

NIAGARA MOHAWK POWER CORPORATION

LICENSED OPERATOR JOB PERFORMANCE MEASURE

Title: Secure RWCU Pump P1B

Revision: 1

Task Number: 2040050101

Operator: _____ (RO/SRO) Evaluator: _____

Directions to operators:

When I tell you to begin you are to shift from both RWCU pumps in operation to RWCU pump P1A in operation. I will describe general conditions and provide you access to the tools to complete this task. Before you start, I will state the task standards and initiation cues and answer any questions.

Evaluation Method: _____ Perform _____ Simulate

Evaluation Location: _____ Plant _____ Simulator _____ Control Room

Average Completion Time: 5 minutes Actual Completion Time: _____

JPM Overall Rating: Sat/Unsat Questions: # Asked _____ # Correct _____

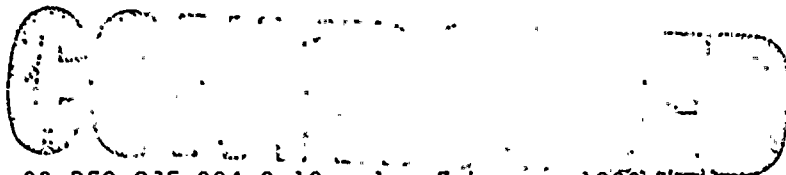
Comments: (Note: Any grade of Unsat requires a comment. A JPM overall rating of UNSAT shall be given if any critical step is graded as unsat. If all critical steps are performed satisfactorily and the Task Standards met, a JPM overall rating of SAT shall be given.)

Evaluators Signature: _____ Date: _____

Approvals: [Signature] 2/14/90
Training Supervisor - Unit 2

[Signature] 2/21/90
Asst. Supt. - Training

[Signature] 2/22/90
Supt. of Operations - Unit 2



02-REQ-SJE-204-2-19 -1 February 1990

Rev. 1

NRC2/286

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K/A Rating: 3.30

Initial (Task) Conditions:

1. RWCU system in operation with both RWCU pumps operating.
2. All filter/demins have been removed from service.

General Tools and Equipment:

None

General References:

N2-OP-37, Rev. 3, 12/1/88, "Reactor Water Cleanup System", Section H.1.0

Task Standards:

RWCU shifted to only P1A RWCU pump in operation.

Critical Steps are denoted by (*).

Note: All steps are non-sequence critical unless noted.

Initiating cues:

You are directed by the Shift Supervisor to shift from 2RWCU pumps in operation to RWCU pump P1A in operation.

<u>Performance Steps</u>	<u>Standard</u>	<u>Sat/Unsat</u>
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Start Time: _____

- | | | | |
|----|--|-------------------------------|-----------|
| 1. | Obtain current copy of procedure. | Procedure obtained. | Sat/Unsat |
| 2. | Verify all applicable precautions and prerequisites. | Precautions/prereqs verified. | Sat/Unsat |



Performance Steps	Standard	Sat/Unsat
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3.	Adjust/verify system flow by flow indicators 2WCS-FI1609 (2G33-R609) on P602 to be 400 gpm or less. (Cue: 2G33-R609 indicating 400 gpm or less.)	Flow adjusted/verified.	Sat/Unsat
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*4.	Stop RWCU pump P1B by momentarily placing its control switch on P602 in the stop position. (Cue: Status lights for 2WCS-P1B change from red to green.)	Pump stopped.	Sat/Unsat
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5.	Determine need to shut pump discharge valve (Cue: Pump discharge valve is not required to be shut.)	Valve determined not required to be shut.	Sat/Unsat
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Termination Cue: Determine that the pump discharge valve is not required to be closed.

Stop Time: _____



QUESTION NUMBER: 02-REQ-SJE-204-2-19-J01

TASK NUMBER: 2040050101

K/A RATING: 3.30

Requal TIF: 3.25

QUESTION:

UNDER WHAT TWO CONDITIONS IS ONLY ONE RWCU PUMP REQUIRED TO BE IN OPERATION?

ANSWER:

1. FOLLOWING RX SCRAM, OR WITH TEMP. >200 DEGREES AND <20%
POWER, FULL REJECT FLOW
2. WITH SINGLE RECIRCULATION SYSTEM LOOP OPERATION.

COMMENTS:

SAT / UNSAT

REFERENCES:

N2-OP-37, REV. 3, 12/88, "REACTOR WATER CLEANUP SYSTEM," SECT. B



QUESTION NUMBER: 02-REQ-SJE-204-2-19-J02

TASK NUMBER: 2040050101

K/A RATING: 3.30

Requal TIF: 3.25

QUESTION:

WHAT IS THE ADVERSE EFFECT OF SECURING A RWCU PUMP UNDER "HOT PLANT CONDITIONS?"

ANSWER:

STOPPING A PUMP WITH THE SYSTEM HOT MAY CAUSE DEGRADED SEALS.

COMMENTS:

SAT / UNSAT

REFERENCES:

N2-OP-37, REV. 3, 12/88, "REACTOR WATER CLEANUP SYSTEM," SECTION H.1.0



NINE MILE POINT - UNIT 2 - REQUAL EXAMBANK - PART J

QUESTION # 02-REQ-SJE-204-2-19-J03

The B Reactor Water Cleanup (RWCU) Pump is to be secured because plant conditions require isolation of one reactor recirculation loop. To ensure adequate net positive suction head to the A RWCU pump in this plant configuration, RWCU flow must be maintained below what value?

ANSWER	500 gpm.
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K/A REFERENCE

204000 - REACTOR WATER CLEANUP SYSTEM

A 4.01	APPLICABILITY RO&SRO	IMPORTANCE 3.1/3.0
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Ability to manually operate and/or monitor system pumps in the control room.

NMP2 REFERENCES

N2-OP-37; Reactor Water Cleanup System; Page 5; Item D.25.0; REV 3
 02-REQ-001-204-2-00; Reactor Water Cleanup System; Page 10; Item III.A.2; REV 0

LESSON PLAN 02-REQ-001-204-2-00	OBJECTIVE EO-10-8.d
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NETS COMMENTS

New question.

REVALIDATE (Y/N)? Y	AUTHOR - Ross	REVIEWER - Hajek
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NINE MILE POINT - UNIT 2 - REQUAL EXAMBANK - PART J

QUESTION # 02-REQ-SJE-204-2-19-J05

The reactor is operating at 100 percent power when the RWCU system must be taken out of service for a valve repair estimated to require about 12 hours. What monitoring will be required during the outage?

ANSWER	Obtain an in-line conductivity measurement at least once per 4 hours.
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K/A REFERENCE

204000 - REACTOR WATER CLEANUP SYSTEM

SG 05	APPLICABILITY SRO	IMPORTANCE 2.9/3.8
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Knowledge of limiting conditions for operations and safety limits.

NMP2 REFERENCES

Technical Specification 4.4.4.c; Page 3/4 4-18
 N2-OP-37; Reactor Water Cleanup System; Page 26; Item G.1.0; REV 3
 02-REQ-001-204-2-00; Reactor Water Cleanup System; Page 12; Item III.A.5.c.5;
 REV 0

LESSON PLAN 02-REQ-001-204-2-00	OBJECTIVE EO-10.10.b
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NETS COMMENTS

New question.

REVALIDATE (Y/N)? Y	AUTHOR - Ross	REVIEWER - Hajek
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NINE MILE POINT - UNIT 2 - REQUAL EXAMBANK - PART J

QUESTION # 02-REQ-SJE-204-2-19-J02

Why should an operator be stationed at Panel 3CEC*PNL632/642 prior to stopping a Reactor Water Cleanup Pump?

ANSWER

To monitor the differential flow meters so that a system isolation may be avoided.

K/A REFERENCE

204000 - REACTOR WATER CLEANUP SYSTEM

SG 10

APPLICABILITY RO&SRO

IMPORTANCE 3.2/3.2

Ability to explain and apply all system limits and precautions.

NMP2 REFERENCES

N2-OP-37; Reactor Water Cleanup System; Page 5; Item D.22.0; REV 3

LESSON PLAN 02-REQ-001-204-2-00-4

OBJECTIVE EO-10.8.d

NETS COMMENTS

Replacement question.

REVALIDATE (Y/N)? Y

AUTHOR - Ross

REVIEWER - Hajek



NINE MILE POINT - UNIT 2 - REQUAL EXAMBANK - PART J

QUESTION # 02-REQ-SJE-204-2-19-J04

What is the adverse effect of securing a Reactor Water Cleanup System (RWCU) Pump with filter/demineralizers in service?

ANSWER	Rapid reduction in RWCU flow may result in filter/demineralizer breakthrough.
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K/A REFERENCE

204000 - REACTOR WATER CLEANUP SYSTEM

SG 10	APPLICABILITY RO&SRO	IMPORTANCE 3.2/3.2
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Ability to explain and apply all system limits and precautions.

NMP2 REFERENCES

N2-OP-37; Reactor Water Cleanup System; Page 3; Items D.10.0, D.11.0; REV 3

LESSON PLAN 02-REQ-001-204-2-00	OBJECTIVE EO-10.8.d
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NETS COMMENTS

New question.

REVALIDATE (Y/N)? Y	AUTHOR - Ross	REVIEWER - Hajek
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NINE MILE POINT - UNIT 2 - REQUAL EXAMBANK - PART J

QUESTION # 02-REQ-SJE-204-2-19-J01

During what two plant operating conditions should only one Reactor Water Cleanup Pump be operated?

ANSWER

1. When feedwater piping temperature stratification has occurred:
 a. during post scram recovery, or
 b. with temperature greater than 200°F and less than 20% power. 2. With single recirculation system loop operation.

K/A REFERENCE

204000 - REACTOR WATER CLEANUP SYSTEM

SG 13

APPLICABILITY RO&SRO

IMPORTANCE 3.3/3.1

Ability to perform specific system and integrated plant procedures during all modes of operation.

NMP2 REFERENCES

N2-OP-37; Reactor Water Cleanup System; Pages 2, 5; Items B, D.25.0; REV 3

LESSON PLAN 02-REQ-001-204-2-00-4

OBJECTIVE EO-10.8.d

NETS COMMENTS

Edited question and answer.

REVALIDATE (Y/N)? N

AUTHOR - Ross

REVIEWER - Hajek

