TASK CONDITIONS:

1. You are the Unit NSO.
2. Unit 1 is at full power.
3. Unit 2 is at full power.

INITIATING CUES:

The US directs you to perform the weekly QPTR calculation using 1BwOSR 3.2.4.1 and the process computer.

TASK TITLE: **Perform a QPTR Calculation with the Process Computer**

JPM No.:	**R-101**	REV:	NRC 09-1
TPO No.:	4.C.RK-01	K&A No.:	2.1.19
TASK No.:	R-RK-003, Perform a QPTR calculation and evaluate TS limits	K&A IMP:	3.9/3.8

EXAMINEE: _____ RO SRO (circle one)

EVALUATOR: _____ DATE:_____

The Examinee: PASSED _____ this JPM. TIME STARTED: _____

FAILED _____ TIME FINISHED:_____

JPM TIME:_____ MINUTES

CRITICAL ELEMENTS: **(*) 5, 6, 7** APPROX COMPLETION TIME: **15 MINUTES**

CRITICAL TIME: **NA**

EVALUATION METHOD:
_**X**_ PERFORM
___ SIMULATE

LOCATION:
___ IN PLANT
_**X**_ SIMULATOR

GENERAL REFERENCES:

1. 1BwOSR 3.2.4.1, Rev. 6, Unit One Quadrant Power Tilt Ratio (QPTR) Calculation

MATERIALS:

1. 1BwOSR 3.2.4.1
2. Calculator

TASK STANDARDS:

1. Perform 1BwOSR 3.2.4.1, Unit One Quadrant Power Tilt Ratio (QPTR) Calculation.

TASK CONDITIONS:

1. You are the Unit NSO.
2. Unit 1 is at full power.
3. Unit 2 is at full power.

INITIATING CUES:

1. The US directs you to perform the weekly QPTR calculation using 1BwOSR 3.2.4.1 and the process computer.

RECORD START TIME_____

	PERFORMANCE STEP	STANDARD	Circle applicable
1.	Prepare for 1BwOSR 3.2.4.1 QPTR Calculation. **Note: Give examinee the procedure with cover sheet.** **CUE: Prerequisites are met.**	• Sign, record time and date on the surveillance cover sheet. • VERIFY the applicable Prerequisites, Precautions, and Limitations and Actions are addressed.	SAT UNSAT N/A **Comments:**
2.	Determine Surveillance applicability.	Indicate the Applicability of this surveillance on the D-2 data sheet: • Block '7 Days' checked.	SAT UNSAT N/A **Comments:**
3.	Record Date and Time on Data Sheet D-2.	RECORD Date and Time on data sheet D-2.	SAT UNSAT N/A **Comments:**
4.	Record power range NIs operability status. **CUE: If asked, the Unit is in No LCOARs at this time.**	On Data Sheet D-3, RECORD the following for power range NIs 41-44: • 'Y' block checked for each channel operable. • 100% (or present power reading from each channel at 1PM07J).	SAT UNSAT N/A **Comments:**
***5.**	**Determine the Power Range NI Detector computer point readings using the Process Computer Points.** o **HMI trend page group 0001.** o **OPCON.**	DETERMINE the QPTR (detector voltages) using the Process Computer, by either selecting each point individually, or a group that contains each point and **RECORD** the present value: Upper Detectors (A): • N0041 (N41). • N0043 (N42). • N0045 (N43). • N0047 (N44). Lower Detectors (B): • N0042 (N41). • N0044 (N42). • N0046 (N43). • N0048 (N44).	SAT UNSAT N/A **Comments:**

***6.**	**Determine the AVERAGE computer point reading.**	DETERMINE the AVERAGE computer point reading by: • Adding the sum of the upper detector computer points and dividing by 4. • Adding the sum of the lower detector computer points and dividing by 4. • Record the AVERAGES on data sheet D-2.	SAT UNSAT N/A **Comments:**
***7.**	**Determine the QPTR.**	DETERMINE the QPTR for each channel by dividing the computer point reading for each channel by the average of the channel readings and RECORD on data sheet D-2: • QPTR for the Uppers. • QPTR for the Lowers.	SAT UNSAT N/A **Comments:**

CUE: THIS COMPLETES THIS JPM.

RECORD STOP TIME _____

COMMENTS:

JPM NO: R-101

REQUIRED SIMULATOR MODE (S): 100% power steady state

MALFUNCTION #'S: N/A

COMMENTS:

1. Ensure that HMI is NOT on QPTR parameters.
2. Make a "KEY" in table below of the surveillance for the evaluator to reference with current simulator core load.

Key

Channel	N41	N42	N43	N44
Is the channel operable?	□Y □N	□Y □N	□Y □N	□Y □N
Instrument reading	%	%	%	%
Upper Detectors (A)				
Computer point	N0041	N0043	N0045	N0047
Present computer point reading				
Average computer point reading				
Upper power tilt ratio (¢δ1.02)	¢	¢	¢	¢
Lower Detectors (B)				
Computer point	N0042	N0044	N0046	N0048
Present computer point reading				
Average computer point reading				
Lowerr power tilt ratio (¢δ1.02)	¢	¢	¢	¢

Key