Exelon Generation.

Job Performance Measure

Perform Calorimetric Using Process Plant Computer (NI Adjustment Required)

JPM Number: RA-1-06-2

Revision Number: 2

Date: 6/27/21

Developed By: Barry Mingus   /   4/23/21
                              Instructor: Print / Sign   Date

Reviewed By: Benjamin Reyes   /   4/28/21
                           SME or Instructor: Print / Sign   Date

Reviewed By: Peter Leonhardt   /
                        Operations Representative: Print / Sign   Date

Approved By: Brian Lewin   /
                           Training Department: Print / Sign   Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

> **NOTE:** All steps of this checklist should be performed upon initial validation.
> Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

1. Task description and number, JPM description and number are identified.

   BR

2. Knowledge and Abilities (K/A) references are included.

   BR

3. Performance location specified. (in-plant, control room, simulator, or other)

   BR

4. Initial setup conditions are identified.

   BR

5. Initiating cue (and terminating cue if required) are properly identified.

   BR

6. Task standards identified and verified by instructor or SME review.

   BR

7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

   BR

8. IAW NUREG 1021 Appendix C, clearly identify the task standard (i.e., the predetermined qualitative or quantitative outcome) against which task performance will be measured.

   BR

9. Verify the procedure(s) referenced by this JPM reflects the current revision:
   Procedure: _____ 1BOSR 3.1.2-1 _____   Revision: ___ 27 ___
   Procedure: _____   Revision: _____
   Procedure: _____   Revision: _____
   Procedure: _____   Revision: _____

10. Verify cues both verbal and visual are free of conflict.

    BR

11. Verify performance time is accurate.

    N/A

12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

    N/A

13. When JPM is initially validated, sign and date JPM cover page. For subsequent validations, sign and date below:

    _____

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

Revision Record (Summary)

Revision #	Summary
00	1. New JPM created from N-08 rev 8 2. Made changes listed in the validation comments
01	1. Updated to new template. 2. Complete rewrite to match current procedure. 3. Validated by Mike Lindemann and Eric Hipp.
02	1. Updated to new template 2. Added Task Standard 3. Style and format changes

SETUP INSTRUCTIONS

1. 1.Reset the simulator to IC 145

> NOTE: It is acceptable to use a similar IC to the IC listed above, provided the specific IC used is verified to be compatible with this and other JPMs that are scheduled to be run concurrently.

2.   At 1PM07J verify N44 is ~ 99.0% and verify N41, N42, and N43 100.0%.

3. Verify stapler and calculator available for use by the candidate.

4. Verify simulator printer has sufficient paper and ink to support printing activities.

5. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.

6. This completes the setup for this JPM.

INITIAL CONDITIONS

1.   You are the Unit NSO.

2.   The unit is in Mode 1.

INITIATING CUE

You have been directed by the Unit Supervisor to perform a calorimetric per 1BOSR 3.1.2-1, using the Plant Process Computer.

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

••

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

  *   Denotes critical steps: **2, 4, 7, 13, 14, 15, 17, 18, and 20.**

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.
••

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JPM Start Time: _____   JPM Sequence #: _____ of _____

Task Standard:
Candidate will perform a calorimetric and identify that N44 is indicating lower than the other channels. Per 1BOSR 3.1.2-1, the candidate will adjust N44 up to ~100% to satisfy the surveillance. Data Sheet D-1 is to be completed by the applicant in the course of completing the calorimetric calibration to document the actions of the surveillance. Upon completion, all NIs will read approximately the same and the surveillance will be complete with the D-1 data sheet filled out documenting the surveillance data as shown in the KEY.

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE:	Provide trainee with a copy of 1BOSR 3.1.2-1 upon request.				
1.	Refer to 1BOSR 3.1.2-1, Calorimetric Calculation Daily Surveillance	• Open 1BOSR 3.1.2-1	☐	☐	___
CUE:	**All prerequisites and precautions are met**				
* 2.	RECORD percent power readings for N-41, N-42, N-43, and N-44 at 1PM07J on Data Sheet D1.	• Data obtained and recorded on Data Sheet D1. (±0.5%) • N41 – 99.99 • N42 – 99.99 • N43 – 99.99 • N44 – 99.00	☐	☐	___
3.	From the PPC Main Menu screen, SELECT Operator Demandable.	• Operator Demandable selected.	☐	☐	___
* 4.	SELECT Calorimetric.	• Calorimetric selected.	☐	☐	___
5.	Determine if any Alerts are highlighted.	• Alerts evaluated.	☐	☐	___
CUE:	**(If any Alerts are actually present) There are NO Alerts.**				

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
6.	VERIFY the correct Steam Generator Blowdown Flows are displayed for each Loop.	• Blowdown flows indicate approximately 50 gpm • Blowdown flows indicate Green on the display • No error code present – No B or S identifier next to the number value.	☐	☐	___
* 7.	SELECT "Calculation Method".	• Calculation method selected.	☐	☐	___
8.	Determine if there are any substituted points.	• Determine no calculated value has an "S" string attached.	☐	☐	___
9.	VERIFY desired Calorimetric Method of operation is displayed:	• Determine Method 1 – LEFM is displayed	☐	☐	___
10.	PRINT the Calorimetric Calculation Method Control page.	• Calorimetric Calculation Method Control page printed.	☐	☐	___
11.	DETERMINE the calorimetric time period that will be used.	• 10 minute value used.	☐	☐	___
CUE:	**(If asked) There are no flow inconsistencies**				
NOTE:	The following step may be performed at any time.				
12.	ATTACH computer printout to the surveillance package.	• Printout attached.	☐	☐	___
* 13.	OBTAIN Percent Power from Computer Printout and RECORD on Data Sheet D1.	• Data obtained and recorded on Data Sheet D1. • 99.93%	☐	☐	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

* 14.	CALCULATE the Power Difference for each Power Range NI Channel using the equation below.
	
	NIS Power ____ - Calorimetric Power ____ = Pow
	(Step F.1) (Step F.5)
		• Correct value calculated (no margin)
		  • N41 + 0.06
		  • N42 + 0.06
		  • N43 + 0.06
		  • N44 - 0.93
			☐	☐	____

* 15.	RECORD on Data Sheet D1.	• Correct value recorded for all 4 channels.
		  • N41 + 0.06
		  • N42 + 0.06
		  • N43 + 0.06
		  • N44 - 0.93
			☐	☐	____

NOTE:	The candidate may determine channels in addition to N44 require adjustment.				
16.	Determine if NIS adjustment is needed for each channel.	• Determine only N44 requires adjustment.	☐	☐	____
CUE:	**If asked, the SM does not desire to have adjustments made to NIS channels that have a positive number and are < 0.5%.**				
* 17.	OBTAIN the CURRENT percent power reading from the Power Range Channel to be adjusted, at 1PM07J. RECORD on Data Sheet D1.	• Obtain N44 current reading and record on Data Sheet D1 (±0.5%) • 99.0%	☐	☐	____
* 18.	SUBTRACT the Power Difference recorded in step F.6 from the current NIS readings recorded in step F.8 to determine the indicated power level to adjust to. RECORD results in on Data Sheet D1.	• Correct value recorded. • 99.93%	☐	☐	____
19.	Place the Rod Control system in manual	• Verify Rods in Manual	☐	☐	____
CUE:	**(If asked) US acknowledges placing Rods in Manual.**				

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE:	(If asked) There are no INOPERABLE NI channels.				
NOTE:	If the candidate determines any channels in addition to N44 require adjustment, then repeat JPM steps 20 and 21 for each channel requiring adjustment				
* **20**.	Adjust the out of tolerance channels.	• Adjust the GAIN Potentiometer on the Power Range Drawer B at 1PM07J to the reading recorded in step F.9 • 99.93%	☐	☐	___
21.	Verify / Reset positive Rate trip.	• Check Positive Rate trip light and reset if it is lit.	☐	☐	___
22.	NI adjustment complete.	• Initial 'Adjustment Complete' for N44 on Data Sheet D1.	☐	☐	___
23.	Return Rod control system to auto	• Place Rods in Auto.	☐	☐	___
CUE:	(If asked) US acknowledges placing Rods in Auto.				
CUE:	This JPM is complete.				

JPM Stop Time: _____

● ●

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JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: ☐ EO ☒ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Perform: Calorimetric Using Process Plant Computer (NI Adjustment Required)

JPM Number: RA-1-06-2   Revision Number: 2

Task Number and Title: R-NI-004, Perform calorimetric calculation

Task Standard: Candidate will perform a calorimetric and identify that N44 is indicating lower than the other channels. Per 1BOSR 3.1.2-1, the candidate will adjust N44 up to ~100% to satisfy the surveillance. Data Sheet D-1 is to be completed by the applicant in the course of completing the calorimetric calibration to document the actions of the surveillance. Upon completion, all NIs will read approximately the same and the surveillance will be complete with the D-1 data sheet filled out documenting the surveillance data as shown in the KEY.

K/A Number and Importance: 2.1.19 (3.9) 015A1.01 (3.5 / 3.8)

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No   SRO Only: ☐ Yes ☒ No   Time Critical: ☐ Yes ☒ No

Reference(s):

Procedure: 1BOSR 3.1.2-1	Revision: 27
Procedure:	Revision:
Procedure:	Revision:
Procedure:	Revision:

Actual Testing Environment: ☒ Simulator   ☐ Control Room   ☐ In-Plant   ☐ Other

Testing Method: ☐ Simulate ☒ Perform

Estimated Time to Complete: 20 minutes   **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily?   ☐ Yes   ☐ No

The operator's performance was evaluated against standards
contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

NOTE: Enter finalized grading, comments, and notes relevant to this evaluation in the associated TQ-AA-150-F03A/B. (See AR 4282419).

Evaluator's Name (Print): _____

Evaluator's Signature: _____   **Date**: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

1.   You are the Unit NSO.

2.   The unit is in Mode 1.

INITIATING CUE

You have been directed by the Unit Supervisor to perform a calorimetric per 1BOSR 3.1.2-1, using the Plant Process Computer.

NIS WORKSHEET
DATA SHEET D1

> **NOTE**
> When operating with calorimetric power $\leq$ 50% and any power range channel is indicating > 2% of calorimetric power, then adjust the power range channel downward to just meet Technical Specification 3.3.1 requirement of 2%. Further adjustment could result in the power range channel trip setpoints being nonconservative upon a return to full power. However, if any power range channel is indicating low, then adjust it upward to match calorimetric power. **(CM-1)**

1. **NIs Power**	5. **Calorimetric Power**	6. **Power Difference**	7. **Initial for No NIs Adjustment**
N41 _____	_____	_____	_____
N42 _____		_____	_____
N43 _____		_____	_____
N44 _____		_____	_____

8. **Current NIs Power**	9. **(Step 8 - 6) Power to adjust NIs to**	12. **Adjustment Complete**
N41 _____	_____	_____
N42 _____	_____	_____
N43 _____	_____	_____
N44 _____	_____	_____

NIS WORKSHEET
DATA SHEET D1

> **NOTE**
>
> When operating with calorimetric power < 50% and any power range channel is indicating > 2% of calorimetric power, then adjust the power range channel downward to just meet Technical Specification 3.3.1 requirement of 2%. Further adjustment could result in the power range channel trip setpoints being nonconservative upon a return to full power. However, if any power range channel is indicating low, then adjust it upward to match calorimetric power. **(CM-1)**

1. **NIs Power**	5. **Calorimetric Power**	6. **Power Difference**	7. **Initial for No NIs Adjustment**
			Initials
N41 99.99	99.93	+0.06	Initials
N42 99.99		+0.06	Initials
N43 99.99		+0.06	Initials
N44 99.00		- 0.93	

8. **Current NIs Power**	9. **(Step 8 - 6) Power to adjust NIs to**	12. **Adjustment Complete**
N41 na	na	N/A
N42 na	na	N/A
N43 na	na	N/A
N44 99.00	99.99	Initials

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Job Performance Measure

Perform 0BOSR CW-W1
DETERMINATION OF MAXIMUM ALLOWABLE BLOWDOWN
TEMPERATURE AND ROCK RIVER FLOW RATE
JPM Number: RA-1-07-0

Revision Number: 0

Date: 4/23/21

Developed By: Barry Mingus   /   4/23/21
                                    Instructor: Print / Sign   Date

Reviewed By: Benjamin Reyes   /   5/13/21
                                    SME or Instructor: Print / Sign   Date

Reviewed By: Peter Leonhardt   /
                                    Operations Representative: Print / Sign   Date

Approved By: Brian Lewin   /
                                    Training Department: Print / Sign   Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

> **NOTE:** All steps of this checklist should be performed upon initial validation.
> Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

1. Task description and number, JPM description and number are identified. _____

2. Knowledge and Abilities (K/A) references are included. _____

3. Performance location specified. (in-plant, control room, simulator, or other) _____

4. Initial setup conditions are identified.

5. Initiating cue (and terminating cue if required) are properly identified. _____

6. Task standards identified and verified by instructor or SME review. _____

7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). _____

8. IAW NUREG 1021 Appendix C, clearly identify the task standard (i.e., the predetermined qualitative or quantitative outcome) against which task performance will be measured. _____

9. Verify the procedure(s) referenced by this JPM reflects the current revision:
   Procedure: ___0BOSR CW-W1____   Revision: ___21___
   Procedure: _____   Revision: _____
   Procedure: _____   Revision: _____
   Procedure: _____   Revision: _____

10. Verify cues both verbal and visual are free of conflict. _____

11. Verify performance time is accurate. _____

12. If the JPM cannot be performed as written with proper responses, then revise the JPM. _____

13. When JPM is initially validated, sign and date JPM cover page. For subsequent validations, sign and date below: _____

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

Revision Record (Summary)

Revision #	Summary
00	1. New JPM created for 21-1 NRC Exam

SETUP INSTRUCTIONS

This is an administrative JPM that may be performed in any setting where the necessary procedures and support information can be provided.

Verify current revisions of the following information is available for the JPM performance:

- 0BOSR CW-W1

ENSURE the following is available during performance of the JPM:

- 0BOSR CW-W1
- Photographs, used as references
- USGS Website data
- Calculator

ENSURE the following is available during performance of the JPM:

- New clean copies of procedure and references for candidate to work from during performance

This completes the setup for this JPM.

INITIAL CONDITIONS

1. You are the Assist NSO.

2. Both units are in Mode 1.

3. All prerequisites of 0BOSR CW-W1 have been met

INITIATING CUE

You have been directed by the Unit Supervisor to perform 0BOSR CW-W1.

Use current date and time as required.

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

- -

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

*   *   Denotes critical steps: **2, 4, 6, 7, & 10**

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.
- -

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JPM Start Time: _____   JPM Sequence #: _____   of   _____

Task Standard:
The candidate will record data from MCB recorder stills per 0BOSR CW-W1. Additional data will be gathered from stills of USGS website. The candidate will use the assembled data to generate calculations to verify compliance with thermal NPDES limits for Byron Station Blowdown to the Rock River. The surveillance will be complete satisfactorily and within NPDES limits of Maximum Allowable Blowdown Temperature of < 120°F and Makeup Flow < 56,100 gpm.

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE: Provide trainee with a copy of 0BOSR CW-W1, photographs of 0CD-CX4100, and USGS Website Data					
1.	Refer to 0BOSR CW-W1, DETERMINATION OF MAXIMUM ALLOWABLE BLOWDOWN TEMPERATURE AND ROCK RIVER FLOWRATE	• Open 0BOSR CW-W1	☐	☐	___

* 2.	RECORD the Circulating Water Makeup Flowrate and Temperature, and Blowdown Flowrate and Temperature.	• Record Temperature and Flowrate from 0CD-CX4100 under F.1
		• Record:
		  • Make up
		    • Temp: 65°F
		    • Flow: 39,300GPM
		  • Blowdown
		    • Temp: 80°F
		    • Flow: 15,800 GPM
			☐	☐	___

3.	OBTAIN Rockton, Byron, and Como gaging station Rock River flow using the USGS Water Resources of Illinois website.	• Record flow under F.2
		• Record:
		  • Rockton: 5500 cfs
		  • Como: 6560 cfs
		  • Byron: 6390 cfs
			☐	☐	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
* 4.	CALCULATE River Screenhouse Flowrate	• Record River Screenhouse Flow under F.3.a Byron Gauge Readings • RECORD: <u>6390 cfs</u>	☐	☐	___
5.	DETERMINE the Maximum Allowable Temperature Rise	• Use method F.4.a • RECORD <u>83°</u> under F.4.a	☐	☐	___
* 6.	CALCULATE the Maximum Allowable Blowdown Temperature. ___°F +___°F = ___ °F Make Up Temperature (Step F.1) Max Allowable Temp Rise (Step F.4) Max Allowable Blowdown Temp (120°F Max)	• PERFORM calculation from data in steps F.1 and F.4 • <u>65°F</u> + <u>83°F</u> = <u>120°F</u> (Actual value is 148°F, but per the step, if >120°, record 120°) • RECORD <u>120°F</u> (max allowed)	☐	☐	___
* 7.	COMPARE the Maximum Allowable Blowdown Temperature to the Blowdown Temperature. • Blowdown Temperature (step F.1) <120°F (Y / N) • Blowdown Temperature (step F.1) <Maximum Allowable Blowdown Temperature (step F.5) (Y/N) • Water Quality Standard (Table 2) - Makeup Temperature (step F.1) > 3°F (Y/N)	• COMPARE temperatures in F.6. • RECORD <u>'Y' or 'Yes'</u> for all comparisons. • Blowdown Temperature (step F.1) <120°F (**Y** / N) • Blowdown Temperature (step F.1) <Maximum Allowable Blowdown Temperature (step F.5) (**Y**/N) • Water Quality Standard (Table 2) - Makeup Temperature (step F.1) > 3°F (**Y**/N)	☐	☐	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
8.	CHECK Plant Conditions on chart 1.	• OBSERVE conditions are BELOW the acceptable region line • RECORD <u>N/A</u> under F.7	☐	☐	___
9.	Calculation of Maximum River Consumption Rate (MRCR).	• River Screenhouse Flow is > 679 CFS • RECORD <u>N/A</u> for F.8	☐	☐	___
* 10.	Makeup Flow< 56,100 gpm	• Make-up flow (39,300) is less than 56,100 • RECORD 'Y' or 'Yes' for F.9	☐	☐	___
CUE:	This JPM is complete.				

JPM Stop Time: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: ☐ EO ☒ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Perform 0BOSR CW-W1

JPM Number: RA-1-07-0   Revision Number: 0

Task Number and Title: R-AM-018, Perform Mode 1, 2, & 3 shiftly and daily operating surveillances

Task Standard: The candidate will record data from MCB per 0BOSR CW-W1. Additional data will be gathered from stills of USGS website. The candidate will use the assembled data to generate calculations to verify compliance with thermal NPDES limits for Byron Station Blowdown to the Rock River. The surveillance will be complete satisfactorily and within NPDES limits of Maximum Allowable Blowdown Temperature of < 120°F and Makeup Flow < 56,100 gpm..

K/A Number and Importance: 2.1.25 (3.9/4.2)

Suggested Testing Environment: Simulator or Classroom

Alternate Path: ☐ Yes ☒ No   SRO Only: ☐ Yes ☒ No   Time Critical: ☐ Yes ☒ No

Reference(s):

Procedure: 0BOSR CW-W1   Revision: 21
Procedure: _____   Revision: _____
Procedure: _____   Revision: _____
Procedure: _____   Revision: _____

Actual Testing Environment: ☐ Simulator   ☐ Control Room   ☐ In-Plant   ☐ Other

Testing Method: ☐ Simulate   ☒ Perform

Estimated Time to Complete: 20   minutes   **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily?   ☐ Yes   ☐ No

The operator's performance was evaluated against standards
contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

NOTE: Enter finalized grading, comments, and notes relevant to this evaluation in the associated TQ-AA-150-F03A/B. (See AR 4282419).

Evaluator's Name (Print): _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

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Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. You are the Assist NSO.

2. Both units are in Mode 1.

3. All prerequisites of 0BOSR CW-W1 have been met

INITIATING CUE

You have been directed by the Unit Supervisor to perform 0BOSR CW-W1.

Use current date and time as required.

··

YOKOGAWA ◆

OCD-CX4100

FLOW / LvL
TODAY NOW
DISP 3h:50min

1h/div

CW BLWDN FLOW 158 100GPM

CW FLOW MAX FLOW 393 1000GPM

CW INTAKE LvL 5.9 FT

DISP/ENTER

MCC 133X3

		PROCEDURE NO. **0BOSR CW-W1**		

Exelon Generation.

BYRON STATION

UNIT NO. **0**	REVISION NO. **21**

PROCEDURE TITLE:
 * DETERMINATION OF MAXIMUM ALLOWABLE BLOWDOWN TEMPERATURE AND ROCK RIVER FLOW RATE

Rev	Summary	IR/AT#	EC#	Procedure Database Tracking #
21	Change BOL ENTER statements to NOTIFY Supervisor to review.			27626
20	Adds a Note prior to step F.3 to channel check flows.	1470859-03		17327
19	PPC Change for 0TR-CW47A to 0CD-CX4100			16654
18	PPC Change for 0UR-CW032 to 0CD-CX4100	1410381	381169	16589
17	Clarify acceptance criteria.	1381078-03		16539
16	Correct error in step F.6.c.			16391
15	Reflect changes to NPDES permit and proactive entry into 0BOL EPA1. Delete commitment 454-411-95-IL48313.			16370
14	Update website in Attachment A.	664272-02		10206
13	Revise step F.1 to use conservation value of 32°F if the circ water warming line is in service.	574044-02		8558
12	Added additional means for determining CW Makeup Temperature.			5-2304
11	Added additional CW B/W temperature indication source from shiftly/daily.			5-1164
10	Update Attachment with new website for river flowrates.			
8	Revise method for obtaining Rock River level and discharge date.			
7	Update phone number for Corp of Engineers.			

DETERMINATION OF MAXIMUM ALLOWABLE
BLOWDOWN TEMPERATURE AND ROCK RIVER FLOW RATE **(CM-1)**

A. STATEMENT OF APPLICABILITY:

This procedure determines compliance with thermal NPDES limits for Byron Station CW Blowdown to the Rock River. This procedure is applicable and may be performed in all modes. The minimum frequency for performing this procedure is weekly. The basis for the performance of this procedure is to verify that CW blowdown temperature is below the maximum allowable blowdown temperature. IF CW blowdown temperature is below the maximum allowable blowdown temperature, THEN the thermal water quality standards at the edge of the 26 acre mix zone will be met. This procedure will also be used to determine Rock River flowrate for compliance with LCO 3.7.9, Ultimate Heat Sink.

B. REFERENCES:

1. Technical Specifications:

   a. LCO 3.7.9

2. Station Procedures:

   a. 0BOA ENV-2, Rock River Abnormal Water Level, Unit 0.

   b. 0BOL 7.9, Ultimate Heat Sink (UHS).

   c. 0BOL EPA1, NPDES - Blowdown Thermal Compliance Monitoring.

3. April 11, 1988, Letter to R. Pleniewicz from T. Hemminger, Environmental Affairs.

4. February 18, 1988, Letter to R. Querio from T. Hemminger, Environmental Affairs.

5. U.S. Dept. of Interior - Geological Survey - Water Resources Division.

6. March 7, 1977, Letter to Mr. Don Vonnshme from Illinois Department of Conservation.

7. September 21, 1978, Letter to J.T. Westermeir from John H. Huges.

8. December 22, 1989, Letter to R. Pleniewicz from J. Smith, Environmental Affairs - Subject: Heat Rejection Limit.

B. continued

9. Internet Website:
    http://il.water.usgs.gov

10. Station Commitments:

    a. **CM-1** 454-225-90-00300

    b. **CM-2** 454-251-88-59500

11. Byron Letter 2003-0102, dated November 11, 2003, to Mr. Tom McSwiggen, Illinois Environmental Protection Agency.

C. PREREQUISITES:

1. Receive permission from the Shift Manager or designated SRO licensed assistant prior to performing this surveillance by having the Data Package Cover Sheet signed and dated.

D. PRECAUTIONS:

1. None.

E. LIMITATIONS AND ACTIONS:

1. In the event an Acceptance Criteria is not met during the performance of this procedure, IMMEDIATELY notify the Shift Manager, NOTIFY Supervisor to review 0BOL EPA1 or 0BOL 7.9 and NOTIFY the NPDES Coordinator.

2. In the event that the Rock River flowrate is less than 2400 cfs (an Admin Limit of 2600 cfs has been established to provide warning) and/or the temperature differential between the main river temperatures and the water quality standard is less than 3°F, daily calculations will be undertaken to demonstrate compliance with the water quality standard. NOTIFY the Shift Manager, NOTIFY Supervisor to review 0BOL EPA1 and NOTIFY the NPDES Coordinator (or designee).

3. If the Rock River flowrate falls to < 700 cfs, notify the Shift Manager and refer to LCO 3.7.9, ULTIMATE HEAT SINK, for applicable actions.

E. continued

④ River temperature rise must not exceed 5°F outside the mixing zone. IF the actual blowdown temperature is below the calculated Maximum Allowable Blowdown Temperature, THEN the temperature at the edge of the mixing zone should be within compliance per EPA regulations, to prevent any potential for excessive environmental impact, the maximum allowable blowdown temperature under all conditions is 120°F or 83°F hotter than CW makeup temperature, whichever is less.

⑤ If the actual heat rejection rate exceeds the limit of 0.5 Billion BTU/hr, adjust makeup and blowdown flowrate until within compliance. Notify NPDES Coordinator and generate an IR to document the event.

F. MAIN BODY:

① **RECORD** the Circulating Water Makeup Flowrate and Temperature, and Blowdown Flowrate and Temperature. River Temperature is Makeup Temperature.

TEMPERATURE (0CD-CX4100)   FLOWRATE (0CD-CX4100)

Make Up ___65___ °F **   ___39,300___ GPM

Blowdown ___80___ °F ***   ___15,800___ GPM

** IF CW M/U temperature instrumentation is not functioning, THEN contact Chemistry to perform daily temperature measurement and record value obtained from Chemistry.

*** May use computer point T2418 if 0TY-CW046 is inoperable or contact Chemistry to perform daily temperature measurement and record value obtained from Chemistry.

② **OBTAIN** Rockton, Byron, and Como gaging station Rock River flow using the USGS Water Resources of Illinois website. See Attachment A for guidance, as required.

Rockton ___5500___ flow (cfs)   Como ___6560___ flow (cfs)   Byron ___6390___ flow (cfs)

F. continued

> **NOTE**
>
> Cold weather can affect Byron flow. Channel Check by comparing with Rockton and Como flows to determine availability for the following step.

3. **CALCULATE** River Screenhouse Flowrate using one of the following methods: **(¢)**

  a. Byron Gage reading available:

  River Screenhouse Flow = Byron Flow _6390_ CFS
  (≥ 2600 CFS Admin Limit)

  OR

N/A

  b. Byron Gage reading unavailable:

  River Screenhouse Flow =

  (0.245 x _____) + (0.755 x _____) = _____ CFS
  (Rockton Flow)   (Como Flow)   (≥ 2600 CFS Admin Limit),
                          OR

  c. Byron and Como Gauge reading unavailable:

  River Screenhouse Flow = Rockton Flow _____ CFS
  (≥ 2600 CFS Admin Limit),

  OR

  d. Byron and Rockton Gauge reading unavailable:

  River Screenhouse Flow = (0.755) Como Flow _____ CFS
  (≥ 2600 CFS Admin Limit),

  OR

  e. Byron, Como and Rockton gauge readings unavailable:

  1). Assume Rock River Flow is < _700_ CFS and **NOTIFY** Supervisor to review LCO 3.7.9 Required Action H.

0BOSR CW-W1
Revision 21
Page 5 of 11
Continuous Use

F. continued

4. **DETERMINE** the Maximum Allowable Temperature Rise using one of the following methods:

   a. River Screenhouse flowrate is > 2400 CFS, **RECORD** 83°F.

   Maximum Allowable Temperature Rise __83__ °F,

   <div align="center">OR</div>

   N/A

   b. River Screenhouse Flow rate is < 2400 CFS, **PERFORM** the following on Table 1.

   SELECT the first river flow rate that is less than or equal to the screenhouse flow (e.g., for screenhouse flow of 2200 CFS, use the 2100 CFS) then come across to the first blowdown flowrate that is greater than or equal to the actual blowdown flowrate and **RECORD** below the MAXIMUM ALLOWABLE TEMPERATURE RISE.

   Maximum Allowable Temperature Rise _____°F.

5. **CALCULATE** the Maximum Allowable Blowdown Temperature. The Maximum Allowable Blowdown Temperature under all river temperature or flow conditions is 120°F. (If greater than 120°F, record 120°F.)   (¢)

__65__ °F	+	__83__ °F	=	__120__ °F
Make Up Temperature (Step F.1)		Max Allowable Temp Rise (Step F.4)		Max Allowable Blowdown Temp (120°F Max)

6. **COMPARE** the Maximum Allowable Blowdown Temperature to the Blowdown Temperature. IF any of the comparisons below are answered "N" (No), THEN **NOTIFY** Supervisor to review 0BOL EPA1. **(¢)**

   a. (80<120)
   Blowdown Temperature (step F.1) < 120°F __Y__
   (Y / N)

   b. (80 < 120)
   Blowdown Temperature (step F.1) < Maximum Allowable Blowdown Temperature (step F.5) __Y__
   (Y/N)

   c. Water Quality Standard (Table 2) - Makeup Temperature (step F.1) > 3°F __Y__   (90-65=25)
   (Y/N)

F. continued

> **NOTE**
>
> If existing conditions are above the acceptable region of CHART 1, perform a Heat Rejection Rate Calculation per step F.7. Otherwise mark step F.7 N/A.

N/A

7. Calculation of Heat Rejection Rate **(¢)**

   CHECK Plant Conditions on chart 1. If <u>BELOW</u> the acceptable region line **RECORD** N/A. If <u>ABOVE</u> the acceptable region line, **PERFORM** the following calculation.

   Heat Rejection Rate =

   _____ X _____ X 5×10^{-7} = _____ (Max 0.5)
   Blowdown   Blowdown/   Heat Rejection
   Flow (gpm)   Make Up ΔT   Rate (Billion BTU/HR)

N/A

8. Calculation of Maximum River Consumption Rate (MRCR). Mark N/A if River Screenhouse Flow > <u>679</u> CFS. **(¢)**

   a. _____ GPM - _____ GPM = _____ GPM
      Make Up Flow   Blowdown Flow   Rock River
      (Step F.1)   (Step F.1)   Consumption Rate

   b. MRCR = _____ CFS x 40.392 = _____ GPM
             RSH flow   MRCR
             (Step F.3)

   Rock River Consumption Rate ≤ MRCR ____ (Y/N)

9. Makeup Flow < 56,100 gpm __Y__ (Y/N) (39,300 < 56,100)

G. <u>ACCEPTANCE CRITERIA:</u>

   1. The Blowdown Temperature (step F.1) MUST BE BELOW the Maximum Allowable Blowdown Temperature calculated in step F.5. (NPDES) Otherwise, NOTIFY Supervisor to review 0BOL EPA1.

   2. The Blowdown Temperature MUST NOT EXCEED <u>120</u>°F. (NPDES) Otherwise, NOTIFY Supervisor to review 0BOL EPA1.

   3. The Rock River Flowrate is greater than or equal to <u>700</u> CFS. Refer to Tech Spec LCO 3.7.9.

G. continued

4.   The Rock River Flowrate is greater than or equal to 2600 CFS (Admin Limit to provide warning to 2400 CFS actual limit). Otherwise, NOTIFY Supervisor to review 0BOL EPA1 and notify the NPDES Coordinator. (NPDES)

5.   The heat rejection rate must be less than or equal to 0.5 Billion BTU/hr. (NPDES) Otherwise, NOTIFY Supervisor to review 0BOL EPA1.

6.   The Rock River Consumption is limited to 9% of total Rock River Flow when the Rock River Flowrate is less than or equal to 679 CFS. (IL Dept. of Conservation) Otherwise, NOTIFY Supervisor to review 0BOL EPA1.

7.   Makeup temperature is at least 3°F below the water quality standard. Otherwise, NOTIFY Supervisor to review 0BOL EPA1. (NPDES)

8.   The Makeup flow shall not exceed 125 cfs (56,100 gpm). (IL Dept. of Conservation) Otherwise, NOTIFY Supervisor to review 0BOL EPA1.

TABLE 1
MAXIMUM ALLOWABLE TEMPERATURE RISE **(CM-1)**

River Flow   BLOWDOWN FLOWRATE (GPM)

(CFS)	8976	11,200	13,464	15,708	17,952	20,196	22,440
700	73.5	59.5	50.5	44.2	38.5	36.2	32.7
875	83.0	74.6	62.5	53.8	48.1	43.1	40.0
1200	83.0	83.0	83.0	72.5	64.1	59.5	54.4
1500	83.0	83.0	83.0	83.0	79.4	72.5	66.8
1800	83.0	83.0	83.0	83.0	83.0	83.0	79.4
2100	83.0	83.0	83.0	83.0	83.0	83.0	83.0
2400	83.0	83.0	83.0	83.0	83.0	83.0	83.0

Note: For blowdown flowrates less than 8976 gpm use 83.0.

CHART 1
HEAT REJECTION CHART
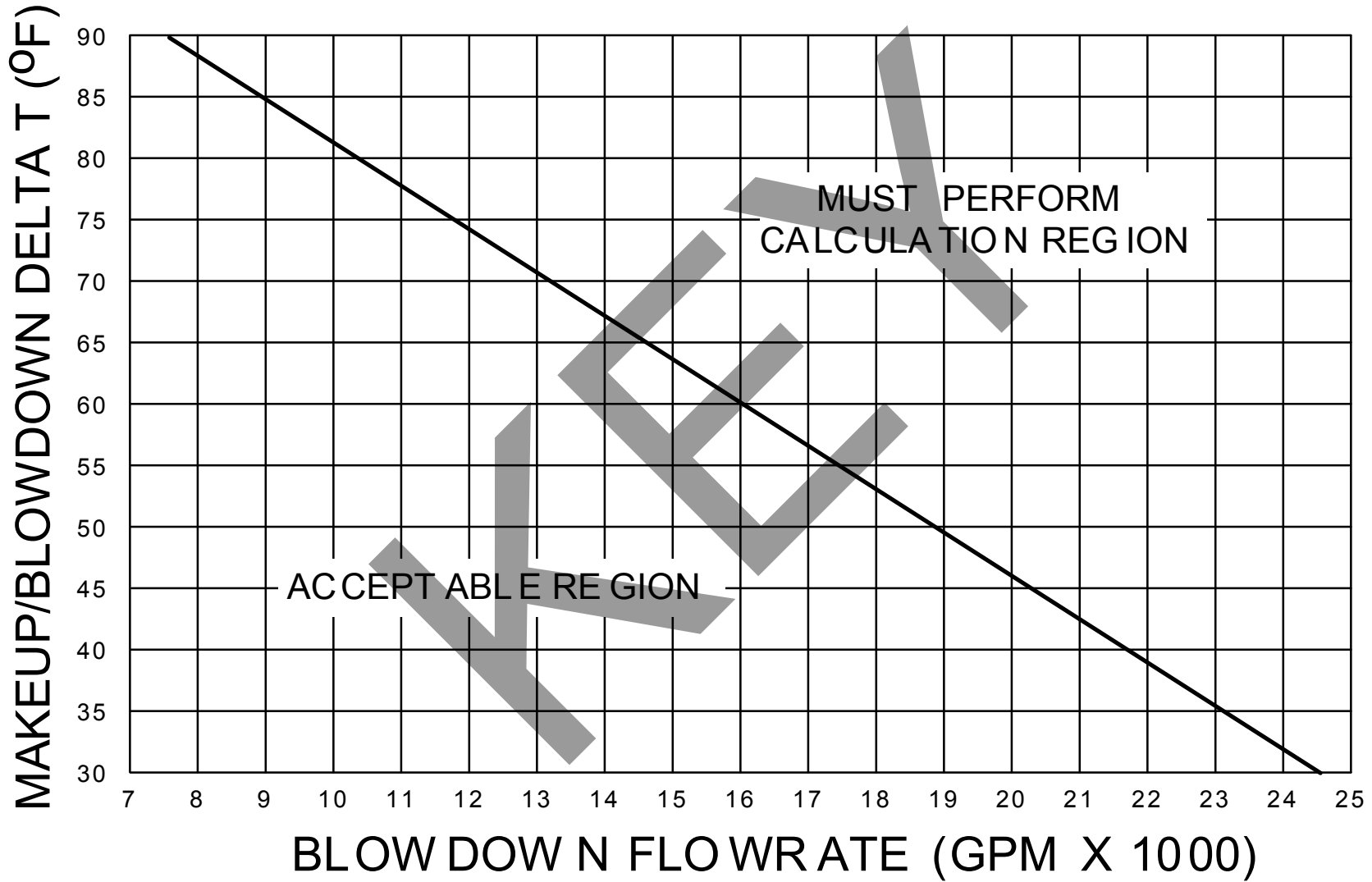
Heat Rejection Limit cannot be exceeded for Blowdown < 7000 gpm without violating 120°F Maximum Blowdown Temperature.

ATTACHMENT A

RETRIEVING ROCKTON, BYRON, AND COMO GAUGING STATION
READINGS VIA THE EXELON INTERNET

1.   **START** Exelon Internet Explorer.

2.   **OBTAIN** Rock River flow(s) as required. Recommended web locations to get flows are:

   a.   http://www.thetent.com/thetent/aogcr/il/ilsf.index.htm

   b.   http://waterdata.usgs.gov/nwis/uv?05440700

   c.   http://waterdata.usgs.gov/nwis/uv?05443500

   d.   http://waterdata.usgs.gov/nwis/uv?05437500

3.   **RECORD** most recent reading for streamflow (CFS).

TABLE 2

WATER QUALITY STANDARD

Time of Year	River Temperature
January - March	60°F
April - November	90°F
December	60°F

Reference: 35 IAC 302.211.

YOKOGAWA ◆

OCD-CX4100

TEMP

TODAY   NOW

+∴×
-

DISP 3h:58min

1h/div

CW BLWDN TEMP   80 DEGF
CW M/U TEMP   65 DEGF
N / MU DELTA TEMP   15 DEGF

DISP/ENTER

1 2 3 4 5 6 7 8 9 10 11 12

MCC 133X3

CW Blowdown flow rate should be limited to less than 16,500 gpm to prevent opening of the CW blowdown vacuum breakers

http://waterdata.usgs.gov/nwis/uv?05437500

National Water Information System: Web Interface

Click to hideNews Bulletins

- Explore the *New* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

* IMPORTANT: Next Generation Station Page

USGS 05437500 ROCK RIVER AT ROCKTON, IL

PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site
Click to hidestation-specific text
This site is operated in cooperation with the

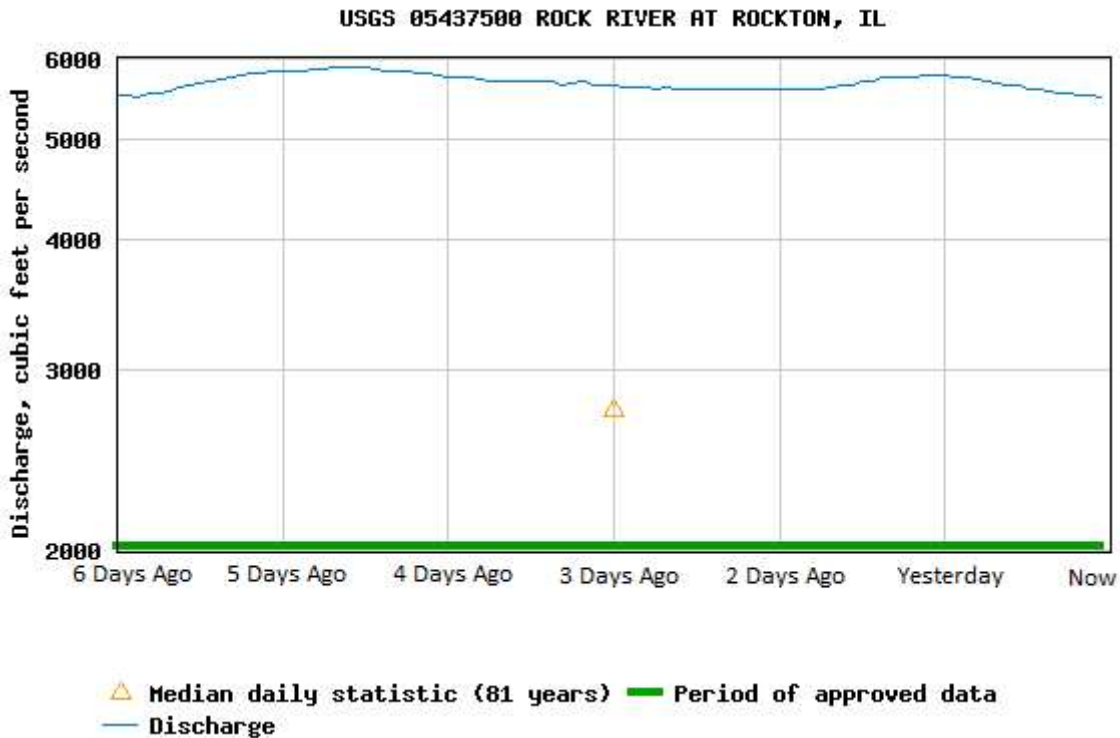U.S. Army Corps of Engineers
Rock Island District - Rock Island, Ill.

NWS River Forecasts

This station managed by the De Kalb Field Office.

Summary of all available data for this site
Instantaneous-data availability statement

Discharge, cubic feet per second
Most recent instantaneous value: 5500 Date: Today Time:Current Time

Add up to 2 more sites and replot for "Discharge, cubic feet per second"

?
  Add site numbers
Note

Create presentation-quality / stand-alone graph.   Subscribe to
?
WaterAlert

See this graph on the Beta Monitoring Location Pages

  Share this graph |

Questions about sites/data?
Feedback on this web site

http://waterdata.usgs.gov/nwis/uv?05440700

National Water Information System: Web Interface

USGS Water Resources
Data Category:
Geographic Area:

Click to hideNews Bulletins

- Explore the *New* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

* IMPORTANT: Next Generation Station Page

USGS 05440700 ROCK RIVER AT BYRON, IL

PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site
Click to hidestation-specific text
This site is operated in cooperation with the

USGS National Streamflow Information Program NSIP

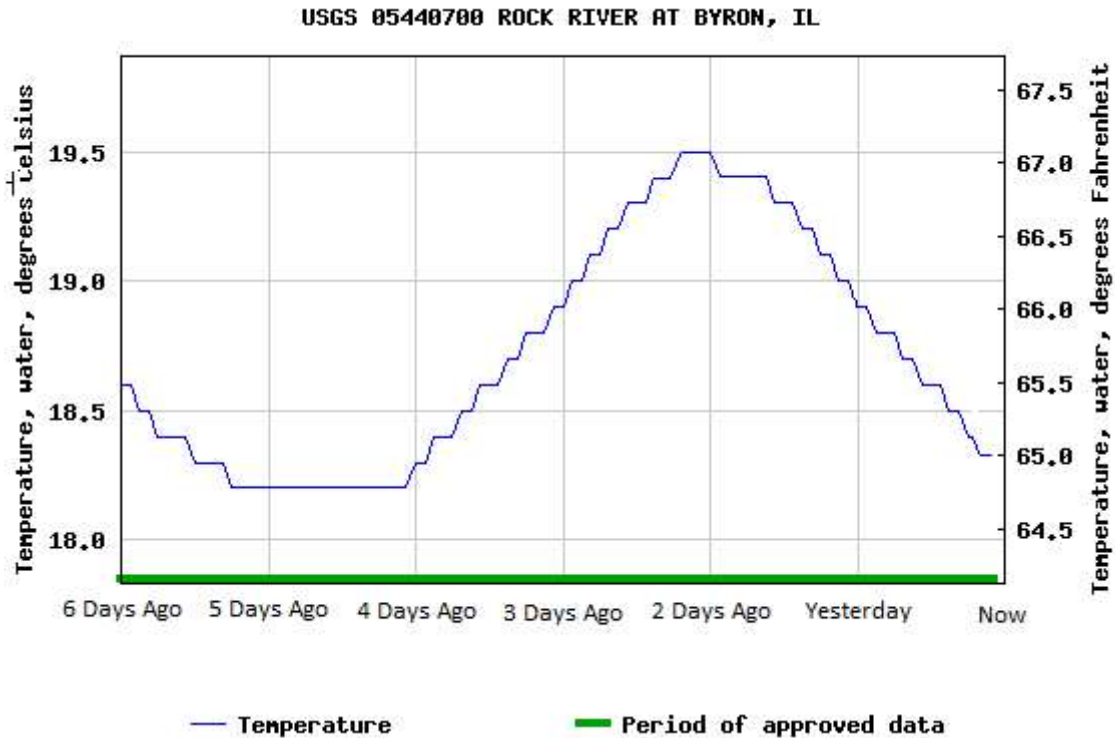NWS River Forecasts

This station managed by the De Kalb Field Office.

Summary of all available data for this site
Instantaneous-data availability statement

Temperature, water, degrees Celsius
Most recent instantaneous value: 18.3   Date: Today   Time: Current Time
—

Add up to 2 more sites and replot for "Temperature, water, degrees Celsius"

[?]
  Add site numbers
Note

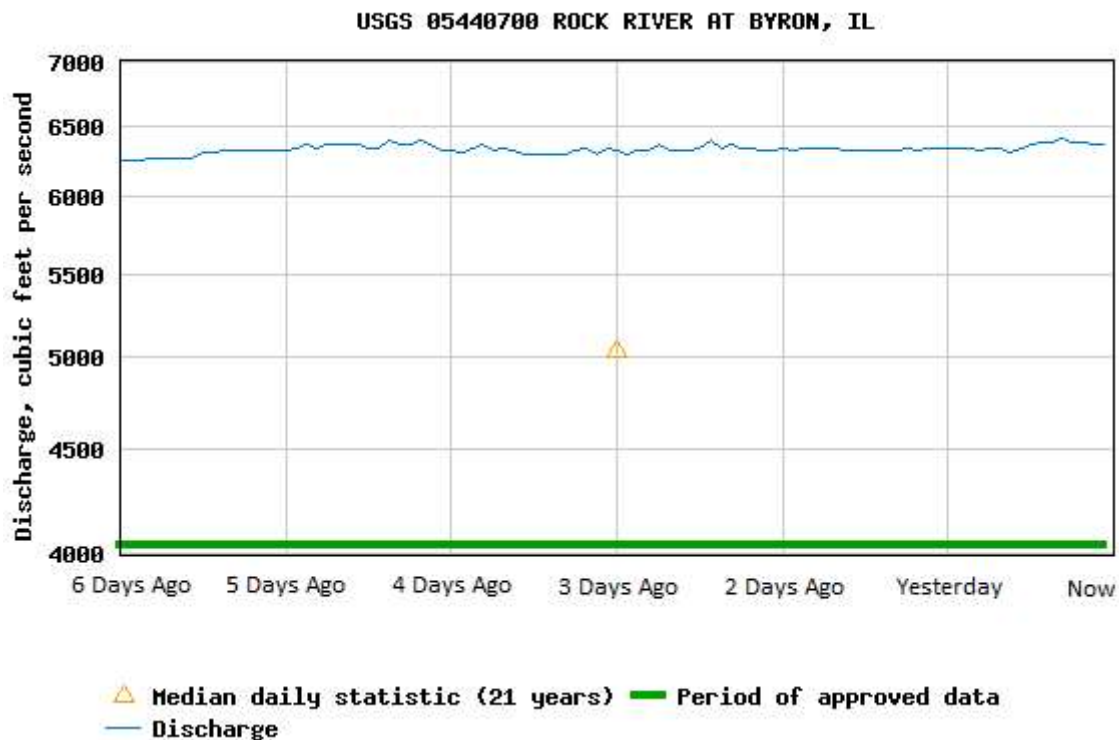Create presentation-quality / stand-alone graph.   Subscribe to
?
WaterAlert

See this graph on the Beta Monitoring Location Pages

 Share this graph |

Discharge, cubic feet per second
Most recent instantaneous value: 6390 Date: Today   Time: Current Time

USGS 05440700 ROCK RIVER AT BYRON, IL

△ Median daily statistic (21 years) ▬ Period of approved data
— Discharge

Add up to 2 more sites and replot for "Discharge, cubic feet per second"

[?]
  Add site numbers
[Note]

Create [presentation-quality](#) / [stand-alone](#) graph.   Subscribe to
[?]
[WaterAlert](#)

See this graph on the [Beta Monitoring Location Pages](#)

 [Share this graph](#) |

Gage height, feet

Most recent instantaneous value: 7.03 Date: Today   Time: Current Time

Add up to 2 more sites and replot for "Gage height, feet"

[?](#)
  Add site numbers
[Note](#)

Create [presentation-quality](#) / [stand-alone](#) graph.   Subscribe to
[?](#)
[WaterAlert](#)

See this graph on the [Beta Monitoring Location Pages](#)

  [Share this graph](#) |

[Questions about sites/data?](#)
[Feedback on this web site](#)
[Automated retrievals](#)
[Help](#)
[Data Tips](#)
[Explanation of terms](#)

http://waterdata.usgs.gov/nwis/uv?05443500

National Water Information System: Web Interface

USGS Water Resources
Data Category:
Geographic Area:

Click to hideNews Bulletins

- Explore the *New* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News
* IMPORTANT: Next Generation Station Page

USGS 05443500 ROCK RIVER AT COMO, IL

PROVISIONAL DATA SUBJECT TO REVISION

Available data for this site
Click to hidestation-specific text
This site is operated in cooperation with the

U.S. Army Corps of Engineers
Rock Island District - Rock Island, Illinois

NWS River Forecasts

This station managed by the De Kalb Field Office.
Summary of all available data for this site
Instantaneous-data availability statement

Discharge, cubic feet per second
Most recent instantaneous value: 6560   Date: Today   Time: Current Time
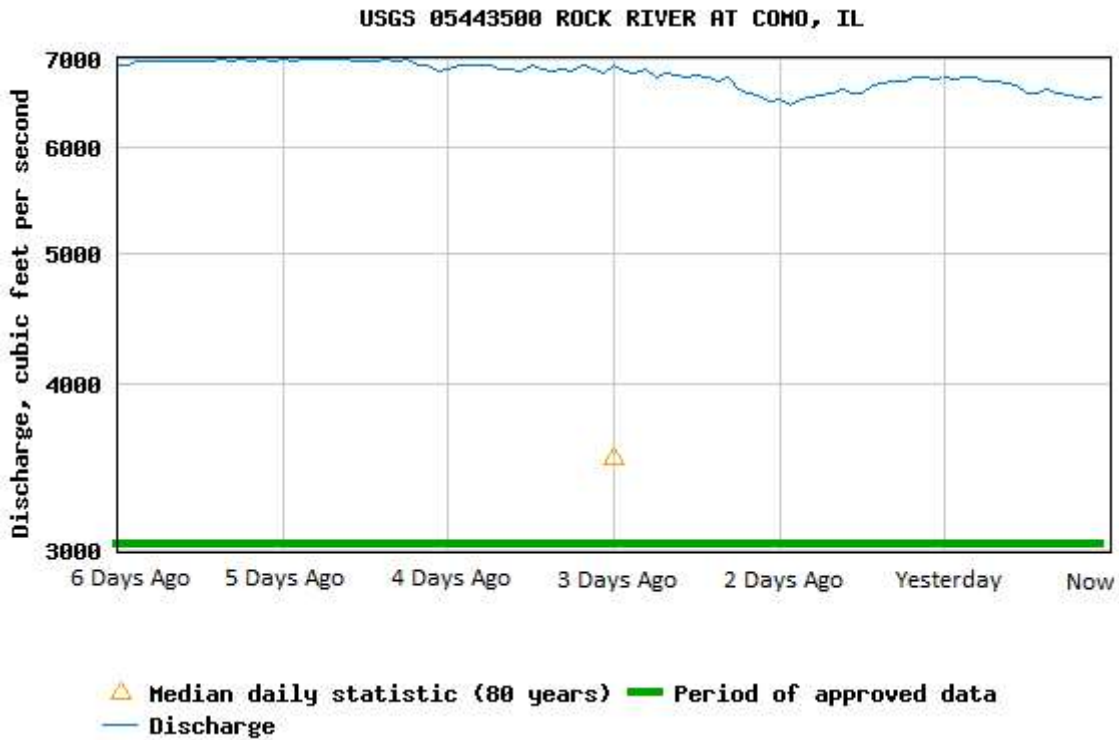
USGS 05443500 ROCK RIVER AT COMO, IL

△ Median daily statistic (80 years) ━ Period of approved data
— Discharge

Add up to 2 more sites and replot for "Discharge, cubic feet per second"

  Add site numbers
Note

Create presentation-quality / stand-alone graph.   Subscribe to
?
WaterAlert

See this graph on the Beta Monitoring Location Pages

 Share this graph |

Gage height, feet
Most recent instantaneous value: 5.02 Date: Today   Time: Current Time

Add up to 2 more sites and replot for "Gage height, feet"

?
  Add site numbers
Note

Create presentation-quality / stand-alone graph.   Subscribe to
?
WaterAlert

See this graph on the Beta Monitoring Location Pages

  Share this graph |

Job Performance Measure

Review RWP for Dosimetry Settings and Protective Clothing Requirements

JPM Number: **RA-3-02-3**

Revision Number: 03

Date: 4/28/21

Developed By: ___Barry Mingus___ / _____   4/21/21
                  Instructor: Print / Sign   Date

Reviewed By: ___Benjamin Reyes___ / _____   6/3/21
                  SME or Instructor: Print / Sign   Date

Reviewed By: ___Peter Leonhardt___ / _____   _____
                  Operations Representative: Print / Sign   Date

Approved By: ___Brian Lewin___ / _____   _____
                  Training Department: Print / Sign   Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Exelon Generation®

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

> **NOTE:** All steps of this checklist should be performed upon initial validation.
> Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

1. Task description and number, JPM description and number are identified. _____

2. Knowledge and Abilities (K/A) references are included. _____

3. Performance location specified. (in-plant, control room, simulator, or other) _____

4. Initial setup conditions are identified.

5. Initiating cue (and terminating cue if required) are properly identified. _____

6. Task standards identified and verified by instructor or SME review. _____

7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). _____

8. IAW NUREG 1021 Appendix C, clearly identify the task standard (i.e., the predetermined qualitative or quantitative outcome) against which task performance will be measured. _____

9. Verify the procedure(s) referenced by this JPM reflects the current revision:
    Procedure: RP-AA-410 _____ Revision: 8 _____
    Procedure: RWP BY-0-21-00305 _____ Revision: 00 _____
    Procedure: _____ Revision: _____
    Procedure: _____ Revision: _____

10. Verify cues both verbal and visual are free of conflict. _____

11. Verify performance time is accurate. _____

12. If the JPM cannot be performed as written with proper responses, then revise the JPM. _____

13. When JPM is initially validated, sign and date JPM cover page. For subsequent validations, sign and date below: _____

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

Revision Record (Summary)

Revision #	Summary
00	Initial Revision of JPM
01	- Changed RWP # to match current RWP - Updated to current rev. of RP-AA-410 - Took out reference to wetbulb temperature as it is no longer in att. 1
02	- Applied new template TQ-AA-150-J020 - Changed RWP # to match current RWP - Updated to current rev. of RP-AA-410 - Removed requirement for determining Dose Rate based on new RWP format - Changed Alarm setting values based on new RWP format and available Neutron Electronic Dosimeter. - Corrected typo
03	- Applied new template TQ-AA-150-J020 Rev 1 - Changed RWP # to match current RWP

SETUP INSTRUCTIONS

1. This is an administrative JPM that may be performed in any setting where the necessary procedures and support information can be provided.

2. Verify current revisions of the following information is available for the JPM performance:

    *   RP-AA-410

3. ENSURE the following is available during performance of the JPM:

    *   RWP BY-0-21-00305 Rev 00 Task 1

4. ENSURE the following between performances of the JPM:

    *   New clean procedure copies for candidate to work from during performance

5. This completes the setup for this JPM.

INITIAL CONDITIONS

You are assigned as an Equipment Operator.

You will be entering containment to perform 1BOSR 6.6.2-1, RCFC SX flow monthly surveillance outside the missile barrier.

The work class is considered "medium".

All areas to be entered are less than 10,000 dpm/100cm2 contamination.

INITIATING CUE

Determine the following from RWP BY-0-21-00305 Task 1, U1 Containment Work @ Power, to enter the Unit 1 Containment to perform the surveillance:

- the type of dosimetry required
- the dosimetry settings required
    - o   Dose
    - o   Back Out Dose
    - o   Dose Rate
- the required protective clothing.

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

....

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

   *   Denotes critical steps. **2, 3, & 4**

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The time clock starts when the candidate acknowledges the initiating cue.

....

SRRS: 3D.100; There are no retention requirements for this section

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JPM Start Time: JPM Sequence #:   of

Task Standard:

The candidate will interpret the RWP and determine the required dosimetry and dosimetry settings. The candidate will determine the required protective clothing necessary to perform medium work inside containment, using RP-AA-410 Selection, Use, and Control of Protective Clothing. The candidate will document the information as specified on the associated JPM answer sheet for the type of dosimetry required, the dosimetry settings required (Dose, Back Out Dose, and Dose Rate), and the required protective clothing.

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE: In order to limit exam material exposure and unnecessary access to the facility, the following cue is provided determine candidate knowledge of RWP access.					
CUE	**Where would you go to get the correct RWP?**				
1.	Locate proper RWP and Non-Outage PC Matrix Attachment.	RWP will be available at the RP Desk	☐	☐	___
CUE	Provide the candidate with RWP BY-0-21-00305 and RP-AA-410 Selection, Use, and Control of Protective Clothing.				
NOTE: At Byron, the Dosimeter of Legal Record (DLR) is equipped with a chip for monitoring Neutron exposure					
* 2.	Determine required dosimetry	RWP Dosimetry requirements • Electronic Dosimeter • A Dosimeter of Legal Record (DLR) • Neutron Dosimetry	☐	☐	___

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

* 3.	Determine dosimetry alarm setpoints	Electronic Dosimetry alarm setpoints
		
		• Dose alarm
		  • 35 mrem Gamma
		  • 35 mrem Neutron
		
		• Back Out Dose
		  • 28 mrem Gamma
		  • 28 mrem Neutron
		
		• Dose rate alarm
		  • 100 mrem/hour Gamma
		  • 100 mrem/hour Neutron
			☐	☐	___

CUE:	**If asked by candidate, RP Approval has NOT been given for inspection level garments**				
CUE:	**If asked by candidate, all exit monitors are operating properly.**				
NOTE: (Note 1: Rubber gloves may be used in lieu of GripTech gloves if radiological conditions warrant or if GripTech inventory is low.)					
* 4.	Determine protective clothing required	(From RP-AA-410 Attachment 1) Protective clothing required • Modesty garments • Coveralls • Rubber shoe covers and booties • Cotton liners and GripTech gloves	☐	☐	___
CUE	The JPM is complete.				

JPM Stop Time: _____

• •

SRRS: 3D.105 (when utilized for operator initial or continuing training)

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JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: ☐ EO ☒ RO ☐ SRO ☐ FS ☐ STA/IA ☐ SRO Cert

JPM Title: Review RWP for Dosimetry Settings and Protective Clothing Requirements

JPM Number: RA-3-02-3   Revision Number: 3

Task Number and Title: R-AM-27, Comply with radiation and contamination ALARA safety procedures

Task Standard: The candidate will interpret the RWP and determine the required dosimetry and dosimetry settings. The candidate will determine the required protective clothing necessary to perform medium work inside containment, using RP-AA-410 Selection, Use, and Control of Protective Clothing. The candidate will document the information as specified on the associated JPM answer sheet for the type of dosimetry required, the dosimetry settings required (Dose, Back Out Dose, and Dose Rate), and the required protective clothing.

K/A Number and Importance: GEN 2.3.7, Imp Factor 3.5/3.6

Suggested Testing Environment: Classroom

Alternate Path: ☐ Yes ☒ No   SRO Only: ☐ Yes ☒ No   Time Critical: ☐ Yes ☒ No

Reference(s):

Procedure:	RP-AA-410	Revision:	8
Procedure:	RWP BY-0-21-00305	Revision:	00
Procedure:		Revision:	
Procedure:		Revision:	

Actual Testing Environment: ☐ Simulator   ☐ Control Room   ☐ In-Plant   ☐ Other

Testing Method: ☐ Simulate   ☒ Perform

Estimated Time to Complete: __10__ minutes   **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily?   ☐ Yes   ☐ No

The operator's performance was evaluated against standards
contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

NOTE: Enter finalized grading, comments, and notes relevant to this evaluation in the associated TQ-AA-150-F03A/B. (See AR 4282419).

Evaluator's Name (Print): _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Evaluator's Signature: _____ **Date**: _____

ANSWER SHEET

Type of Dosimetry Required:

Electronic dosimeter

DLR

Neutron dosimetry

Dosimetry Settings:

Dose: Gamma 35 mrem

Neutron 35 mrem

Back Out Dose:

Gamma 28 mrem

Neutron 28 mrem

Dose Rate:

Gamma 100 mrem

Neutron 100 mrem

Required Protective Clothing:

Modesty garments

Coveralls

Cotton liners and GripTech gloves

Rubber shoes and booties

INITIAL CONDITIONS

You are assigned as an Equipment Operator.

You will be entering containment to perform 1BOSR 6.6.2-1, RCFC SX flow monthly surveillance outside the missile barrier.

The work class is considered "medium".

All areas to be entered are less than 10,000 dpm/100cm2 contamination.

INITIATING CUE

Determine the following from RWP BY-0-21-00305 Task 1, U1 Containment Work @ Power, to enter the Unit 1 Containment to perform the surveillance:

- the type of dosimetry required
- the dosimetry settings required
     o   Dose
     o   Back Out Dose
     o   Dose Rate
- the required protective clothing

ANSWER SHEET

Type of Dosimetry Required:

      _____

      _____

      _____

      _____

Dosimetry Settings:

Dose: _____

      _____

      _____

Back Out Dose:

      _____

      _____

      _____

Dose Rate:

      _____

      _____

      _____

Required Protective Clothing:

      _____

      _____

      _____

      _____

      _____

Exelon Generation

RADIATION WORK PERMIT
Byron Nuclear Station

COPY

CONTAINMENT WORK @ POWER	‖‖‖‖‖‖‖‖‖‖‖‖‖‖
	BY-0-21-00305
	Revision: 00

Comments: PASSPORT RWP: 10025302

Access List Required: N	**Begin Date** 1/1/2021	**Close On Date**

Locations

Buildings	Elevations	Rooms
All	All	All

Back Out Radiological Conditions

Description	Value	Unit
N/A		

RWP Tasks

Task	Description	Status
1	U-1 CONTAINMENT	Active
2	U-2 CONTAINMENT	Active
3	DO NOT USE	Inactive
4	DO NOT USE	Inactive
5	DO NOT USE	Inactive
6	DO NOT USE	Inactive

RWP Requirements

Requirement Groups	Requirement Descriptions
N/A	

Additional Instructions

RP Brief is required prior to accessing areas greater than 7 ft.

Approvals

Approver Title	Name	Date
RWP Approver	THOMISON, BRANDON J	12/18/2020

Attachments

N/A

FOR INFO ONLY

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RADIATION WORK PERMIT
Byron Nuclear Station

U-1 CONTAINMENT	BY-0-21-00305	1
	Revision: 00	Task

This Task Permits HRA Access. A specific HRA brief by RP is required for entry.

Access List Required: N	Task Status: Active

Alarm Settings

	Dose (mrem)	Back Out (80%) Dose (mrem)	Dose Rate (mrem/hr)
Gamma	35	28	100
Neutron	35	28	100

Back Out Radiological Conditions

Description	Value	Unit
Neutron Dose Rates General Area	>100	mrem/hr
Gamma Dose Rate General Area	>100	mrem/hr
Alpha Loose Surface Contamination General Area	>30	dpm/100 cm2
Beta/Gamma Loose Surface Contamination General Area	>500k	dpm/100 cm2
Particulate and Iodine DAC	>0.3	DAC

RWP Requirements

Requirement Groups	Requirement Descriptions
1. Risk Level	Medium Risk
2. Alpha Level	Alpha Level 1,2
3. RP Coverage	See ALARA Plan
4. Air Sampling	See ALARA Plan
5. Dosimetry	Electronic Dosimeter and DLR required
	Neutron dosimetry required in Neutron Radiation Areas
6. Contamination Control	Contact RP prior to working in wet conditions to verify protective clothing requirements.
7. Protective Clothing	See Protective Clothing Matrix (RP-AA-410) - Attachment 1
8. Respiratory Protection	See ALARA Plan
9. Exposure Control	Use LOW DOSE Areas (identified on survey maps)
	Check ED approximately every 15 minutes or as directed by RP
General	See ALARA Plan

Additional Instructions

RP Brief is required prior to accessing areas greater than 7 ft.

THIS RWP ALLOWS ACCESS TO LHRA'S

Each worker signing on this RWP must review the Alara Plan or MICRO Alara Plan (MAP) for instructions pertaining to his/her job or specific evolution, as applicable.

Radiological Conditions can change based on Reactor Power Level, Hydrogen Injection Rate, and Work Location.

RPM or Designee approval required for working in >1500MREM/HR and / or >500 MREM accumulated dose expected to an individual (RP-AA-460-002).

Attachments

N/A

Job Performance Measure

Activate Everbridge Notification

JPM Number: **RA-4-04-0**

Revision Number: 3

Date: 5/3/21

Developed By:	Barry Mingus	/		5/3/21
	Instructor: Print / Sign			Date

Reviewed By:	Benjamin Reyes	/		6/9/21
	SME or Instructor: Print / Sign			Date

Reviewed By:	Peter Leonhardt	/		
	Operations Representative: Print / Sign			Date

Approved By:	Brian Lewin	/		
	Training Department: Print / Sign			Date

SRRS: 3D.105 (when utilized for operator initial or continuing training)

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JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

> **NOTE:** All steps of this checklist should be performed upon initial validation.
> Prior to JPM usage, revalidate JPM using steps 9 and 13 below.

1. Task description and number, JPM description and number are identified.

2. Knowledge and Abilities (K/A) references are included.

3. Performance location specified. (in-plant, control room, simulator, or other)

4. Initial setup conditions are identified.

5. Initiating cue (and terminating cue if required) are properly identified.

6. Task standards identified and verified by instructor or SME review.

7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

8. IAW NUREG 1021 Appendix C, clearly identify the task standard (i.e., the predetermined qualitative or quantitative outcome) against which task performance will be measured.

9. Verify the procedure(s) referenced by this JPM reflects the current revision:
    Procedure: __EPA 17-001__   Revision: __1__
    Procedure: _____   Revision: _____
    Procedure: _____   Revision: _____
    Procedure: _____   Revision: _____

10. Verify cues both verbal and visual are free of conflict.

11. Verify performance time is accurate.

12. If the JPM cannot be performed as written with proper responses, then revise the JPM.

13. When JPM is initially validated, sign and date JPM cover page. For subsequent validations, sign and date below:

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

_____ / _____   _____
SME / Instructor (Print/Sign)   Date

Revision Record (Summary)

Revision #	Summary
00	Revised format to current standard.
01	Applied new template TQ-AA-150-J020 Updated 2016 NRC Exam RA-d which from used procedure EP-AA-112-100-F-06 and computer screenshots to simulate and describe actions to be taken by now using procedure developed for training use in simulator; EPA 17-001, with different codes and password and with performance of actual actions. Upgrades to Everbridge and all-call implementation resulted in procedural changes in terminology of button actions and shortened timelines.
02	Designated as Time Critical JPM Added Note to calculate elapsed time. Added this is a Time Critical JPM to Initiating Cue Revised expected time of performance to 6 minutes.
03	Updated to current template TQ-AA-150-J020 Rev 1

SETUP INSTRUCTIONS

1. Ensure the Paragon computer is logged into *Byrtraining* with Everbridge icon on desktop.

2. Ensure Procedure EPA 17-001, ERO NOTIFICATION OR AUGMENTATION – TRAINING USE is printed and available for JPM.

3. Ensure date and time stamp for each previous notification is CLEARED.

4. When the above steps are completed for this and other JPMs to be run concurrently then validate, if not previously validated, the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

INITIAL CONDITIONS

You are the WEC NSO.

The Shift Manager has declared an ALERT condition for Unit 1, and has assigned you to activate the ERO On Site.

INITIATING CUE

Initiate activation of the Everbridge ERO Notification System using the World Wide Web in accordance with procedure EPA 17-001.

This is a time critical JPM.

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

- -

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

   * Denotes critical steps. **4, 5, 7, 8 & 11**

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.
- -

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JPM Start Time: __:__:___   JPM Sequence #: _____ of _____

Task Standard:
Candidate will activate the Everbridge ERO Notification System in accordance with Training Procedure EPA-17-001 within 10 minutes. The candidate will log into the Training Everbridge system to avoid a real system activation, and log into the Byron specific portion of the application. The candidate will launch a simulator notification. This will be accomplished within 10 minutes from the start of the JPM.

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE:	Use the simulator wall clock for noting times for this JPM. The computer and simulator time devices may not match, so do not use the computer time.				
NOTE:	Ensure procedure EPA 17-001, ERO NOTIFICATION OR AUGMENTATION – TRAINING USE is used for performance of this JPM. **Do not use** procedure EP-AA-112-100-F-06, ERO NOTIFICATION OR AUGMENTATION, **which would result in actual activation of ERO network.**				
CUE:	**Provide copy of EPA 17-001 to candidate as this procedure (equivalent) would be provided by the Emergency Director.**				
1.	Refer to EPA 17-001.	• Locate and read EPA 17-001.	☐	☐	___
2.	1.1. CIRCLE the appropriate station specific User Name and Station Password number from the table below.	• Circle Byron specific User Name and Password	☐	☐	___
3.	1.2. CIRCLE the appropriate Activation / Termination Scenario event	• Circle 01A – Simulator Actual Event Respond to Facility	☐	☐	___
* 4.	1.3. OPEN the Everbridge shortcut icon from the desktop.	• Double-click the Everbridge shortcut on computer desktop computer.	☐	☐	___

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
* 5.	1.4. Sign In to the Everbridge application	• ENTER the appropriate **Byron station specific** User name and Password from Step 1.1 • User name: blackhawk3 • Password: simulator02# • SELECT (click) "Sign In".	☐	☐	___
6.	1.5. VERIFY the appropriate Station Name is displayed	• VERIFY **Byron simulator** is displayed • SELECT (click) "Proceed".	☐	☐	___
* 7.	1.6. Launch Incident	• SELECT (click) the +Launch Incident button.	☐	☐	___
* 8.	1.7. SELECT appropriate Scenario	• SELECT (Click) on Scenario 01A – Simulator Actual Event Respond to Facility.	☐	☐	___
9.	1.8. VERIFY the appropriate Scenario is displayed	• VERIFY Scenario 01A – Simulator Actual Event Respond to Facility is displayed.	☐	☐	___

10.	1.9. VERIFY the appropriate Scenario is displayed	• If the scenario displayed is not correct:
		   o SELECT (click) correct scenario from list, Scenario 01A
		   o RETURN to Step 1.8.
		 • N/A
			☐	☐	___

SRRS: 3D.105 (when utilized for operator initial or continuing training)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE:	**Record time template is sent: _____:_____:_____.**				
	Time template sent – JPM start time = _____:_____:_____ (≤ 10 minutes)				
* 11.	1.10. "Send *x* template(s) Now".	• If the scenario displayed is correct: • SELECT (click) "Send *x* template(s) Now". • Time template sent – JPM start time ≤ 10 minutes.	☐	☐	___
NOTE:	The system provides a callback to notify the sender that the system has actuated within 2 minutes of sending the notification. This will be simulated by the evaluator. The evaluator will provide the cue within 2 minutes.				
12.	1.11. VALIDATE there is a date and time stamp for each notification and RECORD	• On the next screen: • VALIDATE there is a date and time stamp for each notification listed. • RECORD Time	☐	☐	___
13.	1.12. Log Out to exit the Everbridge Notification program	• SELECT "Log Out"	☐	☐	___
14.	1.13. VERIFY that a call to the Control Room from the ERO notification system is received	• VERIFY that a call to the Control Room from the ERO notification system is received within 2 minutes after the system was initiated.			
CUE:	**You receive a call from the ERO Notification System one minute after the System was activated.**				
15.	1.14. RECORD time of the confirmation call	• RECORD time of the confirmation call to the Control Room.			

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
16.	1.16. INFORM the Shift Emergency Director of the status of the ERO Notification	• INFORM the Shift Emergency Director of the status of the ERO Notification System Initiation • EXIT this procedure			
CUE:	This JPM is complete.				

JPM Stop Time: _____

• •

JPM SUMMARY

Operator's Name: _____   **Emp. ID#:** _____

Job Title: ☐ EO   ☒ RO   ☐ SRO   ☐ FS   ☐ STA/IA   ☐ SRO Cert

JPM Title: Activate Everbridge Notification

JPM Number: RA-4-04-0   Revision Number: 3

Task Number and Title: 4F.ZP-02 USE Applicable Station Procedures During an EP Event

Task Standard: Candidate will activate the Everbridge ERO Notification System in accordance with Training Procedure EPA-17-001 within 10 minutes. The candidate will log into the Training Everbridge system, to avoid a real system activation, and log into the Byron specific portion of the application. The candidate will launch a simulator notification. This will be accomplished within 10 minutes from the start of the JPM.

K/A Number and Importance: 2.4.43, importance 3.2

Suggested Testing Environment: Simulator

Alternate Path: ☐ Yes ☒ No   SRO Only: ☐ Yes ☒ No   Time Critical: ☒ Yes ☐ No

Reference(s):

Procedure:	EPA 17-001	Revision:	1
Procedure:		Revision:	
Procedure:		Revision:	
Procedure:		Revision:	

Actual Testing Environment: ☒ Simulator   ☐ Control Room   ☐ In-Plant   ☐ Other

Testing Method: ☐ Simulate   ☒ Perform

Estimated Time to Complete: ___6___ minutes   **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily?   ☐ Yes   ☐ No

The operator's performance was evaluated against standards
contained within this JPM and has been determined to be: ☐ Satisfactory ☐ Unsatisfactory

NOTE: Enter finalized grading, comments, and notes relevant to this evaluation in the associated TQ-AA-150-F03A/B. (See AR 4282419).

Evaluator's Name (Print): _____

Evaluator's Signature: _____   **Date**: _____

SRRS: 3D.105 (when utilized for operator initial or continuing training)

INITIAL CONDITIONS

- You are the WEC NSO.
- The Shift Manager has declared an ALERT condition for Unit 1, and has assigned you to activate the ERO On Site.

INITIATING CUE

- Initiate activation of the Everbridge ERO Notification System using the World Wide Web in accordance with procedure EPA 17-001.

- This is a time critical JPM.

![Exelon Generation logo]

ERO NOTIFICATION OR AUGMENTATION – TRAINING USE

The automated system will initiate the call out of management and bargaining unit personnel required to meet the ERO staffing requirements. Additional staffing of personnel shall be the responsibility of the individual Managers and Directors in the TSC / OSC / EOF / ENC /JIC following initial activation of those facilities.

Section 1 – Initiate Activation / Termination of Notification System using World Wide Web
Section 2 – Initiate Activation / Termination of Notification System using live Everbridge Agent

1.	**INITIATE ACTIVATION / TERMINATION OF NOTIFICATION SYSTEM USING THE WORLD WIDE WEB**	
1.1.	**CIRCLE** the appropriate station specific User Name and Station Password number from the table below.	❑

Station	User Name	Password
Braidwood	braidwood3	simulator01#
Byron	blackhawk3	simulator02#
Clinton	clinton3	simulator03#
Dresden	dresden3	simulator04#
LaSalle	lasalle3	simulator05#
Limerick	limerick3	simulator06#
Oyster Creek	oystercreek3	simulator07#
Peach Bottom	peachbottom3	simulator08#
Quad Cities	quadcities3	simulator09#
TMI	threemileisland3	simulator10#

THIS IS A DRILL

ERO NOTIFICATION OR AUGMENTATION

1.2. **CIRCLE** the appropriate Activation / Termination Scenario event from the table below.	❑

01A – Simulator Actual Event Respond to Facility	02A - Simulator Unusual Event	03A - Simulator Actual Event Alternative Facility Response	04A - Simulator Event Termination	05A - Simulator Activation Cancellation	
For Alert, Site Area, or General Emergency, or Security Events with **On Site** ERO reporting *Optional for all other unusual Events	Unusual Events excluding Security Events (HU1) **CM-1**	For Events with **Off Site** ERO reporting location requirements as determined by the Emergency Director	Notification to all ERO Members, Station Management and EOF Responders that event has been terminated.	Notification to all ERO Members, Station Management and EOF Responders that activation has been cancelled.	

THIS IS A DRILL

ERO NOTIFICATION OR AUGMENTATION

1.3.	**OPEN** (double-click) the Everbridge shortcut icon from your desktop computer. **If** shortcut Icon is **not** available or is **not** functioning, **then OPEN a web browser, then TYPE** https://manager.everbridge.net/login. A. **If** internet is **not** available, **then GO TO** Step 2.	❏
	NOTE: User Name and Passwords are case sensitive and will lock out after four (4) failed attempts.	
1.4.	**ENTER** the appropriate station specific User name and Password from Step 1.1 **and SELECT** (click) "Sign In".	❏
1.5.	**VERIFY** the appropriate Station Name is displayed, SELECT (click) "Proceed".	❏
1.6.	**SELECT** (click) the +Launch Incident button.	❏
1.7.	**SELECT** (Click) on the appropriate Scenario from Step 1.2.	❏
1.8.	**VERIFY** the appropriate Scenario is displayed.	❏
1.9.	**If** the scenario displayed is **not** correct, **then SELECT** (click) correct scenario from list **and RETURN** to Step 1.8.	❏
1.10.	**If** the scenario displayed is correct, **then SELECT** (click) "Send *x* template(s) Now".	❏
1.11.	On the next screen, **VALIDATE** there is a date and time stamp for each notification listed. **RECORD** Time _____	❏
1.12.	**SELECT** "Log Out" to exit the Everbridge Notification program.	❏
1.13.	**VERIFY** that a call to the Control Room from the ERO notification system is received within 2 minutes after the system was initiated.	❏
1.14.	**RECORD** time of the confirmation call to the Control Room_____.	❏
1.15.	**If** a confirmation call is **not** received in the Control Room within 2 minutes confirming scenario activation, **then PROCEED** to Section 2, Initiate Activation / Termination of Notification System Using Live Everbridge Agent.	❏
1.16.	**INFORM** the Shift Emergency Director of the status of the ERO Notification System Initiation **and EXIT** this procedure.	❏

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ERO NOTIFICATION OR AUGMENTATION

2.	**INITIATE ACTIVATION / TERMINATION OF NOTIFICATION SYSTEM USING LIVE EVERBRIDGE AGENT**	☐
2.1.	**CIRCLE** the appropriate station specific Account Name, Organization Name, First name, Last name and response to Hint Question from the table below.	☐

Account Name	Organization Name (Station)	First Name	Last name	Response to Hint Question
Exelon Generation Company LLC NOTE: Everbridge will then ask for your organization. Provide your station name for your response.	Braidwood	Braidwood	ERONS Activator	Exelon
	Byron	Byron	ERONS Activator	Exelon
	Clinton	Clinton	ERONS Activator	Exelon
	Dresden	Dresden	ERONS Activator	Exelon
	LaSalle	LaSalle	ERONS Activator	Exelon
	Limerick	Limerick	ERONS Activator	Exelon
	Oyster Creek	Oyster Creek	ERONS Activator	Exelon
	Peach Bottom	Peach Bottom	ERONS Activator	Exelon
	Quad Cities	Quad Cities	ERONS Activator	Exelon
	TMI	TMI	ERONS Activator	Exelon

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ERO NOTIFICATION OR AUGMENTATION

2.2.	**CIRCLE** the appropriate Activation Scenario Number for the event from the table below.	❏

| **01A - Simulator Actual Event Respond to Facility**

For Alert, Site Area, or General Emergency, or Security Events with **On Site** ERO reporting

*Optional for all other unusual Events | **02A - Simulator Unusual Event**

Unusual Events excluding Security Events (HU1)

CM-1 | **03A - Simulator Actual Event Alternative Facility Response**

For Events with **Off Site** ERO reporting location requirements as determined by the Emergency Director | **04A - Simulator Event Termination**

Notification to all ERO Members, Station Management and EOF Responders that event has been terminated. | **05A - Simulator Activation Cancellation**

Notification to all ERO Members, Station Management and EOF Responders that activation has been cancelled. | |

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ERO NOTIFICATION OR AUGMENTATION

2.3.	**DIAL** the ERO Notification System Activation phone number: x-4155 **(Simulator Booth)**.	❏
2.4.	**When** asked for your Everbridge Account Name, Organization Name, First name, Last Name and Hint question, **then PROVIDE** the appropriate information from step 2.1.	❏
2.5.	**ASK** the Live Everbridge Agent if there is a current "Incident" Broadcast running for your station.	❏
2.6.	**If** the Live Everbridge Agent confirms the appropriate scenario has been activated, **then STOP** here and do **not** proceed with steps 2.8 to 2.16 below.	❏
2.7.	**If** the Live Everbridge Agent confirms that the appropriate scenario has **not** been activated, **then PROCEED** to step 2.9.	❏
2.8.	**INFORM** the Everbridge Agent that you would like to Launch a Scenario.	❏
2.9.	**When** asked for the Scenario number, **then STATE** the appropriate Scenario number followed by the corresponding name of the Scenario you wish to launch. **PROVIDE** the appropriate information from step 2.2.	❏
2.10.	**When** asked by the Everbridge Agent "Would you like me to send this scenario (message) now?", **then REPLY** Yes.	❏
2.11.	**VERIFY** with the Everbridge Agent that the ERO Activation scenario has been successfully initiated.	❏
2.12.	**RECORD** the Broadcast ID number _____ time _____	❏
2.13.	**VERIFY** that a call to the Control Room from the ERO notification system is received within 2 minutes after the system was initiated.	❏
2.14.	**RECORD** time of the confirmation call to the Control Room_____.	❏
2.15.	**INFORM** the Shift Emergency Director of the status of the ERO Notification System Initiation **and EXIT** this procedure.	❏

3.   **REFERENCES**

3.1.   Commitment

CM-1: Regulatory Commitment Number 5 identified in Attachment 11 of Letter to NRC dated Aug 17, 2005, (RS-05-101). (Steps 1.2, 2.2, 3.2)

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