

Complete NRC Active License Maintenance Log

JOB PERFORMANCE MEASURE

TASK CONDITIONS:

1. You are an active licensed NSO for the past year.
2. Attached is your work schedule history for the 14 weeks that are partially or entirely within the third quarter of 2014.
3. All positions were appropriately logged in the SM log for during this time period.

INITIATING CUES:

1. The Operations Support Manager asks that you complete your Active License Tracking Log for the **THIRD QUARTER** of 2014, per OP-AA-105-102.
2. Inform the Operations Support Manager when you have completed OP-AA-105-102, Attachment 1.

Complete NRC Active License Maintenance Log

RO Work History:

	<u>Day</u>	<u>Date</u>	<u>Shift</u>	<u>Hours</u>		<u>Job Position/Assignment</u>
				<u>Worked</u>		
<u>Week 1</u>	M	6/30/14	D	12		Unit 1 NSO
	T	7/1/14	D	12		Extra NSO in control room
	W	7/2/14	D	12		Unit 2 Admin NSO
	Th	7/3/14	D	12		Extra NSO in control room
	F	7/4/14	N/A			Day Off
	S	7/5/14	N/A			Day Off
	S	7/6/14	N/A			Day Off
<u>Week 2</u>	M	7/7/14	D	12		Clearance Order Writer
	T	7/8/14	D	12		Clearance Order Writer
	W	7/9/14	D	12		Clearance Order Writer
	Th	7/10/14	D	12		Clearance Order Writer
	F	7/11/14	N/A			Day Off
	S	7/12/14	N/A			Day Off
	S	7/13/14	N/A			Day Off
<u>Week 3</u>	M	7/14/14	N/A			Day Off
	T	7/15/14	N/A			Day Off
	W	7/16/14	N/A			Day Off
	Th	7/17/14	N/A			Day Off
	F	7/18/14	D	12		Unit 1 Admin (relieved 2 hrs for NRC physical)
	S	7/19/14	D	12		Unit 1 NSO
	S	7/20/14	D	12		Unit 2 NSO
<u>Week 4</u>	M	7/21/14	N/A			Day Off
	T	7/22/14	N/A			Day Off
	W	7/23/14	N/A			Day Off
	Th	7/24/14	N/A			Day Off
	F	7/25/14	N	12		Unit 2 Admin (relieved 2 hrs for PHC meeting)
	S	7/26/14	N	12		Extra NSO in control room
	S	7/27/14	N	12		Unit 1 Admin NSO
<u>Week 5</u>	M	7/28/14	N/A			Day Off
	T	7/29/14	T	8		Requal Training
	W	7/30/14	T	8		Requal Training
	Th	7/31/14	T	8		Requal Training
	F	8/1/14	T	8		Requal Training
	S	8/2/14	N/A			Day Off
	S	8/3/14	N/A			Day Off
<u>Weeks 6 and 7</u>		8/4/14 thru 8/17/14		N/A		ON VACATION

Complete NRC Active License Maintenance Log

RO Work History continued:

	<u>Day</u>	<u>Date</u>	<u>Shift</u>	Hours	<u>Job Description</u>
				<u>Worked</u>	
<u>Week 8</u>	M	8/18/14	N/A		Day Off
	T	8/19/14	N/A		Day Off
	W	8/20/14	N/A		Day Off
	Th	8/21/14	N/A		Day Off
	F	8/22/14	D	12	Clearance Order Writer
	S	8/23/14	D	12	Unit 2 NSO
	S	8/24/14	D	12	Unit 2 Admin NSO
<u>Week 9</u>	M	8/25/14	N/A		Day Off
	T	8/26/14	N/A		Day Off
	W	8/27/14	N/A		Day Off
	Th	8/28/14	N/A		Day Off
	F	8/29/14	N	12	Extra NSO in control room
	S	8/30/14	N	12	Unit 1 NSO
	S	8/31/14	N	12	Unit 2 NSO
<u>Week 10</u>	M	9/1/14	N/A		Day Off
	T	9/2/14	T	8	Requal Training
	W	9/3/14	T	8	Requal Training
	Th	9/4/14	T	8	Requal Training
	F	9/5/14	T	8	Requal Training
	S	9/6/14	N/A		Day Off
	S	9/7/14	N/A		Day Off
<u>Weeks 11 thru 13</u>		9/8/14 thru 9/28/14			ON VACATION
<u>Week 14</u>	M	9/29/14	N/A		Day Off
	T	9/30/14	N/A		Day Off
	W	10/1/14	N/A		Day Off
	Th	10/2/14	N/A		Requal Training
	F	10/3/14	D	12	Unit 1 NSO
	S	10/4/14	D	12	Unit 1 Admin NSO
	S	10/5/14	D	12	Unit 2 NSO

Complete NRC Active License Maintenance Log

TASK TITLE: **Complete NRC Active License Maintenance Log**

JPM No.: **R-109**
Task No.: R-AM-075
Objective No.: 4E.AM-75

REV: 2014 NRC
K/A No.: 2.1.4
K/A IMP: 3.3/3.8

EXAMINEE: _____

RO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.
 FAILED _____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) **3, 4, 5, 6, 7, 8**

APPROX COMPLETION TIME: 10 MINUTES

CRITICAL TIME: **N/A**

EVALUATION METHOD:

PERFORM
 SIMULATE

LOCATION:

IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

1. OP-AA-105-102 NRC ACTIVE LICENSE MAINTENANCE. rev. 11.
2. 10CFR55.53(e)

MATERIALS:

1. OP-AA-105-102 NRC ACTIVE LICENSE MAINTENANCE.

TASK STANDARDS:

2. Determine shift activities that are credited toward active license maintenance.
3. Complete OP-AA-105-102 NRC ACTIVE LICENSE MAINTENANCE, Attachment 1 Active License Maintenance Tracking Log.

TASK CONDITIONS:

1. You are an active licensed NSO for the past year.
2. Attached is your work schedule history for the 14 weeks that are partially or entirely within the third quarter of 2014.
3. All positions were appropriately logged in the SM log for during this time period.

INITIATING CUES:

3. The Operations Support Manager asks that you complete your Active License Tracking Log for the **THIRD QUARTER** of 2014, per OP-AA-105-102.
4. Inform the Operations Support Manager when you have completed OP-AA-105-102, Attachment 1.

Complete NRC Active License Maintenance Log

RECORD START TIME: _____

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
1.	Refer to OP-AA-105-102, NRC ACTIVE LICENSE MAINTENANCE. CUE: Provide examinee copy of OP-AA-105-102.	Refer to OP-AA-105-102: <ul style="list-style-type: none"> Determines Attachment 1 needs to be completed. 	SAT UNSAT N/A <u>Comments:</u>
2.	Complete upper section of Attachment 1.	<ul style="list-style-type: none"> From initiating cue, writes 3rd quarter of 2014. From initiating cue, writes examinee name and circles ACTIVE license status. Write employee number. 	SAT UNSAT N/A <u>Comments:</u>
*3.	Complete date column of table on Attachment 1. Note: Any date listed in June or October would not be within the 3rd quarter of the year, thereby incorrect.	<ul style="list-style-type: none"> Lists at least 5 dates of the shifts listed below, from attached schedule, that count as credited days toward license maintenance. <ul style="list-style-type: none"> RO (any 5 of 8) <ul style="list-style-type: none"> 7/2/14 D 12 2 7/19/14 D 12 1 7/20/14 D 12 2 7/27/14 N 12 1 8/23/14 D 12 2 8/24/14 D 12 2 8/30/14 N 12 1 8/31/14 N 12 2 	SAT UNSAT N/A <u>Comments:</u>
*4.	Complete shift column of table on Attachment 1.	<ul style="list-style-type: none"> List the shift worked (N or D as applicable) 	SAT UNSAT N/A <u>Comments:</u>
*5.	Complete length column of table on Attachment 1.	<ul style="list-style-type: none"> List the shift length (12 hours) 	SAT UNSAT N/A <u>Comments:</u>
*6.	Complete unit column of table on Attachment 1.	<ul style="list-style-type: none"> List the applicable unit 	SAT UNSAT N/A <u>Comments:</u>
*7.	Complete position and SM log columns on Attachment 1.	<ul style="list-style-type: none"> Circle the RO position Circle Y on SM log. 	SAT UNSAT N/A <u>Comments:</u>

Complete NRC Active License Maintenance Log

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*8.	Complete signature columns on Attachment 1.	<ul style="list-style-type: none"> • Sign under signature. 	SAT UNSAT N/A <u>Comments:</u>
9.	Give completed Attachment 1 to evaluator.		SAT UNSAT N/A <u>Comments:</u>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS:

Complete NRC Active License Maintenance Log

**ATTACHMENT 1
Active License Tracking Log
Page 1 of 1**

Employee Number: _____

SHIFT COVERAGE FOR THE 3rd (1ST, 2ND, 3RD, 4TH) CALENDAR QUARTER
OF 2014 (YEAR)

Examinees Name
Name of License Holder
(Print)

ACTIVE ~~INACTIVE~~
License Status At Start
Quarter (circle one)

RECORD OF EIGHT/TWELVE HOUR SHIFTS SERVED DURING QUARTER

ENTER the date the shift ended, the shift, the shift length, the Unit, position covered, circle Y or N for logged in the SM log and signature. If working an 8-hour or 8/12-hour schedule, enter a "1" for the midnight shift, "2" for the day shift, or a "3" for the afternoon shift (only enter shifts at least 8 hours length for which turnovers were conducted). Seven shifts at least 8-hours in length are required per quarter. If working a straight 12-hour schedule, enter a "N" for night shift or a "D" for dayshift (only enter shifts at least 12 hours in length for which turnovers were conducted). Five 12-hour shifts are required per quarter. The quarterly shift watch requirement may be completed with a combination of complete 8- and 12-hour shifts (in a position required by the plant's Technical Specifications) at sites having a mixed shift schedule, and watches shall not be truncated when the minimum quarterly requirement (56 hours) is satisfied. (NUREG 1021, Rev. 10/9)

DATE	SHIFT	LENGTH	UNIT	POSITION	SM	SIGNATURE
7/2/14	D	12	2	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
7/19/14	D	12	1	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
7/20/14	D	12	2	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
7/27/14	N	12	1	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
8/23/14	D	12	2	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
8/24/14	D	12	2	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
8/30/14	N	12	1	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>
8/31/14	N	12	2	FHS SM US	RO Logged Y/N	<i>Examinees Signature</i>

At least 5 of the 8 rows above.

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

TASK TITLE: **Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.**

JPM No.: **R-110**
TPO No.: 4C.AP-04
TASK No.: R-AP-017, Perform Offsite AC power Availability Surveillance.

REV: **2014 NRC**
K&A No.: 2.1.31
K&A IMP: 4.6

EXAMINEE: _____

RO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.
FAILED _____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) **4, 5, 7, 9**

APPROX COMPLETION TIME: **13 MINUTES**

CRITICAL TIME: **45 Minutes**

EVALUATION METHOD:
 PERFORM
 SIMULATE

LOCATION:
 IN PLANT
 SIMULATOR

GENERAL REFERENCES:

- 1BwOSR 3.8.1.1, Rev. 4, Unit One Offsite AC Power Availability Surveillance

MATERIALS:

- 1BwOSR 3.8.1.1

TASK STANDARDS:

- Partial completion of surveillance 1BwOSR 3.8.1.1.

TASK CONDITIONS:

- You are an extra NSO.
- The Unit is at power.
- Unit 2 is at full power.
- Unit 2 4KV ESF buses are being supplied from Unit 2 SATs.
- All Unit 2 Switchyard and 4KV breakers are available.
- 15 minutes ago the 1A D/G was declared inoperable.

INITIATING CUES:

- The US has directed you to perform 1BwOSR 3.8.1.1, Unit One Offsite AC Power Availability Surveillance, subsection F.1.0 and notify the US when you have completed it.
- This is a time critical JPM.**

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

RECORD START TIME: _____

Note: Only provide cues that are not available in the simulator. Provide a copy of the surveillance.

	PERFORMANCE STEP	STANDARD	Circle applicable
1.	<p>Record Initial Data.</p> <p>CUE: All Prerequisites, Precautions, Limitations and Actions have been met.</p> <p>NOTE: Critical Time begins when examinee understands initiating cue and accepts responsibility for task performance.</p> <p>Record critical time start time: _____</p>	<p>On the Modes 1-4 Data Sheet, RECORD:</p> <ul style="list-style-type: none"> • Unit 1 Mode (1). • Unit 2 Mode (1). 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
2.	<p>Check 345 KV Transmission Line Status.</p> <p>CUE: All 345 KV Transmission Lines are energized.</p>	<p>At OPM03J, OBSERVE:</p> <ul style="list-style-type: none"> • AC amperes, MW and MVAR for all Lines. <p>On the Modes 1-4 Data Sheet, CIRCLE "ENERGIZED" for each:</p> <ul style="list-style-type: none"> • Line 0104. • Line 2001. • Line 2002. • Line 0103. • Line 2003. • Line 2004. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
3.	<p>Indicate all closed and open switchyard breakers.</p> <p>CUE: All Swyd breakers indicate closed.</p>	<p>Check status of all 345 KV Swyd breakers.</p> <p>On the Data Sheet Drawing of the 345 KV swyd, INDICATE:</p> <ul style="list-style-type: none"> • Closed breakers with 'X'. ○ Open breakers with 'O'. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
*4.	<p>Trace paths for independent power sources to the Unit 1 and 2 SATs.</p> <p>CUE: All 345 KV Transmission Lines are energized.</p>	<p>On the Data Sheet Drawing of the 345 KV Swyd, TRACE:</p> <ul style="list-style-type: none"> • Single path along the dashed lines from any energized offsite power source to the Unit 1 SAT banks. • Second path along the dashed lines from a second independent energized offsite power source to the Unit 2 SAT banks. (Can't retrace any portion of the first path). ○ Verify two independent paths exist from the offsite power sources through the swyd to the UNIT SAT Banks. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

	PERFORMANCE STEP	STANDARD	Circle applicable
*5.	<p>Verify Normal (Bus 4) and Alternate (Bus 14) power are energized.</p> <p>CUE: Bus 4 alive light is lit. Bus 14 bus alive light is lit. Bus voltage indicated on buses 4 and 14.</p>	<p>At 0PM03J, on the Modes 1-4 Data sheet, OBSERVE and RECORD STATUS:</p> <ul style="list-style-type: none"> ○ Bus alive lights lit for buses 4 and 14. ○ Bus Voltmeter indications for buses 4 and 14. ○ Place 'Xs' under 'ENERGIZED' in step 1.7. ● Place 'Xs' under 'YES' in steps 1.8 and 1.9. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
6.	<p>Determine status of Normal and Alternate Power SATs</p> <p>CUE: All X and Y windings for both SATs at each unit are energized</p>	<p>At 0PM03J, 1PM01J and 2PM01J, on the Modes 1-4 Data Sheet, OBSERVE and RECORD STATUS:</p> <ul style="list-style-type: none"> ● X or Y winding AC MW and AC amperes indications for each SAT at each unit. ● SAT MOD indications. ● Place X in 'ENERGIZED' column. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

*7.	<p>Determine availability status of Normal and Alternate supply breakers to each Unit 1 4160V ESF bus:</p>	<p>On the Modes 1-4 Data Sheet, OBSERVE and RECORD STATUS:</p>	<p>SAT UNSAT N/A <u>Comments:</u></p>
	<p>CUE: 1412 CLOSED</p> <p>1414 NAT (normal after trip)</p> <p>2414 NAT</p> <p>2412 CLOSED</p> <p>1422 CLOSED</p> <p>1424 NAT (but no position indication)</p> <p>US acknowledges and is unsure of why breaker 1424 has no indication.</p> <p>If dispatched as EO to investigate 1424, report breaker is locally racked in and open, however the local position indicating lights are DARK.</p> <p>If asked as EO to check control power fuses, report that control power fuses are blown.</p> <p>If blown fuse reported to US, give cue, US directs you to complete surveillance. He will investigate the cause of blown fuses.</p> <p>If examinee indicates they would change the indicating light bulbs, cue that the bulbs have been changed and are still NOT lit.</p> <p>2424 NAT</p> <p>2422 CLOSED</p>	<p>• ACB 1412 (X in Closed Box).</p> <p>• ACB 1414 (X in Avail Box).</p> <p>• ACB 2414 (X in Avail Box).</p> <p>• ACB 2412 (X in Closed Box).</p> <p>• ACB 1422 (X in Closed Box).</p> <p>○ Notify US that breaker 1424 does not have position indication lights.</p> <p>○ May try changing position indication light bulb.</p> <p>○ May request EO investigate breaker locally.</p> <p>○ May ask EO to check control power fuse continuity.</p> <p>○ Report blown fuse indication to US</p> <p>• ACB 1424 (X in Not Avail Box).</p> <p>• ACB 2424 (X in Avail Box).</p> <p>• ACB 2422 (X in Closed Box).</p>	

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

	PERFORMANCE STEP	STANDARD	Circle applicable
8.	<p>Determine supply configuration to the 4160V ESF buses.</p> <p>CUE: All normal ESF bus feed breakers indicate closed, all cross-tie breakers are available.</p>	<p>On the Modes 1-4 Data Sheet, OBSERVE and RECORD STATUS:</p> <ul style="list-style-type: none"> • ESF BUS 141 (X in FROM SAT 142-1 box). • ESF Bus 142 (X in FROM SAT 142-2 box). • ESF BUS 241 (X in FROM SAT 242-1 box). • ESF BUS 242 (X in FROM SAT 242-2 box). 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
*9.	<p>Determine capabilities of Unit 1 and Unit 2 SATs to supply Unit 1 ESF buses.</p> <p>Step F.3.0 will be completed by another NSO.</p>	<p>After Reviewing the status of the sources and configuration, on the Modes 1-4 Data sheet, RECORD STATUS:</p> <ul style="list-style-type: none"> • Unit 1 SAT capable of supplying bus 141 (X in 'YES' box in step 1.13). • Unit 2 SAT capable of supplying bus 141 (X in 'YES' box in step 1.14). • Unit 1 SAT capable of supplying bus 142 (X in 'YES' box in step 1.15). • Unit 2 SAT NOT capable of supplying bus 142 (X in 'NO' box in step 1.16). ○ Step F.3.0. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
*10.	<p>Notify US/SM of failure to meet acceptance criteria.</p> <p>CUE: As SM/US, acknowledge failure.</p> <p>Record time that examinee reports failure to meet Acceptance Criteria / need to initiate LCOAR 1BwOL 3.8.1: _____</p> <p>Critical time =</p> <p>_____ - _____</p> <p>(end time) (start time)</p> <p>≤ 45 minutes.</p>	<ul style="list-style-type: none"> • NOTIFY US/SM of failure to meet Acceptance Criteria / need to initiate LCOAR 1BwOL 3.8.1, within 45 minutes of time given in Task Conditions. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

JOB PERFORMANCE MEASURE

TASK CONDITIONS:

1. You are an extra operator on shift.
2. Unit 2 is at 100% power.
3. 2CV03F, Unit 2 RC Filter, needs to be replaced.
4. A worker tagout to isolate and drain 2CV03F, in accordance with BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE, step F.3, has been prepared by another operator.

INITIATING CUES:

1. Jim NSO asks you to be the second approval for the clearance order.
2. Inform Jim when you have completed the peer check.

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

TASK TITLE: **Verify Worker Tagout Checklist.**

JPM No.: **R-200**
Task No.: 4E.AM-06
Objective No.: R-AM-010

REV: NRC 2014
K&A No.: 2.2.15
K&A IMP: 3.9

EXAMINEE: _____

RO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.
FAILED _____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) 4, 6

APPROX COMPLETION TIME: 30
MINUTES

CRITICAL TIME: N/A

EVALUATION METHOD:
 PERFORM
 SIMULATE

LOCATION:
 IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

3. OP-AA-109-101, CLEARANCE AND TAGGING, REV 9.
4. BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE, REV 24.
5. M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS.
6. BwOP WX-197, CHANGING LIQUID RADWASTE FILTERS, Rev 22.

MATERIALS:

1. OP-AA-109-101, CLEARANCE AND TAGGING.
2. BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE.
3. M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS.
4. BwOP WX-197, CHANGING LIQUID RADWASTE FILTERS.

TASK STANDARDS:

4. Verify isolation points correct for 2CV03F.
5. Determine 2CV8422 position incorrect for 2CV03F.
6. Determine the sequence of isolation points for 2CV03F is incorrect.

TASK CONDITIONS:

1. You are an extra operator on shift.
2. Unit 2 is at 100% power.
3. 2CV03F, Unit 2 RC Filter, needs to be replaced.
4. A worker tagout to isolate and drain 2CV03F, in accordance with BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE, step F.3, has been prepared by another operator.

INITIATING CUES:

1. Jim NSO asks you to be the second approval for clearance order.

CUE: Hand examinee partially completed Worker Tagout.

2. Inform Jim when you have completed the peer check.

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

RECORD START TIME: _____

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
1.	Refer to BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE. CUE: Provide examinee copy of BwOP CV-10.	Refer to BwOP CV-10, step F.3.	SAT UNSAT N/A <u>Comments:</u>
2.	Refer to Drawing: • M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS CUE: Provide copy of M-138, sheet 5B.	Refer to M-138, sheet 5B.	SAT UNSAT N/A <u>Comments:</u>
3.	Verify the clearance BOUNDARY for 2CV03F.	Determines clearance boundary valves selected are correct: • 2CV129 C/S, Demin Hi Temp Divert Valve. • 2CV8421, RC Filter Bypass Valve. • 2CV8425, RC Filter Inlet Isol Valve. • 2CV8422, RC Filter Outlet Isol Valve. • 2CV8424, RC Filter Drain Valve. • 2CV8423, RC Filter Vent Valve.	SAT UNSAT N/A <u>Comments:</u>

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

	<p>EVALUATOR NOTE: The examinee may determine the clearance position is incorrect (JPM step 6) prior to determining the sequence is incorrect (JPM step 4), or the examinee may discover both errors simultaneously. The examinee must identify both errors to complete critical tasks 4 & 6.</p>		
	<p>EVALUATOR NOTE: The JPM contains corrected Worker Tagout checklist to be given to the examinee AFTER the errors are identified.</p> <p>If the examinee first determines the incorrect sequence is listed on the Worker Tagout checklist prior to determining the incorrect position is listed, provide examinee JPM page 7.</p> <p>If the examinee first determines the incorrect position is listed on the Worker Tagout checklist, provide examinee JPM page 8.</p> <p>When the examinee has determined BOTH the incorrect sequence and position are listed on the Worker Tagout checklist, provide examinee JPM page 9.</p>		
	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*4.	<p>Determine the clearance SEQUENCE for the 2CV03F is incorrect.</p> <p>CUE: Acknowledge as Unit Supervisor and inform examinee the checklist sequence will be corrected.</p> <p>CUE: Hand examinee corrected worker tagout in accordance with the evaluator note above.</p>	<p>Determines clearance sequence is incorrect:</p> <ol style="list-style-type: none"> 1. 2CV129 C/S, Demin Hi Temp Divert Valve. 2. 2CV8421 RC Filter Bypass Valve. 3. 2CV8422 RC Filter Outlet Isol Valve. 4. 2CV8425 RC Filter Inlet Isol Valve. 5. 2CV8424 RC Filter Drain Valve. 5. 2CV8423 RC Filter Vent Valve. <ul style="list-style-type: none"> o Notifies SM and NSOs of sequencing error. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
5.	<p>Verify the tag type for 2CV03F.</p>	<p>Verifies clearance tag type:</p> <ul style="list-style-type: none"> • 2CV129 C/S, Demin Hi Temp Divert Valve – CI. • 2CV8421 RC Filter Bypass Valve - RI. • 2CV8425 RC Filter Inlet Isol Valve - RD. • 2CV8422 RC Filter Outlet Isol Valve - RD. • 2CV8424 RC Filter Drain Valve - RI. • 2CV8423 RC Filter Vent Valve - RI. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Offsite AC Power Availability Surveillance with ACB 1424 control power lost.

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*6.	<p>Determine the clearance POSITION for the 2CV03F is incorrect.</p> <p>CUE: Acknowledge as Unit Supervisor and inform examinee the checklist position will be corrected.</p> <p>CUE: Hand examinee corrected worker tagout in accordance with the evaluator note on JPM page 4.</p>	<p>Determines clearance position is incorrect:</p> <ul style="list-style-type: none"> • 2CV129 C/S, Demin Hi Temp Divert Valve – INFO. • 2CV8421 RC Filter Bypass Valve - INFO. • 2CV8425 RC Filter Inlet Isol Valve - CLOSED. • 2CV8422 RC Filter Outlet Isol Valve - OPEN. • 2CV8424 RC Filter Drain Valve - INFO. • 2CV8423 RC Filter Vent Valve - INFO. ○ Notifies SM and NSOs of position error. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS:

Perform Offsite Notification (NARS Form Transmittal) for General Emergency

JOB PERFORMANCE MEASURE

TASK TITLE: **Perform Offsite Notification (NARS Form Transmittal) for General Emergency**

JPM No.: **R-403**
TPO No.: 4F.ZP-02
TASK No.: R-ZP-004

REV: **NRC 2014**
K&A No.: 2.4.43
K&A IMP: 3.2/3.8

EXAMINEE: _____

RO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED ____ this JPM.
 FAILED ____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) 3, 4

APPROX COMPLETION TIME:
10 MINUTES

CRITICAL TIME: **13 minutes**

EVALUATION METHOD:
 PERFORM
 SIMULATE

LOCATION:
 IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

1. EP-MW-114-100, MW REGION OFFSITE NOTIFICATIONS, Rev. 13.
2. EP-MW-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM, Rev. G.

MATERIALS:

1. EP-MW-114-100, MW REGION OFFSITE NOTIFICATIONS.
2. EP-MW-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM.

TASK STANDARDS:

1. Determine correct NARS phone code.
2. Complete transmitting NARS block 10 within 13 minutes of the initiating cue.
3. Transmit NARS data to offsite agencies.

TASK CONDITIONS:

1. You are the Unit 2 Assist NSO.
2. A reactor trip has occurred on Unit 1.
3. A General Emergency was declared two minutes ago, no previous EALs have been declared.
4. EP-MW-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM has been filled out and approved.
5. **This is a Time Critical JPM.**

INITIATING CUES:

1. The Shift Manager directs you to transmit the NARS form per EP-MW-114-100, MW Region Offsite Notifications.
2. Another NSO will monitor the remainder of the Main Control Board panels and address alarms as necessary.
3. Inform the Shift Manager when the NARS form has been transmitted.

Perform Offsite Notification (NARS Form Transmittal) for General Emergency

RECORD START TIME: _____

	EVALUATOR NOTE: Provide examinee the completed NARS form and copy of EP-MW-114-100-F-01.		
	EVALUATOR NOTE: JPM critical time (13 minutes) starts when the initiating cue has been read to the examinee and stops after initial roll call is complete on the back of the NARS form.		
	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
1.	Refer to EP-MW-114-100, MW REGION OFFSITE NOTIFICATIONS.	Refer to EP-MW-114-100: <ul style="list-style-type: none"> • Determine step 4.2 needs to be performed. 	SAT UNSAT N/A <u>Comments:</u>
2	Refer to EP-MW-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM.	Refer to EP-MW-114-100-F-01: <ul style="list-style-type: none"> • Determine NARS Code 38 to be used to transmit NARS form. 	SAT UNSAT N/A <u>Comments:</u>

Perform Offsite Notification (NARS Form Transmittal) for General Emergency

<p>*3.</p>	<p>Establish communications:</p> <p>Note: After examinee dials Code 38, provide the following cue:</p> <p>CUE: After a short pause, a beep is heard, followed by a seven more beeps, for a total of 8 beeps.</p> <p>NOTE: If Examinee dials Code 20 (which is wrong) use Code 20 cue. Otherwise use Code 38 Cue.</p> <p>Note: After examinee reads messages, provide the following cue:</p> <p>CUE Code 38: IEMA online, Grundy Co. Sheriff online Kankakee Co. Sheriff online Will Co. Sheriff online Illinois REAC online Grundy Co. EMA online Kankakee Co. EOC online Will Co. EOC online</p> <p>CUE Code 20: IEMA online, Illinois REAC online</p> <p>Note: Once stops after initial roll call is complete critical time STOPS:</p>	<p>Establish communications as follows:</p> <ul style="list-style-type: none"> • Pick up NARS phone. • DIAL code 38. • Read the following message: "This is Exelon Nuclear Braidwood Station Control Room. Please standby for a NARS message." ○ Read the following message: "This is the Exelon Nuclear Braidwood Station Control room. Please standby to receive a NARS message and respond as the roll is called." • TAKE Initial Roll Call • Mark Initial Boxes for <ul style="list-style-type: none"> •IEMA •Grundy Co. Sheriff •Kankakee Co. Sheriff •Will Co. Sheriff •Illinois REAC •Grundy Co. EMA •Kankakee Co. EOC •Will Co. EOC. ○ Record time and date initial roll call complete. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
<p>EVALUATOR NOTE: Critical time TIME STOPS after initial roll call is complete on the back of the NARS form.</p> <p>Determine critical time:</p> <p>_____ - _____ = _____</p> <p>(Initial roll call complete) (JPM start time) ≤ 13 minutes</p>			

Perform Offsite Notification (NARS Form Transmittal) for General Emergency

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*4.	Verbally transmit the NARS Form.	Verbally transmit the NARS Form: <ul style="list-style-type: none"> • Utility Message No: <u>1</u> • State Message No: <u>N/A</u> • Status – <u>[B] Drill/Exercise</u> • Station – <u>[A] Braidwood</u> • Onsite Condition – <u>[D] General Emergency</u> • Accident Classified: <ul style="list-style-type: none"> • Time: <u>Two minutes ago.</u> • Date: <u>Today.</u> • EAL # : <u>MG1</u> • Accident Terminated Date and Time: <u>N/A</u> • Release Status: <u>[A] None</u> • Type of Release: <u>[A] Not Applicable</u> • Wind Dir: <u>270</u> • Wind Speed: <ul style="list-style-type: none"> ○ <u>[A] is N/A</u> • <u>[B] 4.5 Miles/Hr</u> • Utility recommendation: <ul style="list-style-type: none"> • <u>[D] 1, 3, 10</u> • (Block 10) Additional Information: <u>None</u> Verified With: <u>U. Supervisor</u> Approved By: <u>S. Manager</u>	SAT UNSAT N/A <u>Comments:</u>

Perform Offsite Notification (NARS Form Transmittal) for General Emergency

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
5.	<p>Complete the NARS form.</p> <p>CUE: IF examinee asks for a phone number to use, provide: outside line is 815-458-7882.</p> <p>CUE: John Smith, IEMA.</p>	<p>Fill in the following information on the NARS Form after transmitting info in blocks 1-10:</p> <ul style="list-style-type: none"> • Mark 11A, EXELON • Examinee Name • Outside line number • Current Time • Current Date • Name of person from IEMA receiving message • Organization (IEMA) • Current time • Today's date 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
6.	<p>Perform Final Roll Call</p> <p>Note: As examinee performs final roll call provide the following cues:</p> <p>CUE Code 38: IEMA online, Grundy Co. Sheriff online, Kankakee Co. Sheriff online, Will Co. Sheriff online, Illinois REAC online, Grundy Co. EMA online, Kankakee Co. EOC online, Will Co. EOC online</p> <p>CUE Code 20: IEMA online, Illinois REAC online</p> <p>CUE: No questions.</p>	<p>PERFORM Final Roll Call and marks boxes for:</p> <ul style="list-style-type: none"> • IEMA • Grundy Co. Sheriff • Kankakee Co. Sheriff • Will Co. Sheriff • Illinois REAC • Grundy Co. EMA, • Kankakee Co. EOC • Will Co. EOC • Ask if there are any questions about the information provided. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
7.	<p>STATE "NARS communication is complete."</p>	<p>STATE "NARS communication is complete."</p>	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS:

Review Calorimetric Surveillance

TASK TITLE: **Review Calorimetric Surveillance**

JPM No.: **S-100**

REV: **NRC 2014**

TPO No.: 4C.NI-05

K&A No.: 2.1.7

TASK No.: NI-004 Perform calorimetric calculation

K&A IMP: 4.7

ADMIN: CONDUCT OF OPS

EXAMINEE: _____

SRO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.

TIME STARTED: _____

FAILED _____

TIME FINISHED: _____

CRITICAL ELEMENTS: (*) **2,3**

JPM TIME: _____ MINUTES

CRITICAL TIME: **NA**

APPROX COMPLETION TIME: **10**
MINUTES

EVALUATION METHOD:

PERFORM
 SIMULATE

LOCATION:

IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

1. **1BwOSR 3.3.1.2-1, Rev. 17, Unit 1 Power Range High Flux Setpoint Daily Channel Calibration (Computer Calorimetric).**

MATERIALS:

1. Copy of completed/ready for review 1BwOSR 3.3.1.2-1.

TASK STANDARDS:

1. **Perform review of calorimetric data collected by NSO.**
2. **Determine calorimetric adjustment calculation incorrectly performed by NSO.**

TASK CONDITIONS:

1. You are the Unit 1 Unit Supervisor.
2. Unit 1 is at 100% power, all systems are normally aligned.

INITIATING CUES:

1. The Unit NSO has performed the calorimetric surveillance and has asked you to review the proposed NI adjustments per 1BwOSR 0.1-1,2,3.
2. Review the surveillance and if any changes are necessary, correct the surveillance.

Note: Hand examinee completed calorimetric surveillance, with the Calorimetric printout provided.

RECORD START TIME

Note: This JPM is performed by having the examinee review the D-2 Data sheet from the surveillance. The first data sheet is complete through block 10 but has 3 mistakes in it (two of which propagate forward to blocks 9 and 10). The examinee must locate the mistakes to pass the JPM prior to signing block 11, Review Authorization, and ending the JPM.

	PERFORMANCE STEP	STANDARD	Circle Applicable
1.	<p>Refer to completed 1BwOSR 3.3.1.2-1.</p> <p>CUE: Ensure calorimetric surveillance is handed to examinee with the printout of the calorimetric data.</p> <p>CUE: All Prerequisites were met.</p> <p>CUE: (if performed in classroom) CB-C at 226 steps, CB-D at 220 steps.</p>	<p>Review the data sheet for completeness/errors for blocks 1 and 2:</p> <ul style="list-style-type: none"> • Date: Today • Time: 10 minutes ago • Mwe Gross: Current • Control Bank Position • NSO's Signature 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
*2.	<p>Review blocks 3, 5, 6 and 7.</p> <p>Note: If asked, the plant calorimetric printout from the computer show 99.51% (same as recorded in block 5).</p> <p>Note: Errors present:</p> <p>Block 6 second line (N-42) item should be positive 2.0</p> <p>Block 6 fourth line (N-44) should be negative 1.0</p> <p>Block 7:</p> <p>As a result of correcting the errors, NR-44 should now be checked YES rather than NO.</p>	<p>Review blocks 3, 5, 6 and 7 for completeness and/or errors:</p> <ul style="list-style-type: none"> ○ Initial NIS Drawer Front Panel Meter Power filled in. ○ Calculated Calorimetric Power from printout filled in. ○ Calculated Power difference filled in. ○ Block 12 checked (3 NO, 1 YES) • SRO makes the following changes: • Block 6 second line change to +2.0 (N-42) • Block 6 fourth line change to -1.0 (N-44) • Block 7 check "YES" for NR-44 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

	PERFORMANCE STEP	STANDARD	Circle Applicable
*3.	<p>Verify the power adjustment calculation for channel N-44.</p> <p>Note: If examinee discovers the mistakes, and wants the NSO to correct, cue the examinee to make the necessary correction on sheet D-2 himself and continue with the review.</p> <p>Note: If examinee identifies early mistakes and stops, inform him to mark-up the needed changes, consider them incorporated and ask if the review is complete.</p> <p>Note: The examinee needs to verify the determination of the indicated power that N-42 and N-44 must be adjusted to.</p> <p>Note: If the examinee has NOT identified and corrected the incorrect adjustment determinations (N-44 and N-42) by the time the examinee signs Block 11, "Review Authorization", and ends the JPM then the JPM performance is UNSAT.</p> <p>IF ASKED (when examinee is making corrections):</p> <p>Cue: N-44 reads 98.5% Cue: N-42 still reads 101.5%</p>	<p>DETERMINE channel N-44 and N-42 require adjustment as follows:</p> <ul style="list-style-type: none"> ○ Ensure the present percent power values are filled in block 8. ○ VERIFY the corrected calculated power difference from block 6 in block 9. ○ VERIFY/SUBTRACT the power difference from the present indicated power and the value as the Power to adjust the NIS channels to in block 10. <p>SRO Makes the following changes:</p> <ul style="list-style-type: none"> • N-42: changes block 9 to + 2.0 and block 10 to 99.5. • N-44: changes block 8 to 98.5, changes block 9 to -1.0 and changes block 10 to 99.5. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

(CUE:) THIS COMPLETES THIS JPM.

RECORD STOP TIME _____

COMMENTS:

Perform Shutdown Margin Calculation

TASK TITLE: Perform Shutdown Margin Calculation

JPM No.: S-112

REV: **NRC 2014**

Task No.: S-AM-123

K/A No.: 2.1.25

Objective No.: 7E.AM-123-A

K/A IMP: 4.2

EXAMINEE: _____

SRO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.
FAILED _____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) 4, 6

APPROX COMPLETION TIME: 20 MINUTES

CRITICAL TIME: 45 minutes

EVALUATION METHOD:

PERFORM

SIMULATE

LOCATION:

IN PLANT

SIMULATOR

CLASSROOM

GENERAL REFERENCES:

- 1BwOSR 3.1.1.1-2, UNIT ONE SHUTDOWN MARGIN SURVEILLANCE DURING OPERATION, Rev. 3.
- BwCB-1 (Various), Braidwood Curve Book, Unit 1.
- 1BwOL 3.1.4, Rev. 5, LCOAR Rod Group Alignment Limits Tech Spec LCO 3.1.4.

MATERIALS:

- Copy of 1BwOSR 3.1.1.1-2.
- Copy of BwCB-1.
- Copy of Braidwood Technical Requirements Manual (TRM).
- Copy of Braidwood Tech Specs and Bases.

TASK STANDARDS:

- Correctly determine total rod worth due to rods.
- Correctly determine actual reactivity available due to rods.
- Correctly determine current power defect.
- Correctly determine shutdown margin is unacceptable for current plant conditions within 45 minutes.

TASK CONDITIONS:

- You are the Unit 1 Unit Supervisor.
- Unit 1 is at full power (13,000 EFPH) with all control systems in automatic except rod control, which is in manual. Tave is 587°F and Most Recent B10 Corrected RCS Boron sample is 300 ppm 1 hour ago. Control Bank 'D' is at 220 steps. All other rods are fully withdrawn.
- This is a time critical JPM.**

INITIATING CUES:

- 15 minutes ago it was determined rod M-4 is inoperable and is immovable due to excessive friction. The QNE has been informed.
- The unit NSO has completed 1BwOSR 3.1.1.1-2, Unit One Shutdown Margin Surveillance During Operation, for your review.
- Review the surveillance and if any changes are necessary, correct the surveillance.
- Verify appropriate required actions are completed.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Perform Shutdown Margin Calculation

RECORD START TIME: _____

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
	EVALUATOR NOTE: JPM will be performed in the classroom.		
1.	<p>Refer to completed 1BwOSR 3.1.1.1-2:</p> <p>NOTE: Critical Time begins when examinee understands initiating cue and accepts responsibility for task performance.</p> <p>Record critical time start time: _____</p> <p>CUE: Ensure shutdown margin surveillance is handed to examinee.</p> <p>CUE: All Prerequisites, Precautions, Limitations and Actions are met.</p>	Refer to 1BwOSR 3.1.1.1-2.	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
2.	<p>Review Present Conditions: (step F.1)</p> <p>Note: NO errors present on step F.1.</p>	<p>Review the following from initiating cue for completeness and/or errors:</p> <ul style="list-style-type: none"> • Date and Time: <u>Current Date and 10 minutes ago</u> • Core Average Burnup: <u>13,000 EFPH</u> • Core Average Temperature: <u>587°F</u> • Power Level: <u>100%</u> • Present Boron Concentration: <u>300 ppm</u> 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Shutdown Margin Calculation

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
3.	<p>Review total worth due to rods (step F.2)</p> <p>Note: NO errors present on step F.2</p> <p>NOTE: Examinee may refer to BwCB-1, Figure 2c for an expanded scale of Figure 2 control bank D rod worth.</p> <p>NOTE: Examinee must refer to correct figure and burn up range. BwCB-1, Figures 2 & 2c are for Hot Full Power and Figures 2a and 2d are for Hot Zero Power. From initiating cue, Unit 1 is at 100% power.</p>	<p>Review total worth due to rods by performing the following:</p> <ul style="list-style-type: none"> ○ Review control bank position: <u>Bank D @ 220 steps</u> (from initiating cue). ○ Review control bank D inserted worth by performing the following: <ul style="list-style-type: none"> ○ Refer to BwCB-1, Figure 2 for burn up range. ○ Record control bank D inserted worth: <u>15 pcm ± 10 pcm.</u> ○ Review total available control bank worth by performing the following: <ul style="list-style-type: none"> ○ Refer to BwCB-1, Table 4-1 for control bank worth for burn up. ○ Determine control bank total worth: <u>3308.6 pcm.</u> ○ Subtract control bank D inserted worth from control bank total worth: <u>$3308.6 \text{ pcm} - 15 \text{ pcm} (\pm 10 \text{ pcm}) = 3293.6 \text{ pcm} (\pm 10 \text{ pcm}).$</u> ○ Review total worth due to rods by performing the following: <ul style="list-style-type: none"> ○ Refer to BwCB-1, Table 4-1 for shutdown bank worth for burn up range. ○ Determine shutdown bank total worth: <u>3648.2 pcm.</u> ○ Review total rod worth by performing the following: <ul style="list-style-type: none"> ○ Add shutdown bank total worth to available control bank worth: <u>$3648.2 \text{ pcm} + 3293.6 \text{ pcm} (\pm 10 \text{ pcm}) = 6941.8 \text{ pcm} (\pm 10 \text{ pcm})$</u> 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Shutdown Margin Calculation

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*4.	<p>Review actual reactivity available due to rods (step F.3)</p> <p>NOTE: Review value of highest stuck rod worth and determine that the highest stuck rod worth is incorrect (967.2 pcm) and that the correct value should be 1044.6 pcm.</p> <p>Note: If examinee discovers the mistakes, and wants the NSO to correct, cue the examinee to make the necessary correction on surveillance sheet and continue with the review.</p> <p>Note: If examinee identifies early mistakes and stops, inform them to mark-up the needed changes, consider them incorporated and ask if the review is complete.</p> <p>NOTE: Review value of actual reactivity available due to rods and determine that the actual reactivity available due to rods is incorrect (3974.6 pcm) and that the value should be 3897.2 pcm.</p>	<p>Review actual reactivity due to rods by performing the following:</p> <ul style="list-style-type: none"> ○ Review the number of immovable and/or untrippable control rods: <u>1</u> (from initiating cue) ○ Review highest stuck rod worth by performing the following: <ul style="list-style-type: none"> ○ Refer to BwCB-1, Table 4-1 for highest stuck rod worth for burn up. ● Determine and record highest stuck rod worth is incorrect at 967.2 and the correct value is: <u>1044.6 pcm.</u> ○ Review immovable /untrippable rod worth by performing the following: <ul style="list-style-type: none"> ○ Multiply the number of immovable or untrippable control rods by 2000 pcm: <u>1 X 2000 pcm = 2000 pcm.</u> ○ Review actual reactivity available due to rods by performing the following:: <ul style="list-style-type: none"> ● Subtract immovable /untrippable rod worth and highest stuck rod worth from total rod worth and determine that $6941.8 \text{ pcm} (\pm 10 \text{ pcm}) - 2000 \text{ pcm} - 967.2 \text{ pcm} = 3974.6 \text{ pcm} (\pm 10 \text{ pcm})$ is incorrect and it should be: <u>$6941.8 \text{ pcm} (\pm 10 \text{ pcm}) - 2000 \text{ pcm} - 1044.6 \text{ pcm} = 3897.2 \text{ pcm} (\pm 10 \text{ pcm}).$</u> 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Shutdown Margin Calculation

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
5.	Review current Power Defect (step F.4) Note: NO errors present on step F.4	Review the current power defect for boron concentration and power level by performing the following: <ul style="list-style-type: none"> • Refer to BwCB-1, Figure 17A for power defect for burn up. • Review power defect: <u>2667 ± 50 pcm.</u> OR <ul style="list-style-type: none"> • Refer to BwCB-1, Table 2-1 for power defect for burn up range of 6466.8 EFPH. • Review power defect: <u>2667 pcm.</u> 	SAT UNSAT N/A <u>Comments:</u>

Perform Shutdown Margin Calculation

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*6.	<p>Review Shutdown Margin Verification (step F.5)</p> <p>NOTE: Review value of available shutdown margin and determine that it is incorrect (1307.6 pcm) and the correct value should be: (1230.2 pcm ± 60 pcm)</p> <p>NOTE: Review value of minimum required shutdown margin and determine that 1.0% Δk/k x 1000 pcm/% Δk/k = 1000 pcm is incorrect and the correct value should be: 1.3% Δk/k x 1000 pcm/% Δk/k = 1300 pcm.</p> <p>NOTE: 1230.2 pcm ± 60 pcm < 1300 pcm is correct. If examinee only catches the shutdown margin limit of 1000 pcm instead of 1300 pcm shutdown margin will still be adequate 1307.6 pcm ≥ 1300 pcm or if the examinee catches only the highest stuck rod worth shutdown margin will still be inadequate 1230.2 ≥ 1000 pcm.</p> <p>NOTE: Critical Time ends when examinee completes surveillance or reports unacceptable shutdown margin.</p> <p>Record time that examinee reports unacceptable shutdown margin or completes surveillance: _____ Critical time = _____ - _____ (end time) (start time) ≤ 45 minutes.</p> <p>CUE: As SM, acknowledge report of inadequate shutdown margin and/or completion of 1BwOSR 3.1.1.1-2 and asks what their recommended actions are.</p>	<p>VERIFY Shutdown Margin by performing the following:</p> <ul style="list-style-type: none"> • Review total corrected rod worth to power defect and determine that 3974.6 pcm (± 10 pcm) + -2667 (± 50 pcm). = 1307.6 pcm (± 60 pcm) is incorrect and it should be: <u>3897.2 pcm (± 10 pcm) + -2667 (± 50 pcm). = 1230.2 pcm (± 60 pcm).</u> ○ Refer to TRM for Unit 1 COLR. • Review the Shutdown Margin Limit for Modes 1 and 2 from the COLR and determine that 1.0% Δk/k x 1000 pcm/% Δk/k = 1000 pcm is incorrect and the correct value is: <u>1.3% Δk/k x 1000 pcm/% Δk/k = 1300 pcm.</u> • Determine the available shutdown reactivity is less than the minimum required Shutdown Margin Limit: <u>1230.2 pcm (± 60 pcm). < 1300 pcm</u> • Determine shutdown margin is unacceptable within 45 minutes of JPM start time. ○ Determine 1BwOSR 3.1.1.1-2 is complete. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE

Perform Shutdown Margin Calculation

*7.	Review LCO 3.1.4 or 1BwOL 3.1.4. Note: Hand examinee copy of 1BwOL 3.1.4 if asked for.	<ul style="list-style-type: none">• Determine that boration is required to be initiated to restore SDM.	SAT UNSAT N/A <u>Comments:</u>
-----	---	--	--

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS:

Verify Worker Tagout Checklist.

TASK TITLE: **Verify Worker Tagout Checklist.**

JPM No.: **S-200**
Task No.: 4E.AM-06
Objective No.: R-AM-010

REV: NRC 2014
K&A No.: 2.2.15
K&A IMP: 4.3

EXAMINEE: _____

SRO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.
FAILED _____

TIME STARTED: _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) **4, 6, 7**

APPROX COMPLETION TIME: 30
MINUTES

CRITICAL TIME: **N/A**

EVALUATION METHOD:
 PERFORM
 SIMULATE

LOCATION:
 IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

7. OP-AA-109-101, CLEARANCE AND TAGGING, REV 9.
8. BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE, REV 24.
9. M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS.
10. BwOP WX-197, CHANGING LIQUID RADWASTE FILTERS, Rev 22.

MATERIALS:

5. OP-AA-109-101, CLEARANCE AND TAGGING.
6. BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE.
7. M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS.
8. BwOP WX-197, CHANGING LIQUID RADWASTE FILTERS.

TASK STANDARDS:

7. Verify isolation points correct for 2CV03F.
8. Determine 2CV8422 position incorrect for 2CV03F.
9. Determine the sequence of isolation points for 2CV03F is incorrect.

TASK CONDITIONS:

1. You are an extra supervisor on shift.
2. Unit 2 is at 100% power.
3. 2CV03F, Unit 2 RC Filter, needs to be replaced.
4. A worker tagout to isolate and drain 2CV03F, in accordance with BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE, step F.3, has been prepared by another operator.

INITIATING CUES:

1. Shift Manager asks you to authorize/verify the clearance order.
CUE: Hand examinee partially completed Worker Tagout.
2. Review the WTO and if any changes are necessary, correct them.

Verify Worker Tagout Checklist.

Verify Worker Tagout Checklist.

RECORD START TIME: _____

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
1.	Refer to BwOP CV-10, CV FILTERS ISOLATION AND RETURN TO SERVICE. CUE: Provide examinee copy of BwOP CV-10.	Refer to BwOP CV-10, step F.3.	SAT UNSAT N/A <u>Comments:</u>
2.	Refer to Drawing: • M-138, sheet 5B, DIAGRAM OF CVCS AND BTRS CUE: Provide copy of M-138, sheet 5B.	Refer to M-138, sheet 5B.	SAT UNSAT N/A <u>Comments:</u>
3.	Verify the clearance BOUNDARY for 2CV03F.	Determines clearance boundary valves selected are correct: • 2CV129 C/S, Demin Hi Temp Divert Valve. • 2CV8421, RC Filter Bypass Valve. • 2CV8425, RC Filter Inlet Isol Valve. • 2CV8422, RC Filter Outlet Isol Valve. • 2CV8424, RC Filter Drain Valve. • 2CV8423, RC Filter Vent Valve.	SAT UNSAT N/A <u>Comments:</u>

Verify Worker Tagout Checklist.

	<p>EVALUATOR NOTE: The examinee may determine the clearance position is incorrect (JPM step 6) prior to determining the sequence is incorrect (JPM step 4), or the examinee may discover both errors simultaneously. The examinee must identify both errors to complete critical tasks 4 & 6.</p>		
	<p>EVALUATOR NOTE: The JPM contains corrected Worker Tagout checklist to be given to the examinee AFTER the errors are identified.</p> <p>If the examinee first determines the incorrect sequence is listed on the Worker Tagout checklist prior to determining the incorrect position is listed, provide examinee JPM page 7.</p> <p>If the examinee first determines the incorrect position is listed on the Worker Tagout checklist, provide examinee JPM page 8.</p> <p>When the examinee has determined BOTH the incorrect sequence and position are listed on the Worker Tagout checklist, provide examinee JPM page 9.</p>		
	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*4.	<p>Determine the clearance SEQUENCE for the 2CV03F is incorrect.</p> <p>CUE: Acknowledge as Unit Supervisor and inform examinee the checklist sequence will be corrected.</p> <p>CUE: Hand examinee corrected worker tagout in accordance with the evaluator note above.</p>	<p>Determines clearance sequence is incorrect:</p> <ol style="list-style-type: none"> 1. 2CV129 C/S, Demin Hi Temp Divert Valve. 2. 2CV8421 RC Filter Bypass Valve. 3. 2CV8422 RC Filter Outlet Isol Valve. 4. 2CV8425 RC Filter Inlet Isol Valve. 5. 2CV8424 RC Filter Drain Valve. 5. 2CV8423 RC Filter Vent Valve. <ul style="list-style-type: none"> ○ Notifies SM and NSOs of sequencing error. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
5.	<p>Verify the tag type for 2CV03F.</p>	<p>Verifies clearance tag type:</p> <ul style="list-style-type: none"> • 2CV129 C/S, Demin Hi Temp Divert Valve – CI. • 2CV8421 RC Filter Bypass Valve - RI. • 2CV8425 RC Filter Inlet Isol Valve - RD. • 2CV8422 RC Filter Outlet Isol Valve - RD. • 2CV8424 RC Filter Drain Valve - RI. • 2CV8423 RC Filter Vent Valve - RI. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Verify Worker Tagout Checklist.

	PERFORMANCE STEP	STANDARD	CIRCLE APPLICABLE
*6.	<p>Determine the clearance POSITION for the 2CV03F is incorrect.</p> <p>CUE: Acknowledge as Unit Supervisor and inform examinee the checklist position will be corrected.</p> <p>CUE: Hand examinee corrected worker tagout in accordance with the evaluator note above.</p>	<p>Determines clearance position is incorrect:</p> <ul style="list-style-type: none"> • 2CV129 C/S, Demin Hi Temp Divert Valve – INFO. • 2CV8421 RC Filter Bypass Valve - INFO. • 2CV8425 RC Filter Inlet Isol Valve - CLOSED. • 2CV8422 RC Filter Outlet Isol Valve - OPEN. • 2CV8424 RC Filter Drain Valve - INFO. • 2CV8423 RC Filter Vent Valve - INFO. ○ Notifies SM and NSOs of position error. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
*7.	<p>Authorize the clearance order.</p>	<ul style="list-style-type: none"> • Sign the WTO Authorization signature. ○ Fill in the date and time. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS:

Verify Worker Tagout Checklist.

**ATTACHMENT 14 PART 1
WTO Form Hang/Lift Section
Page 1 of 1**

Exceptional C/O: Mode Dependent: Condition Dependent:
 Production Risk: Environmental Risk: Atmospheric Risk: Reactivity Risk:

WORKER TAGOUT# P14-005 JOB DESCRIPTION: CHANGE 2CV03F

WORKING DEPARTMENT: OPS W/O OR W/R: 12345 EQUIP. TAG# 2CV03F

COMPONENT DESCRIPTION: UNIT 2 RC FILTER

FIRST APPROVAL: Jim NSO DATE: Today

SECOND APPROVAL: Joe NSO DATE: Today

WTO AUTHORIZATION: _____ DATE/TIME _____

SPECIAL INSTRUCTIONS: YES: NO: (IF YES SEE ATTACHMENT 14 PART 2)

EQUIP. TAG/EQUIPMENT NAME	SEQ	TAG TYPE	POSITION	HUNG BY	VERIF. BY	SFTY. VERIF.	RTS SEQ	RTS POSITION	RTS BY	VERIF. BY
2CV129 C/S (DEMIN HI TEMP DIVERT VLV)	1	CI	INFO				3	AS REQUIRED		
2CV8421 RC FILTER BYPASS VLV	2	RI	INFO				1	OPEN		
2CV8425 RC FILTER INLET ISOL VLV	3	RD	CLOSED				2	CLOSED		
2CV8422 RC FILTER OUTLET ISOL VLV	4	RD	OPEN				2	CLOSED		
2CV8424 RC FILTER DRAIN VLV	5	RI	INFO				2	CLOSED		
2CV8423 RC FILTER VENT VLV	5	RI	INFO				2	CLOSED		

WTO PLACED: _____ DATE/TIME: _____

WTL COMPLETED WORK START: _____ DATE/TIME: _____

WTO FINAL CLEAR: WORK CREWMEMBER RELEASE: _____ DATE/TIME: _____

WTO CLEARED: _____ DATE/TIME: _____

(COPIES MAY BE MADE OF THIS FORM FOR ADDITIONAL ISOLATION POINTS)

Verify Worker Tagout Checklist.

**ATTACHMENT 14 PART 1
WTO Form Hang/Lift Section
Page 1 of 1**

Exceptional C/O: Mode Dependent: Condition Dependent:
 Production Risk: Environmental Risk: Atmospheric Risk: Reactivity Risk:

WORKER TAGOUT# **P14-005** JOB DESCRIPTION: **CHANGE 2CV03F**

WORKING DEPARTMENT: **OPS** W/O OR W/R: **12345** EQUIP. TAG# **2CV03F**

COMPONENT DESCRIPTION: **UNIT 2 RC FILTER**

FIRST APPROVAL: **Jim NSO** DATE: **Today**

SECOND APPROVAL: **Joe NSO** DATE: **Today**

WTO AUTHORIZATION: _____ DATE/TIME _____

SPECIAL INSTRUCTIONS: YES: NO: (IF YES SEE ATTACHMENT 14 PART 2)

EQUIP. TAG/EQUIPMENT NAME	SEQ	TAG TYPE	POSITION	HUNG BY	VERIF. BY	SFTY. VERIF.	RTS SEQ	RTS POSITION	RTS BY	VERIF. BY
2CV129 C/S (DEMIN HI TEMP DIVERT VLV)	1	CI	INFO				3	AS REQUIRED		
2CV8421 RC FILTER BYPASS VLV	2	RI	INFO				1	OPEN		
2CV8422 RC FILTER OUTLET ISOL VLV	3	RD	CLOSED				2	CLOSED		
2CV8425 RC FILTER INLET ISOL VLV	4	RD	CLOSED				2	CLOSED		
2CV8424 RC FILTER DRAIN VLV	5	RI	INFO				2	CLOSED		
2CV8423 RC FILTER VENT VLV	5	RI	INFO				2	CLOSED		

WTO PLACED: _____ DATE/TIME: _____

WTL COMPLETED WORK START: _____ DATE/TIME: _____

WTO FINAL CLEAR: WORK CREWMEMBER RELEASE: _____ DATE/TIME: _____

WTO CLEARED: _____ DATE/TIME: _____

(COPIES MAY BE MADE OF THIS FORM FOR ADDITIONAL ISOLATION POINTS)

Verify Worker Tagout Checklist.

**ATTACHMENT 14 PART 1
WTO Form Hang/Lift Section
Page 1 of 1**

Exceptional C/O: Mode Dependent: Condition Dependent:
 Production Risk: Environmental Risk: Atmospheric Risk: Reactivity Risk:

WORKER TAGOUT# **P14-005** JOB DESCRIPTION: **CHANGE 2CV03F**

WORKING DEPARTMENT: **OPS** W/O OR W/R: **12345** EQUIP. TAG# **2CV03F**

COMPONENT DESCRIPTION: **UNIT 2 RC FILTER**

FIRST APPROVAL: **Jim NSO** DATE: **Today**

SECOND APPROVAL: **Joe NSO** DATE: **Today**

WTO AUTHORIZATION: _____ DATE/TIME _____

SPECIAL INSTRUCTIONS: YES: NO: (IF YES SEE ATTACHMENT 14 PART 2)

EQUIP. TAG/EQUIPMENT NAME	SEQ	TAG TYPE	POSITION	HUNG BY	VERIF. BY	SFTY. VERIF.	RTS SEQ	RTS POSITION	RTS BY	VERIF. BY
2CV129 C/S (DEMIN HI TEMP DIVERT VLV)	1	CI	INFO				3	AS REQUIRED		
2CV8421 RC FILTER BYPASS VLV	2	RI	INFO				1	OPEN		
2CV8425 RC FILTER INLET ISOL VLV	3	RD	CLOSED				2	CLOSED		
2CV8422 RC FILTER OUTLET ISOL VLV	4	RD	CLOSED				2	CLOSED		
2CV8424 RC FILTER DRAIN VLV	5	RI	INFO				2	CLOSED		
2CV8423 RC FILTER VENT VLV	5	RI	INFO				2	CLOSED		

WTO PLACED: _____ DATE/TIME: _____

WTL COMPLETED WORK START: _____ DATE/TIME: _____

WTO FINAL CLEAR: WORK CREWMEMBER RELEASE: _____ DATE/TIME: _____

WTO CLEARED: _____ DATE/TIME: _____

(COPIES MAY BE MADE OF THIS FORM FOR ADDITIONAL ISOLATION POINTS)

Review Containment Release for Approval

TASK TITLE: **Review Containment Release for Approval**

JPM No.: **S-300**
TPO No.: 8C.HP-002
TASK No.: S-HP-002: Authorize Gaseous (Containment
or Gas Decay Tank) Rad Waste Release

REV: **NRC 2014**
K&A No.: 2.3.11
K&A IMP: 4.3

EXAMINEE: _____

RO SRO (circle one)

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.

TIME STARTED: _____

FAILED _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) **3, 4, 6**

APPROX COMPLETION TIME: 30
MINUTES

CRITICAL TIME: **N/A**

EVALUATION METHOD:
 PERFORM
 SIMULATE

LOCATION:
 IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

11. 1BwOS RETS 2.2.B-1, Rev 2, Unit One Pre-release Source and Channel Check of Containment Purge Effluent Monitor 1PR01J (1RE-PR001A/B/C)
12. RP-BR-980, Rev 12, Containment Vent And Mini Purge Gaseous Effluents

MATERIALS:

1. Copy of partially completed RP-BR-980

TASK STANDARDS:

1. Review RP-BR-980.
2. Determine release cannot proceed due to error in RP-BR-980.

TASK CONDITIONS:

1. You are the Unit 1 Unit Supervisor.
2. Unit 1 is at 100% power; all systems and controls are normally aligned.
3. A Unit 1 Containment release package has been initiated to lower containment pressure.
4. 1BwOS RETS 2.2.B-1 has been previously completed, reviewed and approved.

INITIATING CUES:

1. The U1 Assist NSO has completed Containment Release package G-14-001 through step C.1.f., and states that the package is ready for you. **(Cue: Hand release package and surveillance to examinee.)**
2. Inform the U1 Admin NSO when the release package review is complete.

Review Containment Release for Approval

RECORD START TIME: _____

	<u>PERFORMANCE STEP</u>	STANDARD	Circle Applicable
1.	Refer to partially completed RP-BR-980, Section C Cue: (If asked) Gaseous Release in progress sign has been placed and the 0A VA exhaust fan is in operation.	<ul style="list-style-type: none"> Reads Step D, determines SRO approval required. Reviews entire document 	SAT UNSAT N/A <u>Comments:</u>
2.	Review Section A	<ul style="list-style-type: none"> Reviews steps A.5.d Determines baseline values for ALERT and ALARM setpoints apply. 	SAT UNSAT N/A <u>Comments:</u>
*3.	Determines HIGH Alarm Setpoint was incorrectly established	<ul style="list-style-type: none"> Identifies that the value entered for the HIGH Alarm Setpoint is in error and should be 6.06E-04 μCi/cc. 	SAT UNSAT N/A <u>Comments:</u>
*4.	Determines ALERT Alarm Setpoint was incorrectly established	<ul style="list-style-type: none"> Identifies that the value entered for the ALERT Alarm Setpoint is in error and should be 6.06E-05 μCi/cc. 	SAT UNSAT N/A <u>Comments:</u>
5.	Review Section C Cue: Shift Manager acknowledges step A.5.d error failure.	<ul style="list-style-type: none"> Identify from review that section C.1.c should have been N/A. 	SAT UNSAT N/A <u>Comments:</u>
*6.	Determines HIGH and ALERT Alarm Setpoint was incorrectly inputted	<ul style="list-style-type: none"> Identify that the operator incorrectly inputted 7.23E-3 μCi/cc into the High and Alert alarm setpoints instead of 7.23E-6 μCi/cc in section C.1.c. Also determines that 7.23E-6 μCi/cc is incorrect and the HIGH Alarm Setpoint is in error and should be 6.06E-04 μCi/cc and ALERT Alarm Setpoint is in error and should be 6.06E-05 μCi/cc 	SAT UNSAT N/A <u>Comments:</u>
*7.	Refuse to approve release until HIGH Alarm and ALERT Alarm setpoints are correctly entered.	<ul style="list-style-type: none"> Determine release is unable to be performed (cannot be signed) until errors are resolved. 	SAT UNSAT N/A <u>Comments:</u>

CUE: THIS COMPLETES THIS JPM

RECORD STOP TIME: _____

COMMENTS:

Perform Nuclear Accident Reporting System Notification

TASK TITLE: **Perform Nuclear Accident Reporting System Notification**

JPM No.: **S-413**
TPO No.: 7.F.ZP-001
TASK No.: S-ZP-001: Complete the NARS Form

REV: **NRC 2014**
K&A No.: 2.4.40
K&A IMP: 4.5

EXAMINEE: _____

SRO

EVALUATOR: _____

DATE: _____

The Examinee: PASSED _____ this JPM.

TIME STARTED: _____

FAILED _____

TIME FINISHED: _____

JPM TIME: _____ MINUTES

CRITICAL ELEMENTS: (*) **4, 13, 14**

APPROX
COMPLETION TIME:
13 MINUTES

CRITICAL TIME: **15 minutes**

EVALUATION METHOD:

LOCATION:

PERFORM
 SIMULATE

IN PLANT
 SIMULATOR
 CLASSROOM

GENERAL REFERENCES:

13. EP-AA-112, Rev 16, ERO/ERF Activation and Operation.
14. EP-MW-114-100, Rev 13, MW Region Offsite Notifications.
15. EP-AA-111, Rev 18, Emergency Classification and Protective Action Recommendations.
16. EP-MW-114-100-F-01, Rev G, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM.
17. EP-AA-111-F-02, Rev. E, Braidwood Plant Based PAR Flowchart.

MATERIALS:

2. EP-AA-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM.
3. EP-AA-111-F-02, Rev. E, Braidwood Plant Based PAR Flowchart.
4. EP-MW-114-100, Rev 13, MW Region Offsite Notifications.

TASK STANDARDS:

10. Complete NARS form.
11. Determine Protective Action Recommendations.
12. Perform Notifications.

TASK CONDITIONS:

1. You are the Shift Emergency Director and the crew is performing 1BwFR-H.1, RESPONSE TO LOSS OF SECONDARY HEAT SINK.
2. No release is occurring.
3. A general emergency has just been declared under MG2, due to the ATWS and Loss of Heat Sink.
4. No hostile action in progress.
5. No impediments to evacuation.

Perform Nuclear Accident Reporting System Notification

6. This is a Time Critical JPM.

INITIATING CUES:

The Emergency Plan requires that you **COMPLETE AND TRANSMIT** the initial NARS form. The Accident was **just classified** as a General Emergency, MG2, due to the ATWS and Loss of Heat Sink.

Perform Nuclear Accident Reporting System Notification

RECORD START TIME: _____ (Start time is after the student accepts and understands the task)

	PERFORMANCE STEP	STANDARD	Circle applicable
1.	Refer to NARS form. CUE: Provide copy of NARS form to examinee (and EP-MW-114-100 if asked and EP-AA-111-F-02, Braidwood Plant Based PAR Flowchart if asked)	Refer to NARS form.	SAT UNSAT N/A Comments:
2.	Record Utility Message Number.	Enters number "1".	SAT UNSAT N/A Comments:
3.	Record State Message Number.	Enters "N/A".	SAT UNSAT N/A Comments:
*4.	Complete Sections 1-4.	Completes sections 1-4 as follows: <ul style="list-style-type: none"> ○ Status - [1B] Drill/Exercise ○ Station- [2A] Braidwood ● On-Site Condition - [3D] General Emergency ○ Accident Classified - Time: <u>No later than Current Time</u> Date: <u>Today's Date</u> ● EAL#: <u>MG2</u> ○ Accident Terminated - Time and Date: <u>N/A</u> 	SAT UNSAT N/A Comments:
5.	Release Status. Place "X" by occurring	[5A] None	SAT UNSAT N/A Comments:
6.	Type of Release. Place "X" by Gaseous	[6A] Not Applicable	SAT UNSAT N/A Comments:
7.	Check Wind Direction and speed. CUE: Wind direction is 270 deg. Wind speed is 10 mph	Record actual data from PPDS: <ul style="list-style-type: none"> ○ Direction (~270 deg) ○ Speed (mark units) (~10 mph) 	SAT UNSAT N/A Comments:

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
8.	Recommended Actions from EP-AA-111-F-02.	In block 9, Check box: <ul style="list-style-type: none"> ○ [9D] Evacuate Illinois Sub Areas 1,3,10 	SAT UNSAT N/A <u>Comments:</u>
9.	Enter additional info.	Record "none" in block 10	SAT UNSAT N/A <u>Comments:</u>
10.	NARS form approved by Shift Emergency Director. CUE: No Verifier is available to second check the NARS form	<ul style="list-style-type: none"> • Sign the 'Approved by' line 	SAT UNSAT N/A <u>Comments:</u>
11.	Refer to EP-MW-114-100, MW REGION OFFSITE NOTIFICATIONS.	Refer to EP-MW-114-100: <ul style="list-style-type: none"> • Determine step 4.2 needs to be performed. 	SAT UNSAT N/A <u>Comments:</u>
12	Refer to EP-MW-114-100-F-01, NUCLEAR ACCIDENT REPORTING SYSTEM (NARS) FORM.	Refer to EP-MW-114-100-F-01: <ul style="list-style-type: none"> • Determine NARS Code 38 to be used to transmit NARS form. 	SAT UNSAT N/A <u>Comments:</u>

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
*13.	<p>Establish communications:</p> <p>Note: After examinee dials Code 38, provide the following cue:</p> <p>CUE: After a short pause, a beep is heard, followed by a seven more beeps, for a total of 8 beeps.</p> <p>NOTE: If Examinee dials Code 20 (which is wrong) use Code 20 cue. Otherwise use Code 38 Cue.</p> <p>Note: After examinee reads messages, provide the following cue:</p> <p>CUE Code 38: IEMA online, Grundy Co. Sheriff online Kankakee Co. Sheriff online Will Co. Sheriff online Illinois REAC online Grundy Co. EMA online Kankakee Co. EOC online Will Co. EOC online</p> <p>CUE Code 20: IEMA online, Illinois REAC online</p> <p>Note: Once initial roll call is complete critical time STOPS:</p>	<p>Establish communications as follows:</p> <ul style="list-style-type: none"> • Pick up NARS phone. • DIAL code 38. • Read the following message: "This is Exelon Nuclear Braidwood Station Control Room. Please standby for a NARS message." ○ Read the following message: "This is the Exelon Nuclear Braidwood Station Control room. Please standby to receive a NARS message and respond as the roll is called." • TAKE Initial Roll Call • Mark Initial Boxes for <ul style="list-style-type: none"> • IEMA • Grundy Co. Sheriff • Kankakee Co. Sheriff • Will Co. Sheriff • Illinois REAC • Grundy Co. EMA • Kankakee Co. EOC • Will Co. EOC. ○ Record time and date initial roll call complete. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
<p>EVALUATOR NOTE: Critical time TIME STOPS when completes initial roll call of the NARS form.</p> <p>Determine critical time:</p> <p>_____ - _____ =</p> <p>_____</p> <p>(Initial roll call complete) (JPM start time) ≤</p> <p>15 minutes</p>			

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
*14.	Verbally transmit the NARS Form.	Verbally transmit the NARS Form: <ul style="list-style-type: none"> • Utility Message No: <u>1</u> • State Message No: <u>N/A</u> • Status – <u>[B]</u> <u>Drill/Exercise</u> • Station – <u>[A]</u> <u>Braidwood</u> • Onsite Condition – <u>[D]</u> <u>General Emergency</u> • Accident Classified: <ul style="list-style-type: none"> • Time: <u>When JPM started.</u> • Date: <u>Today.</u> • EAL # : <u>MG2</u> • Accident Terminated Date and Time: <u>N/A</u> • Release Status: <u>[A]</u> <u>None</u> • Type of Release: <u>[A]</u> <u>Not Applicable</u> • Wind Dir: <u>270</u> • Wind Speed: <ul style="list-style-type: none"> ○ <u>[A] is N/A</u> • <u>[B] 10 Miles/Hr</u> • Utility recommendation: <ul style="list-style-type: none"> • <u>[D]</u> Evacuate Illinois Sub Areas 1,3,10 • (Block 10) Additional Information : <u>None</u> Verified With: <u>N/A</u> Approved By: <u>S. Manager</u>	SAT UNSAT N/A <u>Comments:</u>

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
15.	<p>Complete the NARS form.</p> <p>CUE: IF examinee asks for a phone number to use, provide: outside line is 815-458-7882.</p> <p>CUE: John Smith, IEMA.</p>	<p>Fill in the following information on the NARS Form after transmitting info in blocks 1-10:</p> <ul style="list-style-type: none"> • Mark 11A, EXELON • Examinee Name • Outside line number • Current Time • Current Date • Name of person from IEMA receiving message • Organization (IEMA) • Current time • Today's date 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>
16.	<p>Perform Final Roll Call</p> <p>Note: As examinee performs final roll call provide the following cues:</p> <p>CUE Code 38: IEMA online, Grundy Co. Sheriff online Kankakee Co. Sheriff online Will Co. Sheriff online Illinois REAC online Grundy Co. EMA online Kankakee Co. EOC online Will Co. EOC online</p> <p>CUE Code 20: IEMA online, Illinois REAC online</p> <p>CUE: No questions.</p>	<p>PERFORM Final Roll Call and marks boxes for:</p> <ul style="list-style-type: none"> • IEMA • Grundy Co. Sheriff • Kankakee Co. Sheriff • Will Co. Sheriff • Illinois REAC • Grundy Co. EMA, • Kankakee Co. EOC • Will Co. EOC • Ask if there are any questions about the information provided. 	<p>SAT UNSAT N/A</p> <p><u>Comments:</u></p>

Perform Nuclear Accident Reporting System Notification

	PERFORMANCE STEP	STANDARD	Circle applicable
17.	STATE "NARS communication is complete."	STATE "NARS communication is complete."	SAT UNSAT N/A <u>Comments:</u>

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME: _____

COMMENTS: