	
	Start Time:	·····			
			Comments:	Based on the JPM setup containing pressure will be greater than 18 ps The operator may determine that a MSLI is required without checking to SG pressures. This is acceptable.	ent ia. n the
\bigcirc	STEP <u>1</u>	<u> </u>	Performance Step:	Check if main steam lines should b isolated. Check Ctmt pressure - GREATER THAN 18 psia <u>OR</u> any SG pressure - LESS THAN 660 psig.	e 0
	GRADE	<u> </u>	Standards:	Checks containment pressure indications on MB2 and SG pressur indications on MB5/MB2. Determine that a main steam line isolation actuation is required.	re es
	STEP 2		Performance Step:	Verify MSIV and MSIV bypass valve CLOSED.	es -
	GRADE	<u> </u>	Standards:	Checks the valve position indicating lights and determines that the MSIV are open (green lights OFF, red ligh ON) and the MSIV bypass valves a closed (green lights ON, red lights OFF).) /s nts ire

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~	Facility:	Millstone Un	<u>it 3</u>	System: <u>E00</u>
	JPM Number	: <u>048</u>		
	Task Title:	MANUALLY	PERFORM MSLI	
	*NOTE [,]	* Critical Steps m	Denote Critical Steps nust be completed corre	with an "X" ectly to achieve a satisfactory grade
			Comments:	The examinee should realize that a MSLI has not occurred and proceed to the actions under the "Response Not Obtained" column. The examinee may make this report to the US.
	STEP	3	Performance Step:	Initiate MSI.
	GRADE		Standards:	Initiate MSI via the push-buttons on MB2 and/or MB5 and checks the position indicating lights for the MSIV's (remain green OFF, red ON). Recognizes that a MSI cannot be initiated via the control board push- buttons and continues in the "Response No: Obtained" column.
			Comments:	The examinee may decide to inform the US of this failure, but it is not required to complete this step.
	STEP	<u>4 X</u>	Performance Step:	<u>IF</u> MSI will <u>NOT</u> actuate, <u>THEN</u> CLOSE the MSIVs and MSIV bypass valves.
	GRADE	X	Standards:	Rotates each of the MSIV control switches on MB5 to the "CLOSE" position and verifies the valves close by observing the indicating lights shift to green ON, red OFF. Verifies the MSIV bypass valves closed by observing green indicating lights.

	Facility:	Millstone Unit 3	System: <u>E00</u>	
•	JPM Number:	<u>048</u>		
	Task Title:	MANUALLY PERFORM MSLI		
	Denote Critical Steps with an "X" *NOTE* Critical Steps must be completed correctly to achieve a satisfactory grade			
	STEP 5	Performance Step:	Report that a main steam line isolation has been carried out.	
	GRADE	Standards:	Reports to the US that the MSIVs and MSIV bypass valves are closed and the actions of Step 10 in EOP 35 E-0 are completed. If not previously reported, informs the US of the failure of the automatic MSI to actuate.	
	Terminating Cue: The evaluation for this JPM is concluded.			

J Stop Time: _____

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VERIFICATION OF COMPLETION

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Job Performance Measure Number:	<u>048</u>	Revision:	<u>3 chg1</u>
Date Performed:			
Examinee:			
Evaluator:			
Validated Time (min.): <u>3</u>	Actual time to Corr	plete (min.):	·
Result of JPM:	(Denote by an S fo unsatisfactory)	r satisfactory	or a U for
Result of oral questions:	Number of Questio	ns:	
	Number of Correct	Responses:	

Score _____%

EXAMINEE HANDOUT

INITIAL CONDITIONS AND INITIATING CUES

JPM Tracking Number: 048

Initial Conditions: A loss of coolant accident has occurred. A reactor trip and SI have been initiated. The control room team has carried out the immediate actions of EOP 35 E-0. The annunciator "master/silence" switch is in silence.

Initiating Cues:

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The US has directed you to perform Step 10 of EOP 35 E-0.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: <u>PRESSURIZER PRESSURE CONTROL FOLLOWING REACTOR</u> TRIP

JPM ID Number: 050A

Revision: <u>5 Change 2</u> 02/21/00

II. Initiated:

i.

J. William Côté

III. Reviewed:

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

2/21/00

Date

Date

Date

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone	Unit 3	Student:					
JPM ID Number: _050	<u>A</u>	Revision:	5 Change 2				
Task Title: PRESSU	Task Title: PRESSUREIZER PRESSURE CONTROL FOLLOWING REACTOR TRIP						
System: SO1							
Time Critical Task: (X) YES () NO						
Validated Time (minute	es): _4						
Task Number(s): 000*013*05*01, 000*065*05*02, 010*005*01*01, 010*013*04*01 Applicable To: SRO RO X PEO							
K/A Number: 000-0	027-EA1.01	K/A Rating: 4.0	/ 3.9				
Method of Testing:	Simulated Performance:	Actual Perfo	rmance: X				
Location: 0	Classroom: Sim	ulator: X	In-Plant:				
Task Standards:	Satisfactorily complete EOP a using EOP 35 ES-0.1.	actions to control press	surizer pressure				
Required Materials:	None.						
General References:	EOP 35 ES-0.1 Rev. 17						

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

;	JPM Number: 050A		Revision: 5 Change 2
	Simulator Requirements:	1.	Reset to IC-14, 100% steady state power.
		2.	Insert malfunctions RP02A and RP02B - reactor trip.
		3.	Place the simulator in "RUN". Allow the reactor trip to occur, throttle back AFW flow to approximately 150 gpm per SG by closing the MDAFW flow control valves and throttling the TDAFW flow control valves to 10% open. Trip the TDFW pumps to minimize feedwater oscillations.
		4.	Acknowledge/reset alarms and place the simulator in "Freeze".
		5.	Insert malfunction RX06A, pressurizer spray valve PCV- 455B auto control failure, at 50% severity over a ramp time of 120 seconds.
		6.	Under Simulator diagrams (left screen):
1			RX Sheet 13, component 3RCS-PK455B, select "auto" and then "activate"
			This will keep controller PK455B in the "AUTO" position. The intent is to have an inadvertent reactor trip with a spray valve failing open after the simulator is placed in "RUN".
		7.	Place the simulator in "RUN" and verify RCS pressure is 2040 \pm 10 psig and <u>decreasing</u> . Place the simulator in "FREEZE".
		8.	After the examinee has received the initiating cues and initial conditions, place the simulator in "RUN".
		Ар	proximate setup time is <u>10</u> minutes.

JOB PERFORMANCE MEASURE GUIDE (Continued)

<u>Initial Conditions</u>: An inadvertent reactor trip has occurred. The control room team has completed the actions of E-0 and ES-0.1, through Step 4.

Initiating Cues: The US has directed you to check pressurizer pressure control using step 5 in EOP 35 ES-0.1. You will be responsible for acknowledging the alarms on MB4. During the performance of this JPM other annunciators may come in (i.e. condenser vacuum, etc.) The instructor will role play as a second control board operator and acknowledge/reset these alarms.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

	JPM Number:	050A		Revision:	5 Change 2			
Ĵ	Task Title:	<u>PRESSURIZE</u> <u>TRIP</u>	ESSURIZER PRESSURE CONTROL FOLLOWING REACTOR IP					
	Start Time:							
			NOTE:	If during the perform a Low Pressurizer p actuated, the exami fails.	nance of this JPM, ressure SI is nee automatically			
	STEP 1		Performance Step:	Check PZR Pressure Verify PZR pressure THAN 1890 psia. (S	re Control - GREATER Step 4.a)			
Ĵ	GRADE		Standards:	Checks pressurizer than 1890 psia by of indication on meters RCS-PI455A RCS-PI456A RCS-PI457 RCS-PI457 RCS-PI458 OR Recorder PR455.	pressure greater bserving pressure			
			Grade:	SAT				
	STEP 2		Performance Step:	Verify PZR pressure	- STABLE AT OR			
	GRADE		Standards:	Notes that PZR pres 2250 psia and decre RNO column and p 5d.	u psia. (Step 4.b) ssure is less than easing. Checks the roceeds to step			
			Grade:	SAT				

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- .,	JPM Num	ber:	050A Revision: <u>5 Change 2</u>					
Ĵ	Task Title: <u>PRESSURIZE</u> <u>TRIP</u>			ER PRESSURE CONT	ROL FOLLOWING R	EACTOR		
	STEP	3		Performance Step:	Check PZR status: pressure - LESS TH <u>Then</u> proceed to ste	Check PZR IAN 2250 psia. ep 5.d		
	GRADE			Standards:	Monitors pressure a pressure is less that	and observes that n 2250 psia.		
				Grade:	SAT	UNSAT		
	STEP			Performance Step:	Verify PZR PORVs 5.d)	- CLOSED. (step		
	GRADE			Standards:	Verifies PZR PORV observing indicating ON, red OFF.	valves closed by lights as green		
Ĵ				Comments:	The examinee may outlet temp (RCS-T approximately 110°l parameters as confi indications.	also check PORV l463) as ⁼ and PRT rmatory		
				Grade:	SAT	UNSAT		
				Comments:	During JPM steps 5 examinee may decide of problems and cor taken in accordance procedure. This is n satisfactory complet	, 6 and 7, the de to inform the US rective actions with the ot required for ion of the step.		
	STEP	5		Performance Step:	Verify PZR spray va (Step 5.e)	lves - CLOSED.		
	GRADE			Standards:	Identifies that loop # valve, RCS*PCV45	[∉] 1 PZR spray 5B is OPEN.		
)				Grade:	SAT			

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JPM Number:	050A		Revision:	5 Change 2
Task Title:	<u>PRESSURIZE</u> <u>TRIP</u>	R PRESSURE CONT	ROL FOLLOWING R	EACTOR
STEP <u>6</u>	<u> </u>	Performance Step:	Proceed to RNO co CLOSE the spray va RNO)	lumn alves. (Step 5.e
GRADE	<u> </u>	Standards:	Depresses the "mar on controller RCS*P Observes the contro "manual" ("auto" ligh "manual" light does	nual" pushbutton CV455B. oller will not shift to at stays lit and the not come on).
			The examinee may depress the 'ARROW"(▲) and/or "DOWN ARROW"(▲) pushbuttons to con the controller did not shift to "may This is not required to complete to step. Additionally, the examinee place the Master Pressure Contr (3RCS*PCV455A) in "MANUAL" increase its output in an attempt close the spray valve. Since the controller output is already at the maximum, this will have no effect is not required for completion of the step.	
		Grade:	SAT	

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	JPM Number:	050A		Revision:	5 Change 2	
	Task Title:	PRESSURIZER PRESSURE CONTROL FOLLOWING REACTOR TRIP				
	STEP 7	<u> </u>	Performance Step:	<u>IF</u> any spray valve c <u>THEN</u> STOP RCPs RNO)	an <u>NOT</u> be closed 1 and 2. (Step 5.e	
	GRADE	X	Standards:	Rotates RCP 1 cont P1A to the "STOP" p observes the indicat green ON, red OFF goes to zero.	rol switch RCS- position and ing lights shift to and amperage	
	GRADE	X	Standards:	Rotates RCP 2 cont P1B to the "STOP" p observes the indicat green ON, red OFF goes to zero.	rol switch, RCS- position and ing lights shift to and amperage	
)			Comments:	Annunciators "RCP I "RCP Loop 2 Flow L Speed" will alarm. The should silence and a alarms. This is not ne this critical step.	Loop 1 Flow Lo", o" and "RCP Low ne examinee acknowledge these ecessary to satisfy	
			Grade:	SAT	UNSAT	
	STEP <u>8</u>		Performance Step:	Verify PZR heaters - (Step 5.f)	ENERGIZED.	
	GRADE		Standards:	Verifies heater group H1B, H1C, H1D and observing the indicat green OFF, red ON.	os 3RCS*H1A, H1E are on by ting lights as	
			Grade:	SAT		

JPM Number: 050A Revision: 5 Change 2								
Task Title: PRESSURIZER PRESSURE CONTROL FOLLOWING REACTOR TRIP								
STEP 9		Performance Step:	Inform the US that p pressure control has	pressurizer s been checked.				
GRADE		Standards:	Reports to the US that pressurizer pressure control has been checked, RCPs 1 and 2 have been stopped a pressure is now stable. Also reports the problem with the spray valve , if not previously done.					
		Grade:	SAT	UNSAT				

Terminating Cue: The evaluation for this JPM is concluded.

Stop Time: _____

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VERIFICATION OF JPM COMPLETION

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JPM Number:	050A				Revision:	5 Change 2
Date Performed:						
Student:						
Evaluator:						
For the student to ac correctly. If task is a achieve a satisfacto	chieve a satisfacto Fime Critical, it <u>MU</u> ry grade.	ory grade I <mark>ST</mark> be co	ALL cri	tical ster within t	os must be he specifie	completed d time to
Time Critical Task?		YES		NO	<u>X</u>	
Validated Time (min	utes):	4				
Actual Time to Com	plete (minutes):					
Result of JPM:			("S" for	satisfac	tory, "U" fo	r unsatisfactory)
Result of oral questi	ons (if applicable):					
Number of Quest	tions:					
Number of Corre	ct Responses:					
	Score:					
Areas for Improveme	<u>ent:</u>					

STUDENT HANDOUT

JPM Number:

050A

Initial Conditions:

An inadvertent reactor trip has occurred. The control room team has completed the actions of E-0 and ES-0.1, through Step 4.

Initiating Cues:

The US has directed you to check pressurizer pressure control using step 5 in EOP 35 ES-0.1. You will be responsible for acknowledging the alarms on MB4. During the performance of this JPM other annunciators may come in (i.e. condenser vacuum, etc.) The instructor will role play as a second control board operator and acknowledge/reset these alarms.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: PERFORMANCE OF THE IMMEDIATE ACTIONS IN E-0

JPM ID Number: 051(C) Revision: 0

II. Initiated:

J. William Côté Developer

02/04/00 Date

III. Reviewed:

Mari

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear/Training Supervisor

 $\frac{2/25/00}{\text{Date}}$

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone	Unit 3	Student:		
JPM ID Number: _051	(C)	Revision:	0	
Task Title: _PERFOR	MANCE OF THE IMMEDIA	TE ACTIONS IN	E-0	
System: _E00				
Time Critical Task:	() YES (X) NO	I		
Validated Time (minute	es):5			
Task Number(s): _00)0*011*05*01			
Applicable To: SI	RO X RO	<u> X P</u>	EO	
K/A Number: EPE GEN	-007-EA2.02 -2.4.1	K/A Rating: -	4.3/4.6 4.3/4.6	
Method of Testing:	Simulated Performance:	Actu	ual Performance:	<u>x</u>
Location:	Classroom: S	Simulator: X	in-Plant::	
<u>Task Standards:</u>	Satisfactorily complete the any applicable RNO action	e first 4 steps in E ns.	-0 from memory incl	uding
Required Materials:	None.			
General References:	EOP 35, E-0, Rev. 20			

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 051(C)		Revision: 0				
Simulator Requirements:	1.	Reset to IC-14, 100% power				
	2.	Enter RP10A and RP10B to ensure that an automatic reactor trip does not occur.				
	3.	Enter malfunction RP09A & RP09B to prevent the reactor from being tripped at MB4 and MB7.				
	4.	Annunciator override: MB4B C5 & MB4C D5 to "ON". This will activate the Hi & Hi-Hi vibration alarms for the "C" RCP.				
	5.	Place the simulator in "RUN", Acknowledge/clear annunciators as appropriate. Place the Master Silence switch in the "SILENCE" position.				
	6.	Place the simulator in "FREEZE".				
	7.	Place the simulator in "RUN" after the examinee has read and understands the Initial Conditions and Initiating Cues.				
	Арр	roximate simulator setup time is 5-7 minutes.				
Initial Conditions:	Mon The requ has The	nents ago the "C" RCP Hi vibration annunciators alarmed. Control Room team has determined that a reactor trip is ired and stopping of the "C" RCP are necessary. The US placed the master silence switch in the "SILENCE" position. evaluator will acknowledge all communications to the US.				
Initiating Cues:	You out t be p	You are directed to trip the reactor, trip the "C" RCP and carry out the first four (4) steps of E-0 from memory. The simulator will be placed in run when you are ready to begin.				

**** NOTES TO EVALUATOR ****

1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.

2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".

3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

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	JPM Numb	er: _051(C)_			Revision:	0	
Ĵ	Task Title:	PERFORMAN	ICE OF THE IMMEDIA	TE ACTIONS IN E	-0		
	Start Time:						
	STEP	1	Performance Step:	TRIP the reactor.	Verify React	tor Trip.	
				 Check reactor breakers - OP 	r trip and bypa PEN	ass	
				Check rod bot	ttom lights - L	IT	
				Check neutron DECREASING	n flux - G		
)	GRADE		Standards:	Rotates the reacter to the "trip" position reactor trip breaker bottom lights are power is not decrease is not tripped. Show required in the RM	or trip switch on. Observes ers are closed lit and that rea easing. The r ifts to the action NO.	on MB4 that the d, no rod actor reactor ions	
			Grade:	SAT	UNSAT		
	STEP	2	Performance Step:	TRIP the reactor.			
	GRADE _		Standards:	Rotates the reactor trip switch or to the "trip" position. Observes th reactor trip breakers are closed, bottom lights are lit and that reac power is not decreasing. The rea is not tripped. Shifts to the action required in the RNO.			
			Grade:	SAT	UNSAT		

<u> </u>	JPM Num	oer: 051	(C)		I	Revision: 0
\bigcirc	Task Title:	PER	FORMAN	ICE OF THE IMMEDIA	TE ACTIONS IN E	-0
	STEP	_3	_ <u>x</u> _	Performance Step:	TRIP the reactor.	
	GRADE			Standards:	Proceeds to MB8 supply Breaker sw control MG Sets, "open" positions. A side and low side need not be opera all rod bottom ligh neutron flux is dee reactor is tripped. steps in the ACTIN	and rotates the vitches for the rod 32B & 32N to the All 4 breakers {high supply breakers} ated. Observes that its are lit and that creasing. The Returns to the ON column.
				Grade:	SAT	UNSAT
				NOTE The dispatching of a breakers is the US ta RO to satisfactorily co	PEO to locally oper sk. This action is N omplete the JPM.	n the Reactor trip OT required by the
	STEP			Performance Step:	TRIP the "C" RCP	.
	GRADE			Standards:	Proceeds to MB4 supply Breaker sv to the "open" posi	and rotates the vitch for the "C" RCP tion.
				Grade:	SAT	UNSAT
	STEP	5		Performance Step:	Verify Turbine Tri	p
					a. Check all turb CLOSED.	ine stop valves -
	GRADE			Standards:	Looks at the stop indications on the and observes that stop valves are O	valve meter EHC insert on MB7 t all of the turbine pen
			,	Grade:	SAT	UNSAT

	JPM Number:	051(C)		Revision: 0
)	Task Title:	PERFORMAN	NCE OF THE IMMEDIA	TE ACTIONS IN E-O
	STEP <u>6</u>		Performance Step:	Trip Turbine
				Manually trip the turbine
	GRADE		Standards:	Pushes the turbine trip pushbutton on the EHC insert and verifies all stop valves close
			Grade:	SAT UNSAT
	STEP 7		Performance Step:	Verify Power to AC Emergency Busses. a. Check busses 34C and 34D - AT
				LEAST ONE ENERGIZED.
				 b. Check busses 34C and 34D - BOTH ENERGIZED.
	GRADE	<u> </u>	Standards:	Looks at the voltage indication for bus 34C on MB8 and observes that voltage is present. At least bus 34C is energized.
	GRADE		Standards:	Looks at the voltage indication for bus 34D on MB8 and observes that voltage is present. Both busses 34C and 34D are energized.
			Grade:	SAT UNSAT
		NOTE: Dependir	ng on the speed of resp	oonse, the expectation is for SI to be

Depending on the speed of response, the expectation is for SI to be actuated with one person performing this JPM.

JPM Number: 051(C)		Revision: 0
Task Title: PERFORMA	NCE OF THE IMMEDIA	ATE ACTIONS IN E-O
STEP <u>8</u>	Performance Step:	Check if SI is Actuated.
		a. Verify Safety Injection Actuation annunciator - LIT
GRADE	Standards:	At MB4, observes that the Safety Injection Actuation annunciator is or is not lit.
	Grade:	SAT UNSAT

NOTE:

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If the SI annunciator is Lit, Cue the examinee; The Evaluation for this JPM is complete.

Steps 9-14 need only be done if SI annunciator is not lit

			Comments:	JPM steps 9 - 14 can any order.	be performed in
_	STEP	9	Performance Step:	Check if SI is required	d.
				 Ctmt pressure GF 18 psia 	REATER THAN
	GRADE		Standards:	Checks Ctmt pressure MB2 and observes th approximately 13.5 ps than 18 psia.	e indications on at Ctmt is sia. It is less
			Grade:	SAT	
	STEP		Performance Step:	 RCS pressure LE psia 	SS THAN 1890
	GRADE		Standards:	AT MB4, observes the pressure indicators and that RCS pressure is slowly but greater that the pressure is slowly but greater the pressure is slowly but grea	at the RCS nd determines decreasing in 1890 psia
\bigcirc			Grade:	SAT	

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	JPM Number:	051(C)			Revision:	0
/	Task Title:	PERFORMAN	ICE OF THE IMMEDIA	ATE ACTIONS IN E	Ξ-Ο	
	STEP 11		Performance Step:	PZR level LE	SS THAN 16%	
	GRADE		Standards:	Observes the PZ MB4 and determ not less than 16%	R level indication ines that PZR le	ons on evel is
			Grade:	SAT	UNSAT	
	STEP _12		Performance Step:	 RCS subcool 32 degrees F 	ing LESS THAN	N
	GRADE		Standards:	Uses the plant pr the curves on the clipboards to dete subcooling is grea 32 degrees F.	ocess compute back of the ermine that RCS ater than	r or S
			Grade:	SAT	UNSAT	
	STEP 13		Performance Step:	SG pressure LI	ESS THAN 660	psig.
	GRADE		Standards:	At MB5, observes pressures are gre After checking all determines that a	s that all SG eater than 660 p parameters, in SI is not requ	osig. Iired
			Grade:	SAT		
	STEP 14		Performance Step:	Reports that the f have been compl	irst four steps c eted.	of E-0
	GRADE		Standards:	Informs the exam completed the firs E-0 and an SI is r	iner that he has at four (4) steps not required.	s of
			Grade:	SAT		
	Terminating C	ue: The evalu	ation for this JPM is o	concluded.		

Stop Time: _____

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VERIFICATION OF JPM COMPLETION

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JPM Number: _0	51(C)				Revision:
Date Performed:					
Student:					
Evaluator:					
For the student to achi correctly. If task is Tin achieve a satisfactory	eve a satisfacto ne Critical, it <u>MU</u> grade.	ory grade I <u>ST</u> be co	ALL complete	ritical steps m d within the s	nust be completed specified time to
Time Critical Task?		YES		NO X	_
Validated Time (minute	es):	5			
Actual Time to Comple	ete (minutes):				
Result of JPM:			_ ("S" fo	or satisfactory	, "U" for unsatisfacto
Result of oral question	s (if applicable):				
Number of Questio	ns:				
Number of Correct	Responses:				
Areas for Improvemen	Score: <u>t:</u>				

STUDENT HANDOUT

JPM Number:

051(C)

Initial Conditions: Moments ago the "C" RCP Hi vibration annunciators alarmed. The Control Room team has determined that a reactor trip is required and stopping of the "C" RCP is necessary. The US has placed the master silence switch in the "SILENCE" position. The evaluator will acknowledge all communications to the US.

Initiating Cues:You are directed to trip the reactor, trip the "C" RCP and
carry out the first four (4) steps of E-0 from memory. The
simulator will be placed in run when you are ready to begin.

I. JPM Title: RAISE PRESSURE IN A SAFETY INJECTION ACCUMULATOR

ID Number: JPM 073

Revision: <u>3 chg 1</u> 2/21/00

II. Initiated:

<u>J. William Côte Killing Cite</u> Developer

<u>2/21/00</u> Date

III. Reviewed:

Martin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

Nuclear Training Supervisor

2/24/00 Date

Dale

Date

<u>25/8</u>0

Simulator Requirements: 1.

- Reset to IC #10, 100% power.
- 2. Insert malfunction SI03A, LPSI accumulator "A" nitrogen leak at 100% severity.
- 3. Place the simulator in "RUN". When the "A" SI accumulator low pressure alarm is received, remove the malfunction.
- 4. Acknowledge/clear all annunciators and place the simulator in "FREEZE".
- 5. Place the simulator in "RUN" after the examinee has received the Initial Conditions and Initiating Cues.

Approximate simulator setup time is <u>15</u> minutes.

Facility:	Millsto	one Un	<u>nit 3</u>	JPM	Number:	<u>073 chg 1</u>	
Task Title:	RAIS	E PRE	SSURE IN A SAFET	<u>ry inje</u>	ECTION ACCU	JMULATOR	
Time Critical	Task:	() Y	YES (X)NO				
Validated Tir	ne:	<u>10 mi</u>	nutes				
Task Numbe	er:	<u>006*0</u>	26*01*02				
K/A Number	:	<u>006-0</u>	00-GEN13		K/A Rating:	3.9/4.0	
Methods of 7	<u>resting</u>	<u>:</u>					
Simulate Per	rformar	nce			Actual Perfor	mance	X
Classroom		_	Simulator	X		Plant	
Task Standa	<u>rds:</u>		Successfully increa OP 3310B, Accum	ise pre ulator L	ssure in an SI .ow Pressure \$	accumulator Safety Injecti	using on.
Required Ma	terials:		OP 3310B				
General Refe	erences	<u>S:</u>	OP 3310B, Accum	ulator L	ow Pressure S	Safety Injecti	on

READ TO THE EXAMINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed.

- Initiating Cues: The US has directed you to repressurize the "A" LPSI accumulator using OP 3310B section 4.6.
- Initial Conditions: The plant is at 100% power. A low pressure alarm has just been received for the "A" LPSI accumulator. The crew is carrying out the actions of ARP 3353MB2A.4-6B.

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	Facility:	Millstone Unit 3	System: <u>ECC</u>
	JPM Number:	<u>073</u>	
	Task Title:	RAISE PRESSURE IN A SAFETY I	NJECTION ACCUMULATOR
		(Denote Critical Steps - *NOTE be completed correctly to achieve	* Critical Steps must e a satisfactory grade)
	Start Time:		
	STEP 1	Performance Step:	VERIFY 3SIL-PIC8893, safety injection accumulator nitrogen supply pressure indicating controller, is in AUTO and SET for 660 psig.
	GRADE	Standards:	The candidate either directly contacts a PEO or requests that the US contact a PEO to check that controller is in "AUTO" and set for 66 psig.
/		Cue:	Role play as the PEO or the US and acknowledge the request. Then report to the examinee that the controller is in "AUTO" and set for 660 psig.
	STEP 2	Performance Step:	VERIFY the safety injection tank has been filled in accordance with Section 4.1 <u>or</u> Section 4.3.
	GRADE	Standards:	The candidate checks the accumulator level. Compares the level with acceptable level either in Technical Specifications or on the logs. May request guidance from the US.
į		Cue:	If the candidate requests guidance from the US, reply that the accumulator level is within acceptable limits.

Facility:	Millstone Uni	<u>t 3</u>	System: <u>ECC</u>
JPM Number:	<u>073</u>		
Task Title:	RAISE PRES	SURE IN A SAFETY I	NJECTION ACCUMULATOR
	(Denote) be complet	Critical Steps - *NOTE ted correctly to achieve	* Critical Steps must e a satisfactory grade)
STEP <u>3</u>		Performance Step:	IF reactor coolant system pressure is less than 1015 psia, CHECK closed the safety injection accumulator tank outlet isolation valves.
GRADE		Standards:	Reactor coolant system pressure is greater than 1015 psia, so this check is not required.
STEP 4		Performance Step:	CHECK closed 3SIL*HCV943A and 3SIL*HCV943B (MB2), safety injection accumulator tank vent control valves.
GRADE		Standards:	Candidate checks $3SIL*HCV$ HCV943A and $3SIL*HCV943B$ closed by observing the down arrow (ψ) lights are back lit green and there is no output on either controller.
STEP <u>5</u>	<u> </u>	Performance Step:	OPEN 3 SIL*CV8880 (MB2), auxiliary building safety injection accumulator nitrogen supply isolation.
GRADE	<u> </u>	Standards:	Candidate depresses the "OPEN/AUTO" pushbutton for 3SIL*CV8880 and observes the indicating lights shift to green OFF, red ON.

	Facility:	Millstone Uni	<u>t 3</u>	System: <u>ECC</u>			
J	JPM Number:	<u>073</u>					
	Task Title:	RAISE PRES	SURE IN A SAFETY I	NJECTION ACCUMULATOR			
		(Denote (be complet	Critical Steps - *NOTE* ed correctly to achieve	Critical Steps must a satisfactory grade)			
	STEP <u>6</u>	<u> </u>	Performance Step:	OPEN 3SIL*CV8968 (MB2), containment building safety injection accumulator nitrogen supply isolation.			
	GRADE	<u> </u>	Standards:	Candidate depresses the "OPEN/AUTO" pushbutton for 3 SIL*CV8968 and observes the indicating lights shift to green OFF, red ON.			
)	STEP 7		Performance Step:	WAIT approximately one minute to allow nitrogen piping to pressurize prior to performing Step 4.6.8.			
	GRADE		Standards:	Candidate waits the required one minute before proceeding.			
			Cue:	To expedite the completion of the JPM it is permissible to provide the cue that one minute has elapsed and the candidate should proceed with Step 4.6.8.			

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	Facility:	Millstone Uni	<u>it 3</u>	System: <u>ECC</u>		
	JPM Number:	<u>073</u>				
	Task Title:	RAISE PRES	SSURE IN A SAFETY I	NJECTION ACCUMULATOR		
		(Denote) be comple	Critical Steps - *NOTE ted correctly to achieve	* Critical Steps must e a satisfactory grade)		
	STEP <u>8</u>	<u> </u>	Performance Step:	OPEN one of the two safety injection accumulator tank nitrogen supply valves for the tank to be pressurized. Tank 1: 3SIL*SV8875A <u>or</u> 3SIL*SV8875E.		
	GRADE	<u> </u>	Standards:	For either 3SIL*SV8875A or 3SIL*SV8875E, the candidate depresses the "OPEN" pushbutton and observes the indicating lights shift to green OFF, red ON.		
	STEP 9	<u> </u>	Performance Step:	WHEN the accumulator tank pressure is between 640 to 660 psia as read on the highest reading pressure gage, CLOSE the safety injection accumulator nitrogen supply valve: Tank 1: pressure gage: 3SIL- PI960/3SIL-PI961; Nitrogen Supply Valves: SIL*SV8875A/3SIL*SV8875E		
	GRADE	X	Standards:	The candidate monitors pressure instruments 3SIL-PI960/3SIL-PI961 and determines when the highest reading instrument is reading between 640-660 psia.		
	GRADE	<u> </u>	Standards:	For either 3SIL*SV8875A or 3SIL*SV8875E (whichever one was opened), the candidate depresses the "close" pushbutton and observes the indicating lights shift to green ON, red OFF.		
)			CUE:	If asked, inform examinee that no other accumulator is to be pressurized		

	Facility:	Millstone Uni	<u>t 3</u>	System: <u>ECC</u>
	JPM Number:	<u>073</u>		
	Task Title:	RAISE PRES	SURE IN A SAFETY I	NJECTION ACCUMULATOR
		(Denote) be complet	Critical Steps - *NOTE ted correctly to achieve	* Critical Steps must a satisfactory grade)
	STEP 10	X	Performance Step:	CLOSE 3SIL*CV8968 (MB-2), containment building safety injection accumulator nitrogen supply isolation.
	GRADE	<u> </u>	Standards:	The candidate depresses the "CLOSE" pushbutton for 3SIL*CV8968 and observes the indicating lights shift to green ON, red OFF.
Ĵ	STEP 11	<u>x</u>	Performance Step:	CLOSE 3SIL*CV8880 (MB-2), auxiliary building safety injection accumulator nitrogen supply isolation.
	GRADE	<u>x</u>	Standards:	The candidate depresses the "CLOSE" pushbutton for 3SIL*CV8880 and observes the indicating lights shift to green ON, red OFF.
	STEP 12		Performance Step:	Notify the US that the "A" LPSI accumulator has been repressurized.
	GRADE		Standards:	The candidate informs the US that section 4.6 of OP 3310B has been completed and the "A" LPSI accumulator pressure has been restored to the normal band of 640- 660 psia.

Stop Time: _

Facility:	Millstone Unit 3
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System: ECC

JPM Number: 073

Task Title: RAISE PRESSURE IN A SAFETY INJECTION ACCUMULATOR

(Denote Critical Steps - *NOTE* Critical Steps must be completed correctly to achieve a satisfactory grade)

Terminating Cue: The evaluation for this JPM has been completed.

VERIFICATION OF COMPLETION

Job Performance Measure Number:	<u>073</u>	Revision:	<u>3</u>
Date Performed:			
Examinee:			
Evaluator:			
Validated Time (min): <u>10</u>	Actual time to Com	plete (min):	
Result of JPM:	(Denote by an S for unsatisfactory)	r satisfactory	or a U for
Result of oral questions:	Number of Question	ns:	
	Number of Correct	Responses:	
			Score%

Areas for Improvement:

.

EXAMINEE HANDOUT

INITIAL CONDITIONS AND INITIATING CUES

JPM Tracking Number: 073 chg 1

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Initial Conditions: The plant is at 100% power. A low pressure alarm has just been received for the "A" LPSI accumulator. The crew is carrying out the actions of ARP 3353MB2A.4-6B.

Initiating Cues: The US has directed you to repressurize the "A" LPSI accumulator using OP 3310B section 4.6.

I. JPM Title: <u>SWAP RHR COOLING TRAINS</u>

ID Number: JPM-136

Revision: 2

II. Initiated:

9. William Developer

III. Reviewed:

Nar

Technical Reviewer

Instructional Reviewer

IV. Approved:

Operations Manager

Nuclear Training Supervisor

<u>2/10/00</u> Date

2/25/00 Date

Date

Date

2<u>/25</u>/00 ite

Facility: <u>Millstone U</u>	<u>nit 3</u>			
JPM Tracking Number:	136	Validation	Time: <u>1(</u>	<u>)</u> minutes
Task Title: <u>SWAP RHF</u>	COOLING TRAINS			
Time Critical Task: ())	YES (X)NO			
Task Number: 005*	017*01*01			
K/A Number: <u>005-A4.,01</u>		K/A Rating:	3.6/3.4	
Applicable Methods of Te	sting:			
Simulate Performance		Actual Per	formance	X
Classroom	Simulator	X	Plar	nt
<u>Task Standards:</u>	Satisfactorily shift t from Loop A to Loc	the RHR system du	ring single loc)A	p operation
Required Materials:	None			
General References:	OP 3310A Rev. 15	i		

READ TO THE EXAMINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed.

Initial Conditions:	The control room team is in the process of shifting protected trains to the "B" train being protected. This is necessary to support EDG surveillances. Section 4.6, align "B" RHR for Plant cooldown is complete & "B" RHR boron concentration is greater than RCS Boron concentration. "B" RHR has been used this outage.
Initiating Cues:	The US has directed you to shift the RHR system from Train A to Train B using OP 3310A Section 4.8, Shifting the RHR system during Single Loop operation from Train "A" to Train "B".
JOB PERFORMANCE MEASURE WORKSHEET

Simulator Requirements:

1. Reset to Temp **IC 92**, Y2K-2 nrc exam [Once the nrc exam is over, this IC will be transferred to the regular IC listing. Look for the JPM number in the IC description.].

- 2. Ensure the following are set properly:
 - PK131 set to maintain RCS pressure at 350# (controller pot setting of 5.2)
 - 3RCS*HCV607 is closed
 - 3RCS*HCV606 potentiometer set for a valve position of 20% open
- 3. Perform section 4.6 of OP3310A for "B" RHR Loop
- 4. Acknowledge/clear annunciators. Place the simulator in "freeze".
- 5. Place the simulator in "run" after the examinee has read the initial conditions and initiating cues.

Approximate simulator setup time is 10 minutes.

Facility:	Millstone Uni	<u>it 3</u>	System: <u>RHS</u>				
JPM Number:	136		rev. <u>2</u>				
Task Title:	SWAP RHR	COOLING TRAINS					
Denote Critical Steps with an "X" *NOTE* Critical Steps must be completed correctly to achieve a satisfactory grade							
Start Time:							
STEP 1	<u> </u>	Performance Step:	Verify section 4.6 competed				
GRADE		Standards:	Reviews initial conditions and verifies that section 4.6 has been completed for the "B" Train of RHR				
STEP 2		Performance Step:	 If RHR has been used previously if either condition exist Go To step 4.8.3 No T.S. action prohibits RCS dilution 				
			or • RCS Boron concentration is equal to or less than "B" RHR concentration				
GRADE		Standards:	Reviews initial conditions and verifies the "B" Train of RHR boron concentration is greater than RCS concentration				

	Facility:	<u>Millstone Un</u>	<u>it 3</u>	System: <u>RHS</u>
Ĵ	JPM Number:	136		rev. <u>2</u>
	Task Title:	SWAP RHR	COOLING TRAINS	
	NOTE (Critical Steps m	Denote Critical Steps nust be completed corre	with an "X" ectly to achieve a satisfactory grade
	STEP <u>3</u>	<u> </u>	Performance Step:	Slowly throttle open on 3CCP- HK66B1 to provide cooling flow without exceeding total CCP flow of 8100 gpm or RHR cooling flow of 7,000 gpm flow
	GRADE		Standards:	Slowly opens on the thumb wheel and observes the flow increases not to exceed the described limits.
			Comment:	The trainee may adjust the flow controller to that set for the "A" RHR Train not to exceed the limits
	STEP _4	X	Performance Step:	START RHR pump 3RHS*P1B
	GRADE	X	Standards:	Rotates the control switch for pump 3RHS*P1B to the start position and observes the indicating lights shift to green OFF, red ON, and that starting amperage eventually decays to the running amperage on the amperage meter.

Facility:		Millstone Unit	<u>t 3</u>	System: <u>RHS</u>		
JPM Numb	oer:	136		rev. <u>2</u>		
Task Title:		SWAP RHR (COOLING TRAINS			
NOT	⁻E Cri	tical Steps m	Denote Critical Steps ust be completed corre	with an "X" ectly to achieve a satisfactory grade		
STEP		_ <u>X</u>	Performance Step:	USE the manual controls on 3RHS- FK619, RHR total flow controller, slowly OPEN the valve to establish 4,000 gpm flow.		
GRADE		<u> </u>	Standards:	Slowly depresses the up (•) arrow pushbutton and monitors the flow rate. Releases the pushbutton when indicated flow is 4,000 gpm.		
STEP	6	_ <u>x</u>	Performance Step:	PLACE 3RCS-FK619, RHR total flow controller, in "Auto".		
GRADE		_ <u>x</u>	Standards:	Depresses the 'Auto/manual' pushbutton and observes that the manual light goes out and the auto light comes on.		
			Comments:	For this next step, it is expected that the examinee will observe the position of 3RHS*HCV606 and open 3RHS*HCV607 to an identical position. However, this is not necessary to complete the critical nature of the step.		
STEP	7	<u> </u>	Performance Step:	SHIFT RHR flow from loop A to loop B as follows:		
				Simultaneously OPEN 3RHS*HCV607, RHR heat exchanger B outlet flow control valve, and CLOSE 3RHS*HCV606, RHR heat		

	E ilitere		:+ 0	
	Facility:	<u>IVIIIIstone Un</u>	<u>IT 3</u>	System: <u>RHS</u>
	JPM Number:	136		rev. <u>2</u>
	Task Title:	<u>SWAP RHR</u>	COOLING TRAINS	
	NOTE (Critical Steps m	Denote Critical Steps nust be completed corre	with an "X" ectly to achieve a satisfactory grade
				exchanger A outlet flow control valve.
	GRADE	X	Standards:	Positions one hand on the potentiometer for 3RHS*HCV607 and the other hand on the potentiometer for 3RHS*HCV606. Rotates the potentiometer for HCV606 in the close direction and HCV607 in the open direction. Observes that the position indicating pointer for HCV607 moves toward the 100% (open) position and the position indicating pointer for HCV606 moves toward 0% (close) position. Stops rotating the potentiometers when HCV606 is fully closed.
	Step 8		Performance Step:	Verify 3HVQ* ACUS1B, RHR ACU, running (VP1)
			Standards:	Examinee goes to VP1 and observes the red light lit and green light out for ACUS1B on VP1C
	STEP 9		Performance Step:	OPEN 3RHS*V37, RHR to CVCS letdown isolation.
	GRADE		Standards:	Either directly contacts an PEO or requests that the US contact an PEO to locally open 3RHS*V37.
/			Cue:	Role play as either the PEO or the US and acknowledge the request. Use remote function RHR02 to open V37.

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	Facility:		Millstone Un	<u>iit 3</u>	System: <u>RHS</u>
/	JPM Num	ber:	136		rev. <u>2</u>
	Task Title	:	SWAP RHR	COOLING TRAINS	
	NO	TE C	ritical Steps n	Denote Critical Steps nust be completed corre	with an "X" ectly to achieve a satisfactory grade
					When this action is completed, report back to the examinee that 3RHS*V37 is open.
	STEP	_10	. <u> </u>	Performance Step:	CLOSE 3RHS*V20, RHR to CVCS letdown isolation.
	GRADE		·	Standards:	Either directly contacts an PEO or requests that the US contact an PEO to locally close 3RHS*V20.
				Cue:	Role play as either the PEO or the US and acknowledge the request. Use remote function RHR01 to close V20. When this action is completed, report back to the examinee that 3RHS*V20 is closed.
	STEP	11	_X	Performance Step:	STOP RHR pump 3RHS*P1A.
	GRADE		<u> </u>	Standards:	Rotates the control switch for 3RHS*P1A to the stop position and observes that the indicating lights shift to green ON, red Off and pump amperage indication goes to zero.
	STEP	12		Performance Step:	Throttle 3CCP-HK66A1 and 66B1 as necessary without exceeding the established
				Standards:	Slowly adjust the thumb wheel(s) as needed while observing CCP flows

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	Facility:	<u> </u>	<u> Millstone Uni</u>	<u>it 3</u>	System: <u>RHS</u>
	JPM Numbe	er: _	136		rev. <u>2</u>
	Task Title:	2	SWAP RHR	COOLING TRAINS	
	NOTE	E Crit	ical Steps m	Denote Critical Steps	with an "X" ectly to achieve a satisfactory grade
	STEP _	13	<u></u>	Performance Step:	<u>IF</u> train A SI and QSS pumps <u>not</u> running, STOP 3HVQ*ACUS1A, and PLACE in "AUTO" (VP1).
	GRADE _			Standards:	Observes that the Train A SI and QSS pumps are not running. Rotates the control switch for 3HVQ*ACUS1A to the "stop" position and when the indicating lights indicate green ON, red Off, rotates the switch to the "auto" position.
/				Comment:	Examinee should check MB5 indication to ensure MD AFW Pumps are not running by observing green lights lit and red lights extinguished
				Cue:	
	STEP _	14		Performance Step:	If AFW Pumps are not running, PERFORM the following
			,		a. STOP 3HVQ*FN5A and 3HVQ*FN6A, ESF building vent fans
	GRADE _	<u></u>		Standards:	3HVQ*ACUS1A was stopped and it is desired to shift ESF ventilation. Rotates the control switch for 3HVQ*FN5A/6A to the "stop" position and observes that the indicating lights shift to green ON, red OFF.

	Facility:	Millstone Unit 3		System:	RHS
	JPM Number:	136		rev. <u>2</u>	
	Task Title:	SWAP RHR COOLING TRAIN	IS		
	NOTE C	Denote Critical S ritical Steps must be completed	iteps with an "X" correctly to achiev	e a satisfacto	ry grade
	STEP 15	Performance S	tep: When at lea elapsed, VE 3HVQ*FN6E running	st 90 seconds RIFY 3HVQ*F 3, ESF building	have N5B and y vent fans
	GRADE	Standards:	Observes the 3HVQ*FN5E ON. The far	e indicating lig 8/6B are green ns auto started	hts for OFF, red I.
;	STEP 16	Performance S	tep: Notify the US has been sh Train B.	S that the RHF ifted from Trai	≀ system n A to
	GRADE	Standards:	Informs the U OP 3310A h RHR system shifted from	JS that section as been comp operation has Loop A to Loo	า 4.8 of leted and s been p B.

Terminating Cue: The evaluation for this JPM is concluded.

Stop Time: _____

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VERIFICATION OF COMPLETION

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Job Performance Measure Number:	136	Revision: <u>2</u>
Date Performed:		
Examinee:		
Evaluator:		
Validated Time (min): <u>10</u>	Actual time to Complete (n	nin):
Result of JPM:	(Denote by an S for satisfa unsatisfactory)	ictory or a U for
Result of oral questions:	Number of Questions:	
	Number of Correct Respon	ISES:

Score _____%

EXAMINEE HANDOUT

INITIAL CONDITIONS AND INITIATING CUES

JPM Tracking Number: _____136__

Initial Conditions: The control room team is in the process of shifting protected trains to the "B" train being protected. This is necessary to support EDG surveillances. Section 4.6, align "B" RHR for Plant cooldown is complete & "B" RHR boron concentration is greater than RCS Boron concentration. "B" RHR has been used previously this outage.

Initiating Cues: The US has directed you to shift the RHR system from Train A to Train B using OP 3310A Section 4.8, Shifting the RHR system during Single Loop operation from Train "A" to Train "B".

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: Manual Make-up Calculation & Manual Make-up to VCT

JPM ID Number: 141-1

Revision: 0

II. Initiated:

Li Maining (J. William CÔtÉ Developer

2/08/00

Date

2/24/00 Date

III. Reviewed:

Martin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

Date

25/00

JOB PERFORMANCE MEASURE GUIDE

Facility:	Millstone	e Unit 3					
JPM ID Num	nber: <u>1</u>	41-1		Revisi	on:	0	
Task Title:	Task Title: ADMIN- Use Table to determine CVCS Make-up Pot Settings & Perform a Manual Make up to the VCT						
System:	PMU						
Time Critical Task: () YES (X) NO							
Validated Tir	ne (minut	es):10					
Task Numbe	er(s): <u>0</u> (09-01-037, P	erform a Ma	nual Make-up			
Applicable To	o: S	ro <u>x</u>	RO	<u>X</u>	PEC)	
K/A G Number: <u>0</u>	EN-2.1.2 04.A4.13,	5, Interpret S Ability to ma	tation tables nually opera	ite VCT Level (Control	K/A Rating: -	2.8/3.1 3.3/2.9
Method of Te	esting:	Simulated Pe	erformance:		Actual	Performance:	X
Location:	(Classroom:		Simulator:	X	_ In-Plant::	
<u>Task Standa</u>	<u>rds:</u>	(1) Calcula and (2) Pe	te Pot settir erform a mai	igs based on 3 nual make up t	304C tat o the VC	bles and data g T IAW OP3304	iven IC
Required Ma	<u>terials:</u>	Simulator a	& Calculator				
General Refe	erences:	OP3304C					

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs unless stated otherwise. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 141-1	Revision: 0
<u>Simulator Requirements:</u>	 Reset the Simulator to IC 14 Place simulator in "RUN" and clear all Alarms Ensure "B" BAT Pump is aligned for auto Start. Place the VCT Divert Valve, 3 CHS*LV112A, to Divert When VCT levels 45%, Place VCT Divert Valve, 3 CHS*LV112A, to VCT Set FK-110 potentiometer to a value of 4.0 Freeze the simulator Place simulator in run when examinee is Ready to commence Line up for Manual Make-up Task.
Initial Conditions:	Plant is at 100% Power,
	Middle of Life conditions, 10,000 MWD/MTU
	RCS Boron concentration is 1100 ppm
	Boric Acid Storage Tank concentrations are:
	BAST "A" concentration:6850 ppm
	BAST "B" concentration:6850 ppm
	The crew is preparing to perform the daily leak check calculation.
Initiating Cues:	The Unit Supervisor has requested that you calculate a blended

The Unit Supervisor has requested that you calculate a blended flow make up using the graphs in OP3304C and PERFORM a Manual Make-up to the VCT to raise level to 50%. Leave VCT make up control in Manual upon completion.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Acknowledging of annunciators is not necessary to pass the critical nature of any step.

JPM Numb	er: <u>1</u>	41-1			Revision: 0	
Task Title:	AE Pe	DMIN- Use erform a Ma	Table to determine CV nual Make up to the V	CS Make-up Pot S CT	Settings &	
Start Time:						
STEP	1	_ <u>X</u>	Performance Step:	If manually makin PERFORM the fo "REAC CLNT MA (MB3), in "STOP"	ng up to the VCT, llowing: PLACE AKEUP START SW" ".	
GRADE			Standards:	Presses the "STOF "REAC CLNT Ma and observes that p comes on.	P" pushbutton on the AKEUP START SW" pushbutton back light	
			Grade:	SAT	UNSAT	
			Cue:			
			Comments:			
STEP	2	<u> </u>	Performance Step:	PLACE "REAC C SELECT SW" (M	LNT MAKEUP B3), in "MANUAL".	
GRADE			Standards:	Presses the "MAN the "REAC CLNT SW" and observes back light comes c	UAL" pushbutton on MAKEUP SELECT that the pushbutton on.	
			Grade:	SAT	UNSAT	
			Cue:			
			Comments:			

JPM Number:	141-1			Revision: 0
Task Title:	ADMIN- Use Perform a M	e Table to determine CV anual Make up to the V	CS Make-up Pot S CT	ettings &
STEP <u>3</u>		Performance Step:	VERIFY 3CHS-FI MAKEUP FLOW 80 gpm.	K111, "TOTAL CONT" (MB3), set at
GRADE		Standards:	Either checks Secti knows that 0-10 tu gpm. Checks that 3CHS-FK111 is se	ion 1.2 of OP 3304C or rns equates to 0-160 the potentiometer for t for "5".
		Grade:	SAT	
			During the perform the examinee may boron concentratio in the BAT. If he of following Cue: Th boron sample were and 6850 ppm in th	nance of the next step, request the current RCS n and the concentration does, provide the e results of the last 1100 ppm for the RCS ne BATs.
		Comments:	5.4	
STEP 4	_ <u>X</u>	Performance Step:	Refer to Attachmer Based on 80 gpm M equation; boric acid service BAT C _b] x DETERMINE bori RCS boron concen	At 7, "Blended Flow Makeup", <u>OR</u> using the d flow =[RCS $C_b \div$ In 80 gpm and c acid flow for current tration.
GRADE		Standards:	Using either Attach determines that the approximately 12.8	ment 7 or equation, correct flow rate is 5 gpm.
		Grade:	SAT	
		Cue:	If the examinee (Ask the examined calculation using	used the equation; to verify their the table in 3304C

	JPM Numb	er: _	141-1			Revision: 0	
\smile	Task Title:	4 _F	ADMIN- Use T Perform a Mar	able to determine CV nual Make up to the V	CS Make-up Po CT	t Settings &	
				Comments:			
	STEP	5	_ <u>X</u>	Performance Step:	SET 3CHS-FK BLEND FLOW provide the flow previous step.	110, "BORIC ACID CONT" (MB3), to v rate determined in <i>the</i>	
	GRADE		Standards:	As indicated in 10 turns equates FK110. Sets the FK110 to a value turns	Attachment 7 or known, 0- s to 0-40 gpm on 3CHS- e potentiometer for 3 CHS- te of approximately 3.22		
				Grade:	SAT	UNSAT	
\bigcirc				Cue:		1997 - 1997 -	
				Comments:	The pot was ir the set-up. Thi examinee to a	ntentionally set at 4.0 in is will require the djust the potentiometer.	
	STEP	6		Performance Step:	At 3CHS-FY11 counter (MB3), PRESS "RESE?	0B, boric acid batch PERFORM the following: Γ" and HOLD.	
	GRADE			Standards:	Presses and hole	ds the "Reset" pushbutton	
				Grade:	SAT	UNSAT	
				Cue:		Area a	
				Comments:			
\smile	STEP	_7		Performance Step: 6 of 18	OPEN cover.		

JPM Num	ber:	141-1			Revision: 0
Task Title	: A 	DMIN- Use ⁻ Perform a Ma	Table to determine CV nual Make up to the V	CS Make-up Pot CT	Settings &
GRADE			Standards:	Lifts the cover up	to the open position
			Grade:	SAT	
			Cue:		
			Comments:		
STEP	8	_ <u>x</u>	Performance Step:	Using thumbwhee least "900000"	els, SET counter to at
GRADE			Standards:	Rotates the thumb reads at least "900	wheels until the counter 0000".
			Grade:	SAT	UNSAT
			Cue:		
			Comments:		
STEP	9		Performance Step:	CLOSE cover.	
GRADE			Standards:	Lowers the cover	to the closed position
			Grade:	SAT	
			Cue:		
			Comments:		
STEP	10		Performance Step:	RELEASE "RES	ET".

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	JPM Num	ber: _	141-1			Revision: 0
	Task Title	: /	ADMIN- Use Perform a Ma	Table to determine CV anual Make up to the V	CS Make-up Pc CT	ot Settings &
	GRADE			Standards:	Releases the "re	eset" pushbutton.
				Grade:	SAT	UNSAT
				Cue:		
				Comments:		
	STEP			Performance Step:	At 3 CHS-FY1 counter (MB3), PRESS "RESE	11B, primary water batch PERFORM the following: Γ" and HOLD
	GRADE			Standards:	Presses and hole	ds the "Reset" pushbutton
,				Grade:	SAT	UNSAT
				Cue:		
				Comments:		
	STEP	_12_		Performance Step:	Opens cover	
	GRADE			Standards:	Lifts the cover	to the open position
				Grade:	SAT	
				Cue:		
				Comments:		
)	STEP		<u> </u>	Performance Step:	Using thumbwh least "900000".	eels, SET counter to at

-	JPM Num	ber:	141-1			Revision: 0
\bigcirc	Task Title	:	ADMIN- Use Perform a Ma	Table to determine CV anual Make up to the Vo	CS Make-up P CT	ot Settings &
	GRADE			Standards:	Rotates the thu reads at least "	mbwheels until the counter 900000".
				Grade:	SAT	UNSAT
				Cue:		
				Comments:		
	STEP	14		Performance Step:	Close cover	
	GRADE			Standards:	Lowers the co position	over to the closed
				Grade:	SAT	UNSAT
\bigcirc				Cue:		
				Comments:		
	STEP	15		Performance Step:	RELEASE Re	eset
	GRADE			Standards:	releases the "	reset" pushbutton
				Grade:	SAT	UNSAT
				Cue:		
				Comments:		
\bigcirc	STEP	16	X	Performance Step:	OPEN 3CHS* CHG" (MB3)	FCV110B, "MAKE-UP TO
\smile	GRADE			Standards: 9 of 18	Places the cont	rol switch for FCV110B on

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	JPM Num	ber: <u>14</u>	1-1			Revision: 0
	Task Title:	AD Per	MIN- Use form a Ma	Table to determine CV inual Make up to the V	CS Make-up Pot S CT	Settings &
					MB3 apron to the verfies red light o	Open position and n and green light off.
				Grade:	SAT	UNSAT
				Cue:		
				Comments:		
	STEP		<u>x</u>	Performance Step:	To commence ma PLACE "REAC O SW" (MB3), in "S	keup to the VCT, CLNT MAKEUP START Start".
	GRADE			Standards:	Presses the "Start" "REAC CLNT M. and observes that and the Start push	' pushbutton on the AKEUP START SW" the stop light goes out button illuminates.
				Grade:	SAT	UNSAT
				Cue:		
				Comments:	Simulator modific reset the counters necessary, inform and he will be una complete the follo	eation to automatically is not installed. If the examinee of this fact able to successfully wing step.
,	STEP			Performance Step:	 VERIFY the follo "000000" 3CHS-FY110B, counter 3CHS-FY111B, counter. 	wing counters reset to , "Boric Acid" "Batch" , "PRI WTR" "Batch"

-	JPM Num	1 1 nber:	41-1			Revision: 0
\bigcirc	Task Title	:: AI 	OMIN- Use T erform a Mai	Table to determine CV nual Make up to the V(CS Make-up Pot S CT	Settings &
	GRADE			Standards:	Observes the cour	iters read "000000".
				Grade:	SAT	UNSAT
				Cue:	la ante por se se	
				Comments:		
	STEP	19		Performance Step:	MONITOR reacto manual makeup.	r power and Tave during
	GRADE	·		Standards:	Periodically check Tave during the m	s reactor power and akeup.
\$ Z				Grade:	SAT	UNSAT
\bigcirc				Cue:		
				Comments:		
	STEP	_20		Performance Step:	VERIFY proper fl recorder 3CHS-FF VCT" (MB3).	ows on indicating R110, "MAKEUP TO
	GRADE			Standards:	Checks recorder 3 observes proper in	CHS-FR110 and dications.
				Grade:	SAT	
				Cue:		
				Comments:		
\bigcirc	STEP		<u> </u>	Performance Step: 11 of 18	<u>WHEN</u> desired, P	LACE "REAC CLNT

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-	JPM Number:	141-1			Revision:
\bigcirc	Task Title:	ADMIN- Use Perform a Ma	Table to determine CV anual Make up to the V	CS Make-up Pot CT	Settings &
				MAKEUP STAR "STOP".	T SW" (MB3), in
	GRADE	X	Standards:	When the VCT le the "Stop" pushba CLNT MAKEUF	evel is at ~50%, depresses utton on the "REAC P START SW"
			Grade:	SAT	UNSAT
			Cue:		
			Comments:	The exact VCT the successful o The ability to sto	level is not critical to completion of this step. op the make-up is.
\bigcirc	STEP 22	X	Performance Step:	PLACE 3CHS*F TO CHG" (MB3)	CV110B, "MAKE-UP , in "AUTO".
	GRADE		Standards:	Places the control the Close/auto po light off and the g	switch for FCV*110B to sition and verifies the red green light lit.
			Grade:	SAT	UNSAT
			Cue:		
			Comments:		
	STEP 23		Performance Step:	VERIFY 3CHS*I	FCV110B, closed.
	GRADE		Standards:	Checks the "close flow exists in the	" light is lit and that no makeup system.
<i>t</i> .			Grade:	SAT	
\smile			Cue:		

JPM Num	iber: <u>1</u>	41-1			Revision: 0
Task Title	: AD Pe	MIN- Use rform a Ma	Table to determine CV nual Make up to the V	CS Make-up Pot	Settings &
			Comments:		
STEP	_24		Performance Step:	At 3CHS-FY110I counter (MB3), P PRESS "RESET"	B, boric acid batch ERFORM the following: and HOLD.
GRADE	<u></u>		Standards:	Presses and holds	the "Reset" pushbutton
			Grade:	SAT	
			Cue:		
			Comments:		
STEP	_25		Performance Step:	OPEN Cover	
GRADE			Standards:	Lifts the cover to	o the open position
			Grade:	SAT	UNSAT
			Cue:		
			Comments:		
STEP	26	X	Performance Step:	Using thumbwhee "000000"	els, SET counter to
GRADE			Standards:	Rotates the thumb reads "000000".	wheels until the counter
			Grade:	SAT	UNSAT
	JPM Num Task Title STEP GRADE STEP GRADE	JPM Number: 1 Task Title: AD STEP 24 GRADE	JPM Number: 141-1 Task Title: ADMIN- Use Perform a Ma STEP 24 GRADE	JPM Number: 141-1 Task Title: ADMIN- Use Table to determine CV Perform a Manual Make up to the VA STEP 24 GRADE GRADE STEP 25 GRADE STEP 26 X Performance Step: Grade: Cue: Cue: Comments:	JPM Number:ADMIN- Use Table to determine CVCS Make-up Pot Perform a Manual Make up to the VCT Comments: STEP 24 Performance Step: At 3CHS-FY110 counter (MB3), P PRESS "RESET" GRADE Standards: Presses and holds Grade: SAT Cue: Comments: STEP 25 Performance Step: OPEN Cover GRADE Standards: Lifts the cover to Grade: SAT Cue: Comments: STEP 26 Comments: STEP 26 Performance Step: Using thumbwhee "000000" GRADE Cae: SAT Cue: Comments: STEP 26 Performance Step: Using thumbwhee "000000" GRADE Cae: SAT Grade: SAT Grade: SAT STEP 26 Standards: Rotates the thumb

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	IDM Number	141 1			Povision: 0
	JEW NUMBEL				
	Task Title:	ADMIN- Use Perform a Ma	Table to determine CV inual Make up to the V	CS Make-up Pot S CT	ettings &
			Cue:		
			Comments:		
	STEP 27	7	Performance Step:	Closes cover	
	GRADE		Standards:	Lowers the cover position	to the closed
			Grade:	SAT	
			Cue:		
			Comments:		
/					
	STEP _28	}	Performance Step:	Release Reset	
	GRADE		Standards:	Release the reset	t pushbutton
			Grade:	SAT	
			Cue:		
			Comments:		
	STEP 29)	Performance Step:	At 3 CHS-FY111B	, primary water batch
				counter (MB3), PE PRESS "RESET" a	RFORM the following: and HOLD
	GRADE		Standards:	Presses and holds the	he "Reset" pushbutton
			Grade:	SAT	
			Cue:	ana suar	

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-	JPM Num	ber: _	141-1			Revision: 0
\smile	Task Title	•	ADMIN- Use ⁻ Perform a Ma	Table to determine CV nual Make up to the V(CS Make-up Pot	Settings &
		-		Comments:	<u> </u>	
	STEP	30		Performance Step:	OPEN cover.	
	GRADE			Standards:	Lifts the cover up	to the open position.
				Grade:	SAT	UNSAT
				Cue:	an a	
				Comments:		
\bigcirc	STEP	31	X	Performance Step:	Using thumbwhee "000000".	els, SET counter to
	GRADE			Standards:	Rotates the thumb reads "000000".	ov/heels until the counter
				Grade:	SAT	
				Cue:		
				Comments:		
	STEP	32		Performance Step:	CLOSE cover.	
	GRADE			Standards:	Lowers the cover	to the closed position
				Grade:	SAT	
\bigcirc				Cue:		
				Comments:		

	JPM Number:	141-1		Re	vision: 0
Ú	Task Title:	ADMIN- Use ⁻ Perform a Ma	Table to determine CV nual Make up to the V	CS Make-up Pot Sett CT	ings &
	STEP 33		Performance Step:	RELEASE "RESET"	
	GRADE		Standards:	Releases the "reset" p	ushbutton.
			Grade:	SAT	
			Cue:		
			Comments:	Inform the examinee the necessary to realign for this time	hat it is not r auto makeup at
\bigcirc	STEP 34		Performance Step:	Notify the US that the been align for manual	makeup system has makeup.
	GRADE	••	Standards:	Informs the US that th has been align for man OP 3304C and the VC restored to the 40-50%	e makeup system ual makeup using T level has been b band.
			Grade:	SAT	
			Cue:		
			Comments:		

THE EVALUATION PORTION OF THIS JPM IS COMPLETE.

Stop Time: _____

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VERIFICATION OF JPM COMPLETION

JPM Number:	141-1					Revision:	0
Date Performed:							
Student:							
Evaluator:							
For the student to a correctly. If task is achieve a satisfactor	achieve a satisfacto Time Critical, it <u>ML</u> ory grade.	ory grade <u>JST</u> be co	, <u>ALL</u> cr ompleted	itical st d within	eps mu the sp	ust be comple becified time to	eted o
Time Critical Task?		YES		NO _	X		
Validated Time (mir	nutes):	10	-				
Actual Time to Com	iplete (minutes):						
Result of JPM:			("S" foi	r satisfa	actory,	"U" for unsati	sfactory)
Result of oral quest	ions (if applicable):	:					
Number of Ques	tions:						
Number of Corre	ect Responses:						
	Score:						

Areas for Improvement:

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STUDENT HANDOUT

JPM Number:

141-1

Initial Conditions:

Plant is at 100% Power, Middle of Life conditions, 10,000 MWD/MTU RCS Boron concentration is 1100 ppm Boric Acid Storage Tank concentrations are: BAST "A" concentration:6850 ppm BAST "B" concentration:6850 ppm The crew is preparing to perform the daily leak check calculation.

Initiating Cues:

The Unit Supervisor has requested that you calculate a blended flow make up using the tables in OP3304C and PERFORM a Manual Make-up to the VCT to raise level to 50%. Leave VCT make up control in Manual upon completion.

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3					
JPM ID Number: NRCset2c Revision: 0					
Task Title: HVR10B Subsequent Actions. {Place SLCRS in Service}					
System: SLCRS					
Time Critical Task: () YES (X) NO					
Validated Time (minutes):10					
Task Number(s): _088-01-091 Manual Start of Tr "A" SLCRS System					
Applicable To: SRO X RO X PEO					
K/A Number: <u>GEN-2.3.11</u> K/A Rating: <u>2.7/3.2</u> Ability to Control Radiation Release					
Method of Testing: Simulated Performance: Actual Performance:X					
Location: Classroom: Simulator: X In-Plant::					
Task Standards: Perform all critical steps correctly to start the TR "A" SLCRS					
Required Materials: Simulator					
General References: OP3314I, section 4.2, Manual start of TR "A" SLCRS					

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: N	RCset2c	Revision:	0
<u>Simulator Requireme</u>	e <u>nts:</u> 1. Re 2. Ins 3. Ac ala	eset to IC 14 sert MALF RM04B at 0.1% knowledge alarms. [Rad alert and Rad hi sho arming[uld be
Initial Conditions:	Resin HVR1 action	change out of a demin is in progress in the A 0B has gone into alarm. The crew is carrying s of AOP 3573, Radiation Monitor Alarm Res	ux building. out the conse.
Initiating Cues:	The U SLCR Relea	nit Supervisor instructs you to manually Start S using OP 3314I, Supplementary Leak Colle se System. All General Prerequisites are met.	"A" train ction and

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Acknowledging of annunciators is not necessary to pass the critical nature of any step.

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	JPM Number:	NRCset2c		F	Revision:	0
,	Task Title:	HVR10B Sub	sequent Actions. {Place	e SLCRS in Ser	vice}	
	Start Time: _					
	STEP 1		Performance Step:	Notify Unit 1 co SLCRS filter w	ontrol room the ill be started	at a
	GRADE		Standards:	Attempts to cal and inform the SLCRS filter	ll Unit 1 contro m of the start	ol room of a
			Grade:	SAT	UNSA	т
			Cue:	As Unit 1 contr report of the sta Unit	ol room, ackn arting of a SL	owledge CRS filter
			Comments:			
	STEP 2		Performance Step:	Refer to Precau for applicability	ution 3.4 and	REVIEW
	GRADE		Standards:	Locates precau the SLCRS res	ution 3.4 and r strictions.	reviews
			Grade:	SAT		Г
			Cue:	Inform examine NOT applicable or painting has	e that the pre No welding, occurred	ecaution is grinding

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-	JPM Number:		NRCset2c		F	Revision:	0	
\bigcirc	Task Title: <u>HVR10B</u>			ubsequent Actions. {Place SLCRS in Service}				
	STEP	3		Performance Step:	Notify Chemist exhaust Fan, w	ry dept that : vill be stoppe	3HVR- FN5, ed	
	GRADE			Standards:	Attempts to call chemistry and i them of the intended actions			
				Grade:	SAT		АТ	
				Cue:	Acknowledge t as the chemisti	he stopping ry departmer	of the HVR nt.	
				Comments:				
	STEP	_4	<u>X</u>	Performance Step:	Stop 3HVR-HV	/U2A, Air Su	pply unit.	
	GRADE Standards: Locates the Contr and rotates the sw position. Verifies t from Red to Gree		ontrol Switch switch to the es the fan inc een	on VP1 e Stop/Off licators go				
				Grade:	SAT		\T	
				Cue:				
				Comments:				
	STEP	5	<u> </u>	Performance Step:	STOP 3HVR-F	N5, Exhaust	Fan	
	GRADE			Standards:	Locates the Co and rotates the position. Verifie from Red to Gr	entrol Switch switch to the s the fan inc een	on VP1 e Stop/Off licators go	
				Grade:	SAT		Т	
				Cue:				
				Commonto				

	JPM Number:	NRCset2c	Revision: 0		on: <u>0</u>	
/	Task Title:	HVR10B Subs	sequent Actions. (Place	ce SLCRS in Service}		
	STEP <u>6</u>	<u> </u>	Performance Step:	 cLOSE the following supply Dam to 3HVR-HVU2A: 3 HVR*AOD33A 3VR*AOD35A Locates the Control Switch on VP and presses the Close pushbuttor the associated dampers. Verifies to damper indicators go from Red to Green 		
	GRADE		Standards:			
			Grade:	SAT	UNSAT	
			Cue:			
			Comments:	Steps 7 & 8 may be o	done in any order.	
,	STEP 7	X	Performance Step:	CLOSE 3HVR*AOD3	39A/43A	
	GRADE		Standards:	Locates the Control S and presses the Close the associated damp damper indicators go Green	Switch on VP1 se pushbutton for ers. Verifies the o from Red to	
			Grade:	SAT	UNSAT	
			Cue:	an an th		
			_			

-	JPM Num	ber:	NRCset2c		F	Revision:	0
\bigcirc	Task Title:	-	HVR10B Subs	sequent Actions. {Place	[Place SLCRS in Service}		
	STEP	8	<u> </u>	Performance Step:	CLOSE 3HVR'	*AOD39B/43	3B
	GRADE			Standards:	Locates the Control Switch on VP1 and presses the Close pushbutton the associated dampers. Verifies th damper indicators go from Red to Green		
				Grade:	SAT UNSA		AT
				Cue:	and Sun an She She		
				Comments:			
\bigcirc	STEP	9		Performance Step:	If when starting opposite train s 3HVR*FN12B and hold until 3 speed	9 3 HVR*FN starts: Place Control swite 3 HVR*FN12	12A the ch in Stop 2A is at
	GRADE			Standards:	If 3HVR*AOD9 examinee shou action.	5B starts to uld take the o	Open the described
				Grade:	SAT	UNS	AT
				Cue:			

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	JPM Num	ber: N	NRCset2c		F	Revision:	0	
	Task Title:	: <u>HV</u>	R10B Sub	equent Actions. {Place SLCRS in Service}				
	STEP	10	X	Performance Step:	PLACE 3 HVR	*FN12A, SI	CRS	
					Exhaust fan sv HOLD	vitch, in STA	ART and	
	GRADE			Standards:	Locates the controller on VP1 and rotates the switch to the Start/ON position and holds until the system running			
				Grade:	SAT	UNS	AT	
				Cue:	jan seda se			
				Comments:				
			Steps	11 & 12 may be	done in any	/ order		
)	STEP		<u> </u>	Performance Step:	When the follow the Control Sw • 3HVRAODS Damper OF • 3HVR*FN12 Eap. STAR	wing occurs itch: 95A, SLCRS 9ENS 2A, SLCRS	, RELEASE S Inlet Exhaust	
	GRADE	<u> </u>		Standards:	Locates the inc verifies the dar	licators on nper goes f	VP1 and rom green to	
				Grade:	red. SAT		AT	
				Cue:				
				Comments:				
	STEP			Performance Step:	When the follow the Control Sw	wing occurs itch: er Heater C	, RELEASE	
	GRADE			Standards:	Locates the inc verifies the hea	licators on ater indicate	VP1 and s on	
Ĵ				Grade: Cue:	SAT	UNS	AT	

JPM Number: <u>NRCset2c</u>			Re	vision:	0
Task Title:	HVR10B Sub	sequent Actions. {Plac	e SLCRS in Servic	xe}	
		Comments:			
STEP 13		Performance Step:	Report to the US system Train "A" service	that the SLC has been pla	RS aced in
GRADE		Standards:	Reports to the U system Train "A" service	S that the SL has been pla	CRS aced in
		Grade: Cue:	SAT	UNSAT	21.20 P.
		Comments:			

____ THE EVALUATION PORTION OF THIS JPM IS COMPLETE.

Stop Time: _____

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VERIFICATION OF JPM COMPLETION

JPM Number:	NRCset2c					Revision:	0
Date Performed:							
Student:							
Evaluator:			<u> </u>				
For the student to a correctly. If task is achieve a satisfactor	ichieve a satisfactor Time Critical, it <u>MUS</u> pry grade.	y grade, <u>ST</u> be co	ALL cri ompleted	itical st I within	eps mu the sp	ust be comple becified time t	eted o
Time Critical Task?		YES		NO _	X		
Validated Time (mir	nutes):	10					
Actual Time to Com	aplete (minutes):	••••					
Result of JPM:			("S" for	⁻ satisfa	actory,	"U" for unsati	isfactory)
Result of oral quest	ions (if applicable):						
Number of Ques	stions:						
Number of Corre	ect Responses:						
	Score:						

Areas for Improvement:

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STUDENT HANDOUT

JPM Number: NRCset2c

Initial Conditions: Resin change out of a demin is in progress in the Aux building. HVR10B has gone into alarm. The crew is carrying out the actions of AOP 3573, Radiation Monitor Alarm Response.

Initiating Cues:

The Unit Supervisor instructs you to manually Start "A" Train SLCRS using OP 3314I, Supplementary Leak Collection and Release System. All General Prerequisites are met.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: Line Up RHR in the Injection Mode

JPM ID Number: NRCset2f

Revision: 0

II. Initiated:

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9. William Côté

2/7/00

Date

III. Reviewed:

Mastin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Araining Supervisor

کړ چ Date

Date

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3						
JPM ID Number: NRCset2f Revision:0						
Task Title: Line Up RHR in the Injection Mode (Respond to an RCS Leak)						
System: RHR						
Time Critical Task: () YES (X) NO						
Validated Time (minutes):10						
Task Number(s): 344-05-089 Respond to a RCS Leak 005-01-021 Shifting RHR from cooldown to safety injection mode						
Applicable To: SRO X RO X PEO						
K/A Number: 006.A4.04 K/A Rating: 3.7/3.6						
Method of Testing: Simulated Performance: Actual Performance:						
Method of Testing: Simulated Performance: Actual Performance: X Location: Classroom: Simulator: X In-Plant::						
Method of Testing: Simulated Performance: Actual Performance: X Location: Classroom: Simulator: X In-Plant:: Task Standards: Shift RHR to the injection mode IAW AOP 3555, Respond to a RCS Leak						
Method of Testing: Simulated Performance: Actual Performance: X Location: Classroom: Simulator: X In-Plant:: Task Standards: Shift RHR to the injection mode IAW AOP 3555, Respond to a RCS Leak Required Materials: Simulator						

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed. Any annunciators not directly related to your task will be handled by another person.

JOB PERFORMANCE MEASURE GUIDE (Continued)

-	JPM Number:	NRCset2f	Revision:
_	<u>Simulator Requirer</u>	<u>ments:</u> 1.	Reset to IC 89 for NRC Exam. (This IC will be transferred to the open IC listing after the Y2K NRC exam. Check IC listing for JPM number)
		2.	Place Simulator in run. Acknowledge all annunciators.
		3.	Place a key #22 in the 3 RHS*8701B operator
		4.	Place Sim in Freeze. Go to run when examinee is ready to commence.
	Initial Conditions:	The plan RHR are crew has started all control va	t is in mode 4 with a plant cooldown in progress. Both trains of aligned in the cooldown mode. Pzr Level started to drop. The entered AOP 3555, Respond to a RCS Leak. The crew has available CHS Pumps and throttled open on the CHS Flow lve. SI Pump "A" failed to start.
···.	Initiation Quant		Our entities required used align the "A" topic of DUD to the

Initiating Cues: The Unit Supervisor request you align the "A" train of RHR to the injection mode using AOP 3555, Respond to a RCS Leak, step 3, Align RHR In Mode 4.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Acknowledging of annunciators is not necessary to pass the critical nature of any step.

	JPM Num	ber: <u>N</u>	IRCset2f			Revision:	0
	Task Title	: <u>Lin</u>	ne Up RHR	in the Injection Mode			
	Start Time):					
	STEP		_ <u>X</u>	Performance Step:	Place RHR pur cooling in PULI	nps lined up fo ∟-TO-LOCK	or shutdown
	GRADE			Standards:	Stops both RH the control sw Lock	HR Pumps an itches at MB2	d places 2 in Pull to
				Grade:	SAT	UNS/	AT
				Cue:			
				Comments:			
1	STEP			Performance Step:	Check - ONE T FOR INJECTIC	Rain of Rhr)n	R LINED UP
	GRADE			Standards:	Verifies that be aligned in the Mode. Shifts Not Obtained	oth trains of F Shutdown Co actions to the column.	RHR were ooling Response
				Grade:	SAT	_ UNSA	АТ
				Cue:	If necessary r the initial cond trains were ali	emind exami litions stated gned for cool	nee that that both down.

Comments:

JPM Numb	ber:	NRCset2f			Revision:	0
Task Title:		Line Up RHR	in the Injection Mode	in the Injection Mode		
STEP	3	<u> </u>	Performance Step:	CLOSE RHR 16 (3CHS-HC128	etdown flow con)	troi valve
GRADE		<u> </u>	Standards:	Locates the c and rotates th (Full closed)	ontroller on Mi ne potentiomet	B3 apron er to 0.0
			Grade:	SAT	UNSA	т
			Cue:			
			Comments:			
STEP	4	X	Performance Step:	CLOSE RHR o (3RHS*MV870	outer Ctmt isolat 1B).	ion valve
GRADE			Standards:	Locates the va and places sv on, Red light o	alve controller vitch in close. (off.	on MB2 Green light
			Grade:	SAT	UNSA	Т
			Cue:			
			Comments:	Key #22 from	n RO key locke	r

3	JPM Num	iber: <u>N</u>	RCset2f		Revi	ision: 0
\smile	Task Title	: <u>Lin</u>	e Up RHR	in the Injection Mode		
			STEPS (5 and 6 may be done ir	n any order	
	STEP			Performance Step:	Close RHR heat ex (3RHS-FK618) (100	changer bypass valve % output)
	GRADE			Standards:	Locates the contro rotates the potentio demand position (0 places the controllo lowers to full dema	oller on MB2 and ometer to the 100% 0.0 position) or er in manual and and (full lower).
				Grade:	SAT	
				Cue:		
				Comments:		
\bigcirc	STEP	6		Performance Step:	Close RHR heat exc control valve (3RHS-	hanger outlet flow -HC606)
	GRADE			Standards:	Locate the controllerotates the potention (1) demand position (1) potentiometer).	er on MB2 and ometer to the 0% I0.0 on
				Grade:	SAT	
				Cue:	in Kasang ang Pangang P Pangang Pangang Panga Pangang Pangang	
				Comments:		
	STEP		<u> </u>	Performance Step:	Place the "HX A FLC the "NORMAL" posit	OW CONT" switch in ion
	GRADE			Standards:	Locates the contro apron and places in position	l switch on the MB2 n the "NORM"
\bigcirc				Grade:	SAT	

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	JPM Numb	er:	NRCset2f		Rev	vision:	0
\sim	Task Title:	-	Line Up RHR	in the Injection Mode			
				Cue:			
				Comments: Steps 8 and 9 may be	e done in any order		
	STEP _	8	<u> </u>	Performance Step:	Adjust RHR heat ex controller (3RHS-Fi open (0% output)	changer b (618) in ma	ypass valve anual to full
	GRADE _			Standards:	Locates controller presses the up an position which is t position	on MB2 a ow to the he 0% der	and full up mand
				Grade:	SAT	UNSA	т
				Cue:			
\bigcirc				Comments:			
	STEP _	9		Performance Step:	Adjust RHR heat ex valve controller dem open (0.0 on the po	changer ou and (3RHs tentiometer	utlet flow S-HC606) to r)
	GRADE			Standards:	Locate the control rotates the potenti demand position.	ler on MB: ometer to	2 and o the 100%
				Grade:	SAT	UNSA	т
				Cue:	If questioned abou demand inform the continue on	it the track examine	king of 606 e to
				Comments:	The status panel 0 indicate 606 & 618	Group 1, 8 3 are full o	-8 will pen

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	JPM Num	ber:	NRCset2f			Revision:	0
\bigcirc	Task Title:	Task Title: Line Up RHR in the Injection Mod					
	STEP	10	<u> </u>	Performance Step:	OPEN RWST to isolation valve (o RHR pump (3SIL*MV8812	suction 2A)
	GRADE			Standards:	Locates the co pushes "OPEI red light on an	ontroller on N N" pushbutto nd green light	/IB3 and n. Observes t off
				Grade:	SAT	UNS	АТ
				Cue:			
				Comments:			
	STEP	11		Performance Step:	Verify RHR cold valve (3SIL*MV	d leg injection /8809A) - OPE	isolation EN
\bigcirc	GRADE	<u></u>		Standards:	Locates contro red light on an	oller on MB3 Id green light	and verifies
				Grade:	SAT	_ UNS	AT
				Cue:		an a	
				Comments:			
	STEP	12	<u> </u>	Performance Step:	Place RHR pur	np 3RHS*P1A	in AUTO
	GRADE			Standards:	Rotates hand st to "Off/ auto st	switch from I art" position	Pull to Lock
				Grade:	SAT	UNS	AT
				Cue:			
				Comments:			

JPM Num	ber:	NRCset2f			Revision:	0
Task Title:	:	Line Up RHR	in the Injection Mode			
STEP	13	<u> </u>	Performance Step:	Initiate SI		
GRADE		Standards:	Locates and rotates either MB4 SI switch to the "SI" p release the switch		MB2 or osition and	
			Grade:	SAT	UNS/	AT
			Cue:			
			Comments:	Examinee m auto started required to s this step.	nay verify RHR at this point bu satisfy the critic	Pump "A" it is not al nature of
STEP	_14		Performance Step:	Go to E-0, Re	eactor Trip or Sa	fety Injection
GRADE		E Standards:		The examinee either announces the transition or makes and effort to commence E-0, Reactor Trip or Safety Injection		
			Grade:	SAT	UNS/	АТ
			Cue:			
			Comments:			

THE EVALUATION PORTION OF THIS JPM IS COMPLETE.

Stop Time: _____

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VERIFICATION OF JPM COMPLETION

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JPM Number:	NRCset2f				Rev	ision:	0
Date Performed:							
Student:							
Evaluator:							
For the student to a correctly. If task is a achieve a satisfacto	chieve a satisfacto Time Critical, it <u>MU</u> ry grade.	ory grade I <u>ST</u> be co	, <u>ALL</u> cr ompleted	itical ste d within	eps mu the spe	st be com ecified tim	pleted le to
Time Critical Task?		YES		NO _	<u>x</u>		
Validated Time (min	utes):	10	-				
Actual Time to Com	plete (minutes):						
Result of JPM:			(" S " fo	r satisfa	ictory, "	'U " for uns	satisfactory)
Result of oral questi	ons (if applicable):						
Number of Ques	tions:						
Number of Corre	ct Responses:						
	Score:						
Areas for Improvem	ent:						

STUDENT HANDOUT

JPM Number: NRCset2f

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Initial Conditions: The plant is in mode 4 with a plant cooldown in progress. Both trains of RHR are aligned in the cooldown mode. Pzr Level started to drop. The crew has entered AOP 3555, Respond to a RCS Leak. The crew has started all available CHS Pumps and throttled open on the CHS Flow control valve. SI Pump "A" failed to start.

Initiating Cues: The Unit Supervisor request you align the "A" train of RHR to the injection mode using AOP 3555, Respond to a RCS Leak, step 3, Align RHR In Mode 4.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: ENERGIZE ANY EMERGENCY BUS FROM THE SBO DIESEL

JPM ID Number: 108

Revision: <u>1 Chg. 2</u> 2/21/00

II. Initiated:

:

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R. L. Lueneburg HJelenne (I Developer Verifie

2/6/97 Date 2/21/00

 $\frac{2}{27}/00$ Date

III. Reviewed:

Martin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

Date

, 17/0 J

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3	
JPM ID Number:	Revision: <u>1 chg 2</u>
Task Title: ENERGIZE ANY EMERGENCY BUS FROM THE	SBO DIESEL
System: A00	
Time Critical Task: ()YES (X) NO	
Validated Time (minutes): <u>12</u>	
Task Number(s): 000-05-069 and 000-05-129	
Applicable To: SRO X RO X	PEO
K/A Number: 055-EA2.03 K/A	Rating: <u>3.9/4.7</u>
Method of Testing: Simulated Performance: A	Actual Performance: X
Location: Classroom: Simulator: X	In-Plant::
<u>Task Standards:</u> Energize Bus 34C using the SBO diesel ECA-0.0.	as specified in EOP 35
Required Materials: None	
General References: EOP 35 ECA-0.0, Loss of All AC Power,	Rev. 14
READ TO THE STUDENT	

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 108

Revision: 1 chg 2

Simulator Requirements:

- 1. Reset to IC-14. Press "Audible Alarms Disable."
- 2. Insert the following malfunctions:
 - ED01 Loss of Off-Site Power.
 - EG06A Diesel Generator A fails to start.
 - EG06B Diesel Generator B fails to start.
- 3. Place the simulator in "RUN."
 - Insert malfunction SG01A at 100% severity until an SI is actuated, then remove SG01A
- 4. While waiting for the SI to actuate perform the following actions:
 - Under "Instructor Directed Actions," select EGR08 to "START" (SBO Diesel Control).
 - EDR33 to turn on synch scope for SBO
 - At MB8 OPEN the train A SBO tie breaker (34A1-2).
 - Using ECA-0.0, step 6, place the pump/component control switches in "PULL-TO-LOCK."
- 5. After the SI actuates,.
 - Remove malfunction SG01A
 - Acknowledge all alarms
 - Reset "Audible Alarms Disable,"
 - DO NOT RESET SI
 - Place the simulator in "FREEZE."
- 6. After the examinee has received the initial conditions and initiating cues, place the simulator in "RUN."

Approximate simulator setup time is <u>10-15</u> minutes.

JOB PERFORMANCE MEASURE GUIDE (Continued)

Initial Conditions: A total loss of all AC power has occurred which resulted in a plant trip. The Control Room Team is progressing through the EOPs and has dispatched operators to attempt to start the EDGs. It is unlikely that the EDGs will be started due to the nature of their failures. The SBO diesel is running with an operator standing by in the SBO diesel enclosure. Attachment G ECA 0.0 is complete with the exception of closing the SBO diesel output breaker. Attachment H of ECA-0.0 was completed to align the SBO to Bus 34A.

Initiating Cues: The US has directed you to energize Bus 34C from the SBO diesel using ECA-0.0 steps 7.a. through 7.o.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

	JPM Number:	108		Revision:	1 chg 2
4	Task Title:	ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL
	Start Time:				
	STEP 1		Performance Step:	Verify both AC em DEENERGIZED. (ergency busses – step 7.a)
	GRADE		Standards:	Observes the bus busses 34C and 3 zero volts.	voltage meters for 4D both indicate
			Grade:	SAT	UNSAT
	STEP 2		Performance Step:	OPEN the followin EDG supply break emergency AC bus For Bus 34C: DG/ (step 7.b.1)	g breakers: er for selected s. A*34C-2.
	GRADE		Standards:	Observes that the breaker DGA*34C red OFF and the c GREEN. The brea	indicating lights for -2 are green ON, ontrol switch flag is aker is open.
			Grade:	SAT	UNSAT

	JPM Number:	108	Revision:	1 chg 2		
\bigcirc	Task Title:	ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL	
	STEP 3		Performance Step:	OPEN the followir NSST feeder brea emergency AC bu For Bus 34A: NS (step 7.b.2)	ng breakers: aker for selected non- is. SA-34A-2	
	GRADE		Standards:	Observes breaker indication green ON, amber ON, red flag displayed on breaker switch.		
			Comments:	Since the breaker examinee may ele switch to the "TRII Matching flags on NOT necessary to as long the breaker be OPEN.	is already open, the ect to NOT rotate the P" position. the breaker switch is complete this step er is determined to	
	GRADE		Standards:	Rotates the contro NSSA-34A-2 to the Observes the indic to GREEN, the arr and the green light	ol switch for breaker e trip position. cating flag changes nber light goes OFF t remains ON.	
			Comments:	Annunciator MB8A NORM SPLY AUT The examinee sho the alarm. Howev NOT necessary to	A:5-9 "BUS 34A O TRIP" clears. ould acknowledge er, this action is complete this step.	
			Grade:	SAT		

JPM Number:	108		Revision:	1 chg 2	
Task Title:	ENERGIZE A	ANY EMERGENCY BU	S FROM THE SBO	DIESEL	
		Comments:			
STEP	X	essary. (step 7.c)			
GRADE	<u>X</u>	Standards:	Depresses both SI reset pushbutto on MB2.		
		Comments:	The MB2 annunc resetting the SI s the MB4 annunci blocking the auto alarm. The exam acknowledge the this is not necess critical nature of t	ciator associated with signal will CLEAR and iator associated with matic SI actuation will ninee should se alarms. However, sary to complete the this step.	
		Grade:	SAT	UNSAT	

	JPM Number:	108		Revision: 1 chg 2
	Task Title:	ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO DIESEL
	STEP 5	<u> </u>	Performance Step:	 Close SBO diesel output breaker as follows: 1) Verify local start of SBO diesel (Using Attachment G) –
				COMPLETED 2) Locally Close SBO diesel output breaker (step 7.d.1 & 2)
	GRADE		Standards:	Confirms that the SBO diesel was started. (This was given in the initial conditions.)
	GRADE	X	Standards:	Either directly calls the PEO in the SBO diesel enclosure or has the US contact the PEO to close the SBO output breaker.
)			Comments:	Under "Remote Function," select:
				 EDR33 to "ON" to turn on the SBO Sync. Select switch and EDR32 to "CLOSE" to close the SBO diesel output breaker
				Role-play as the PEO and provide the following cue:
			Cue:	The SBO diesel output breaker is CLOSED.
			Comments:	Annunciator MB8B:2-10 "SBO DIESEL LOCAL PANEL TROUBLE" will clear because the SBO MCC is now powered from the SBO instead of the battery. The examinee should acknowledge this alarm. However, this action is NOT necessary to complete the critical nature of this step.
1			Grade:	SAT UNSAT

	JPM Number:	108	Revision: 1 cl		1 chg 2	
1	Task Title:	ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO DIESEL		
	STEP <u>6</u>	X	Performance Step:	Open the followir breakers for the s non-emergency A	ng load center supply selected \C bus. For Bus 34A:	
				32A (32A-2) 32B (32B-2) 32C (32C-2) 32D (32D-2) 32E (32E-2) 32F (32F-2) 32G (32G-2) (step	p 7.e)	
	GRADE	<u> </u>	Standards:	Rotates the contr each listed break GREEN flag is dis breaker control sy indicating lights for to green ON, red	ol switch to "TRIP" for er. Observes the splayed on each witch and the or each breaker shift OFF.	
,			Grade:	SAT	UNSAT	

JPM Number:	108		Revision:	_1 chg 2
Task Title:	ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL
		Comment	For any series of in OFF or PTL it is examinee to place PTL or OFF. The minimum, place th PTL or OFF.	pumps being placed s acceptable for the e all of the pumps in e examinee must, at a ne selected busses in
STEP 7	<u> </u>	Performance Step:	Align the selected bus. Place the for PULL-TO-LOCK:	non-emergency AC llowing switches in
		•	 Screen wash p Circulating was TPCCW pump 	oump ter pumps (s) (step 7.f.1)
GRADE	<u> </u>	Standards:	At MB6, positions pump control swite LOCK" and obser screen was pump OFF.	the "A" screen wash ch to "PULL-TO- ves that all "A" indicating lights go
GRADE	<u> </u>	Standards:	At MB6, positions circulating water p switches to "PULL observes that all " circulating water p go OFF.	the "A," "C" & "E" oump control TO-LOCK" and A," "C" & "E" oump indicating lights
GRADE	<u> </u>	Standards:	At MB6, positions TPCCW pump cou "PULL-TO-LOCK" all "A" & "C" TPC lights go OFF.	the "A" & "C" ntrol switches to and observes that CW pump indicating
		Grade:	SAT	

JPM Numbe		108		Revision:	1 chg 2
Task Title:		ENERGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL
			Comment	For any series of in OFF or PTL it is examinee to place PTL or OFF. The minimum, place th PTL or OFF.	pumps being placed s acceptable for the e all of the pumps in examinee must, at a ne selected busses in
STEP	8	X	Performance Step:	Place the following	g switches in STOP:
				 CDS chiller(s) Heater drain p MSR drain pur 	ump(s) np (step 7.f.2)
GRADE _		X	Standards:	At MB1 positions to chiller control swith observes the indice amber OFF, greer	the "1A" & "1C" CDS ches to "STOP" and cating lights shift to n remains ON.
			Comments:	Annunciator MB10 REF AUTO TRIP/ will clear. The exa acknowledge the a action is NOT nec the critical nature of	C:5-5 "CHW MECH OVERCURRENT" aminee should alarm. However, this essary to complete of this step.
GRADE _		X	Standards:	At MB6 positions t drain pump contro and observes the to amber OFF, gre	he "A" & "C" heater I switches to "STOP" indicating lights shift een remains ON.
GRADE _		<u> </u>	Standards:	At MB6 positions to pump control switco observes the indico amber OFF, green	he MSR "A"drain ch to "STOP" and ating lights shift to remains ON.
			Grade:	SAT	UNSAT

	JPM Numbe	ər: <u>10</u>	8		Revision:	1 chg 2
/	Task Title:	EN	IERGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL
	STEP _	9		Performance Step:	Verify local alignm busses (Using Att COMPLETED. (st	ent of selected achment H or I) – ep 7.g)
	GRADE _			Standards:	Confirms that ECA is complete. (This initial conditions.	A-0.0, Attachment H was provided in the
				Grade:	SAT	UNSAT
	STEP _	10		Performance Step:	Place the remainir pump on the selec in PULL-TO-LOCK	ng service water ted emergency bus K. (step 7.h)
	GRADE _			Standards:	Rotates the control switch for the remaining service water pump to "PULL-TO-LOCK" and observes all indicating lights for that servic water pump go OFF.	
				Grade:	SAT	
	STEP _	<u>11</u>		Performance Step:	Reset the undervo selected emergence annunciator for Bu UNDERVOLTAGE NOT LIT. (step 7.i.	Itage block for the cy bus. Verify s 34C: "BUS 34C (MB8A:3-12) – 1)
	GRADE _			Standards:	Observes that ann is not illuminated.	unciator MB8A:3-12
				Grade:	SAT	

\sim	JPM Num	ber: <u>108</u>	3		Revision:	1 chg 2	
\bigcirc	Task Title:	EN	ERGIZE A	ANY EMERGENCY BUS FROM THE SBO DIESEL			
	STEP	12	<u> </u>	Performance Step:	Press undervoltag pushbutton (MB8F	e block BYPASS R). (step 7.i.2)	
	GRADE		<u>x</u>	Standards:	Depresses the "BUS 34C UNDERVOL PLK P.B." bypass pushbutton and observes the white indicating light goes OFF.		
				Grade:	SAT	UNSAT	
	STEP		_ <u>X</u>	Performance Step:	RESET LOP (MB2 train. (step 7.j)) for the selected	
\bigcirc	GRADE		_X	Standards:	Depresses the Tra pushbutton on MB	in "A" LOP Reset 2.	
				Grade:	SAT	UNSAT	

-	JPM Number:		108		Revision:	1 chg 2
\bigcirc	Task Title	:	ENERGIZE A	DIESEL		
	STEP	14	X	Performance Step:	CLOSE SBO bus selected non-eme Bus 34A: 34A1-2	tie breaker (MB8) for ergency AC bus. For . (step 7.k)
	GRADE X		X	Standards:	Rotates the break switch to "CLOSE flag shifts to red a lights shift to gree	er 34A1-2 control " and observes the nd the indicating n OFF, red ON.
				Comments:	Annunciator MB8/ UNDERVOLTAGE examinee should alarm. However, necessary to com nature of this step	CLOSE SBO bus tie breaker (MB8) for selected non-emergency AC bus. For Bus 34A: 34A1-2. (step 7.k) Rotates the breaker 34A1-2 control switch to "CLOSE" and observes the lag shifts to red and the indicating ights shift to green OFF, red ON. Annunciator MB8A:2-9 "BUS 34A JNDERVOLTAGE" will clear. The examinee should acknowledge the alarm. However, this action is not necessary to complete the critical nature of this step. BAT UNSAT Place the synchronizing selector to ON or the selected emergency and non- emergency busses. For Bus 34A and 4C: SYNC SEL 34A-34C Tie. step 7.l)
				Grade:	SAT	UNSAT
<u> </u>						
	STEP	15	<u> </u>	Performance Step:	Place the synchro for the selected er emergency busse 34C: SYNC SEL (step 7.l)	nizing selector to ON nergency and non- s. For Bus 34A and 34A-34C Tie.
	GRADE		<u> </u>	Standards:	Positions the SYN switch to "ON."	C SEL 34A-34C TIE
				Grade:	SAT	

	JPM Num	ber: <u>108</u>			Revision:	1 chg 2
\bigcirc	Task Title:	ENE	RGIZE A	NY EMERGENCY BU	S FROM THE SBO	DIESEL
	STEP		<u> </u>	Performance Step:	CLOSE the bus til the selected emer emergency busse 34*1T-2. (step 7.r	e breaker between gency and non- s. For 34A and 34C: n)
				Comments:	Since there is not point associated w examinee may ele switch to the "TRI closing the breake may elect to "mate breaker control sw the breaker. Eithe acceptable for ach nature of this step	hing to reset at this with this breaker, the ect not to rotate the P" position prior to er. The examinee ch flags" on the witch prior to closing er method is hieving the critical
<u> </u>	GRADE			Standards:	Rotates the 34A-3 "TRIP" and observ flag shifts to GREI indicating lights sh green remains ON	4C control switch to res the indicating EN, and the hift to amber OFF, l.
				Comments:	Annunciator MB8/ NORM SPLY AUT The examinee sho the alarm. Howev necessary to comp nature of this step	A:5-12 "BUS 34C O TRIP" will clear. ould acknowledge er, this action is not olete the critical
	GRADE		<u>X</u>	Standards:	Rotates the 34A-3 "CLOSE" and obse flag shifts to red, a lights shift to green	4C control switch to erves the indicating and the indicating a OFF, red ON.
				Grade:	SAT	UNSAT

	JPM Number:		108		Revision:	1 chg 2
\bigcirc	Task Title:	-	ENERGIZE A	NY EMERGENCY BUS	S FROM THE SBO	DIESEL
	STEP	17		Performance Step:	Place the synchro OFF for the select non-emergency bu and 34C: SYNC S (step 7.n)	nizing selector to ed emergency and usses. For bus 34A SEL 34A-34C Tie.
	GRADE		<u> </u>	Standards:	Positions the SYN switch to "OFF."	C SEL 34A-34C TIE
				Grade:	SAT	UNSAT
	STEP	18		Performance Step:	Check any AC em ENERGIZED. (ste	ergency bus –
\smile	GRADE			Standards:	Observes that bus on Bus 34C and th indicated for the 48 from Bus 34C.	voltage is indicated at voltage is also 80v busses supplied
				Grade:	SAT	UNSAT
	STEP	19		Performance Step:	Notify the US that 34C have been en SBO diesel.	busses 34A and ergized using the
	GRADE			Standards:	Informs the US tha 7.o of ECA-0.0 are busses 34A and 34 the SBO diesel.	t steps 7.a through complete and 4C are energized by
				Grade:	SAT	
				Terminating Cue:	The evaluation for concluded.	this JPM is

Stop Time:

/

VERIFICATION OF JPM COMPLETION

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JPM Number:	108					Revision	n:1	chg 2
Date Performed:								
Student:								
Evaluator:				-				
For the student to a correctly. If task is ⁻ achieve a satisfacto	chieve a satisfac Time Critical, it <u>N</u> ry grade.	ctory gra <u>//UST</u> be	de, <u>ALL</u> complet	critical ed wit	steps hin the	s must be e specifie	compl d time	eted to
			, , , , , , , , , , , , , , , , , , ,					
Time Critical Task?		YES	î	NO _	x	-		
Validated Time (min	utes):	12						
Actual Time to Com	plete (minutes):							
Result of JPM:			("S" for	satisfa	actory	, "U" for u	nsatist	factory)
Result of oral questi	ons (if applicable	e):						
Number of Ques	tions:							
Number of Corre	ct Responses:							
	Score:	·						
Areas for Improvement	<u>ent:</u>							

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: HVR10B Subsequent Actions. {Place SLCRS in Service}

JPM ID Number: NRCset2c

Revision: 0

II. Initiated:

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9. William Côté

2/7/00

Date

III. Reviewed:

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Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear/Training Supervisor

2/24/00 Date

Date

Date

STUDENT HANDOUT

JPM Number:

, ·

108

Initial Conditions:

A total loss of all AC power has occurred which resulted in a plant trip. The Control Room Team is progressing through the EOPs and has dispatched operators to attempt to start the EDGs. It is unlikely that the EDGs will be started due to the nature of their failures. The SBO diesel is running with an operator standing by in the SBO diesel enclosure. Attachment G ECA 0.0 is complete with the exception of closing the SBO diesel output breaker. Attachment H of ECA-0.0 was completed to align the SBO to Bus 34A.

Initiating Cues:

The US has directed you to energize Bus 34C from the SBO diesel using ECA-0.0 steps 7.a. through 7.o.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: <u>Secondary Side PEO Actions on a Control Room Evacuation due to a</u> Fire

JPM ID Number: 015A

Revision: 4

II. Initiated:

Hallmin A Scrifed G. A. Tait Developer

8/10/99 Date 2-23-00

III. Reviewed:

Martin J. E. Deveau

Technical Reviewer

IV. Approved:

S. Lawhead per Attached E-Mail Cognizant Plant Supervisor (optional)

R. L. Lueneburg

Nuclear Training Supervisor

2/27/00 8/10/99 Date

8/31/99 Date

8/11/99

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone	Unit 3	Student:				
JPM ID Number: 015	A	Revision:4				
Task Title: <u>Secondary Side PEO Actions on a Control Room Evacuation due to</u> <u>a Fire</u>						
System: E09						
Time Critical Task: () YES (X) NO						
Validated Time (minutes):20						
Task Number(s):000-05-008, 344-05-064, & 344-05-087						
Applicable To: SF	RO RO	PEO				
K/A Number: APE-068-AA1.10, EPE-055-EA2.06 K/A Rating: 3.7/3.9, 3.7/4.1						
Method of Testing:	Simulated Performance: X	Actual Performance:				
Location: C	Classroom: Sim	ulator: In-Plant::X				
Task Standards:Satisfactorily complete the Secondary Side PEO actions on a Control Room Evacuation IAW EOP 3509.1, Attachment B.						
Required Materials:	EDG Control Mode selector switch keys 12B554 and ILCO 999NY1E.					
General References: EOP 3509.1, Attachment B, Rev. 3						

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 015A	Revision: 4
Initial Conditions:	The plant has experienced a loss of Off-Site power and a fire requiring evacuation of the control room. Bus 34C is de- energized.
Initiating Cues:	The US, at the ASP, has directed you to perform the Secondary Side PEO Actions on a Control Room Evacuation in accordance with EOP 3509.1, Attachment B. The Turbine Stop Valves have been verified Closed. You have a PEO Rounds Key and keys EDG Control Mode selector switch keys 12B554 & ILCO 999NY1E.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

JPM Number: 015A			Revision: 4			
Task Title:	<u>Secondary Sid</u> Fire	le PEO Actions on a C	ontrol Room Evacuation due to a			
Start Time: _						
		Comments:	The examinee may decide to obtain a 800 MHz portable radio when in route to the 'A' EDG enclosure. If this action is performed, provide the following cue when the radio storage location is reached. The obtaining of the radio is not required until performance of step 4 of EOP 3509.1. <u>Performance steps, standards, and cues pertaining to the 800 MHz radios are provided in step 8 (page 9) of this JPM.</u>			
		Comments:	Based upon the initial cues, the examinee may directly proceed to step 3 of EOP 3509.1. If the examinee does proceed directly to step 3 (page 6), steps 1 and 2 of this JPM should be skipped as they are only included for clarification purposes. Step 1 of this JPM starts on the next page.			
STEP 1		Performance Step:	Verify Turbine Stop Valves - CLOSED (step 1)			
GRADE		Standards:	Proceeds to step 2 as step 1 completion already performed			
	٠	Grade:	SAT UNSAT			
		Cue:	Turbine Stop Valves have already been verified closed.			
		Comments:	Completion of the step stated in initiating cues. If required, provide the above cue to remind examinee of step completion.			
	JPM Numb	er:	015A		Revision:4_	
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	Task Title:		<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	Control Room Evacuation due to a	
	STEP	2		Performance Step:	 Obtain Keys From The SM EDG A CONTROL MODE sele switch key (12B554) EDGB CONTROL MODE sele switch key (ILCO 999NY1E) (step 2) 	ector ector
	GRADE			Standards:	Proceeds to step 3 as step 1 completion already performed	
				Grade:	SAT UNSAT	
J				Cue:	You have the 'A' and 'B' Control M selector switch keys	<i>l</i> ode
				Comments:	Initiating cue stated that examined obtained keys. If required, provid- above cue as a reminder.	e had e the
	STEP	3	<u> </u>	Performance Step:	Check Diesel Generator A Status a. Using key 12B554 from SM ke ring, Unlock and Place the CONTROL MODE selector sw in LOCAL. (step 3.a)	¥y ∕itch
	GRADE _		<u> </u>	Standards:	Locate CONTROL MODE selecto switch and simulates inserting key switch.	ir y into
				Cue:	Key 12B554 is inserted.	0.5 1
	GRADE		<u> </u>	Standards:	Simulates rotating the control mod selector switch to the LOCAL pos	de ition.

	JPM Number:	015A		R	evision: <u>4</u>
j	Task Title:	<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	Control Room Evacu	ation due to a
	GRADE		Cue: Standards: Grade: Cue:	Control Mode sele LOCAL. Alarm win blinks and an audi Simulates silencin acknowledging ala SAT Audible alarm stop 8 on EGPA is lit ar	ctor switch is in idow 4-8 on EGPA ble alarm is heard. g and irm. UNSAT s. Alarm window 4- nd solid.
	STEP 4	<u>X</u>	Performance Step:	Unlock and Place 43FT1 in ISOLATE	transfer switch E.
	GRADE	<u> </u>	Standards:	Locates transfer sy simulates inserting into lock, unlocking the switch cover up	vitch 43FT1 and PEO Rounds key Jock, and swinging
			Cue:	The cover for trans unlocked and swu	sfer switch 43FT1 is ng up.
	GRADE	X	Standards:	Simulates rotating 43FT1 to the ISOL	transfer switch ATE position.
			Grade:	SAT	
			Cue:	Switch 43FT1 han ISOLATE position lowered.	dle is aligned to the and the cover is

JPM Number: 015A		Rev	ision: <u>4</u>
Task Title: <u>Seconda</u> <u>Fire</u>	ary Side PEO Actions on a (Control Room Evacuat	ion due to a
STEP <u>5</u> X	Performance Step:	Unlock and Place tra in ISOLATE.	nsfer switch 43FT
		(step 3.c)	
GRADE X	Standards:	Locates transfer swit simulates inserting P into lock, unlocking lo	ch 43FT and EO Rounds key ock, and swinging
	Cue:	the switch cover up. The cover for transfe unlocked and swung	r switch 43FT is up:
GRADE X	Standards:	Simulates rotating tra 43FT to the ISOLATE	ansfer switch E position.
	Grade:	SAT	
	Cuë:	Switch 43FT handle. ISOLATE position an lowered.	s aligned to the dithe cover is
STEP <u>6 X</u>	Performance Step:	Verify EDG A - RUN	NING.
GRADE X	Standards:	Proceeds to step 3.d	RNO.
	Grade:	SAT	UNSAT
	Cue:	There is NO noise en Diesel.	nitting from the 'A'
STEP <u>7 X</u>	Performance Step:	Proceed to step 4.	
		(step 3.d.RNO)	
GRADE X	Standards:	Proceeds to step 4.	
	Grade:	SAT	

	JPM Number:	015A		Revision: <u>4</u>
j	Task Title:	<u>Secondary S</u> Fire	ide PEO Actions on a C	Control Room Evacuation due to a
			Comments:	If the examinee obtained the 800 MHz radio at the beginning of the JPM, the following JPM step may have already been partially or fully completed.
	STEP 8	X	Performance Step:	<u>NOTE</u> The sound powered phone connection to the A Diesel Generator Room may be damaged by the fire. Use the 800 MHz portable radios in the direct (talk- around) mode to communicate with the ASP operator.
)				(step 4 note)
	GRADE		Standards:	Reviews note.
			Comments:	Additional standards associated with this step are located on the next page.
	GRADE	X	Standards:	Locates 800 MHz radio (Lockers by HP Office or Operations Human Resource Center), simulates placing it in the "talk-around" (Channel 5) mode and taking one to 'A' EDG building.
			Cue:	Upon locating the radio storage area, provide the following cue:
				The radio is in the "talk-around" mode. You are to replace the radio in its storage location and simulate having the radio in your possession.
J	GRADE	<u> </u>	Standards:	Simulates connecting the 800 MHz radio to the fixed antenna inside the 'A' EDG building.

	JPM Numb	er:	015A		Re	evision: <u>4</u>
)	/ Task Title:		<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	ontrol Room Evacua	<u>ation due to a</u>
				Grade:	SAT	
				Cue:	The radio is conner antenna.	cted to the fixed
	STEP	9	- <u></u>	Performance Step:	Check If Diesel Ge Be Started From Lo (3EGS*PNLA)	nerator A Should ocal Control Panel
			•		Verify ASP operato STARTED	r desires EDG A -
					(step 4.a)	
	GRADE			Standards:	Simulates establish communications, us radio, with the ASP determine if starting start desired.	ing sing the 800 MHz operator to g of 'A' EDG local
				Grade:	SAT	UNSAT
				Cue:	SIMULATE starting locally.	the 'A'' EDG
				Comments:	If examinee attemp communication dev 800 Mhz radio, the should be provided	ts to utilize any ice other than the following cue :
				Cue:	The xxx is not funcl	ional.
	STEP _	10	<u> </u>	Performance Step:	Open EDG A servic valve (3SWP*AOV3 (3SWP*HV39A).	e water outlet 39A) by venting
1					(step 4.b)	
	GRADE		<u> </u>	Standards: 9 of 22	Locates 3SWP*HV	39A (next to flow

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	JPM Number:	015A		Rev	ision: <u>4</u>
)	Task Title:	<u>Secondary Si</u> Fire	ion due to a		
				indicator) and simula handle to the "vent" p	tes rotating the position.
			Grade:	SAT	UNSAT
			Cue:	The valve position in "VENT". You hear lo from the pipe next to Noise gets quieter an stops.	dicator points to ud hissing noise the vent handle. id eventually
			Comments:	If examinee checks f 3SWP-FIS41A again following cue:	low indicator , provide the
,			Cue:	Service water flow is	0 gpm.
			Comments:	If examinee climbs up valve 3SWP*AOV39/ local indicator, provid cue:	o the platform to A to check the le the following
			Cue:	The pointer points to	"OPEN"
	STEP 11	X	Performance Step:	Place the UNIT/PAR	ALLEL switch in
				(step 4.c)	
	GRADE	<u> </u>	Standards:	Locates the Unit/Para control panel) and sir the switch to the UNI necessary.	allel switch (EDG nulates rotating T position if
			Grade:	SAT	UNSAT
j.			Cue:	Switch handles point the UNIT position.	er is aligned to

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	JPM Num	ber:	015A			Revision:	4
	Task Title:		<u>Secondary S</u> <u>Fire</u>	ide PEO Actions on a C	Control Room Eva	acuation due	<u>to a</u>
	STEP	_12	<u> </u>	Performance Step:	Place the contr in LOCAL.	ol mode selec	ctor switch
					(step 4.d)		
	GRADE		<u> </u>	Standards:	Locates the cor switch and verif the LOCAL pos	ntrol mode se fies the switch sition.	lector n still in
				Grade:	SAT	UNSAT	ſ
				Cue:	Control mode s LOCAL.	elector switch	is in
j				Comments:	Control mode s placed in LOCA of EOP 3509.1	elector switch \L during perf step 3.a.	was ormance
-	STEP	_13	<u>X</u>	Performance Step:	Press ENGINE pushbutton.	SHUTDOWN	RESET
					(step 4.e)		
	GRADE		<u> </u>	Standards:	Locates the Eng pushbutton (EG pressing it to re shutdown.	gine Shutdow PA) and simu set the engine	n Reset ılates ə
				Cue:	The Engine Shu pushbutton has window 1-1 on l audible alarm is	utdown Reset been presse EGPA blinks : heard.	d. Alarm and an
	GRADE			Standards:	Simulates sileno alarm.	cing and rese	tting the
				Grade:	SAT	UNSAT	•
)				Cue:	Audible alarm s 1-1 clears (not l	tops and alar it).	m window (

	JPM Numb	er: 015	<u>A</u>		F	Revision: <u>4</u>	
<u>`</u>	Task Title:	<u>Sec</u> Fire	<u>Secondary Side PEO Actions on a C</u> <u>Fire</u>		control Room Evacuation due to a		
	STEP	14	_X	Performance Step:	Place the ENGIN	E CONTROL switch	
	GRADE		<u> </u>	Standards:	(step 4.f) Locates the Engir (EGPA) and simu Start position.	ne Control switch lates rotating it to the	
				Grade:	SAT	UNSAT	
				Cue:	The Engine Contr Start position. No heard (the engine	ol switch is in the engine noise is did not start)	
	STEP	15	_X	Performance Step:	Verify emergency STARTS.	diesel generator A -	
	GRADE		<u>X</u>	Standards:	(step 4.g) Locates EDG spe indicator and verif then proceeds to s	ed (tachometer) īes engine speed, step 4.g RNO.	
				Grade:	SAT		
				Cue: Diesel speed is 0 rpm.			
	STEP	16	<u> </u>	Performance Step:	PRESS the lever control valve (3EC 3EGS*ASV2A).	on either air start SS*ASV1A or	
					(step 4.g RNO)		
	GRADE		<u> </u>	Standards:	Locates either air and using the atta lever around the p down on the value	start control valve iched lever, locks the pivot pin and pushes	
			:	Cue:	Engine noise is he to a steady noise	eard and it increases level.	

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	JPM Number:	015A		Re	evision: 4	
	Task Title:	<u>Secondary Si</u> <u>Fire</u>	dary Side PEO Actions on a Control Room Evacuation due to			
			Cue:	When examinee re inform him that alar 3-7 are blinking and noise is heard.	eturns to EGPA, m windows 2-1 and I an audible alarm	
	GRADE	X	Standards:	Silences, acknowle the alarms.	dges and resets	
			Grade:	SAT	UNSAT	
			Cue:	Audible alarm stops 7 clears (not lit) and solid.	s. Alarm window 3- I window 2-1 is lit	
1			Comments:	If examinee checks provide the followin	diesel speed g cue.	
			Cue:	Engine speed is 51	0 rpm	
	STEP <u>17</u>		Performance Step:	Adjust the AUTO Vo CONTROL switch to generator voltage - and 4580 volts.	OLTAGE o maintain BETWEEN 3740	
				(step 4.h)		
	GRADE		Standards:	Locates generator v (EGPA) and reads v	voltage meter voltage.	
			Grade:	SAT	UNSAT	
			Cue:	Generator voltage is	s 4150 volts.	

JPM Number:	015A		F	Revision: <u>4</u>
Task Title:	<u>Secondary Sid</u> Fire	de PEO Actions on a C	Control Room Evaci	uation due to a
STEP 18		Performance Step:	Adjust the GOVEI switch to maintain - BETWEEN 59.2	RNOR CONTROL generator frequency and 60.8 Hz.
GRADE		Standards:	(step 4.i) Locates generato (EGPA) and reads	r frequency meter s frequency.
		Grade:	SAT	
		Cue:	Generator frequer	ncy is 60.0 Hz
STEP 19	<u></u>	Performance Step:	Place the GENER L/R switch in LOC	ATOR BREAKER AL.
GRADE	<u> </u>	Standards:	(step 4.j) Locates the Gene Local/Remote swi placing it in the Lo	rator Breaker tch and simulates cal position
		Cue:	Switch handle poi LOCAL position. EGPA blinks and heard.	nter is aligned to the Alarm window 4-6 on an audible alarm is
GRADE		Standards:	Simulates silencin acknowledging the	g and e alarm.
		Grade:	SAT	UNSAT
		Cue:	Audible alarm stop 4-6 on EGPA is so	os and alarm window blid and lit.

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~	JPM Numb	er:	015A		İ	Revision: <u>4</u>
) I	Task Title:		<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	Control Room Evac	cuation due to a
	STEP	20	X	Performance Step:	Place the SYNCI to ON.	HRONIZING SWITCH
	GRADE		X	Standards:	(step 4.k) Locates the sync (EGPA) and simu ON position.	hronizing switch lates rotating it to the
				Grade:	SAT	UNSAT
				Cue:	Synchronizing sw "ON."	vitch is aligned to
)	STEP _	21	<u> </u>	Performance Step:	Verify ASP opera generator circuit I	tor desires the breaker - CLOSED.
	GRADE _		<u> </u>	Standards:	Simulates establisivith ASP to verify breaker to be closed	shing communication / generator circuit sed.
				Grade:	SAT	
				Cue:	SIMULATE closir Circuit Breaker fro	ng the Generator om EGPA.
				Comments:	Ensure the exami they are to simula circuit breaker.	inee understands ate the closing of the

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JPM Number:	Rev	vision:		
Task Title:	<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	Control Room Evacuat	<u>ion due to a</u>
STEP 22	X	Performance Step:	Place the GENERA BRKR control switch	FOR CIRCUIT in CLOSE.
GRADE	X	Standards:	(step 4.m) Locates the generator circuit breake control switch and simulates placing in the Close position.	
		Grade:	SAT	
		Cue:	The breaker control aligned with the CLC	switch handle is SE position
		Cue:	The breaker position shift to Red ON and bus voltmeter indicat	indicating lights Green OFF. The es 4150 volts
STEP 23		Performance Step:	Place the SYNCHRO to OFF. (step 4.n)	NIZING SWITCH
GRADE		Standards:	Simulates rotating th switch (EGPA) to the	e synchronizing OFF position.
		Grade:	SAT	
		Cue:	Synchronizing switch position.	i is in the OFF

	JPM Num	ber: ()15A		Revision:		
	Task Title	: <u>S</u> <u>F</u>	Secondary Si Fire	de PEO Actions on a C	Control Room Evacua	ation due to a	
	STEP	_24	<u> </u>	Performance Step:	Fail Open diesel ge air supply dampers	enerator enclosure	
					Place circuit bre 3SCV*PNL25(C	eaker 6 on) to OFF	
					(step 4.o)		
	GRADE		_ <u>X</u>	Standards:	Locates circuit brea SCV*PNL25(O) and it to the OFF positio	iker 6 on panel d simulates placing on.	
				Grade:	SAT		
				Cue:	Breaker 6 is in the t	OFF position.	
)	STEP	_25		Performance Step:	Report to ASP oper READY TO LOAD.	ator - EDG A	
					(step 4.p)		
	GRADE			Standards:	Simulates establish communications wit and reports that the to load.	ing h the ASP operator 'A' EDG is ready	
				Grade:	SAT		
				Cue:	Continue with step Attachment B to che EDG and then com 'A' EDG parameters running, <u>SIMULATE</u> EDG.	5 of EOP 3509.1 eck status of the 'B' mence monitoring 5. If the 'B' EDG is 5 stopping the 'B'	

	JPM Num	ber: <u>01</u>	15A		ł	Revision: <u>4</u>
Ĵ.	Task Title:	<u>Se</u> Fi	econdary S re	ide PEO Actions on a C	Control Room Evac	uation due to a
	STEP	_26_		Performance Step:	Continue to routir parameters. (step 4.q)	nely monitor EDG A
	GRADE		<u></u>	Standards:	Skips step 4.q ba from ASP operate	sed on directions or.
				Grade:	SAT	
	STEP	27	<u> </u>	Performance Step:	Check Diesel Ger a. Verify EDG B (step 5.a)	nerator B Status. - Running.
	GRADE		_X	Standards:	Exits 'A' EDG buil EDG building to c	lding and enters 'B' heck 'B' EDG status.
				Grade:	SAT	UNSAT
				Cue:	As you approach you notice exhaus emitted from the o enter the building sounds from a run	the 'B' EDG building, st smoke being diesel. When you , you hear normal ming diesel engine.
	STEP	28		Performance Step:	Check If Diesel G Be Stopped From (3EGS*PNLB).	enerator B Should Local Control Panel
					a. Verify ASP op - STOPPED.	erator desires EDG B
					(step 6.a)	
)	GRADE			Standards:	Based upon previ continues to step	ious cue, examinee 6.b.

*	JPM Number:	015A		Re	vision: <u>4</u>
\bigcirc	Task Title:	<u>Secondary Si</u> <u>Fire</u>	de PEO Actions on a C	<u>Control Room Evacua</u>	<u>tion due to a</u>
			Grade:	SAT	UNSAT
			Cue:	The ASP operator h SIMULATE stopping	as directed you to of the B EDG.
			Comments:	If examinee request desire to stop the B following cue.	s confirmation of EDG, provide the
	STEP 29	X	Performance Step:	Using key ILCO 999 key ring, Unlock and CONTROL MODE s Maintenance.	NY1E from SM Place the elector switch in
X 2				(step 6.b)	
\bigcirc	GRADE	X	Standards:	Locate CONTROL M switch and simulates switch.	IODE selector s inserting key into
			Cue:	Key 999NY1E is ins	erted.
	GRADE	X	Standards:	Simulates rotating the selector switch to the position.	ne control mode e Maintenance
			Cue:	Control Mode selector switch is in Maintenance. Alarm window 4-8 on EGPB blinks and an audible alarm is heard.	
	GRADE		Standards:	Simulates silencing acknowledging alarr	and n.
			Grade:	SAT	UNSAT
\bigcirc			Cue:	Audible alarm stops 8 on EGPB is lit and	Alarm window 4- solid.

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JPM Number:)15A			Revision: <u>4</u>
Task Title: <u>S</u> <u>F</u>	Secondary S Tire	ide PEO Actions on a C	Control Room Ev	vacuation due to a
STEP <u>30</u>	_X	Performance Step:	Simultaneously EMERGENCY	y PRESS <i>both</i> DIESEL STOP buttons
GRADE	_X	Standards:	Locates both E Diesel Stop bu pressing them	EDG B Emergency ttons and simulates simultaneously.
		Cue:	You hear soun coasting down Windows 1-1 a and an audible	ds of the diesel engine to a stop. Alarm ind 1-3 on EGPB blink alarm is heard.
GRADE		Standards:	Simulates siler acknowledging	ncing and I alarm.
		Grade:	SAT	UNSAT
		Cue:	Audible alarms 1-1 and 1-3 on	stop. Alarm windows EGPB are lit and solid.
STEP <u>31</u>		Performance Step:	Perform The F	ollowing:
			a. Establish co operator.	ommunication with ASP
			b. Report Atta	chment B complete.
			c. Provide sup (step 7)	oport as required.
GRADE		Standards:	Returns to A E establishment the ASP opera completion of A	DG building, simulates of communications with tor and reports Attachment B.
		Grade:	SAT	UNSAT
Terminating Cue	: The evalu	Grade: ation for this JPM is co	SAT	UNSAT

VERIFICATION OF JPM COMPLETION

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JPM Number:	015A					Revision:		4
Date Performed:								
Student:								
Evaluator:								
For the student to a correctly. If task is achieve a satisfacto	achieve a satisfacto Time Critical, it <u>MU</u> pry grade.	ry grade <u>ST</u> be co	ALL cri	tical st withir	eps m the sp	ust be comp becified time	oleteo e to	d
Time Critical Task?		YES	~	NO	x	-		
Validated Time (mir	nutes):	20						
Actual Time to Com	plete (minutes):							
Result of JPM:			("S" for	satisf	actory,	"U" for unsa	atisfa	ictory)
Result of oral quest	ions (if applicable):							
Number of Ques	stions:							
Number of Corre	ect Responses:							
	Score:	 						
Areas for Improvem	ent:							

STUDENT HANDOUT

 JPM Number:
 015A

 Initial Conditions:
 The plant has experienced a loss of Off-Site power and a fire requiring evacuation of the control room. Bus 34C is de-energized.

 Initiating Cues:
 The US, at the ASP, has directed you to perform the Secondary Side PEO Actions on a Control Room Evacuation in accordance with EOP 3509.1, Attachment B. The Turbine Stop Valves have been verified Closed. You have a PEO Rounds Key and keys EDG Control Mode selector switch keys 12B554 & ILCO 999NY1E

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: SPENT FUEL POOL EMERGENCY MAKEUP

JPM ID Number: 016 Revision: 7

II. Initiated:

<u>fladellanie (25</u> Verifierd G. A. Tait Developer

01/07/99 Date 2-23-00

III. Reviewed:

Martin J. E. Deveau

Technical Reviewer

Date

01/11/99 2/27/00

IV. Approved:

Not a new JPM Cognizant Plant Supervisor (optional)

R. L. Lueneburg

Nuclear Training Supervisor

Date

2/27/00 01/13/99

Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone	Unit 3	Student:	
JPM ID Number:01	6	Revision: 7	
Task Title: SPENT F	FUEL POOL EMERGENCY MA	AKEUP	
System: SFC			
Time Critical Task:	() YES (X) NO		
Validated Time (minute	es):15		
Task Number(s): _34	14-05-042 RO	REO	
Applicable To: Sh	RO RO	PEO	
K/A Number: 033.	A2.03	K/A Rating: <u>3.1 / 3.5</u>	
Method of Testing:	Simulated Performance: X	Actual Performance:	
Location:	Classroom: Simi	ulator: In-Plant:: _	
<u>Task Standards:</u>	Satisfactorily complete emergusing EOP 3505A.	gency makeup to the spent fuel po	ol
Required Materials:	PEO Rounds Key		

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JPM Number: 016

Revision: 7

Task Title: SPENT FUEL POOL EMERGENCY MAKEUP

JPM Number: 016

Revision: 7

Initial Conditions: A loss of all AC power has occurred and the control room team is carrying out the actions of EOP 35 ECA-0.0. When checking annunciator responses, it is noted that MB1A, 3-4. FUEL POOL LEVEL LO annunciator is lit. You have verified that the low spent fuel pool level condition is valid and that level is slowly decreasing.

Initiating Cues: The spent fuel pool low level alarm has been received and due to a loss of all AC power, the normal method of makeup is not available. Additionally, 3SFC-V31 (RWST to fuel pool isolation valve) is stuck shut. While maintenance works on 3SFC-V31, the US has directed you to makeup to the spent fuel pool using the emergency method of EOP 3505A starting with Attachment A, Step 12b. The Duty Officer has granted permission to perform this step.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

Revision:

the spent fuel pool.

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JPM Number: 016

Task Title: SPENT FUEL POOL EMERGENCY MAKEUP

Start Time: If at any time during this JPM, the Cue: candidate checks the fuel pool level indication or requests that information from the Control Room, provide the cue that it is 34%. Comments: The Duty Officer has granted permission to perform this step. STEP 1 Performance Step: Connect emergency makeup gooseneck to the fire protection water system connection in the spent fuel pool area and align discharge of gooseneck into the spent fuel pool. (Step 12.b and c) GRADE Standards: Locates the emergency makeup gooseneck (EL 51'6") and simulates connecting the gooseneck to the fire protection water system and directs discharge into the spent fuel pool. Grade: SAT UNSAT Emergency makeup gooseneck is Cue: connected to the fire protection water system and aligned to discharge into

JPM Num	ber:	016		Re	vision: <u>7</u>	_
Task Title:		PENT FUEL	POOL EMERGENCY	MAKEUP		
STEP	_2		Performance Step:	OPEN fire protectio supply to fuel pool (located in Fuel Build 12.d)	n water syster (3FPW-V766) ding 51'. (Step	n
GRADE	<u></u>		Standards:	Locates supply valv (Fuel Bldg. El. 51'6' and simulates unloc the locking device.	ve 3FPW-V766 " by the Fuel F cking and remo) 'ool) oving
			Cue:	The locking device and removed.	has been unlo	cked
GRADE			Standards:	Simulates rotating t 3FPW-V766 in the o direction until the va	he handwheel counter-clockw alve is open.	for /ise
				The valve handwhe counter-clockwise d Eventually, some re and the valve come	el rotates in th lirection. sistance is me s to a stop.	e st
GRADE			Standards:	Simulates rotating thandwheel ¼ turn in direction.	he valve n the clockwise	e
			Grade:	SAT		
			Cue:	The valve handwhe rotated ¼ turn in the direction.	el has been a e clockwise	
STEP			Performance Step:	Check spent fuel po INCREASING (Step	ool level- o 12.e)	
GRADE			Standards:	Checks for water flo gooseneck into the	ow out of the fuel pool.	

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÷	JPM Num	ber: <u>016</u>	Revision: 7			
\bigcirc	Task Title:	SPENT	FUEL	POOL EMERGENCY	MAKEUP	
				Grade:	SAT	UNSAT
				Cue:	No flow is visib gooseneck.	le obtained from the
	STEP			Performance Step:	Transition to R attempts to loca and Proceed to (Step 12 e, RN	N.O. column. Continue ate and isolate leaks step 13. O)
	GRADE		_	Standards:	Proceeds to ste	ep 13. (Step 12.e RNO)
				Grade:	SAT	
\bigcirc				Comments:	Although not re may elect to inf of the water flow proceeding to s candidate DOE the Control Roo this JPM.	equired, the candidate form the Control Room w problem prior to step 13. If the S NOT elect to contact om, GO TO step 7 of
	STEP			Performance Step:	Informs Control water flow from Water System.	Room that there is no the Fire Protection
	GRADE			Standards:	Contacts Contr report.	ol Room and makes
				Grade:	SAT	UNSAT
\bigcirc			(2) • ε = m _i − e − m _i − e − m _i − e − m _i	Cue:	Investigation re Protection Wate available. The you to close an proceed to step Attachment A.	veals that the Fire er System is not Unit Supervisor directs d lock 3FPW-V766 and 13 of EOP 3505A, The Duty Officer has

	JPM Num	oer:	016	Revision: <u>7</u>		
I	Task Title:	-	SPENT FUEL	POOL EMERGENCY	MAKEUP	
					granted permissi makeup to the fu Service Water Sy	on to establish el pool from the /stem.
	STEP	_6		Performance Step:	Close and lock 3	FPW-V766.
	GRADE	<u></u>		Standards:	Simulates rotatin the clockwise dire	g the handwheel in ection.
				Cue:	The valve handw clockwise direction resistance is met handwheel come	heel rotates in the on. Eventually, some and the valve s to a hard stop.
	GRADE			Standards:	Simulates reinsta locking device on	Iling and locking the valve 3FPW-V766.
				Grade:	SAT	UNSAT
				Cue:	The locking devic locked on valve 3	e is reinstalled and F FPW-V766.
	STEP	7		Performance Step:	Candidate procee Attachment A, Lo Emergency Mak Pool From The S System. (Step 12.e RNO)	eds to STEP 13 in cally Establish eup to Spent Fuel Service Water
	GRADE			Standards:	Candidate procee Attachment A, Lo Emergency Mak Pool From The S System.	eds to STEP 13 in ocally Establish eup to Spent Fuel Service Water
				Grade:	SAT	

*	JPM Numb	er: 016			Revision: 7
\smile	Task Title:	SPENT FUEL	POOL EMERGENCY	MAKEUP	
	STEP	8	Performance Step:	Check the follow	ving:
				Duty Officer OF SERVICE	- AUTHORIZES USE E WATER.
				 Service wate RUNNING. (Step 13.a) 	r pump A or C -
	GRADE		Standards:	Calls the Contro Duty Officer's pe service water an water pump A or	l Room to obtain the ermission to use d verify either Service r C is running.
			Grade:	SAT	UNSAT
			Cue:	Role play as the inform the Candi Officer has grant makeup to the fu Service Water S	Unit Supervisor and date that the Duty ted permission to add uel pool from the ystem.
			Cue:	Additionally, tell SBO Diesel has placed on bus 3- water pump has	the Candidate that the just been started and 4 4C. The "A" service been started.
	STEP	9	Performance Step:	Check service w pool (3SWP*V30 Building 24' - CL	ater supply to fuel)) located in Fuel .OSED (Step 13.b)
	GRADE _		Standards:	Locates 3SWP*\ 24', Fuel Receivi the valve closed handle is not in t	V30 (Fuel Bldg. El. ing Bay) and checks by observing that the the in-line position.
			Grade:	SAT	
			Cue:	The valve handle	e is perpendicular to

JPM Number:	016			Revision:	7
Task Title:	SPENT FUEL	POOL EMERGENCY	MAKEUP		
			the pipe.		
		Comments:	To complete the Candidate need necessary that to obtained, howe explain where h tools.	e next step, tl ls some tools these tools b ver have the ne/she would	ne s. It is not e Candidate obtain the
STEP _10	<u> </u>	Performance Step:	Install the spool water line to the (located in Fuel (Step 13.c)	piece in the spent fuel p Building 43')	service ool
GRADE	X	Standards:	Locates the spo unbolting flange piece into the So Bldg. El 43' abo bunker.)	ool piece, sim es and bolting ervice Water we Filter Den	ulates the spool line (Fuel hin.
		Grade:	SAT	UNSA	r
		Cue:	The spool piece	is bolted in p	olace.
		Comments:	For this JPM it is ladder be obtain Candidate shou of the nearest la	s not necessa ned. Howeve Id tell you the adder when y	ary that a r, the location ou ask.
STEP	X	Performance Step:	Open service wa isolation (3SWP Building 4'. (Ste	ater supply to *V700) locate p 13.d)	o fuel pool ed in Aux
GRADE	X	Standards:	Locates 3SWP* 4'6") and simula in the counter-cl the valve is fully	V700 (Aux B ates turning h lockwise dire v open.	ldg. El andwheel ction until

•	JPM Numl	ber: _	016		Revision: 7		
\bigcirc	Task Title:	_	SPENT FUEL	POOL EMERGENCY	ICY MAKEUP		
				Cue:	The valve handwhee counter-clockwise di Eventually, some res and the valve comes	el rotates in the rection. sistance is met to a hard stop.	
	GRADE			Standards:	Simulates rotating th handwheel ¼ turn in direction.	e valve the clockwise	
				Grade:	SAT	UNSAT	
				Cue:	The valve handwhee rotated ¼ turn in the direction.	I has been clockwise	
\bigcirc	STEP	12	X	Performance Step:	Open service water s (3SWP*V30). (Step	supply to fuel pool 13.e)	
	GRADE		<u>X</u>	Standards:	Simulates unlocking locking device on val	and removing the ve 3SWP*V30.	
				Cue:	ie: The locking device has and removed.		
	GRADE		_ <u>X</u>	Standards:	Simulates positioning to the in-line position valve.	g the valve handle to open the	
				Grade:	SAT	UNSAT	
				Cue:	The valve handle is a line position.	aligned to the in-	

	JPM Number: 016		016			Revision: 7		
/	Task Title: SPENT FUEL		SPENT FUEL	POOL EMERGENCY MAKEUP				
	STEP	13		Performance Step:	Check spent fue	l pool level - tep 13.f)		
	GRADE			Standards:	Verifies spent fur increasing by eit at the FP) indica information from (Computer Point	el pool level her local (3SFC- Ll26 tion or by requesting control room SFC-L26).		
				Grade:	SAT			
				Cue:	The spent fuel position slowly increasing	ool level is 34% and		
1				Comments:	The candidate m local spent fuel p call the control ro information. In b following cue sho	ay either go to the bool cooling panel or bom to obtain level both cases, the buld be provided.		
	STEP	14		Performance Step:	Notify the contro makeup to the S been initiated, co between 36% an	l room that emergency pent Fuel Pool has ontrolling level id 44%. (Step 13.g)		
				Comments:	Candidate need maintenance of I requirements of t	not report evel to satisfy the this step.		
	GRADE			Standards:	Candidate report he/she has initiat makeup from the to the Spent Fue with EOP 3505A	ts to the US that ted emergency service water system I Pool in accordance , Attachment A.		
i				Grade:	SAT			
/	Terminating Cue: The evaluation for this JPM is concluded.							

JPM Number: 016

Revision: 7

 Task Title:
 SPENT FUEL POOL EMERGENCY MAKEUP

Stop Time:

VERIFICATION OF JPM COMPLETION

5

JPM Number:	016				Revision:	7
Date Performed:						
Student:						
Evaluator:						
For the student to a correctly. If task is achieve a satisfact	achieve a satisfacto Time Critical, it <u>MI</u> ory grade.	ory grade, <u>JST</u> be co	ALL critic mpleted w	al steps m ithin the s	nust be comp pecified time	leted to
Time Critical Task?	?	YES	N	0 <u>X</u>	_	
		4.5				
Validated Time (mi	nutes):	15				
Validated Time (mi Actual Time to Con	nutes): nplete (minutes):					
Validated Time (mi Actual Time to Con Result of JPM:	nutes): nplete (minutes):		("S" for sa	itisfactory	, "U" for unsa	itisfacto
Validated Time (mi Actual Time to Con Result of JPM: Result of oral ques	nutes): nplete (minutes): tions (if applicable)	 	("S" for sa	itisfactory	, "U" for unsa	itisfacto
Validated Time (mi Actual Time to Con Result of JPM: Result of oral ques Number of Que	nutes): nplete (minutes): tions (if applicable) stions:	 	("S" for sa	itisfactory	, "U" for unsa	ntisfacto
Validated Time (mi Actual Time to Con Result of JPM: Result of oral ques Number of Que Number of Corr	nutes): nplete (minutes): tions (if applicable) stions: rect Responses:	 	("S" for sa	itisfactory	, "U" for unsa	itisfacto

STUDENT HANDOUT

JPM Number:

016

Initial Conditions: A loss of all AC power has occurred and the control room team is carrying out the actions of EOP 35 ECA-0.0. When checking annunciator responses, it is noted that MB1A, 3-4. FUEL POOL LEVEL LO annunciator is lit. You have verified that the low spent fuel pool level condition is valid and that level is slowly decreasing.

Initiating Cues: The spent fuel pool low level alarm has been received and due to a loss of all AC power, the normal method of makeup is not available. Additionally, 3SFC-V31 (RWST to fuel pool isolation valve) is stuck shut. While maintenance works on 3SFC-V31, the US has directed you to makeup to the spent fuel pool using the emergency method of EOP 3505A starting with Attachment A, Step 12b. The Duty Officer has granted permission to perform this step.

Job Performance Measure Guide

JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: <u>ALIGN CHARGING PUMP "C" (3CHS*P3C) TO TRAIN "A" -</u> <u>MECHANICALLY</u>

JPM ID Number: <u>065</u> Revision: <u>8</u>

II. Initiated:

G. Tait Developer Willin (or

<u>2/8/99</u> Date 2-24-00

III. Reviewed:

Martin

Technical Reviewer

2/27/00

Date

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear Training Supervisor

<u>|27/88</u>

Date



Job Performance Measure Guide

Facility: MP3 CANDIDATE:						
JPM ID Number: <u>065</u> Validated time: <u>10</u> minutes						
Task Title: Align Charging Pump "C" (3CHS*P3C) To Train "A" - Mechanically						
Time Critical Task: () YES (X) NO						
Task Number: : 004-01-072						
<u>344-05-095</u> 004-01-010						
K/A Number: <u>062.A2.11</u> K/A Rating: <u>3.7/4.1</u>						
Method of Testing:						
Simulate performance X Actual performance						
Classroom Simulator PlantX						
Task Standards						
<u>Task Standards</u> .						
4.5.4.b.1) through 6).						
Required Materials:						
PEO Rounds Key						
General References: OP 3304A (rev 27), Charging and Letdown						

* READ TO THE CANDIDATE *

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed.



JOB PERFORMANCE MEASURE GUIDE (Continued)

Initial Conditions:

A fault has occurred to charging pump "A" such that it is necessary to remove it from service. The control room team is following OP 3304A to align the swing charging pump ("C") to the "A" train.

Initiating Cues:

The US has directed you to align charging pump "C" (3CHS*P3C) mechanically to the "A" Train IAW OP 3304A, steps 4.5.4 b. 1 through 4.5.4 b. 6.

Simulator Requirements: NONE



Job Performance Measure Guide

PERFORMANCE INFORMATION

FACILITY: MP3	SYSTEM:	CHS					
JPM ID NUMBER:	065						
TASK TITLE: Align Charging Pump "C" (3CHS*P3C) to Train "A" Mechanically							
(Denote critical steps - *Note* Critical Steps must be completed correctly to achieve a satisfactory grade)							
START TIME:							
STEP <u>1 X</u>	Performance Step:	UNLOCK and CLOSE 3CHS*V50, charging pump 3CHS*P3C discharge cross-connect to pump 3CHS*P3B. (step 4.5.4 b. 1)					
GRADE <u>X</u>	Standard:	Locates valve 3CHS*V50 ("B" Charging Pump Cubicle) and simulates unlocking and rotating the handwheel in the clockwise direction until the valve is fully closed.					
	Cue: Valve handv some resista stop.	wheel turns in clockwise direction. Eventually ance is met and the valve comes to a hard					
Comments:							
STEP <u>2 X</u>	Performance Steps:	OPEN and LOCK 3CHS*V706, charging pump 3CHS*P3C discharge cross-connect to pump 3CHS*P3A. (step 4.5.4 b. 2)					
GRADE <u>X</u>	Standards:	Locates valve 3CHS*V706 ("B" Charging Pump Cubicle) and simulates rotating the handwheel in the counterclockwise direction until the valve is fully open.					
	Cue: Valve handw Eventually s a hard stop.	wheel turns in counterclockwise direction. ome resistance is met and the valve comes to					


GRADE	Standards:	Simulates rotating valve handwheel 1/4 turn in the clockwise direction.	
	Cue: Valve hand	wheel rotates 1/4 turn in clockwise direction.	
GRADE X	Standards: Simulates loc	eking 3CHS*V706 in OPEN position.	
	Cue: The valve ha	ndwheel is locked in the open position.	
Comments:			
STEP <u>3</u> <u>X</u>	Performance Steps:	UNLOCK and CLOSE 3CHS*V44, charging pump 3CHS*P3C suction cross-connect to pump 3CHS*P3B. (step 4.5.4 b. 3)	
GRADE X	Standards	Locates valve 3CHS*V44 ("B" Charging Pump Cubicle) and simulates unlocking valve handwheel.	
j¥ M	Cue: 3CHS*V44 is	s unlocked.	
GRADE <u>X</u>	Standards	Simulates rotating the handwheel in the clockwise direction until the valve is fully closed.	
	Cue: Valve handv some resistance is	wheel turns in clockwise direction. Eventually met and the valve comes to a hard stop.	

Comments:



STEP <u>4</u> <u>X</u>	Performance Steps:	OPEN and LOCK 3CHS*V707 charging pump 3CHS*P3C suction cross-connect to pump 3CHS*P3A. (step 4.5.4 b. 4)
GRADE X	Standards:	Locates valve 3CHS*V707 ("B" Charging Pump Cubicle) and simulates rotating the handwheel in the counterclockwise direction until the valve is fully opened.
	Cue: The valve h direction. Ev comes to a	andwheel rotates in the counterclockwise ventually some resistance is met and the valve hard stop.
GRADE	Standards:	Rotates the valve handwheel1/4/turn in the clockwise direction.
	Cue: Valve hand	wheel rotates 1/4 turn in clockwise direction.
Comments:		
STEP <u>5</u> X	Performance Steps:	CLOSE 3CHS*V659, charging pump 3CHS*P3A relief isolation. (step 4.5.4 b. 5)
GRADE X	Standards:	Locates valve 3CHS*V659 ("A" Charging Pump Cubicle) and simulates rotating the handwheel in the clockwise direction until the valve is fully CLOSED.
	Cue: The valve ha Eventually s a hard stop.	andwheel rotates in the clockwise direction. ome resistance is met and the valve comes to

Comments:

THINK

STOP

ACT

REVIEW

STEP <u>6</u> <u>X</u>	, 	Performance	Steps:	OPEN 3CHS*V661 and 3CHS*V663, charging pump 3CHS*P3C relief A isolation valves. (step 4.5.4 b. 6)
GRADE∑	<u><</u>	Standards:		Locates valve 3CHS*V661 ("C" Charging Pump Cubicle) and simulates rotating the handwheel in the counterclockwise direction until the valve is fully OPEN.
		Cue: The v direct valve	alve ha ion. Ev comes	ndwheel rotates in the counterclockwise rentually some resistance is met and the to a hard stop.
GRADE		Standards:	Simula clockw	ates rotating valve handwheel 1/4 turn in the vise direction.
		Cue: Valve	handw	heel rotates 1/4 turn in clockwise direction.
GRADE	<u>X</u>	Standards:	Locate Cubicl the co OPEN	es valve 3CHS*V663 ("C" Charging Pump e) and simulates rotating the handwheel in unterclockwise direction until the valve is fully
		Cue: The va directi comes	alve ha ion. Eve s to a h	ndwheel rotates in the counterclockwise entually some resistance is met and the valve ard stop.
GRADE	<u>X</u>	Standards:	Simula clockw	ates rotating valve handwheel 1/4 turn in the vise direction.
		Cue: Valve directi	handw on.	heel rotates 1/4 turn in the clockwise
Comment	s: Mavin	eed to inform	the exa	aminee that step 4 5 4 b 7 will be performed

: May need to inform the examinee that step 4.5.4.b./ will by the operators in the control room.



STEP <u>7 X</u>	Performance Steps:	Notify the control room that "C" Charging Pump has been mechanically aligned to the "A" train. IAW OP3304A steps 4.5.4.b.1) through 4.5.4.b.6).
GRADE X	Standards:	Reports to the US that the "C" Charging Pump has been mechanically aligned to the "A" train IAW OP3304A steps 4.5.4.b.1) through 4.5.4.b.6).
Comments:		

Terminating Cue: The evaluation for this JPM is concluded.

STOP TIME_____



Job Performance Measure Guide

VERIFICATION OF JPM COMPLETION

Job Performance Measure No.: _	065	Rev. <u>8</u>
Date Performed:		
Candidate:		
Evaluator:		
Validated Time (min): <u>10</u>	Actual Time to Complete	(min):
Result of JPM:	(Denote by an S for sa or a U for unsatisfacto	atisfactory ory)
Result of oral questions: Numb	er of Questions	
	Number of Correct Re	esponses
	Areas for Improvem	Score% ent:



Job Performance Measure Guide

CANDIDATE HANDOUT

JPM ID Number: <u>065</u>

Initial Conditions: A fault has occurred to charging pump "A" such that it is necessary to remove it from service. The control room team is following OP 3304A to align the swing charging pump ("C") to the "A" train.

Initiating Cues: The US has directed you to align charging pump "C" (3CHS*P3C) mechanically to the "A" Train IAW OP 3304A, steps 4.5.4b.1 through 4.5.4b. 6).



JOB PERFORMANCE MEASURE WORKSHEET

I. JPM Title: LOCAL CONTAINMENT ISOLATION PHASE B

ID Number: JPM-083

Revision: <u>2</u>

II. Initiated:

A. Oxfurth Julian At Developer

III. Reviewed:

Technical Reviewer

<u>R. L. Lueneburg</u> Instructional Reviewer

IV. Approved:

Operations Manager

Nuclear Training Supervisor

<u>1/07/97</u> Date 2/20/00

2/27/00 Date

Date

Date

JOB PERFORMANCE MEASURE WORKSHEET

Facility: <u>Millstone U</u>	<u>nit 3</u>	Examinee:	
JPM Tracking Number:	<u>083</u>	Validation Time:	<u>12</u> minutes
Task Title: LOCAL CC	NTAINMENT ISOLATIO	ON PHASE B	
Time Critical Task: ()	YES (X)NO		
Task Number: 000'	027*05*01		
K/A Number: <u>103-</u>	000-A2.03	K/A I	Rating: <u>3.5 / 3.8</u>
Applicable Methods of Te	esting:		
Simulate Performance	<u>X</u> A	ctual Performance	· <u>······</u>
Classroom	Simulator _		Plant <u>X</u>
Task Standards:	Satisfactorily conduct EOP 35 ECA-0.0.	local containment phase	e B isolation IAW
Required Materials:	None.		
General References:	EOP 35 ECA-0.0 Rev	v.12	

READ TO THE EXAMINEE

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports and log entries as if the evolution was actually being performed.

- Initial Conditions: The plant has had a loss of all AC followed by a CDA due to a steam line rupture in containment. Containment pressure is 27 psia. The Control Room team is carrying out the actions of EOP 35 ECA-0.0. A CDA signal is actuated. RPCCW containment outer supply and return header isolation valves are <u>not</u> closed.
- Initiating Cues: The US has directed you to locally complete a Phase B Containment Isolation using EOP 35 ECA-0.0 Step 21.b under the "Response Not Obtained" column and locally close the valves listed.

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Facility:	Millstone Unit 3		:	System:	CCP
JPM Number:	<u>083</u>				
Task Title:	LOCAL CON	TAINMENT ISOLATIC	N PHASE B		
NOTE (Critical Steps m	Denote Critical Steps ust be completed corre	with an "X" ectly to achieve	a satisfactor	y grade
Start Time:					
		Comments:	The examinee in any order.	can perform	n Steps 1 - 4
STEP 1	<u> </u>	Performance Step:	Close valve 30	CCP*MOV49	JA.
GRADE	<u> </u>	Standards:	Locates valve A RPCCW con isolation, Auxil disengages the the lever to the	3CCP*MOV itainment ou iary Bldg. El e clutch by p e disengaged	49A (Train ter return . 4') and ositioning d position.
	·	Cue:	The clutch is d	isengaged.	
GRADE	<u> </u>	Standards:	Rotates the va clockwise direc fully closed.	lve handwhe ction until the	eel in the valve is
		Cue:	The valve hand clockwise direct resistance is m comes to a har indicator points	dwheel rotat tion. Event iet and the h d stop. The s to the "clos	es in the ually, some andwheel position e" position.

â ,	Facility:		Millstone Un	i <u>t 3</u>	System: <u>CCP</u>
\cup	JPM Num	ber:	<u>083</u>		
	Task Title:	:	LOCAL CON	TAINMENT ISOLATIC	N PHASE B
	NO1	TE C	ritical Steps m	Denote Critical Steps oust be completed corre	with an "X" ectly to achieve a satisfactory grade
	STEP	2	X	Performance Step:	Close valve 3CCP*MOV49B.
	GRADE		<u> </u>	Standards:	Locates valve 3CCP*MOV49B (Train B RPCCW containment outer return isolation; Auxiliary Bldg. El. 4') and disengages the clutch by positioning the lever to the disengaged position.
				Cue:	The clutch is disengaged
	GRADE		<u> </u>	Standards:	Rotates the valve handwheel in the clockwise direction until the valve is fully closed.
				Cue:	The valve handwheel rotates in the clockwise direction Eventually, some resistance is met and the handwheel comes to a hard stop. The position indicator points to the "close" position
	STEP	3	_X	Performance Step:	Close valve 3CCP*MOV45A.
	GRADE		<u> </u>	Standards:	Locates valve 3CCP*MOV45A (Train A RPCCW containment supply header isolation, Auxiliary Bldg. 4') and disengages the clutch by positioning the lever to the disengaged position.
				Cue:	The clutch is disengaged.
. ,	GRADE		<u> </u>	Standards:	Rotates the valve handwheel in the clockwise direction until the valve is fully closed.

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~	Facility:	Millstone Un	i <u>t 3</u>		System:	<u>CCP</u>
	JPM Number:	<u>083</u>				
	Task Title:	LOCAL CON	TAINMENT ISOLATIC	N PHASE B		
	NOTE (Critical Steps m	Denote Critical Steps just be completed corre	with an "X" ectly to achieve	e a satisfactor	y grade
			Cue:	The valve ha clockwise dir resistance is comes to a h indicator poin	ndwheel rotat ection. Event met and the f ard stop. The its to the "clos	es in the ually, some nandwheel position se" position.
	STEP _4	X	Performance Step:	Close valve 3	CCP*MOV45	iB.
	GRADE	X	Standards:	Locates valve B RPCCW co isolation, Aux disengages th the lever to th	e 3CCP*MOV ontainment su iliary Bldg. El ne clutch by p ne disengaged	45B (Train pply header . 4') and ositioning d position.
/			Cue:	The clutch is	disengaged.	
	GRADE	<u> </u>	Standards:	Rotates the v clockwise dire fully closed.	alve handwhe ection until the	eel in the e valve is
			Cue:	The valve har clockwise dire resistance is i comes to a ha indicator poin	ndwheel rotate ection. Event met and the h ard stop. The ts to the "clos	es in the ually, some andwheel position e" position.
·			Comments:	Inform examin Operator will required by th procedure.	nee that a Co reset the CDA ne next step ir	ntrol Room A as a the
٦	STEP 5		Performance Step:	Notify the Cor B containmer completed.	ntrol Room that It isolation has	at a Phase s been

Facility:	Millstone Unit 3		System:	<u>CCP</u>
JPM Number:	<u>083</u>			
Task Title:	LOCAL CONTAINMENT ISOLATION F	PHASE B		
NOTE C	Denote Critical Steps with Critical Steps must be completed correctly	n an "X" y to achieve	a satisfactor	y grade
GRADE	Standards: Ex lo ha va E0	xaminee rep cal Phase B as been com alves listed ir CA-0.0 have	orts to the U containmen pleted and t step 21.b F been closed	S that a t isolation hat the ∖NO of d locally.

Terminating Cue: The evaluation for this JPM is concluded.

Stop Time:

5

VERIFICATION OF COMPLETION

Job Performance Measure Number:	<u>083</u>	Revision: <u>2</u>
Date Performed:		
Examinee:		
Evaluator:		
Validated Time (min): <u>12</u>	Actual time to Complete (min):
Result of JPM:	(Denote by an S for satisf unsatisfactory)	actory or a U for
Result of oral questions:	Number of Questions:	
	Number of Correct Respo	nses:

Score _____%

EXAMINEE HANDOUT

INITIAL CONDITIONS AND INITIATING CUES

JPM Tracking Number: 083

Initial Conditions: The plant has had a loss of all AC followed by a CDA due to a steam line rupture in containment. Containment pressure is 27 psia. The Control Room team is carrying out the actions of EOP 35 ECA-0.0. A CDA signal is actuated. RPCCW containment outer supply and return header isolation valves are <u>not</u> closed.

Initiating Cues: The US has directed you to locally complete a Phase B Containment Isolation using EOP 35 ECA-0.0 Step 21.b under the "Response Not Obtained" column and locally close the valves listed.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: LOCAL ACTIONS ON LOSS OF INSTRUMENT AIR

JPM ID Number: 091-1

Revision: 0

II. Initiated:

9. William Côté Juliuni (3 Developer

2/10/00

Date

III. Reviewed:

Martin

Technical Reviewer

IV. Approved:

Cognizant Plant Supervisor (optional)

Nuclear/Training Supervisor

 $\frac{2}{2}/27/00$ Date

Date

2/27/00

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3 Student:
JPM ID Number: 091-1-1 Revision: 0
Task Title: LOCAL ACTIONS ON LOSS OF INSTRUMENT AIR
System: IAS
Time Critical Task: () YES (X) NO
Validated Time (minutes): 12
Task Number(s): 344-05-017 and 344-05-022
Applicable To: SRO X RO X PEO X
K/A Number: 065-AA1.04 K/A Rating: 3.5/3.4
Method of Testing: Simulated Performance: X Actual Performance:
Location: Classroom: Simulator: In-Plant: X
Task Standards:Satisfactorily perform the local actions on a loss of instrument air as specified in OP3562, Loss of Instrument Air, Attachment A.
Required Materials: None
General References: AOP 3562, Loss of Instrument Air, & OP3332A
READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 091-1-1	Revision: 0
Simulator Requirements:	None: In-plant JPM
Initial Conditions:	A loss of instrument air has occurred and the Control Room Team is carrying out the actions of AOP 3562. Steps 1 and 2a are complete, but instrument air pressure continues to decrease. Actions in accordance with the "Response Not Obtained" column are required.
Initiating Cues:	The US had directed you to locally start air compressors and perform filter and dryer checks using Attachment A of AOP 3562, Loss of Instrument Air.

**** NOTES TO EVALUATOR ****

- 1. Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

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	JPM Number:	091-1-1		Revision:	0
/	Task Title:		ONS ON LOSS OF INS	STRUMENT AIR	
	Start Time: _	<u></u>			
	STEP <u>1</u>		Performance Step:	Place both instrun control switches to service). (Attach A	nent air compressor o CS (continuous \ - Step 1.a)
			Comments:	AOP 3562 step 2a operator locally pla air compressor co (continuous servic	a RNO has an ace <u>both</u> instrument ntrol switches to CS æ).
	GRADE		Standards:	Locates the contro 3IAS-C1A (Turbin SW corner on top checks the switch	ol switch for e Building 14' elev. of panels) and position.
<u>ر</u>			Cue:	The control switch position	is already in the CS
	GRADE		Standards:	Locates the contro 3IAS-C1B (Turbine SW corner on top checks the switch	ol switch for e Building 14' elev. of panels) and position.
			Cue;	The control switch position.	is already in the CS
			Comments:	The instrument air switches addresse be operated in any	compressor d in this step may order.
			Grade:	SAT	

JPM Number:	091-1-1		Revision:				
Task Title:	Task Title: LOCAL ACTIONS ON LOSS OF INSTRUMENT AIR						
STEP 2		Performance Step:	Place the service control switch to 0 service). (Step 1.1	air compressor CS (continuous o)			
GRADE		Standards:	Locates the contro 3SAS-C1 (Turbing SW corner on top checks the switch	ol switch for e Building 14' elev. of panels) and position.			
		Cue:	The control switch position	nis already in the CS			
		Grade:	SAT				
STEP <u>3</u>	X	Performance Step:	CLOSE service ai valve (3SAS-AOV	r header supply 33). (Step 1.c)			
GRADE		Standards:	Locates valve 3SA switch (on IAS Pa valve position indi	AS-AOV33 control nel) and checks cating lights.			
		Cue:	The green light is light is illuminated	dark and the red			
GRADE	X	Standards:	Closes valve by po the "CLOSE" posit	ositioning switch to tion.			
		Cue:	The green light illu light goes dark.	iminates and the red			
		Grade:	SAT	UNSAT			

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JPM Number:	091-1-1		Revision:	0
Task Title:	LOCAL ACTIC	ONS ON LOSS OF INS	TRUMENT AIR	
STEP4_	X	Performance Step:	OPEN service air cross-connect val (Step 1.d)	to instrument air ve (3IAS-AOV14).
GRADE		Standards:	Locates valve 3IA switch (on IAS Pa valve position indi	S-AOV14 control nel) and checks cating lights.
		Cue:	The green light is red light is dark.	illuminated and the
GRADE	X	Standards:	Opens valve by po the "OPEN" position	ositioning switch to on.
		Cue:	The green light go light illuminates	es dark and the red
		Grade:	SAT	

:

	JPM Number	r: 091-1-1		Revision:	0
, A	Task Title:	LOCAL ACTION	ONS ON LOSS OF INS	TRUMENT AIR	
	STEP	5	Performance Step:	Verify the followin Dryer Annunciato	g Instrument Air rs - NOT LIT (Step 2)
				AIR DRYER R BLOWER (IS3	EACTIVATION -2)
				• AIR DRYER H (IS3-3)	EATER TEMP HI
				• AIR DRYER D HI (IS3-4)	ISCHARGE MOIST
				ALARM BLOW Skid, 3IAS-PN	/ER FAILURE (Dryer LCP1)
			Comments:	The examinee ma status in any orde	y verify the alarm r.
	GRADE		Standards:	Locates panel IS (elev. SW corner fa verifies the alarms windows dark).	Turbine Building 14' acing west wall) and are not in (alarm
			Cue:	Alarm widows 3-2, dark.	3-3 and 3-4 are
			Comments:	The examinee ma alarm panel lamp following cue:	y elect to perform an test, if so provide the
			Cue:	The lamp test is sa illuminated as exp	atisfactory, all lamps ected.
	GRADE		Standards:	Locates panel CP and verifies the ala (alarm windows da	1 (behind air dryer) arms are not in ark).
			Cue:	Alarm widow "ALA FAILURE" is dark.	RM BLOWER
			Grade:	SAT	UNSAT

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JPM Numbe	er: <u>091-</u>	1-1	Revision: 0				
Task Title:	LOC	AL ACTIC	ONS ON LOSS OF INSTRUMENT AIR				
STEP	6	<u> </u>	Performance Step:	Verify Instrument Air Pressure - LESS TH 3)	r Filter Differential IAN 4 psid. (Step		
GRADE _			Standards:	Locates air filter diffe gauge (3IAS-PDIS10 dryer) and verifies di reading.	erential pressure 6) (East of air ifferential pressure		
			Cue:	The gauge indicates	pegged high:		
			Grade:	SAT	UNSAT		
STEP _	7	<u>X</u>	Performance Step:	Implements the RNC OP3332A, Instrumer order to swap filters) and obtains nt Air System, in		
GRADE			Standards:	Implements the RNC OP3332A, Instrumer order to swap filters) and obtains nt Air System, in		
			Cue:	Provide examinee w	ith OP3332A		
			Grade:	SAT			
STEP _	8		Performance Step:	Find section relating decide to place filter	to filter swap and in service		
GRADE _			Standards:	Opens 3332A to sec alternating In-service	tion 4.6, e air filters.		
			Cue:	Inform the examinee service and to PLAC service	that filter 2A is in E filter 2B in		
			Grade:	SAT	UNSAT		

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	JPM Numb	er:	091-1-1		Revision:	0
)	Task Title:	-		ONS ON LOSS OF INS	TRUMENT AIR	
	STEP	9	<u> </u>	Performance Step:	Throttle open 3IA isolation, until the equalizes with the header, then fully	S-V18, filter 2B inlet filter pressure instrument air open 3IAS-V18
	GRADE		<u> </u>	Standards:	slowly throttles op equalizes	oen on V18 until air
				Cuei	Slight air noise is fades away	heard and slowly
				Grade:	SAT	UNSAT
	STEP		<u> </u>	Performance Step:	Opens V18	
)	GRADE			Standards:	rotates V18 in the direction until fully	counterclockwise open
				Cue:	Valve hand wheel some resistance i wheel comes to a	rotates,freely until s met. Valve hand hard:stop.
				Grade:	SAT	UNSAT
	STEP			Performance Step:	Rotates closed 1/4	4 turn from full open
	GRADE			Standards:	rotates the handw direction 1/4 of 1 f	wheel in the clockwise
				Cue:	Handwheel has b in the clockwise d	een rotated 1/4 turn irection
				Grade:	SAT	UNSAT

÷	JPM Num	ber:	091-1-1		Revision:	0
\bigcirc	Task Title); _	LOCAL ACTIO	ONS ON LOSS OF INS		
	STEP	10	<u> </u>	Performance Step:	Opens V19, filter	2B outlet
	GRADE			Standards:	rotates V19 in the direction until fully	e counterclockwise / open
				Cue:	Valve hand whee some resistance wheel comes to a	l rotates freely until s met. Valve hand hard stop.
				Grade:	SAT	UNSAT
	STEP			Performance Step:	Rotates closed 1/	4 turn from full open
	GRADE		<u> </u>	Standards:	Rotates the hand clockwise directio	wheel in the n 1/4 of 1 turn
\bigcirc				Cue:	Handwheel has b in the clockwise d	een rotated 1/4 turn irection
				Grade:	SAT	UNSAT
	STEP	_11	<u> </u>	Performance Step:	Close 3IAS-V21, tisolation	filter 2A outlet
	GRADE		. <u> </u>	Standards:	Rotates V-21 in th until fully closed	e clockwise direction
				Cue:	Valve hand whee some resistance i wheel comes to a	rotates freely until s met. Valve hand hard stop.
				Grade:	SAT	UNSAT

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	ber: _(091-1-1		Revision:	0
Task Title	: <u> </u>	OCAL ACT	IONS ON LOSS OF IN	STRUMENT AIR	<u></u>
STEP	12	_ <u>x</u>	Performance Step:	Close 3IAS-V2	0, filter 2A inlet isolati
GRADE			Standards:	Rotates V-20 ir until fully close	n the clockwise directi d
			Cue:	Valve hand wh some resistanc wheel comes to	eel rotates freely until e is met. Valve hand o a hard stop.
			Grade:	SAT	UNSAT
STEP	13		Performance Step:	Verify Instrume Pressure - LES	nt Air Filter Differentia S THAN 4 psid.
GRADE			Standards:	Locates air filte gauge (3IAS-Pl dryer) and verif reading.	r differential pressure DIS16) (East of air ies differential pressu
			Cue:	Filter DP reads	.25 psid
			Grade:	SAT	UNSAT
STEP	_7		Performance Step:	Notify the Contr Attachment A o complete.	rol Room that f AOP 3562 is
GRADE			Standards:	Examinee repo instrument and are running and instrument air h and dryer check specified in AO The 2A filter ha 2B was placed	rts to the US that service air compresso I supplying the leader and that the filt ks are complete as P 3562, Attachment A d a high DP and filter in service.
			Grada	SAT	LINGAT

VERIFICATION OF JPM COMPLETION

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JPM Number:	091-1-1				Revision:	0
Date Performed:						
Student:				-		
Evaluator:				-		
For the student to a correctly. If task is achieve a satisfacto	chieve a satisfa Time Critical, it <u>I</u> ry grade.	ctory grad MUST be	de, <u>ALL</u> complet	critical step ed within th	s must be comple e specified time	eted to
Time Critical Task?		YES	1	NO <u>X</u>	-	
Validated Time (min	utes):	12				
Actual Time to Com	plete (minutes):					
Result of JPM:			("S" for	satisfactory	v, "U" for unsatisfa	actory)
Result of oral questi	ons (if applicabl	e):				
Number of Ques	tions:	<u> </u>				
Number of Corre	ct Responses:					
	Score:					
Areas for Improvem	<u>ent:</u>					

STUDENT HANDOUT

JPM Number:	091- 1-1
Initial Conditions:	A loss of instrument air has occurred and the Control Room Team is carrying out the actions of AOP 3562. Steps 1 and 2a are complete, but instrument air pressure continues to decrease. Actions in accordance with the "Response Not Obtained" column are required.
Initiating Cues:	The US had directed you to locally start air compressors and perform filter and dryer checks using Attachment A of AOP 3562, Loss of Instrument Air.

JOB PERFORMANCE MEASURE APPROVAL WORKSHEET

I. JPM Title: ENERGIZING VIAC

JPM ID Number: 095

Revision: 4 Chg. 2 9/15/99

II. Initiated:

2/7/97 R. L. Lueneburg Killing Con verifiel Developer Date 2-23-00

III. Reviewed:

Martin J. Arsenault

Technical Reviewer

IV. Approved:

Barry Pinkowitz Cognizant Plant Supervisor (optional)

Dave/Lazarony

Nuclear Training Supervisor

2/7/97 2/27/00 Date

2/10/97 Date

2/10/99 Date

JOB PERFORMANCE MEASURE GUIDE

Facility: Millstone Unit 3	Student:
JPM ID Number: _095	Revision: 4 Chg. 2
Task Title: ENERGIZING VIAC	
System: 120	
Time Critical Task: ()YES (X) NO	
Validated Time (minutes): _15	
Task Number(s): 062-01-121 & 062-01-172	
Applicable To: SRO X RO	X PEO X
K/A Number: 062-A2.01	K/A Rating: 3.4/3.9
Method of Testing: Simulated Performance: X	Actual Performance:
Location: Classroom: Simula	ator: In-Plant::X
Task Standards: Energize the VIAC-1 bus as	specified in OP 3345B
Required Materials: None	
General References: OP 3345B, 120 Volt Vital Ins	strument AC, Rev. 8

READ TO THE STUDENT

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objectives for this JPM will be satisfied. You may use any approved reference material normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgements, and log entries as if the evolution was actually being performed.

JOB PERFORMANCE MEASURE GUIDE (Continued)

JPM Number: 095	Revision: 4 Chg. 2
Simulator Requirements:	None: In-plant JPM
Initial Conditions:	Indications of a loss of one protective system channel are present and the Control Room Team is carrying out the actions of AOP 3564. Sections 4.1 and 4.2 of OP 3345B, 120 Volt Vital Instrument AC, are complete. The alternate AC source and the inverter are energized.
Initiating Cues:	The US has directed you to energize the VIAC-1 bus using Section 4.3 of OP 3345B, starting with step 4.3.1.e.

**** NOTES TO EVALUATOR ****

- Critical steps for this JPM are indicated by an "X" after the step number. For the student to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. The students performance is graded by an "S" for satisfactory or a "U" for unsatisfactory on each step.
- 2. When the student states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question the student for details of simulated actions/observations (i.e. "What are you looking at?" or "What are you observing?").

	JPM Number:	095		Revision:	4 Chg. 2
j.	Task Title:	ENERGIZING	S VIAC		
	Start Time: _				
			Comments:	Prior to JPM step 1, necessary to remind that Sections 4.1 & have been complete inverter is energized	it may be the examinee 4.2 of OP 3345B d and that the
			Comments:	NOTE: Steps 4.3.1. steps 2 & 3) should within 15 seconds o (This is done to load	e and 4.3.1.f (JPM be performed f one another. the inverter.)
,			Comments:	If the examinee check LINE TO UPS break starting with JPM ste following cue:	cks the BYPASS er position prior to ep 1, provide the
			Cue:	The breaker handle position).	is down ("OFF"
	STEP <u>1</u>	X	Performance Step:	CLOSE "BYPASS L breaker ("MAINTEN (4.3.1.e)	INE TO UPS" ANCE SWITCH").
	GRADE	_ <u>X</u>	Standards:	Locates the BYPAS breaker and places position.	S LINE TO UPS in the "ON"
			Cue:	You hear a "clunk" s breaker handle is in	ound and the the "ON" position
			Comments:		
			Grade:	SAT	

	JPM Number:	095		Revision:	4 Chg. 2	
	Task Title:	ENERGIZING	S VIAC			
	STEP _2		Performance Step:	IF inverter will not s alternate ac source ("SYNC LOSS" ligh PLACE "BYPASS L breaker in "OFF" ar Electrical Maintena	ync with the in 15 seconds t cannot be reset), INE TO UPS" nd NOTIFY nce. (4.3.1.f)	
			Comments:	When the examined LOSS light, provide	e checks the SYNC the following cue:	
			Cue:	The light is ON.		
	GRADE		Standards:	Depresses the LAN pushbutton and ver LOSS light extingui	IP TEST ifies the SYNC shes.	
į			Cue:	The LAMP TEST pr depressed and the is OFF.	ushbutton is SYNC LOSS light	
			Grade:	SAT	UNSAT	
	STEP <u>3</u>		Performance Step:	CHECK "STATIC S ALTRNATE AC SO	WITCH TO URCE" red light lit.	
	GRADE	 	Standards:	Observes the STAT ALTRNATE AC SO (4.3.1.g)	TIC SWITCH TO URCE light status.	
			Cue:	The red light is ON.		
			Grade:	SAT		

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JPM Number:	095		Revision:	4 Chg. 2	
Task Title:	ENERGIZING VIAC				
STEP _4	X	Performance Step:	CLOSE "INVERTER OUTPUT" breaker and CHECK the following:		
			AC output voltag	e 118 to 122 volts.	
			• AC output freque hertz. (4.3.1.h)	ency 59.7 to 60.3	
GRADE	<u> </u>	Standards:	Places the INVERTI breaker in "ON" pos	ER OUTPUT ition.	
		Cue:	You hear a "click" so breaker position ind "ON."	ound and the icator indicates	
GRADE	<u> </u>	Standards:	Checks AC OUTPU meter.	T VOLTAGE	
		Cue:	The meter indicates	121 volts.	
GRADE		Standards:	Checks AC OUTPU meter.	TFREQUENCY	
		Cue:	The meter indicates	60 Hz.	
		Grade:	SAT	UNSAT	
		Comments:	Prior to JPM step 5, checks the MAINTE position, provide the	as the examinee NANCE SWITCH following cue:	
		Cue:	The MAINTENANCI	E SWITCH handle (PASS" position.	

	JPM Numb	er: <u>095</u>	5		Revision:	4 Chg. 2
1	Task Title:	EN	ERGIZING	S VIAC		
	STEP	5	X	Performance Step:	PLACE "MAINTENA "UPS." (4.3.1.i)	NCE SWITCH" in
	GRADE		<u> </u>	Standards:	Rotates the MAINTE (3VBA*SW-1) to the	ENANCE SWITCH "UPS" position.
				Cue:	You hear a "clunk" s MAINTENANCE SW that it is in the "UPS"	ound and the /ITCH indicates [″] position.
				Grade:	SAT	
	STEP	6		Performance Step:	CHECK inverter "SY not lit. (4.3.1.j)	NC LOSS" light
	GRADE			Standards:	Checks SYNC LOSS	Slight OFF.
				Cue:	The SYNC LOSS lig	ht is OFF
				Grade:	SAT	UNSAT

JPM Number: 09	95		Revision:	4 Chg. 2			
Task Title: ENERGIZING VIAC							
STEP 7	_ <u>x</u> _	Performance Step:	PRESS inverter sta "INVERTER TO AC (4.3.1.k)	tic switch OUTPUT" button.			
GRADE	<u> </u>	Standards:	Locates and depresses the static switch INVERTER TO AC OUTPUT pushbutton on INV-1.				
		Cue:	The pushbutton is d	epressed.			
		Grade:	SAT				
		Comments:	The next step will pr that the pushbutton	rovide indication was depressed.			

STEP	8	 Performance Step:	CHECK static swite yellow light lit. (4.3	ch to inverter power .1.I)
GRADE		 Standards:	Checks that the inverter static switch has shifted to inverter power by verifying the yellow light ON and the red light OFF.	
		Cue:	The yellow light is OFF. SAT	ON, the red light is UNSAT