

KEWAUNEE

May 2001

PROPOSED

Walk-through JPMS

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-173A REV. Orig
	TITLE: SHUTDOWN AND COOLDOWN WITH A FIRE IN A DEDICATED ZONE (BORON CONTROL & MISC. EQUIP.)
DATE: PAGE: 1	

APPROVED BY

Nuclear Training Supervisor-Operations

Assistant Manager - Plant Operations

PERFORMED BY

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	5 MINUTES
TIME CRITICAL TASK:	YES/NO	No
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO/RO
TASK NUMBER:	FROM OPS TRAINING DATABASE	E070010501
IMPORTANCE RATING:	INITIAL/CONTINUING (FROM OPS TRAINING DATABASE)	Continuing
PLANT SYSTEM:	NUMBER AND NAME	035, CVC 025, ACC 018, RBV 016, TAV 014, ASV
CRITICAL STEPS:	(C) = CRITICAL	3, 4, 5, 6, 7, 8, 9, and 11
	(S) = SEQUENCE CRITICAL	NONE
	(T) = TIME CRITICAL	NONE
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	NONE
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	E-O-07, Rev. O

FOR SIMULATOR USE ONLY

IF the operator is present when setting up for the JPM, THEN read the following:

PLEASE STANDBY WHILE WE ESTABLISH CONDITIONS FOR THE NEXT JPM.

SET UP:

1. Reset to IC-12, MOL, 100% power.
2. Insert malfunction ED01 to cause a loss of off-site power, ED08E to cause a Bus 5 Lockout and allow D/G B to pick up Bus 6.
3. Perform E-0-07, step 5.b and e, except for AFW Pump B and SI Pump B.
4. Perform E-0-07, step 7.b; and step 13.a & c.
5. Enter the following I/O overrides:

▪ 46239-G,,OFF	▪ 46400-G,,OFF
▪ 46389-G,,OFF	▪ 46414-G,,OFF
▪ 46390-G,,OFF	▪ 46415-G,,OFF
▪ 46393-G,,OFF	▪ 46992-G,,OFF
▪ 46394-G,,OFF	▪ 46993-G,,OFF
▪ 46399-G,,OFF	
6. CLOSE both MSIVs (MS-1A & B), AFW-10B, and CVC-211. MSIVs should be closed after PRZR level is less than 20%.
7. Position LD-3 control switch to CLOSE.
8. Open SI-15A and insert I/O Override 46385 and 46382 to fail open SI-15A and SI-9B.
9. Start SI Pump B and increase PRZR level to approximately 50%. If necessary open PR-1B to reduce pressure and increase fill rate. Opening PR-1B requires I/O overrides @937, @938, and @939 to be entered to remove inconsistent alarms.
10. Acknowledge and reset all annunciators, then FREEZE AND SNAP IC if desired

ENSURE simulator is clear of all unauthorized individuals and conducive to conducting the examination.

ENSURE that all procedures and other materials necessary to conduct the JPM examination are in the proper locations.

GO TO THE NEXT PAGE.

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

The Plant was at 100% power before tripping due to a fire in a Dedicated Zone.

You are the Control Operator A.

The Control Operator B is in the plant performing local actions of E-0-07.

E-O-07, Fire in Dedicated Zone, has been completed through step 15.

THE STEPS IN THIS JPM SHOULD BE: PERFORMED

INITIATING CUE:

The Control Room Supervisor directs you to perform E-0-07, Fire in Dedicated Zone, steps 16 through 17.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

The Plant was at 100% power before tripping due to a fire in a Dedicated Zone.

You are the Control Operator A.

The Control Operator B is in the plant performing local actions of E-0-07.

E-O-07, Fire in Dedicated Zone, has been completed through step 15.

INITIATING CUE:

The Control Room Supervisor directs you to perform E-0-07, Fire in Dedicated Zone, steps 16 through 17.

FOR SIMULATOR USE ONLY

Take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues that the JPM calls for which are NOT provided by the Simulator feedback.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/	UNSAT
			S	U
1.	REFER to E-O-07, Fire in Dedicated Zone, steps 16 through 17.	* REFER to E-O-07, steps 16 through 17.		
2.	ESTABLISH COLD SHUTDOWN BORON CONCENTRATION: Direct the Control Operator B to perform steps 16.a through 16.c. (CUE[Booth]: Steps 16.a through 16.c. are complete.)	* Direct the Control Operator B to perform steps 16.a through 16.c.		
(c) 3.	POSITION LD-301/CV-31090, Excess Letdown Control Selector switch, to MAN.	* POSITION LD-301 Control Selector switch to MAN.		
(c) 4.	POSITION LD-302/CV-31235, Excess Letdown To VCT/RCDT to RD TANK.	* POSITION LD-302 to RD TANK. * VERIFY right red light ON, left red light OFF.		
(c) 5.	OPEN LD-300/CV-31236, Excess Letdown Isolation.	* VERIFY LD-300 control switch in OPEN. VERIFY red light ON, green light OFF.		
(c) 6.	Using LD-301/CV-31090, Excess Letdown Manual Control, ESTABLISH required excess letdown flow.	* Position LD-301 Manual Control to INCR. VERIFY red light ON. VERIFY PI-121 and/or TI-122 increase.		
(c) 7.	OPERATE SI-15A as necessary to maintain Przr Level 20-50%. If required provide following: (CUE[Floor]: PRZR level is >45%.)	* Verify Przr Level >20%. * POSITION SI-15A Control switch to CLOSE. VERIFY red light ON, green light OFF.		

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
(c)8.	DETERMINE SI-15A did NOT close and attempt to close SI-9B.	* POSITION SI-9B Control switch to CLOSE. * VERIFY red light ON, green light OFF.	
(c)9.	Determine SI-9B did NOT close and stop SI Pump B.	* POSITION SI Pump B Control switch to PULLOUT. VERIFY red light OFF, green light OFF. VERIFY SI Pump B Motor Amps go to ZERO (0). VERIFY SI flow goes to ZERO (0).	
10.	CHECK STATUS OF SUPPORT EQUIPMENT: <u>IF</u> one Service Water Pump is running, START standby pump.	* VERIFY Service Water Pump Current indication for both Train B pumps comes on scale. * Service Water Pump B1 and B2 indicating lights red light ON, Green light OFF.	
(c) 11.	START Containment Fan Coil Units C and D.	* POSITION CFCU C control switch to ON. VERIFY red light ON, green light OFF. VERIFY SI Active Light 47010-55, ON. * POSITION CFCU D control switch to ON. VERIFY red light ON, green light OFF. VERIFY SI Active Light 47010-57, ON.	

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
12.	OPEN SW-903C/MV-32058 and SW-903D/MV-32059, Cntmt Fan Coil Unit C/D SW Return Isolation.	* VERIFY SW-903C control switch in AUTO. VERIFY red light ON, green light OFF. VERIFY SI Active Light 47010-56, ON. * VERIFY SW-903D control switch in AUTO. VERIFY red light ON, green light OFF. VERIFY SI Active Light 47010-58, ON.	
13.	START Control Room A/C Fan B.	* VERIFY OR POSITION CRAC B control switch to ON. * VERIFY or POSITION CRAC A control switch to OFF/AUTO. VERIFY red light ON, green light OFF.	
14.	VERIFY the following, RUNNING: a. Turbine Building Fan Coil Unit B b. Aux Bldg Basement Fan Coil Unit B c. Battery Room B Fan Coil Unit B	* VERIFY red light ON, green light OFF.(VERT. A) VERIFY SI Active Light 47010-36, 47010-75, 47010-86, ON.	
15.	VERIFY Screenhouse Fan B is operating as required (cycles with temperature). If required provide following: (CUE[Floor]: Screenhouse Fan B is operating as required.)	* VERIFY indicating lights ON.	
16.	VERIFY Diesel Generator B Room Vent Fan, RUNNING.	* VERIFY red light ON, green light OFF. VERIFY SI Active Light 47010-16, ON.	

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT	S U
17.	POSITION Nuclear Recorder Pen 1/2 Selector switches to S1 and S2.	* POSITION Nuclear Recorder Pen 1/2 Selector switches to S1 and S2. VERIFY recorder pens on scale.		
18.	REQUEST Plant Electricians determine feasibility of returning both CRDM Cooling Fans to service. (CUE[Booth]: Plant Electricians will look to running both CRDM Cooling Fans.)	* REQUEST Plant Electricians determine feasibility of returning both CRDM Cooling Fans to service.		
19.	INFORM CRS that step 17 is completed (Cue[Floor]: CRS is informed.)	* INFORM CRS that step 17 is complete.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then ask the JPM QUESTIONS.

READ THE JPM QUESTIONS VERBATIM. If the operator requests clarification, then note rephrasing.

When done with the JPM QUESTIONS, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

YES NO N/A

Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions were answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

The actions required by E-O-07, steps 16 through 17 have been completed.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

KEWAUNEE NUCLEAR POWER PLANT

TITLE FIRE IN DEDICATED FIRE ZONE

EMERGENCY OPERATING PROCEDURES

DATE JAN 25 2001

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STEP

OPERATOR ACTIONS

CONTINGENCY ACTIONS

NOTE: WHEN 12,700 gallons has been added from the RWST (approximately 5% level decrease), 1% Cold Shutdown Boron Conc should be attained.

16 ESTABLISH COLD SHUTDOWN BORON
CONCENTRATION
(Control Operator A):

- | | |
|--|--|
| a. At MCC 1-52B, OPEN
CC-653/MV-32082, Excess Letdn Hx
CC Return, supply breaker | a. Locally OPEN Bkr 15206, MCC-52B
& 52C supply bkr on Bus 1-52. |
| b. In North Pen Rm, VERIFY CC-653
OPEN | b. Locally OPEN CC-653. |
| c. Near Aux Bldg Mezz Fan Coil
Units, POSITION SW-1306B Manual
Override to FAIL OPEN | |
| d. POSITION LD-301/CV-31090,
Excess Letdown Control Selector
switch to MAN | |
| e. POSITION LD-302/CV-31235,
Excess Letdown To VCT/RCDT,
to RD TANK | |
| f. OPEN LD-300/CV-31236, Excess
Letdown Isolation | |
| g. ADJUST LD-301, Excess Letdown
Manual Control, as necessary to
establish required letdown flow | |
| h. OPERATE SI-15A as necessary to
maintain Przr Level 20-50% | h. OPERATE SI-9B as necessary to
maintain Przr Level 20-50%. IF
SI-9B is <u>NOT</u> available, use
Safety Injection Pump B. |

KEWAUNEE NUCLEAR POWER PLANT

TITLE FIRE IN DEDICATED FIRE ZONE

EMERGENCY OPERATING PROCEDURES

DATE JAN 25 2001

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STEP

OPERATOR ACTIONS

CONTINGENCY ACTIONS

17 VERIFY STATUS OF SUPPORT EQUIPMENT
(Control Operator A):

a. START standby Service Water
Pump 1B1 or 1B2 by HOLDING
control switch to START for 5
seconds

b. START Cntmt Fan Coil Unit C.

c. START Cntmt Fan Coil Unit D

d. OPEN the following:

1) SW-903C/MV-32058, Cntmt Fan
Coil Unit C SW Return
Isolation

2) SW-903D/MV-32059, Cntmt Fan
Coil Unit D SW Return
Isolation

e. START Control Room A/C Fan B

f. VERIFY the following RUNNING:

- Turbine Building Fan Coil
Unit B
- Aux Bldg Basement Fan Coil
Unit B
- Battery Room B Fan Coil Unit

f. REQUEST Control Operator B
locally START following:

- Turbine Building Fan Coil
Unit B
- Aux Bldg Basement Fan Coil
Unit B
- Battery Room B Fan Coil Unit

g. VERIFY Screenhouse Fan B cycles
with temperature

h. VERIFY Diesel Generator B Room
Vent Fan RUNNING

i. POSITION Nuclear Recorder Pen
1/2 Selector switches to S1
and S2.

j. REQUEST Plant Electricians
determine feasibility of
returning both CRDM Cooling
Fans to service

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-137 REV. D	
	TITLE: OPERATE THE PROCESS RADIATION MONITORS (R-11 STARTUP)	
	DATE:	PAGE: 1

APPROVED BY

Nuclear Training Supervisor-Operations

Assistant Manager - Plant Operations

PERFORMED BY

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	SIMULATOR
EVALUATION METHOD:	PERFORM/SIMULATE	PERFORM
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	5 MINUTES
TIME CRITICAL TASK:	YES/NO	NO
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO/RO
TASK NUMBER:	FROM OPS TRNG DATABASE	0450010101
TASK TYPE:	INITIAL/CONTINUING (FROM OPSTRNG DATABASE)	INITIAL
PLANT SYSTEM:	NUMBER AND NAME	045, RM
CRITICAL STEPS:	(C) = CRITICAL	2, 3, 4, 5, 8, 10, and 11
	(S) = SEQUENCE CRITICAL	NONE
	(T) = TIME CRITICAL	NONE
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	NONE
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	N-RM-45-CL, Rev. W

FOR SIMULATOR USE ONLY

IF the operator is present when setting up for the JPM, THEN read the following:

PLEASE STANDBY WHILE WE ESTABLISH CONDITIONS FOR THE NEXT JPM.
--

SET UP:

1. INITIALIZE to IC-12, MOL, 100% or desired IC.
2. UNFREEZE.
3. SHUT OFF R-11 by:
 - a. Closing AS-1, AS-32, and AS-2.
 - b. Position Tape Drive control switch to OFF.
 - c. Position R-11 keyswitch to OFF.
 - d. Position R-11/R-12 Pump control switch to OFF/RESET.
 - e. Position R-11/R-12 Sample control to VENT.
4. Acknowledge and reset all Annunciators.
5. FREEZE.
6. SNAP a temporary IC if desired.

ENSURE SIMULATOR IS CLEAR OF ALL UNAUTHORIZED INDIVIDUALS AND CONDUCTIVE TO CONDUCTING THE EXAMINATION.

ENSURE THAT ALL PROCEDURES AND OTHER MATERIALS NECESSARY TO CONDUCT THE JPM EXAMINATION ARE IN THE PROPER LOCATIONS.

GO TO THE NEXT PAGE.

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Nuclear Control Operator.

The plant is in Cold Shutdown.

R-11, Cntmt Air Particulate Monitor, has been shutdown for repairs and is now ready to be restarted.

THE STEPS IN THIS JPM SHOULD BE: PERFORMED

INITIATING CUE:

The Control Room Supervisor directs you to start R-11, Cntmt Air Particulate Monitor, per N-RM-45-CL, Radiation Monitoring System Prestartup Checklist, step 2.3.1.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Nuclear Control Operator.

The plant is in Cold Shutdown.

R-11, Cntmt Air Particulate Monitor, has been shutdown for repairs and is now ready to be restarted.

INITIATING CUE:

The Control Room Supervisor directs you to start R-11, Cntmt Air Particulate Monitor, per N-RM-45-C1, Radiation Monitoring System Prestartup Checklist, step 2.3.1.

Take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues that the JPM calls for which are NOT provided by the Simulator feedback.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
1.	REFER to N-RM-45-CL, Radiation Monitoring System Prestartup Checklist, step 2.3.1.	* N-RM-45-CL, step 2.3.1.	
(c) 2.	OPEN AS-1/CV-31383, Containment Air Sample Isolation A.	* POSITION control switch for AS-1 to OPEN. AS-1 red light ON, green light OFF. Status light 44911-1105, R-11/R-12 Sample Isol AS-1, DIM.	
(c) 3.	OPEN AS-32/CV-31385, Containment Air Sample Isolation C.	* POSITION control switch for AS-32 to OPEN. AS-32 red light ON, green light OFF. Status light 44911-0805, R-11/R-12 Sample Isol AS-32, DIM.	
(c) 4.	OPEN AS-2/CV-31384, Containment Air Sample Isolation B.	* POSITION control switch for AS-2 to OPEN. AS-2 red light ON, green light OFF. Status light 44911-1205, R-11/R-12 Sample Isol AS-2, DIM.	
(c) 5.	R-11 Tape Drive Control Switch to OPERATE.	* Position R-11 Tape Drive Control Switch to OPERATE. Red Operate light ON, Red fast and green off lights OFF.	
6.	Verify Local Control light OFF.	* Verify Local Control (amber) light off.	

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
7.	Verify Torn Paper Light OFF.	* Verify Torn Paper (amber) Light OFF.	
(c) 8.	Position R-11/R-12 Sample Control Switch to CNTMT.	* Position R-11/R-12 Sample Control Switch to CNTMT. Red CNTMT light ON, amber VENT and PURGE lights OFF	
9.	Verify Sample Press High Light OFF.	* Verify Sample Press High (amber) Light OFF.	
(c) 10.	Position R-11/R-12 Pump Control Switch to ON.	* Position R-11/R-12 Pump Control Switch to ON. R-11/R-12 Pump indicating lights, red light ON, green Light OFF. Verify Annunciator 47013-A clears.	
(c) 11.	Position R-11 keyswitch to ON.	* Position R-11 keyswitch to ON. Verify display is LIT.	
12.	Verify R-12 keyswitch to ON.	* Verify R-12 keyswitch is ON. Verify display is LIT.	
13.	Verify Flow High/Low Light OFF.	* Verify Flow High/Low Light OFF.	
14.	Verify the following on R-11: - R-11 High Alarm Light OFF - R-11 Alert Light OFF - R-11 Normal Light ON - R-11 Fail Light OFF - R-11 Error Messages Display NONE.	* Verify the following on R-11: - R-11 High Alarm (red) Light OFF - R-11 Alert (amber) Light OFF - R-11 Normal(green) Light ON - R-11 Fail (amber) Light OFF - R-11 Error Messages Display NONE.	

STEP	PERFORMANCE ITEM	* STANDARD	SAT/	UNSAT
			S	U
15.	Verify the following on R-12: <ul style="list-style-type: none"> - R-12 High Alarm Light OFF - R-12 Alert Light OFF - R-12 Normal Light ON - R-12 Fail Light OFF - R-12 Error Messages Display NONE 	* Verify the following on R-12: <ul style="list-style-type: none"> - R-12 High Alarm (red) Light OFF - R-12 Alert (amber) Light OFF - R-12 Normal(green) Light ON - R-12 Fail (amber) Light OFF - R-12 Error Messages Display NONE. 		
16.	Inform Control Room Supervisor R-11 and R-12 aligned per N-RM-45-CL, Radiation Monitoring System Prestartup Checklist, step 2.3.1. (Cue[Floor]: CRS is informed.)	* Inform Control Room Supervisor R-11 and R-12 aligned per N-RM-45-CL, step 2.3.1.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then ask the JPM QUESTIONS.

READ THE JPM QUESTIONS VERBATIM. If the operator requests clarification, then note rephrasing.

When done with the JPM QUESTIONS, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

YES NO N/A

Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

R-11 is started.

Job Performance Measure was:

SATISFACTORY _____

UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

WISCONSIN PUBLIC SERVICE CORPORATION

NO. N-RM-45-CL

KEWAUNEE NUCLEAR POWER PLANT

TITLE Radiation Monitoring System
Prestartup Checklist

OPERATING PROCEDURE

DATE OCT 27 1998

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DATE _____

FIRST SECOND
OPER OPER

2.3 Control Room Process Radiation Monitoring Panel -
Train B

1. R-11/81048 Containment Particulate and R-12/81049
Containment Gas:

AS-1/CV-31383 Containment Air Sample Isolation A	OPEN/AUTO	_____	_____
AS-32/CV-31385 Containment Air Sample Isolation C	OPEN/AUTO	_____	_____
AS-2/CV-31384 Containment Air Sample Isolation B	OPEN/AUTO	_____	_____
R-11 Tape Drive Control switch	OPERATE	_____	_____
Local Control light	OFF	_____	_____
Torn Paper light	OFF	_____	_____
R-11/12 Sample Control switch	CNTMT	_____	_____
Sample Press High light	OFF	_____	_____
R-11/12 Pump Control switch	ON	_____	_____
R-11 Keyswitch	ON	_____	_____
R-12 Keyswitch	ON	_____	_____
Flow High/Low light	OFF	_____	_____
R-11 High alarm light	OFF	_____	_____
R-11 Alert light	OFF	_____	_____
R-11 Normal light	ON	_____	_____
R-11 Fail light	OFF	_____	_____
R-11 Error Messages displayed	NONE	_____	_____
R-12 High alarm light	OFF	_____	_____
R-12 Alert light	OFF	_____	_____
R-12 Normal light	ON	_____	_____
R-12 Fail light	OFF	_____	_____

CONTINUED

WISCONSIN PUBLIC SERVICE CORPORATION

NO. N-RM-45-CL

KEWAUNEE NUCLEAR POWER PLANT

TITLE Radiation Monitoring System
Prestartup Checklist

OPERATING PROCEDURE

DATE OCT 27 1998

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DATE _____

FIRST SECOND
OPER OPER

2.3

CONTINUED

R-12 Error Messages displayed

NONE _____

2. R-14/81051 Aux Bldg Vent Exhaust:

R-14 Pump Control switch

ON _____

Keyswitch

ON _____

Flow High/Low light

OFF _____

High alarm light

OFF _____

Alert light

OFF _____

Normal light

ON _____

Fail light

OFF _____

Error Messages displayed

NONE _____

3. R-15/81052 Air Ejector Exhaust:

Keyswitch

ON _____

High alarm light

OFF _____

Alert light

OFF _____

Normal light

ON _____

Fail light

OFF _____

Error Messages displayed

NONE _____

4. R-16/81053 Cntmt FCU SW Return:

Keyswitch

ON _____

High alarm light

OFF _____

Alert light

OFF _____

Normal light

ON _____

CONTINUED

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-108	REV. 11
	TITLE: LINE UP SAFETY INJECTION FOR NORMAL PLANT SHUTDOWN	
	DATE:	PAGE: 1

APPROVED BY

 Nuclear Training Supervisor-Operations

 Assistant Manager - Plant Operations

PERFORMED BY

 Trainee

 Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	SIMULATOR
EVALUATION METHOD:	PERFORM/SIMULATE	PERFORM
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	10 MINUTES
TIME CRITICAL TASK:	YES/NO	NO
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO/RO
TASK NUMBER:	FROM OPS TRNG DATABASE	0330050101
TASK TYPE:	INITIAL/CONTINUING (FROM OPSTRNG DATABASE)	CONTINUING
PLANT SYSTEM:	NUMBER AND NAME	033, SI
CRITICAL STEPS:	(C) = CRITICAL	2, 3, 4, 5, 10, and 11.
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	None
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	None
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	N-SI-33-CL, Rev. AF

FOR SIMULATOR USE ONLY

IF the operator is present when setting up for the JPM, THEN read the following:

PLEASE STANDBY WHILE WE ESTABLISH CONDITIONS FOR THE NEXT JPM.
--

SET UP:

1. INITIALIZE to IC-25, HSD EOL
2. UNFREEZE
3. Operate Steam Dump and AFW to establish a 100° F/Hr. cooldown rate.
4. Turn OFF Pressurizer Heaters and establish maximum Pressurizer Spray.
5. WHEN pressure is less than 2000 psig, BLOCK SI.
6. WHEN pressure is at 950 psig, operate Heaters and/or Spray as necessary to maintain at 950 psig.
7. Operate Steam Dump and AFW to stop cooldown.
8. On SI2, line 9 (SI 109), close BKRS for SI Valves.
9. ACKNOWLEDGE and RESET any alarms.
10. FREEZE
11. Snap a temporary IC if desired.

Ensure simulator is clear of all unauthorized individuals and is conducive to conducting the examination.

Ensure that all procedures and other materials necessary to conduct the JPM examination are in the proper locations.

Go to the next page.

READ THE FOLLOWING TO THE OPERATOR AND HAND HIM THE NEXT PAGE OF THE JPM:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

YOU ARE THE Reactor Operator.

PLANT IS AT intermediate shutdown.

N-0-05, Plant Cooldown from Hot Shutdown to Cold Shutdown is being performed.

RCS pressure is being held at approximately 950 psig.

THE STEPS IN THIS JPM SHOULD BE: PERFORMED

INITIATING CUE:

You are directed by the Control Room Supervisor to perform the Control Room portion of N-SI-33-C1. to align the Safety Injection System for operation less than 1000 psig.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

YOU ARE THE Reactor Operator.

PLANT IS AT intermediate shutdown.

N-0-05, Plant Cooldown from Hot Shutdown to Cold Shutdown is being performed.

RCS pressure is being held at approximately 950 psig.

INITIATING CUE:

You are directed by the Control Room Supervisor to perform the Control Room portion of N-SI-33-C1. to align the Safety Injection System for operation less than 1000 psig.

FOR SIMULATOR USE ONLY

Take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues that the JPM calls for which are NOT provided by the Simulator feedback.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
1.	REFER to N-SI-33-CL Safety Injection System Pre-startup Checklist.	* REFER to N-SI-33-CL.	
(c) 2.	POSITION Safety Injection Pump A Control Switch to Pullout.	* POSITION Safety Injection Pump A Pullout. VERIFY green light OFF, red light OFF.	
(c) 3.	POSITION Safety Injection Pump B Control Switch to Pullout.	* POSITION Safety Injection Pump B Pullout. VERIFY green light OFF, red light OFF.	
(c) 4.	POSITION SI-20A/MV-32091 Accumulator A Isolation Control Switch to CLOSED/AUTO.	* POSITION SI-20A Control Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	
(c) 5.	POSITION SI-20B/MV-32096 Accumulator B Isolation Control Switch to CLOSED/AUTO.	* POSITION SI-20B Control Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	
6.	POSITION SI-11A/MV-32092 Safety Injection to Loop A Cold Leg Control Switch to CLOSED/AUTO.	* POSITION SI-11A Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	
7.	POSITION SI-11B/MV-32097 Safety Injection to Loop B Cold Leg Control Switch to CLOSED/AUTO.	* POSITION SI-11B Control Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	
8.	POSITION SI-9A/MV-32094 Safety Injection to RCS Cold Legs Control Switch to CLOSED/MP.	* POSITION SI-9A Control Switch to CLOSED/MP. VERIFY green light ON, red light OFF.	

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
9.	POSITION SI-9B/MV-32095 Safety Injection to Reactor Vessel Control Switch to CLOSED/MP.	* POSITION SI-9B Control Switch to CLOSED/MP. VERIFY green light ON, red light OFF.	
(c) 10.	POSITION SI-300A/MV-32111 RWST Supply to RHR Pump A Control Switch to CLOSED/MP.	* POSITION SI-300A Control Switch to CLOSED/MP. VERIFY green light ON, red light OFF.	
(c) 11.	POSITION SI-300B/MV-32112 RWST Supply to RHR Pump B Control Switch to CLOSED/MP.	* POSITION SI-300B Control Switch to CLOSED/MP. VERIFY green light ON, red light OFF.	
12.	POSITION SI-302A/MV-32100 RHR Pump A Injection to Reactor Vessel Control Switch to CLOSED/AUTO.	* POSITION SI-302A Control Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	
13.	POSITION SI-302B/MV-32101 RHR Pump B Injection to Reactor Vessel Control Switch to CLOSED/AUTO.	* POSITION SI-302B Control Switch to CLOSED/AUTO. VERIFY green light ON, red light OFF.	

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When any required follow-up questions are completed, then ask the JPM QUESTIONS.

HAND A COPY OF THE QUESTION TO THE OPERATOR, THEN READ THE JPM QUESTIONS VERBATIM. If the operator requests clarification, then note rephrasing.

When the JPM QUESTIONS are completed, then read the following:

THAT COMPLETES THIS JPM.

Complete the documentation on the next page.

	YES	NO	N/A
Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

SI system aligned for less than 1000 psig in accordance with N-SI-33-CL.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

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REVIEWED BY

APPROVED BY

NUCLEAR
SAFETY RELATED ☒ YES
☐ NOPORC REVIEW
REQUIRED ☒ YES
☐ NOSRO APPROVAL OF
TEMPORARY CHANGES
REQUIRED ☒ YES
☐ NO

DATE _____

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- 1.1 Station and Instrument Air System Operating. _____ N/A
- 1.2 Component Cooling System Operating. _____ N/A
- 1.3 Miscellaneous Gas System Operating. _____ N/A
- 1.4 The 4160, 480, and 120 Volt AC Systems Operating. _____ N/A

2.0 SYSTEM EQUIPMENT STATUSNOTE: MP means control switch is in Mid Position2.1 Power Source Status

Safety Injection Pump 1A	Breaker 1-508	RACKED IN _____
Safety Injection Pump 1B	Breaker 1-606	RACKED IN _____
SI-209/MV-32130, Refueling Water Storage Tank Test Inlet Stop	MCC-52F Ext(1JM)	ON _____
SI-15A/MV-32093, Reac Vessel Sfty Inj Isol	MCC-62B Ext(1GJ)	ON _____
SI-9B/MV-32095, SI to Rx Vessel Isol	MCC-62B Ext(2EH)	ON _____
SI-15B/MV-32098, Reac Vessel Sfty Inj Isol	MCC-52B(D2)	ON _____
SI-2A/MV-32104, Boric Acid Tank Outlet Isolation	MCC-52E(C1)	ON _____
SI-5A/MV-32107, Safety Injection Pump 1A Suction Isolation	MCC-52E(C3)	ON _____
SI-4A/MV-32109, Refueling Water Storage Tank to Safety Injection Pump	MCC-52E(C4)	OFF/LOCKED _____

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SI-3/MV-32106, Boric Acid Supply to Safety Injection Pump Suction	MCC-52E(D1)	ON	_____	_____
SI-4B/MV-32110, Refueling Water Storage Tank to Safety Injection Pumps	MCC-62E(D2)	OFF/LOCKED	_____	_____
SI-208/MV-32131, Refueling Water Storage Tank Test Inlet Stop	MCC-62E(D5)	ON	_____	_____
SI-2B/MV-32105, Boric Acid Tanks Outlet Isolation	MCC-62E(E1)	ON	_____	_____
SI-5B/MV-32108, Safety Injection Pump 1B Suction Isolation	MCC-62H(2HK)	ON	_____	_____

3.0 MONITORING AND ALARM REQUIREMENTS3.1 Annunciators OperableControl Room:

RWST LEVEL LOW-LOW (47023-A)	_____	_____
RWST LEVEL LOW (47023-B)	_____	_____
ACCUMULATOR A PRESSURE HIGH/LOW (47024-A)	_____	_____
ACCUMULATOR A LEVEL HIGH/LOW (47024-B)	_____	_____
ACCUMULATOR B PRESSURE HIGH/LOW (47024-C)	_____	_____
ACCUMULATOR B LEVEL HIGH/LOW (47024-D)	_____	_____
SI ACMTR A/B ISOLATION VALVE ABNORMAL (47024-E)	_____	_____

3.2 Sequential Event Recorder Operable.

3.3 Control Room Instruments Operable

Safety Injection Accumulator A Pressure PI-940	_____	_____
Safety Injection Accumulator A Pressure PI-941	_____	_____

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Safety Injection Accumulator A Level LI-938

Safety Injection Accumulator A Level LI-939

Safety Injection Accumulator B Pressure PI-936

Safety Injection Accumulator B Pressure PI-937

Safety Injection Accumulator B Level LI-934

Safety Injection Accumulator B Level LI-935

Safety Injection Pump A Disch Press PI-922

Safety Injection Flow Cold Leg FI-925

Safety Injection Pump A Mtr Current 4131303

Safety Injection Pump B Disch Press PI-923

Safety Injection Flow Rx Vessel FI-924

Safety Injection Pump B Mtr Current 4131403

RWST Level LI-920

RWST Level LI-921

4.0 REMOTELY OPERATED AND AUTOMATIC VALVES

NOTE: MP means control switch is in Mid Position

4.1 Mechanical Control Console C

NG-107/CV-31253 Nitrogen Supply To SI Accumulators CLOSED/CLOSE _____

NG-108A/CV-31243 Nitrogen Supply To Accumulator A CLOSED/CLOSE _____

NG-108B/CV-31244 Nitrogen Supply To Accumulator B CLOSED/CLOSE _____

SI-101A/CV-31247 SI Pump Makeup To Accumulator A CLOSED/CLOSE _____

SI-101B/CV-31248 SI Pump Makeup To Accumulator B CLOSED/CLOSE _____

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SI-202A/CV-31249	Acmtr A Check Valve Test Line Isolation	CLOSED/CLOSE	_____	_____
SI-202B/CV-31251	Acmtr B Check Valve Test Line Isolation	CLOSED/CLOSE	_____	_____
SI-105A/CV-31245	Accumulator A Drain To RCDT	CLOSED/CLOSE	_____	_____
SI-105B/CV-31246	Accumulator B Drain To RCDT	CLOSED/CLOSE	_____	_____
SI-208/MV-32131	SI Recirculation To RWST	OPEN/MP	_____	_____
SI-209/MV-32130	SI Recirculation To RWST	OPEN/MP	_____	_____
SI-15A/MV-32093	Safety Injection To Reactor Vessel	CLOSED/MP	_____	_____
SI-15B/MV-32098	Safety Injection To Reactor Vessel	CLOSED/MP	_____	_____
NG-110/CV-31118	Accumulator Vent CV	CLOSED/0%	_____	_____
SI-201A/CV-31250	Acmtr A Check Valve Test Line Isolation	CLOSED/CLOSE	_____	_____
SI-201B/CV-31252	Acmtr B Check Valve Test Line Isolation	CLOSED/CLOSE	_____	_____
SI-5A/MV-32107	SI Pump A Suction Isolation	OPEN/MP	_____	_____
SI-5B/MV-32108	SI Pump B Suction Isolation	OPEN/MP	_____	_____
SI-3/MV-32106	Boric Acid Supply To SI Pumps	OPEN/MP	_____	_____
SI-4A/MV-32109	RWST Supply To SI Pumps	OPEN/MP	_____	_____
SI-4B/MV-32110	RWST Supply To SI Pumps	OPEN/MP	_____	_____
SI-2A/MV-32104	Boric Acid Tank Outlet Isolation	CLOSED/MP	_____	_____
SI-2B/MV-32105	Boric Acid Tank Outlet Isolation	CLOSED/MP	_____	_____

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OPER OPER5.0 LOCAL VALVE POSITION5.1 SI Accumulator B Area (641' to 626' El)

SI-107B	Acmtr 1B Vent	CLOSED/ FLANGED	_____	_____
SI-24037-2	Isol to Acmtr 1B Level Xmtr (LT-935)	OPEN	_____	_____
SI-21089-1	Acmtr 1B Pressure Xmtr (PT-937) Isol	OPEN	_____	_____
SI-24036-2	Isol to Acmtr 1B Level Xmtr (LT-934)	OPEN	_____	_____
SI-21088-1	Acmtr 1B Pressure Xmtr (PT-936) Isol	OPEN	_____	_____
SI-24036-4	Acmtr 1B Level Xmtr (LT-934) Isol	OPEN	_____	_____
SI-24037-4	Acmtr 1B Level Xmtr (LT-935) Isol	OPEN	_____	_____
SI-24036-3	Acmtr 1B Level Xmtr (LT-934) Isol	OPEN	_____	_____
SI-24037-3	Acmtr 1B Level Xmtr (LT-935) Isol	OPEN	_____	_____

5.2 Near Emergency Airlock (626'- El)

NG-118	Nitrogen Supply To Accumulators Test Connection	CLOSED/ CAPPED	_____	_____
NG-119	Nitrogen Supply To Accumulators Test Connection	CLOSED/ CAPPED	_____	_____
NG-107-2	Nitrogen Supply To Accumulators Isolation	OPEN	_____	_____
NG-120	Nitrogen Supply Header Vent	CLOSED/ CAPPED	_____	_____

5.3 SI Accumulator A Area (641'El to 626'El)

SI-107A	Accumulator 1A Vent	CLOSED/ FLANGED	_____	_____
SI-24035-2	Isol to Acmtr 1A Level Xmtr (LT-939)	OPEN	_____	_____
SI-21087-1	Acmtr 1A Pressure Xmtr (PT-941) Isol	OPEN	_____	_____
SI-24034-2	Isol to Acmtr 1A Level Xmtr (LT-938)	OPEN	_____	_____

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SI-21086-1	Acmtr 1A Pressure Xmtr (PT-940) Isol	OPEN	_____	_____
SI-24034-4	Acmtr 1A Level Xmtr (LT-938) Isol	OPEN	_____	_____
SI-24035-4	Acmtr 1A Level Xmtr (LT-939) Isol	OPEN	_____	_____
SI-24034-3	Acmtr 1A Level Xmtr (LT-938) Isol	OPEN	_____	_____
SI-24035-3	Acmtr 1A Level Xmtr (LT-939) Isol	OPEN	_____	_____

5.4 On or Near SI Accumulator A (606' E1)

SI-24034-1	Isol to Acmtr 1A Level Xmtr (LT-938)	OPEN	_____	_____
SI-24035-1	Isol to Acmtr 1A Level Xmtr (LT-939)	OPEN	_____	_____
SI-24034-5	Acmtr 1A Level Xmtr (LT-938) Drain	CLOSED/ CAPPED	_____	_____
SI-24035-5	Acmtr 1A Level Xmtr (LT-939) Drain	CLOSED/ CAPPED	_____	_____
SI-102A	Accumulator 1A Local Sample Isol	CLOSED	_____	_____
SI-103A	Accumulator 1A Local Sample	CLOSED/ CAPPED	_____	_____

5.5 Behind Sump C/Incore Instrument Access Pipe (606' E1)

SI-49	Reactor Vessel Inj Line 1B Vent	CLOSED/ CAPPED	_____	_____
-------	---------------------------------	-------------------	-------	-------

5.6 Near East Penetration Area (606' E1)

SI-310	Reactor Vessel Inj Line 2B Vent	CLOSED/ CAPPED	_____	_____
SI-203B-1	Reactor Vessel Inj Line Cross-Connect to Test Line Isol	LOCKED/ CLOSED	_____	_____
SI-210B	Reactor Vessel Inj Line Cross-Connect to Test Line Drn	CLOSED/ CAPPED/ SEALED	_____	_____

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SI-203A-1	Cold Leg Inj Line Cross-Connect to Test Line Isol	LOCKED/OPEN _____	_____
SI-210A	Cold Leg Inj Line Cross-Connect to Test Line Drn	CLOSED/ _____ CAPPED/ _____ SEALED	_____
SI-14A	Reactor Vessel Inj Line 1A Isol	THROTTLED/ _____ MECH LOCKED	_____
SI-41B	Reactor Vessel Inj Line 1A Vent	CLOSED/ _____ CAPPED	_____
SI-48	Reactor Vessel Inj Line 1A Vent	CLOSED/ _____ CAPPED	_____
SI-24037-1	Isol to Acmttr 1B Level Xmtr (LT-935)	OPEN _____	_____
SI-311	Reactor Vessel Inj Line 1A Vent	CLOSED/ _____ CAPPED	_____
SI-24036-5	Acmttr 1B Level Xmtr (LT-934) Drain	CLOSED/ _____ CAPPED	_____
SI-24036-1	Isol to Acmttr 1B Level Xmtr (LT-934)	OPEN _____	_____
SI-24037-5	Acmttr 1B Level Xmtr (LT-935) Drain	CLOSED/ _____ CAPPED	_____
SI-102B	Accumulator 1B Local Sample Isol	CLOSED _____	_____
SI-103B	Accumulator 1B Local Sample	CLOSED/ _____ CAPPED	_____
SI-104B	Acmttr 1B Isol to RCDT	OPEN _____	_____
---	Drain Connect, Acmttr 1B Line to RCDT	FLANGED _____	_____
SI-43B	Accumulator 1B Outlet Line Drain	CLOSED/ _____ CAPPED	_____
SI-46	Reactor Vessel Inj Line 1A Drn	CLOSED/ _____ CAPPED	_____

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OPER OPER5.8 Containment Sump B Area (592' E1)SI-40 Cold Leg Inj Line Drain CLOSED/ _____
CAPPEDSI-41A Cold Leg Inj Line to Loop A Vnt CLOSED/ _____
CAPPEDSI-10B Loop B Cold Leg Inj Line THROTTLED/ _____
MECH LOCKED5.9 Under Pump Vault B Area (592' E1)SI-14B Reactor Vessel Inj Line 1B Isol THROTTLED/ _____
MECH LOCKEDSI-47 Reactor Vessel Inj Line 1B Drn CLOSED/ _____
CAPPEDSI-62 Cold Leg Inj Line to Loop B Drn CLOSED/ _____
CAPPED5.10 Behind Pump Vault B Shield Wall (592' E1)SI-50 Reactor Vessel Inj Line 1B Drn CLOSED/ _____
CAPPEDSI-313 Reactor Vessel Inj Line 1B Drn CLOSED/ _____
CAPPEDSI-312-1 Reactor Vessel Inj Line 1B Drain for SI-312 CLOSED/ _____
CAPPED5.11 Under Pump Vault A Area (592' E1)SI-44A Accumulator 1A Outlet Line Drain CLOSED/ _____
CAPPEDSI-10A Loop A Cold Leg Injection Line Isol THROTTLED/ _____
MECH LOCKEDSI-42 Loop A Cold Leg Injection Line Drain CLOSED/ _____
CAPPEDSI-120 Loop A Cold Leg Inj Line to Acmt 1A Vent CLOSED/ _____
CAPPED

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OPER OPER5.12 Behind Pump Vault A Shield Wall (592' E1)SI-104A Accumulator 1A Isolation to Reactor
Coolant Drain Tank

OPEN _____

--- Drain Connect, Acmt 1A Line to RCDT

FLANGED _____

SI-43A Accumulator 1A Outlet Line Drain

CLOSED/
CAPPED _____SI-121 Loop A Cold Leg Injection Line to
Accumulator 1A Makeup VentCLOSED/
CAPPED _____5.13 In Pump Vault A Seal Area (626' E1)

SI-45A Accumulator 1A Outlet Line Vent

CLOSED/
FLANGED _____5.14 In Pump Vault B Seal Area (626' E1)

SI-45B Accumulator 1B Outlet Line Vent

CLOSED/
CAPPED _____5.15 In Pump Vault B On Shelf (602' E1)

SI-44B Accumulator 1B Outlet Line Drain

CLOSED/
CAPPED _____5.16 Refueling Water Storage TankSI-24040 Isolation for Refueling Water Storage
Tank Level Transmitter (LT-920)

OPEN _____

SI-18010 Isolation for Refueling Water Storage
Tank Level Transmitter (LT-921)

OPEN _____

5.17 Safety Injection Pump Area

SI-221 RWST Local Sample Isol

CLOSED/
CAPPED _____

SI-35 Concentrated Boric Acid Drn

CLOSED/
CAPPED _____

SI-30 Boric Acid Tank to SI Pmps Suct Drn

CLOSED/
CAPPED _____CONTINUED

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SI-31	SI-4A and B Bypass Isol	OPEN/LOCKED	_____	_____
SI-32	Flushing Water Isol	CLOSED	_____	_____
SI-36A	SI Pump 1A Suct Vent	CLOSED/ CAPPED	_____	_____
SI-11280	SI Pmp 1A Suct Press Gauge (PI-927) Isol	CLOSED	_____	_____
SI-21090	SI Pmp 1A Disch Press Xmtr (PI-922) Isol	OPEN	_____	_____
SI-37A	SI Pmp 1A Disch Vent	CLOSED/ CAPPED	_____	_____
SI-7A	SI Pmp 1A Disch Isol	OPEN	_____	_____
SI-8A	SI Pmp 1A Disch X-Connect to SI Pmp 1B Isol	OPEN	_____	_____
SI-23054-1	SI Pmp 1A Disch Flow Xmtr (FT-925) Isol	OPEN	_____	_____
SI-23054-2	SI Pmp 1A Disch Flow Xmtr (FT-925) Isol	OPEN	_____	_____
---	SI Pump 1A Outboard Bearing Housing Drain	CLOSED/ CAPPED	_____	_____
---	SI Pump 1A Outboard Seal Hx Vent	CLOSED/ CAPPED	_____	_____
---	SI Pump 1A Oil Reservoir Drain	CLOSED/ CAPPED	_____	_____
---	SI Pump 1A Inboard Bearing Housing Drain	CLOSED/ CAPPED	_____	_____
---	SI Pump 1A Inboard Seal Hx Vent	CLOSED/ CAPPED	_____	_____
SI-67A	SI Pump 1A Inboard Casing Drain	CLOSED/ CAPPED	_____	_____
SI-68A	SI Pump 1A Outboard Casing Drain	CLOSED/ CAPPED	_____	_____

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SI-38	SI Pmp 1A/1B Disch X-Connect Line Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
SI-36B	SI Pmp 1B Suct Vent	CLOSED/	_____	_____
		CAPPED	_____	_____
SI-11281	SI Pmp 1B Suct Press Gauge (PI-926) Isol	CLOSED	_____	_____
SI-21091	SI Pmp 1B Disch Press Xmtr (PT-923) Isol	OPEN	_____	_____
SI-7B	SI Pump 1B Disch Isol	OPEN	_____	_____
SI-8B	SI Pmp 1B Disch X-Connect to SI Pmp 1A Isol	OPEN	_____	_____
SI-23055-1	SI Pmp 1B Disch Flow Xmtr (FT-924) Isol	OPEN	_____	_____
SI-23055-2	SI Pmp 1B Disch Flow Xmtr (FT-924) Isol	OPEN	_____	_____
---	SI Pump 1B Outboard Bearing Housing Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
---	SI Pump 1B Outboard Seal Hx Vent	CLOSED/	_____	_____
		CAPPED	_____	_____
---	SI Pump 1B Oil Reservoir Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
---	SI Pump 1B Inboard Bearing Housing Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
---	SI Pump 1B Inboard Seal Hx Vent	CLOSED/	_____	_____
		CAPPED	_____	_____
SI-67B	SI Pump 1B Inboard Casing Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
SI-68B	SI Pump 1B Outboard Casing Drain	CLOSED/	_____	_____
		CAPPED	_____	_____
SI-37B	SI Pmp 1B Disch Vent	CLOSED/	_____	_____
		CAPPED	_____	_____

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OPER OPER5.17
CONTINUED

SI-11148	Test Line Press Gauge (PI-929) Isolation	OPEN	_____	_____
SI-212	Test Line Local Sample Isol	CLOSED	_____	_____
SI-213	Test Line Drain	CLOSED	_____	_____
SI-205	Test Line Isolation	CLOSED	_____	_____
SI-207A	SI Pmp 1A Disch to Test Line Isol	OPEN/LOCKED	_____	_____
SI-215A	SI Pmp 1A Disch to Test Line Vent	CLOSED/ CAPPED	_____	_____
SI-207B	SI Pmp 1B Disch to Test Line Isol	OPEN/LOCKED	_____	_____
SI-215B	SI Pmp 1B Disch to Test Line Vent	CLOSED/ CAPPED	_____	_____
SI-216	Test Line Drain	CLOSED/ CAPPED	_____	_____
SI-204	Test Line Isolation	CLOSED/ LOCKED	_____	_____

5.18 RHR Valve Pit

SI-352A	SI-350A Vlv Enclosure Drn	CLOSED/ CAPPED/ SEALED	_____	_____
SI-353A	ILRT Conn Isol	CLOSED/ CAPPED/ SEALED	_____	_____
SI-354A	Cntmt Sump B to RHR Pmp 1A Line Drain	CLOSED/ CAPPED/ SEALED	_____	_____
SI-352B	SI350B Valve Enclosure Drn	CLOSED/ CAPPED/ SEALED	_____	_____

CONTINUED

WISCONSIN PUBLIC SERVICE CORPORATION

NO. N-SI-33-CL

KEWAUNEE NUCLEAR POWER PLANT

TITLE Safety Injection System Prestartup Checklist

OPERATING PROCEDURE

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DATE _____

FIRST SECOND
OPER OPER5.18
CONTINUED

SI-353B ILRT Conn Isol

CLOSED/_____
CAPPED/_____
SEALED

SI-354B Cntmt Sump B to RHR Pmp 1B Line Drain

CLOSED/_____
CAPPED/_____
SEALED5.19 Auxiliary Building 606 Level - North Penetration

SI-39A Cold Leg Inj at Cntmt Line Vent

CLOSED/_____
CAPPED

SI-211 Test Line Vent

CLOSED/_____
CAPPED/_____
LOCKED

SI-23056-1 Pen 48 RHR Line FT-928 Root Vlv

OPEN _____

SI-23056-2 Pen 48 RHR Line FT-928 Root Vlv

OPEN _____

5.20 Auxiliary Building 606 Level - East Penetration

SI-39B Rx Vessel Inj Line at Cntmt Vent

CLOSED/_____
CAPPED5.21 Boric Acid Storage Tank Room

SI-1A Boric Acid Tank 1A to SI Pumps Suct Isol

CLOSED/_____
LOCKED

SI-1B Boric Acid Tank 1B to SI Pumps Suct Isol

CLOSED/_____
LOCKED

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DATE _____

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

SHIFT MANAGER _____ DATE _____

SUPT-PLANT OPERATIONS _____ DATE _____

WISCONSIN PUBLIC SERVICE CORPORATION

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APPENDIX A - SI VALVE LINEUP FOR RCS PRESSURE >1000 PSIGFIRST SECOND
OPER OPERControl Room Switches

Safety Injection Pump A	>1000 psig	AUTO	_____	_____
Safety Injection Pump B	>1000 psig	AUTO	_____	_____
SI-20A/MV-32091	Accumulator A Isolation	>1000 psig	OPEN/AUTO	_____
SI-20B/MV-32096	Accumulator B Isolation	>1000 psig	OPEN/AUTO	_____
SI-11A/MV-32092	Safety Injection to Loop A Cold Leg		OPEN/AUTO	_____
SI-11B/MV-32097	Safety Injection to Loop B Cold Leg		OPEN/AUTO	_____
SI-9A/MV-32094	Safety Injection to RCS Cold Legs		OPEN/MP	_____
SI-9B/MV-32095	Safety Injection to Reactor Vessel		OPEN/MP	_____
SI-300A/MV-32111	RWST Supply to RHR Pump A		OPEN/MP	_____
SI-300B/MV-32112	RWST Supply to RHR Pump B		OPEN/MP	_____
SI-302A/MV-32100	RHR Pump A Injection to Reactor Vessel		OPEN/AUTO	_____
SI-302B/MV-32101	RHR Pump B Injection to Reactor Vessel		OPEN/AUTO	_____

ower Source Status

SI-20B/MV-32096, Safety Injection Accumulator 1B	OFF/LOCKED	_____	_____
Discharge Isolation MCC-62B(A3)			
SI-11B/MV-32097, SI Loop B Cold Leg Isol	OFF/LOCKED	_____	_____
MCC-62B Ext(1CF)			
SI-9A/MV-32094, Safety Injection Cold Leg Isolation	OFF/LOCKED	_____	_____
MCC-52B(C3)			
SI-20A/MV-32091, Safety Injection Accumulator 1A	OFF/LOCKED	_____	_____
Discharge Isolation MCC-52B(C4)			
SI-11A/MV-32092, Safety Injection Loop A Cold Leg Isol	OFF/LOCKED	_____	_____
MCC-52B(D1)			

PERFORMED BY _____ DATE _____ TIME _____

PERFORMED BY _____ DATE _____

SHIFT MANAGER _____ DATE _____

SUPT - PLANT OPERATIONS _____ DATE _____

KEWAUNEE NUCLEAR POWER PLANT

TITLE Safety Injection System Prestartup Checklist

OPERATING PROCEDURE

DATE MAR 29 2001

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APPENDIX B - SI VALVE LINEUP FOR RCS PRESSURE <1000 PSIGFIRST SECOND
OPER OPERControl Room Switches

Safety Injection Pump A	<1000 psig	PULLOUT	_____	_____
Safety Injection Pump B	<1000 psig	PULLOUT	_____	_____
SI-20A/MV-32091 Accumulator A Isolation	<1000 psig	CLOSED/AUTO	_____	_____
SI-20B/MV-32096 Accumulator B Isolation	<1000 psig	CLOSED/AUTO	_____	_____
SI-11A/MV-32092 Safety Injection to Loop A Cold Leg		CLOSED/AUTO	_____	_____
SI-11B/MV-32097 Safety Injection to Loop B Cold Leg		CLOSED/AUTO	_____	_____
SI-9A/MV-32094 Safety Injection to RCS Cold Legs		CLOSED/MP	_____	_____
SI-9B/MV-32095 Safety Injection to Reactor Vessel		CLOSED/MP	_____	_____
SI-300A/MV-32111 RWST Supply to RHR Pump A		CLOSED/MP	_____	_____
SI-300B/MV-32112 RWST Supply to RHR Pump B		CLOSED/MP	_____	_____
SI-302A/MV-32100 RHR Pump A Injection to Reactor Vessel		CLOSED/AUTO	_____	_____
SI-302B/MV-32101 RHR Pump B Injection to Reactor Vessel		CLOSED/AUTO	_____	_____

Power Source Status

SI-20B/MV-32096, Safety Injection Accumulator 1B Discharge Isolation MCC-62B(A3)	OFF	_____	_____
SI-11B/MV-32097, SI Loop B Cold Leg Isol MCC-62B Ext(1CF)	ON	_____	_____
SI-9A/MV-32094, Safety Injection Cold Leg Isolation MCC-52B(C3)	ON	_____	_____
SI-20A/MV-32091, Safety Injection Accumulator 1A Discharge Isolation MCC-52B(C4)	OFF	_____	_____
SI-11A/MV-32092, Safety Injection Loop A Cold Leg Isol MCC-52B(D1)	ON	_____	_____

PERFORMED BY _____ DATE _____ TIME _____

PERFORMED BY _____ DATE _____

SHIFT MANAGER _____ DATE _____

SUPT - PLANT OPERATIONS _____ DATE _____

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-NEW1 REV. ORIG TITLE: LOCALLY OPERATE THE S/G PORV DATE: PAGE: 1
--	---

APPROVED BY:

 Nuclear Training Supervisor - Operations

 Assistant Manager - Plant Operations

PERFORMED BY:

 Trainee

 Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	PLANT
EVALUATION METHOD:	PERFORM/SIMULATE	SIMULATE
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	5 MINUTES
TIME CRITICAL TASK:	YES/NO	NO
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO/RO/NAO
TASK NUMBER:	FROM OPS TRNG DATABASE	E060010501
TASK TYPE:	INITIAL/CONTINUING (FROM OPSTRNG DATABASE)	CONTINUING
PLANT SYSTEM:	NAME	006, MS
CRITICAL STEPS:	(C) = CRITICAL	2, 3, 4 and 5
	(S) = SEQUENCE CRITICAL	NONE
	(T) = TIME CRITICAL	NONE
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	NONE
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	E-0-07, Rev. O

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

YOU ARE THE Control Operator "B"

THE PLANT has tripped due to a Fire in a Dedicated Fire Zone.

E-0-07, Fire In Dedicated Fire Zone, is being performed.

THE STEPS IN THIS JPM SHOULD BE: SIMULATED

INITIATING CUE:

You have been directed to locally close SD-3A/CV-31170, per E-0-07, step 11.h.

NOTE: E-0-07 has been completed through step 11.g.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

YOU ARE THE Control Operator "B"

THE PLANT has tripped due to a Fire in a Dedicated Fire Zone.

E-0-07, Fire In Dedicated Fire Zone, is being performed.

INITIATING CUE:

You have been directed to locally close SD-3A/CV-31170, per E-0-07, step 11.h.

NOTE: E-0-07 has been completed through step 11.g.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U
1.	REFER to E-0-07, Fire in Dedicated Fire Zone, step 11.h. <u>OR</u> REFER to local operator aid for manual control of SD-3A	* REFERS to E-0-07, step 11.h <u>OR</u> REFERS to local operator aid.	
(c) 2.	INSERT pin to engage SD-3A manual handwheel. (Cue: Pin is inserted.)	* ALIGN Hole by Rotating Handwheel. * INSERT pin to engage SD-3A manual handwheel.	
(c) 3.	OPEN SD-3A Diaphragm Bypass Valve. (Cue: Valve is turned fully counter-clockwise.)	* TURN SD-3A Diaphragm Bypass Valve fully counter-clockwise.	
(c) 4.	CLOSE NG-235, N ₂ Supply to SD-3A. (Cue: NG-235 is turned fully clockwise.)	* TURN NG-235 fully clockwise.	
(c) 5.	CLOSE IA-470, IA to SD-3A. (Cue: IA-470 is turned fully clockwise.)	* Turn IA-470 fully clockwise.	
6.	VERIFY SD-3A is closed. (CUE: Valve stem indicator is at the closed position) <u>OR</u> (CUE: SD-3A is turned fully clockwise.)	* VERIFY Valve Stem Indicator for SD-3A is at CLOSED position <u>OR</u> TURN SD-3A handwheel in the CLOSED (clockwise) direction until valve is closed.	

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then ask the JPM QUESTIONS if required.

READ THE JPM QUESTIONS VERBATIM. If the operator requests clarification, then note rephrasing.

When questioning is complete, then read the following:

THAT COMPLETES THIS JPM.

NOTE: Make sure your documentation on the next page is complete.

	YES	NO	N/A
Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Local control of 1A S/G PORV is established.

Job Performance Measure was:

SATISFACTORY _____

UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

STEP

OPERATOR ACTIONS

CONTINGENCY ACTIONS

- | | |
|--|---|
| <p>11 ESTABLISH S/G B AS HEAT SINK
(Control Operator A):</p> <p>a. INITIATE Train A and Train B
Main Steam Isolation</p> <p>1) CLOSE MS-1B/CV-31016, S/G B
Main Steam Isolation Valve</p> <p>2) CLOSE MS-1A/CV-31015, S/G A
Main Steam Isolation Valve</p> <p>b. START Auxiliary Feedwater
Pump B</p> <p>c. CLOSE AFW-10B/MV-32028, AFW
Train B Crossover Valve</p> <p>d. VERIFY BT-2B/MV-32079, S/G B
Blowdown Isolation Valve B1,
CLOSED</p> <p>e. VERIFY BT-3A/MV-32078, S/G A
Blowdown Isolation Valve A2,
CLOSED</p> <p>f. OPERATE SD-3B/CV-31174, S/G B
PORV, to maintain Loop B WR
Temperature at 550°F</p> <p>g. OPERATE AFW-2B/CV-31316, AFWP B
Flow Control, to maintain S/G B
Level 4-50% on LI-473</p> <p>h. REQUEST Control Operator B to
locally CLOSE SD-3A/CV-31170,
S/G A PORV:</p> <p>1) INSERT pin to engage SD-3A
handwheel</p> <p>2) OPEN SD-3A Diaphragm Bypass
Valve</p> <p>3) CLOSE NG-235, N₂ Supply to
SD-3A</p> <p>4) CLOSE IA-470, IA to SD-3A</p> <p>5) VERIFY SD-3A, CLOSED</p> | <p>2) REQUEST Control Operator B
to locally POSITION MS-1A
Trip Lever to TRIP.</p> <p>c. Locally CLOSE AFW-10B.</p> <p>d. Locally CLOSE BT-3B/MV-32080,
S/G B Blowdown Isolation
Valve B2</p> <p>e. Locally CLOSE BT-3A.</p> <p>h. Locally CLOSE SD-2A, S/G A PORV
Isolation Valve.</p> |
|--|---|

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-078A REV. F
	TITLE: OPERATE THE DIESEL GENERATOR (LOCALLY)
	DATE: PAGE: 1

APPROVED BY:

Nuclear Training Supervisor - Operations

Assistant Manager - Plant Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	PLANT
EVALUATION METHOD:	PERFORM/SIMULATE	SIMULATE
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	19 MINUTES
TIME CRITICAL TASK:	YES/NO	YES
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	3 min. for steps 10-13
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO/RO
TASK NUMBER:	FROM OPS TRNG DATABASE	E060010501
TASK TYPE:	INITIAL/CONTINUING (FROM OPSTRNG DATABASE)	CONTINUING
PLANT SYSTEM:	NUMBER AND NAME	10, DGM
CRITICAL STEPS:	(C) = CRITICAL	2, 7, 10 and 13
	(S) = SEQUENCE CRITICAL	NONE
	(T) = TIME CRITICAL	10-13 (3 Minutes)
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	NONE
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	E-0-06, step 14 Rev. N

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS TIME CRITICAL

THE TASK CONDITIONS ARE:

THE PLANT IS AT hot shutdown during the performance of procedure E-0-06, Fire in Alternate Fire Zone.

E-0-06 has been completed through Step 13.

THE STEPS IN THIS JPM SHOULD BE: SIMULATED

INITIATING CUE:

You are directed by E-0-06 to start Diesel Generator A and energize the 4160 Volt and 480 Volt Dedicated Shutdown Electrical System per step 14.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS TIME CRITICAL

THE TASK CONDITIONS ARE:

THE PLANT IS AT hot shutdown during the performance of procedure E-0-06, Fire in Alternate Fire Zone.

E-0-06 has been completed through Step 13.

THE STEPS IN THIS JPM SHOULD BE: SIMULATED

INITIATING CUE:

You are directed by E-0-06 to start Diesel Generator A and energize the 4160 Volt and 480 Volt Dedicated Shutdown Electrical System per step 14.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/	UNSAT
			S	U
1.	REFER to E-0-06, Fire in Alternate Fire Zone, Step 14.	* REFER to E-0-06, Step 14.		
(c) 2.	POSITION 1A Diesel Generator Voltage Control Local/Remote switch to LOCAL (Cue: Switch in local position)	* POSITION Diesel Generator Voltage Control Local/Remote SW to LOCAL at Diesel Generator Control & Excitation Cabinet DR-101.		
3.	REPLACE the following fuses at Diesel Generator Control and Excitation Cabinet: Fuse F4 & Fuse F5 (Cue: Fuses Replaced)	* OBTAIN fuses and fuse puller from Appendix "R" Spare Fuse Box #2 near Gai- tronics * In Diesel Generator Control and Excitation Cabinet DR- 101, REPLACE Fuses F4 and F5 (located on right side of cabinet)		
4.	REPLACE the following fuses at 1A Diesel Engine Control Panel: Fuse F4 and Fuse F5 (Cue: Fuses Replaced)	* OBTAIN fuses and fuse puller from Appendix "R" Spare Fuse Box #2 near Gai- tronics * In Diesel Engine Control Panel D1A, REPLACE fuses F4 & F5 (located at upper right)		
5.	VERIFY Engine Control Panel Green Power ON, light is ON (Cue: Green Power Light OFF)	* At Diesel Engine Control Panel D1A, VERIFY green power light off		
6.	CHECK light bulb. (CUE: Light bulb is good)	* Check light bulb.		

SAT/
UNSAT
S U

STEP	PERFORMANCE ITEM	* STANDARD		
(c) 7.	RESET supply breaker on BRA-104, CKT #10. (CUE: CKT BKR is ON)	* RESET BRA-104, CKT BKR #10. PLACE BRA-104, CKT BKR #10 to OFF and then to ON.		
8.	VERIFY Engine Control Panel green Power On, light ON (Cue: Green Power Light on)	* At Diesel Engine Control Panel D1A, VERIFY green power light on		
9.	DEPRESS Engine Control Panel Failure Reset Push button to CLEAR any local alarms (Cue: Red Alarm lights OFF)	* At Diesel Engine Control Panel D1A, DEPRESS Failure Reset push button		
(c)10. (T1)= —	START Diesel Generator 1A by POSITIONING Engine Control Switch to Start (Cue: Diesel Generator A Running)	* At Diesel Engine Control Panel D1A, POSITION 1A Diesel Engine Control Switch to the START NOTE: Step 13 shall be completed within 3 minutes of the completion of step 10.		
11.	At Diesel Generator Control and Excitation Cabinet: VERIFY output frequency at 60 Hz (Cue: Diesel Generator A frequency is at 60 hertz.)	* VERIFY frequency at 60 hertz. Use the Governor Lower/Raise Switch to adjust frequency to 60 hertz at Diesel Generator Control and Excitation Cabinet DR-101.		
12.	At Diesel Generator Control and Excitation Cabinet: VERIFY output voltage at 4160V (Cue: Diesel Generator A voltage is at 4160 volts.)	* VERIFY voltage at 4160 AC Volts. Use Voltage RAISE/LOWER SWITCH to adjust voltage to 4160 volts at Diesel Generator Control and Excitation Cabinet DR-101.		

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT S U	
(c) 13. (T2)= — T2-T1 = ≤3 min	CLOSE Diesel Gen 1-A Bkr 1-509 using control switch on breaker cubicle NOTE: IF Local/Remote switch position is questioned, provide: (Cue: Local/Remote switch positioned to LOCAL in step 13 of E-0-06.) (Cue: Bkr closed, red light on, green light off.)	* At Bkr 1-509 Cubicle PLACE Breaker Control Switch to CLOSE * Red light ON, Green light OFF.		
14.	VERIFY that Service Water Cooling is Established to Diesel Generator 1A (Cue: SW-301A valve position indication indicates open. <u>OR</u> piping cool to the touch.)	* VERIFY that SW301A is Valve position indicator indicates open. <u>OR</u> VERIFY service water piping downstream of SW301A is cool to the touch		
15.	REQUEST Control Operator A load equipment as necessary. (Cue: Control Operator A will Load equipment.)	* REQUEST Control Operator A load equipment.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then ask the JPM QUESTIONS.

READ THE JPM QUESTIONS VERBATIM. If the operator requests clarification, then note rephrasing.

When done with the JPM QUESTIONS, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

	YES	NO	N/A
Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Satisfactorily operating 1A D/G locally.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

STEP

OPERATOR ACTIONS

CONTINGENCY ACTIONS

14 ENERGIZE 4160V AND 480V DEDICATED
SHUTDOWN ELECTRICAL SYSTEM
(Control Room Supervisor):

a. POSITION 1A Diesel Generator
Voltage Control Local/Remote
Switch to LOCAL

b. REPLACE following fuses:

1) Diesel Generator Control and
Excitation Cabinet:

a) Fuse F-4

b) Fuse F-5

2) 1A Diesel Engine Control
Panel:

a) Fuse F-4

b) Fuse F-5

c. VERIFY Engine Control Panel
green Power On light, ON

c. CHECK light bulb. IF light
bulb is good, RESET supply
breaker (BRA-104, ckt 10).

NOTE: Overspeed Trip is reset by moving reset lever counterclockwise until it latches.

NOTE: Detectors for Vibration and Hi Crankcase Pressure must be manually reset before alarms will clear.

d. DEPRESS Engine Control Panel
Failure Reset pushbutton to
clear any local alarms

CONTINUED

KEWAUNEE NUCLEAR POWER PLANT

TITLE FIRE IN ALTERNATE FIRE ZONE

EMERGENCY OPERATING PROCEDURES

DATE JAN 25 2001

PAGE 12 of 50

STEP

OPERATOR ACTIONS

CONTINGENCY ACTIONS

14

CONTINUED*****
CAUTION

IF cooling water is NOT established in 2-3 minutes after Diesel start, damage will occur.

e. POSITION 1A Diesel Engine
Control switch to START

f. At Diesel Generator Control and
Excitation Cabinet:

1) VERIFY output Frequency -
60 Hz

1) ADJUST using Governor
control switch.

2) VERIFY output Voltage - 4160V

2) ADJUST using Voltage
control switch.

g. CLOSE Diesel Gen 1A Bkr 1-509
using control switch on breaker
cubicle

h. VERIFY SW-301A/CV-31088,
Service Water from Diesel
Generator A Heat Exchanger, OPEN

h. Manually, OPEN SW-301A

i. REQUEST Control Operator A load
equipment as necessary