JPM A1a RO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Calculate QPTR	JPM No.:	2016 Admin – JPM A1a RO
K/A Reference:	2.1.7 (4.4)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: ____ Actual Performance: X

Classroom X Simulator ____ Plant ____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

Initial Conditions:

- The plant is in Mode 1 at 60% RTP.
- ERFIS is inoperable.
- The CRS has directed you to perform a Manual QPTR calculation and analyze the results of the calculation.
- Detector Currents are as follows:
  - N41: Upper – 63 / Normalizing – 123
  - N41: Lower – 55 / Normalizing – 120
  - N42: Upper – 55 / Normalizing – 109
  - N42: Lower – 52 / Normalizing - 110
  - N43: Upper – 50 / Normalizing – 104
  - N43: Lower – 45 / Normalizing – 99
  - N44: Upper – 48 / Normalizing – 97
  - N44: Lower – 45 / Normalizing – 95

Initiating Cue:

- The CRS has directed you to perform a MANUAL QPTR calculation IAW FMP-007, QUADRANT POWER TILT.

- Round all calculations to three decimal places (Example: 1.2348 would be rounded to 1.235)
- Identify any limits that are not being complied with.

Task Standard: The operator will complete the QPTR calculation in accordance with the provided KEY, and identify that Technical Specification LCO is NOT met.

Required Materials: Calculator
Robinson Technical Specifications and Basis must be available.

General References: FMP-007 (Quadrant Power Tilt), Rev 15
Robinson Technical Specification LCO 3.2.4 (Quadrant Power Tilt Ratio), Amendment 176

Handouts: Handout 1: Blank copy of FMP-007.

Time Critical Task: NO

Validation Time: 10 minutes

Critical Step Justification	
Step 6	This step is critical because identifying that the maximum Upper Normalized Detector Ratio is N41 (0.512), and dividing it by the Average Upper Normalized Detector Ratio is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 7	This step is critical because identifying that the maximum Lower Normalized Detector Ratio is N44 (0.474), and dividing it by the Average Lower Normalized Detector Ratio is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 8	This step is critical because identifying that the Upper QPTR is larger than the Lower QPTR is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 9	This step is critical because determining that LCO 3.2.4 permits a maximum QPTR of 1.02 when power level is greater than 50% is necessary to identify that Technical Specification LCO is NOT met.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

START TIME: _____

STEP 1: Read the Upper (A) and the Lower (B) Indicated Detector Currents from the Detector Current meters of each operable Power Range channel and record on ATTACHMENT 10.2. (Step 8.2.4.1) **STANDARD:** The operator records the provided Upper and Lower Detector Currents on Attachment 10.2 IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
STEP 2: Record the Upper and Lower Normalizing Detector Currents from the Control Room Status Board for each operable Power Range channel on ATTACHMENT 10.2. (Step 8.2.4.2) **STANDARD:** The operator records the provided Upper and Lower Detector Currents on Attachment 10.2 IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
NOTE: Normalized Ratios, Average Ratios and QPTR values should be recorded to at least 3 decimal places.	

STEP 3: Divide each Indicated Detector Current by its corresponding Normalizing Detector Current and record the result as the Normalized Detector Ratio on ATTACHMENT 10.2.
(Step 8.2.4.3)

___ SAT

STANDARD: The operator reads the Note, and proceeds.

___ UNSAT

The operator divides each Indicated Detector Current by its corresponding Normalizing Detector Current and records the result as the Normalized Detector Ratio on ATTACHMENT 10.2 IAW the provided KEY.

Upper N41 = **0.512**	Lower N41 = **0.458**
Upper N42 = **0.505**	Lower N42 = **0.473**
Upper N43 = **0.481**	Lower N43 = **0.455**
Upper N44 = **0.495**	Lower N44 = **0.474**

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 4: Average the Upper Normalized Detector Ratios and record the result as the Average Normalized Detector Ratio in the Upper column on ATTACHMENT 10.2.
(Step 8.2.4.4)

___ SAT

STANDARD: The operator averages the Upper Normalized Detector Ratios and records the result as the Average Normalized Detector Ratio in the Upper column on Attachment 10.2 IAW the provided KEY.

___ UNSAT

Upper Average Normalized Detector Ratio = **0.498 (+.001/-0)**

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 5: Average the Lower Normalized Detector Ratios and record the result as the Average Normalized Detector Ratio in the Lower column on ATTACHMENT 10.2. (Step 8.2.4.5) **STANDARD:** The operator averages the Lower Normalized Detector Ratios and records the result as the Average Normalized Detector Ratio in the Lower column on Attachment 10.2 IAW the provided KEY. Lower Average Normalized Detector Ratio = **0.465 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
STEP 6: Determine the maximum Upper Normalized Detector Ratio and divide it by the Average Upper Normalized Detector Ratio and record the resulting Upper QPTR on ATTACHMENT 10.2. (Step 8.2.4.6) **STANDARD:** The operator identifies that the maximum Upper Normalized Detector Ratio is N41 (0.512), and divides it by the Average Upper Normalized Detector Ratio from Performance Step 4 and records the resulting Upper QPTR on Attachment 10.2 IAW the provided KEY. **Upper QPTR = 0.512 / 0.498 = 1.028 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 7: Determine the maximum Lower Normalized Detector Ratio and divide it by the Average Lower Normalized Detector Ratio and record the resulting Lower QPTR on ATTACHMENT 10.2 (Step 8.2.4.7) **STANDARD:** The operator observes that the maximum Lower Normalized Detector Ratio is N44 (0.474), and divides it by the Average Lower Normalized Detector Ratio from Performance Step 5 and records the resulting Upper QPTR on Attachment 10.2 IAW the provided KEY. **Lower QPTR = 0.474 / 0.465 = 1.019 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 8: Record larger of the Upper QPTR or the Lower QPTR as the Maximum QPTR on ATTACHMENT 10.2 along with the reactor power and any comments. (Step 8.2.4.8) **STANDARD:** The operator identifies that the Upper QPTR is larger than the Lower QPTR and records the Maximum QPTR as 1.028 (+.001/-0) IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 9: Identify any limits that are not being complied with. **STANDARD:** The operator reviews Technical Specification LCO 3.2.4 and determines that with the plant in Mode 1 at greater than 50% power, a maximum QPTR of 1.02 is permitted. The operator identifies that LCO 3.2.4 is NOT met. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A1a RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- The plant is in Mode 1 at 60% RTP.
- ERFIS is inoperable.
- The CRS has directed you to perform a Manual QPTR calculation and analyze the results of the calculation.
- Detector Currents are as follows:
  - N41: Upper – 63 / Normalizing – 123
  - N41: Lower – 55 / Normalizing – 120
  - N42: Upper – 55 / Normalizing – 109
  - N42: Lower – 52 / Normalizing – 110
  - N43: Upper – 50 / Normalizing – 104
  - N43: Lower – 45 / Normalizing – 99
  - N44: Upper – 48 / Normalizing – 97
  - N44: Lower – 45 / Normalizing – 95

INITIATING CUE:

- The CRS has directed you to perform a MANUAL QPTR calculation IAW FMP-007, QUADRANT POWER TILT.
- Round all calculations to three decimal places (Example: 1.2348 would be rounded to 1.235)
- Identify any limits that are not being complied with.

JPM A1a SRO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Calculate QPTR	JPM No.:	2016 Admin – JPM A1a SRO
K/A Reference:	2.1.7 (4.7)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: ____ Actual Performance: X

Classroom X Simulator ____ Plant ____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

Initial Conditions:

- The plant is in Mode 1 at 100% RTP.
- ERFIS is inoperable.
- The CRS has directed you to perform a Manual QPTR calculation and analyze the results of the calculation.
- Detector Currents are as follows:
  - N41: Upper – 105 / Normalizing – 123
  - N41: Lower – 92 / Normalizing – 120
  - N42: Upper – 92 / Normalizing – 109
  - N42: Lower – 87 / Normalizing – 110
  - N43: Upper – 83 / Normalizing – 104
  - N43: Lower – 75 / Normalizing – 99
  - N44: Upper – 80 / Normalizing – 97
  - N44: Lower – 75 / Normalizing – 95

Initiating Cue:

- The CRS has directed you to perform a MANUAL QPTR calculation IAW FMP-007, QUADRANT POWER TILT.
- Round all calculations to three decimal places (Example: 1.2348 would be rounded to 1.235)

- Identify whether or not any limitations have been exceeded, and if so, what, if any ACTION, is required.

Task Standard: The operator will complete the QPTR calculation in accordance with the provided KEY, identify that Technical Specification LCO is NOT met, and identify that all six ACTIONs (A.1-A.6) must be taken for Condition A of LCO 3.2.4.

Required Materials: Calculator
Robinson Technical Specifications and Basis must be available.

General References: FMP-007 (Quadrant Power Tilt), Rev 15
Robinson Technical Specification LCO 3.2.4 (Quadrant Power Tilt Ratio), Amendment 176

Handouts: Handout 1: Blank copy of FMP-007.

Time Critical Task: NO

Validation Time: 15 minutes

Critical Step Justification	
Step 6	This step is critical because identifying that the maximum Upper Normalized Detector Ratio is N41 (0.854), and dividing it by the Average Upper Normalized Detector Ratio is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 7	This step is critical because identifying that the maximum Lower Normalized Detector Ratio is N42 (0.791), and dividing it by the Average Lower Normalized Detector Ratio is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 8	This step is critical because identifying that the Upper QPTR is larger than the Lower QPTR is necessary to complete the QPTR calculation in accordance with the provided KEY.
Step 9	This step is critical because determining that LCO 3.2.4 permits a maximum QPTR of 1.02 when power level is greater than 50% is necessary to identify that Technical Specification LCO is NOT met; and identifying that ACTIONs A.1 through A.6 must be completed is necessary to identify all of the Technical Specification required ACTION.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

START TIME: _____

STEP 1: Read the Upper (A) and the Lower (B) Indicated Detector Currents from the Detector Current meters of each operable Power Range channel and record on ATTACHMENT 10.2. (Step 8.2.4.1) **STANDARD:** The operator records the provided Upper and Lower Detector Currents on Attachment 10.2 IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
STEP 2: Record the Upper and Lower Normalizing Detector Currents from the Control Room Status Board for each operable Power Range channel on ATTACHMENT 10.2. (Step 8.2.4.2) **STANDARD:** The operator records the provided Upper and Lower Detector Currents on Attachment 10.2 IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
NOTE: Normalized Ratios, Average Ratios and QPTR values should be recorded to at least 3 decimal places.	

STEP 3: Divide each Indicated Detector Current by its corresponding Normalizing Detector Current and record the result as the Normalized Detector Ratio on ATTACHMENT 10.2.
(Step 8.2.4.3)

___ SAT

STANDARD: The operator reads the Note, and proceeds.

___ UNSAT

The operator divides each Indicated Detector Current by its corresponding Normalizing Detector Current and records the result as the Normalized Detector Ratio on ATTACHMENT 10.2 IAW the provided KEY.

Upper N41 = **0.854**	Lower N41 = **0.767**
Upper N42 = **0.844**	Lower N42 = **0.791**
Upper N43 = **0.798**	Lower N43 = **0.758**
Upper N44 = **0.825**	Lower N44 = **0.789**

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 4: Average the Upper Normalized Detector Ratios and record the result as the Average Normalized Detector Ratio in the Upper column on ATTACHMENT 10.2.
(Step 8.2.4.4)

___ SAT

STANDARD: The operator averages the Upper Normalized Detector Ratios and records the result as the Average Normalized Detector Ratio in the Upper column on Attachment 10.2 IAW the provided KEY.

___ UNSAT

Upper Average Normalized Detector Ratio = **0.830 (+.001/-0)**

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 5: Average the Lower Normalized Detector Ratios and record the result as the Average Normalized Detector Ratio in the Lower column on ATTACHMENT 10.2. (Step 8.2.4.5) **STANDARD:** The operator averages the Lower Normalized Detector Ratios and records the result as the Average Normalized Detector Ratio in the Lower column on Attachment 10.2 IAW the provided KEY. Lower Average Normalized Detector Ratio = **0.776 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
STEP 6: Determine the maximum Upper Normalized Detector Ratio and divide it by the Average Upper Normalized Detector Ratio and record the resulting Upper QPTR on ATTACHMENT 10.2. (Step 8.2.4.6) **STANDARD:** The operator identifies that the maximum Upper Normalized Detector Ratio is N41 (0.854), and divides it by the Average Upper Normalized Detector Ratio from Performance Step 4 and records the resulting Upper QPTR on Attachment 10.2 IAW the provided KEY. **Upper QPTR = 0.854 / 0.830 = 1.029 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 7: Determine the maximum Lower Normalized Detector Ratio and divide it by the Average Lower Normalized Detector Ratio and record the resulting Lower QPTR on ATTACHMENT 10.2 (Step 8.2.4.7) **STANDARD:** The operator observes that the maximum Lower Normalized Detector Ratio is N42 (0.791), and divides it by the Average Lower Normalized Detector Ratio from Performance Step 5 and records the resulting Upper QPTR on Attachment 10.2 IAW the provided KEY. **Lower QPTR = 0.791 / 0.776 = 1.019 (+.001/-0)** **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 8: Record larger of the Upper QPTR or the Lower QPTR as the Maximum QPTR on ATTACHMENT 10.2 along with the reactor power and any comments. (Step 8.2.4.8) **STANDARD:** The operator identifies that the Upper QPTR is larger than the Lower QPTR and records the Maximum QPTR as 1.029 (+.001/-0) IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 9: Identify whether or not any limitations have been exceeded, and if so, what, if any ACTION, is required.	**CRITICAL STEP**
STANDARD: The operator reviews Technical Specification LCO 3.2.4 and determines that with the plant in Mode 1 at greater than 50% power, a maximum QPTR of 1.02 is permitted. The operator identifies that LCO 3.2.4 is NOT met. The operator identifies that ACTIONS A.1 through A.6 must be taken for Condition A of LCO 3.2.4. • Reduce THERMAL POWER ≥ 3% from RTP for each 1% of QPTR > 1.00 within 2 hours (Minimum of 8.7% power reduction OR Maximum allowable power of 91.3%). • Determine QPTR and reduce THERMAL POWER ≥ 3% from RTP for each 1% of QPTR > 1.00 once per 12 hours. • Perform SR 3.2.1.1 and SR 3.2.2.1 within 24 hours and once per 7 days thereafter. • Reevaluate safety analyses and confirm results remain valid for duration of operation under this condition prior to increasing THERMAL POWER above the limit of Required Action A.1. • Prior to increasing THERMAL POWER above the limit of Required Action A.1 prior to increasing THERMAL POWER above the limit of Required Action A.1 or A.2. • Perform SR 3.2.1.1 and SR 3.2.2.1 Within 24 hours after reaching RTP OR Within 48 hours after increasing THERMAL POWER above the limit of Required Action A.1 or A.2.	___ SAT ___ UNSAT
EXAMINER'S CUE: NONE **EXAMINER'S NOTE:** NONE COMMENTS:	

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A1a SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS:

- The plant is in Mode 1 at 100% RTP.
- ERFIS is inoperable.
- The CRS has directed you to perform a Manual QPTR calculation and analyze the results of the calculation.
- Detector Currents are as follows:
  - N41: Upper – 105 / Normalizing – 123
  - N41: Lower – 92 / Normalizing – 120
  - N42: Upper – 92 / Normalizing – 109
  - N42: Lower – 87 / Normalizing – 110
  - N43: Upper – 83 / Normalizing – 104
  - N43: Lower – 75 / Normalizing – 99
  - N44: Upper – 80 / Normalizing – 97
  - N44: Lower – 75 / Normalizing – 95

INITIATING CUE:

- The CRS has directed you to perform a MANUAL QPTR calculation IAW FMP-007, QUADRANT POWER TILT.
- Round all calculations to three decimal places (Example: 1.2348 would be rounded to 1.235)
- Identify whether or not any limitations have been exceeded, and if so, what, if any ACTION, is required.

JPM A1b RO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Determine License Status	JPM No.:	2016 Admin – JPM A1b RO
K/A Reference:	2.1.4 (3.3)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

Initial Conditions:

- You are a Licensed Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room.
- Your last medical exam was on 11/17/14.
- Your last SCBA quantitative and qualitative fit test was on 1/18/15.
- You have attended all required LOCT training sessions, and passed all exams administered.
- Your supervisor has directed you to maintain your license active AND qualified to stand watch.
- Your Control Room work history in the last three months is as follows:
  - 11/26/15, BOP for 12 hours (Day Shift)
  - 1/2/16, RO for 8 hours (Night Shift 1800-2400)
  - 1/4/16, Extra Operator for 4 hours assigned to Monitor Feedwater Station during Reactor Startup (Day Shift).
  - 1/10/16, BOP for 12 hours (Day Shift)

Initiating Cue:	Your supervisor has asked you to identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE; and any additional requirements that are required to maintain your qualification to stand watch in the Control Room.
Task Standard:	The operator will evaluate their work history and identify that four 12-hour shifts must be completed as either the RO or the BOP prior to the end of the quarter to maintain their license ACTIVE, and that an SCBA quantitative and qualitative fit test must be completed prior to standing watch in the Control Room again.
Required Materials:	Calculator
General References:	OMM-001-5 (Training and Qualification), Rev 53 AD-OP-ALL-1000 (Conduct of Operations), Rev 4
Handouts:	None
Time Critical Task:	NO
Validation Time:	6 minutes

Critical Step Justification	
Step 1	This step is critical because identifying the watches that must be completed before the end of the quarter is necessary to maintain the license status ACTIVE.
Step 2	This step is critical because identifying the requirement to complete an annual fit test is necessary to maintain the ability to stand watch in the Control Room.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

START TIME: _____

STEP 1:	Identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE.	**CRITICAL STEP**
STANDARD:	The operator identifies that ROs must stand a minimum number of hours in a Licensed position, satisfactorily participate in the Licensed Operator Continuing Training Program, and have a biennial medical exam; and concludes that the LOCT and Medical requirements have been met. The operator recognizes that Individuals with RO Licenses may maintain an active license by standing watch a minimum of five 12 hour shifts per calendar quarter as RO or BOP. The operator recognizes that the work on 11/26/15 does not count towards this calendar-quarter's number of watches. The operator recognizes that the work on 1/2/16 does not count towards the minimum of five 12-hour shifts. The operator recognizes that the work on 1/4/16 does not count towards the minimum of five 12-hour shifts; because it was not stood as the BOP or the RO. The operator recognizes that the work on 1/10/16 does count towards the minimum of five 12-hour shifts; and concludes that 4 additional 12-hour shifts as either the RO or BOP must be completed before the end of the quarter.	___ SAT ___ UNSAT
EXAMINER'S CUE:	NONE	
EXAMINER'S NOTE:	See Section 5.3 of OMM-001-5.	
COMMENTS:		

STEP 2: Identify the requirements that are required to maintain your qualification to stand watch in the Control Room. **STANDARD:** The operator recognizes that in order to maintain qualification to stand watch in the Control Room, the operator must be Respirator Qualified as defined in the section on Maintaining License and Qualification Active Status; and that this section requires an SCBA quantitative and qualitative fit test annually. The operator recognizes that the last SCBA quantitative and qualitative fit test was over a year ago, and identifies that this fit test must be completed prior to standing a watch in the Control Room. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A1b RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- You are a Licensed Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room.
- Your last medical exam was on 11/17/14.
- Your last SCBA quantitative and qualitative fit test was on 1/18/15.
- You have attended all required LOCT training sessions, and passed all exams administered.
- Your supervisor has directed you to maintain your license active AND qualified to stand watch.
- Your Control Room work history in the last three months is as follows:
  - 11/26/15, BOP for 12 hours (Day Shift)
  - 1/2/16, RO for 8 hours (Night Shift 1800-2400)
  - 1/4/16, Extra Operator for 4 hours assigned to Monitor Feedwater Station during Reactor Startup (Day Shift).
  - 1/10/16, BOP for 12 hours (Day Shift)

INITIATING CUE: Your supervisor has asked you to identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE; and any additional requirements that are required to maintain your qualification to stand watch in the Control Room.

Requirements that must be met before the end of the quarter to maintain an ACTIVE License:

Requirements that must be to maintain your qualification to stand watch in the Control Room:

JPM A1b SRO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Determine License Status	JPM No.:	2016 Admin – JPM A1b SRO
K/A Reference:	2.1.4 (3.3)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: ____ Actual Performance: X

Classroom X Simulator ____ Plant ____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

Initial Conditions:

- You are a Licensed Senior Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room.
- Your last medical exam was on 11/17/14.
- Your last SCBA quantitative and qualitative fit test was on 1/18/15.
- You have attended all required LOCT training sessions, and passed all exams administered.
- Your supervisor has directed you to maintain your license active AND qualified to stand watch.
- Your Control Room work history in the last three months is as follows:
  - 11/26/15, BOP for 12 hours (Day Shift)
  - 1/2/16, RO for 8 hours (Night Shift 1800-2400)
  - 1/4/16, Extra Operator for 4 hours assigned to Monitor Feedwater Station during Reactor Startup (Day Shift).
  - 1/10/16, CRS for 12 hours (Day Shift)

Initiating Cue:	Your supervisor has asked you to identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE; and any additional requirements that are required to maintain your qualification to stand watch in the Control Room.
Task Standard:	The operator will evaluate their work history and identify that four 12-hour shifts must be completed as either the SM, CRS, RO or the BOP prior to the end of the quarter to maintain their license ACTIVE, and that an SCBA quantitative and qualitative fit test must be completed prior to standing watch in the Control Room again.
Required Materials:	Calculator
General References:	OMM-001-5 (Training and Qualification), Rev 53 AD-OP-ALL-1000 (Conduct of Operations), Rev 4
Handouts:	None
Time Critical Task:	NO
Validation Time:	7 minutes

Critical Step Justification	
Step 1	This step is critical because identifying the watches that must be completed before the end of the quarter is necessary to maintain the license status ACTIVE.
Step 2	This step is critical because identifying the requirement to complete an annual fit test is necessary to maintain the ability to stand watch in the Control Room.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

START TIME: _____

STEP 1:	Identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE.	**CRITICAL STEP**
STANDARD:	The operator identifies that SROs must stand a minimum number of hours in a Licensed position, satisfactorily participate in the Licensed Operator Continuing Training Program, and have a biennial medical exam; and conclude that the LOCT and Medical requirements have been met. The operator recognizes that Individuals with SRO Licenses may maintain an active license by standing watch a minimum of five 12 hour shifts in a License required position, at least one of which must be in the SM or CRS position in the Main Control Room. The operator recognizes that the work on 11/26/15 does not count towards this calendar-quarter's number of watches. The operator recognizes that the work on 1/2/16 does not count towards the minimum of five 12-hour shifts. The operator recognizes that the work on 1/4/16 does not count towards the minimum of five 12-hour shifts; and was not stood as the SM, CRS, BOP or the RO. The operator recognizes that the work on 1/10/16 does count towards the minimum of five 12-hour shifts; and concludes that 4 additional 12-hour shifts as either the SM, CRS, RO or BOP must be completed before the end of the quarter.	___ SAT ___ UNSAT
EXAMINER'S CUE:	NONE	
EXAMINER'S NOTE:	See Section 5.3 of OMM-001-5.	
COMMENTS:		

STEP 2: Identify the requirements that are required to maintain your qualification to stand watch in the Control Room. **STANDARD:** The operator recognizes that in order to maintain qualification to stand watch in the Control Room, the operator must be Respirator Qualified as defined in the section on Maintaining License and Qualification Active Status; and that this section requires an SCBA quantitative and qualitative fit test annually. The operator recognizes that the last SCBA quantitative and qualitative fit test was over a year ago, and identifies that this fit test must be completed prior to standing a watch in the Control Room. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A1b SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- You are a Licensed Senior Reactor Operator who was assigned to the day shift staff for a special project, and not routinely standing watch in the Control Room.
- Your last medical exam was on 11/17/14.
- Your last SCBA quantitative and qualitative fit test was on 1/18/15.
- You have attended all required LOCT training sessions, and passed all exams administered.
- Your supervisor has directed you to maintain your license active AND qualified to stand watch.
- Your Control Room work history in the last three months is as follows:
  - 11/26/15, BOP for 12 hours (Day Shift)
  - 1/2/16, RO for 8 hours (Night Shift 1800-2400)
  - 1/4/16, Extra Operator for 4 hours assigned to Monitor Feedwater Station during Reactor Startup (Day Shift).
  - 1/10/16, CRS for 12 hours (Day Shift)

INITIATING CUE: Your supervisor has asked you to identify any requirements that must be met prior to the end of the quarter that are required to maintain your license ACTIVE; and any additional requirements that are required to maintain your qualification to stand watch in the Control Room.

Requirements that must be met before the end of the quarter to maintain an ACTIVE License:

Requirements that must be to maintain your qualification to stand watch in the Control Room:

JPM A2 RO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Determine Proper Equipment Boundaries	JPM No.:	2016 Admin – JPM A2 RO
K/A Reference:	2.2.41 (3.5)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: ____ Actual Performance: X

Classroom X Simulator ____ Plant ____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

Initial Conditions:	• The plant is in Mode 1 at 100% power. • Charging Pump "A" suction relief valve CVC-2080 has failed open. • The operating crew has entered AOP-016, Excessive Primary Plant Leakage, to control the plant.
Initiating Cue:	The CRS has directed you to use all available resources to identify the pump boundary valves needed to be closed to isolate the leak, and identify the motor breaker to electrically isolate the pump motor.
Task Standard:	The operator will identify that the leak can be isolated by closing three valves; CVC-270, CVC-290 and CVC-291, and that the pump motor can be electrically isolated by opening Breaker 52/34B.
Required Materials:	Set of P&IDs available to the operator Set of EDPs available to the operator
General References:	P&ID 5379-685 Sheet 2 of 3 (Chemical and Volume Control System Purification and Makeup Flow Diagram), Rev 61

EDP-002 (480V AC Busses), Rev 16
OWP-005 (Chemical and Volume Control System (CVCS)), Rev 65

Handouts: None

Time Critical Task: NO

Validation Time: 5 minutes

Critical Step Justification	
Step 1	This step is critical because closing CVC-270, CV-290 and CVC-291 is necessary to isolate the leak.
Step 2	This step is critical because opening Breaker 52/34B is necessary to electrically isolate the “A” Charging Pump.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

START TIME: _____

STEP 1: Review P&IDs to determine pump boundary valves. **STANDARD:** The operator reviews the set of P&IDs, and determines that the boundary valves associated with the "A" Charging Pump and its relief valve are located on P&ID 5379-685 Sheet 2 of 3 (Chemical and Volume Control System Purification and Makeup Flow Diagram). As a MINIMUM, the operator identifies the following valves are required to be verified in the selected positions to ensure that the leak flow path is isolated : • CVC-270, Charging Pump A Suction - CLOSED • CVC-290, Charging Pump A to Charging Line - CLOSED • CVC-291, Charging Pump A to Seal Injection - CLOSED **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This JPM consists of identifying the boundaries necessary to isolate the leakage path from Charging Pump A suction relief valve CVC-2080. The sequence of the component isolation is NOT required for the performance of this JPM. **Not required for credit.** Additional isolation valves that can be included are as follows: • CVC-465, Charging Pump A Suction Vent - CLOSED • CVC-275F, Charging Pump A Suction Line Vent – CLOSED • CVC-280C, Charging Pump A Drain – CLOSED • CVC-400A, Charging Pump A Leakage Isolation - OPEN • CVC-277C, Charging Pump A Recirc Root – CLOSED ▪ CVC-466, Charging Pump A Suction Stabilizer Drain - OPEN COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 2: Determine the power supply to Charging Pump "A". **STANDARD:** The operator reviews the EDPs and determines that EDP-002 must be addressed. As a MINIMUM the operator that Charging Pump A power supply is breaker 52/34B must be OPENED. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** The sequence of the component isolation is NOT required for the performance of this JPM. Not required for credit. Additional breakers/switches that can be included are as follows: • RTGB Control switch for Charging Pump A – CAPPED • Power Panel 37 Circuit 2, Charging Pump A Suction Stabilizer Heater Breaker – OPEN COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A2 RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- The plant is in Mode 1 at 100% power.
- Charging Pump “A” suction relief valve CVC-2080 has failed open.
- The operating crew has entered AOP-016, Excessive Primary Plant Leakage, to control the plant.

INITIATING CUE: The CRS has directed you to use all available resources to identify the pump boundary valves needed to be closed to isolate the leak, and identify the motor breaker to electrically isolate the pump motor.

JPM A2 SRO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Determine if Mode Change is Permissible	JPM No.:	2016 Admin – JPM A2 SRO
K/A Reference:	2.2.38 (4.5)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue and the Available Equipment Inoperable List (Last Two Pages of this JPM), and Handout 1.

Initial Conditions:
- The plant is in Mode 5, returning from a refueling outage.
- RCS temperature is 165°F and there is a bubble in the PZR.
- RHR Loop "A" is maintaining RCS temperature.
- You are an extra SRO assigned to support the shift during re-start activities.
- An Inoperable Equipment List is available.

Initiating Cue:
- The SM has directed you to complete the attached partially completed OMM-001-12, MINIMUM EQUIPMENT LIST AND SHIFT RELIEF, Att. 2, 200°F to 350°F (MODE 4) MEL that was started on the previous shift and determine if any Mode 4 restrictions exist.
- The SM has indicated that it is expected to make the Mode change without reliance upon Technical Specification 3.0.4.b.

Task Standard:	The operator will evaluate the Technical Specifications/Technical Requirements against the Inoperable Equipment List and listed parameters and determines that CCW Pump "C", V6-16B, WCCU-1A must be restored to operable prior to changing modes; that CVT 1 must be repaired and Instrument Bus 1 must be powered from MCC-5 prior to changing modes, and that DFO Storage tank level must be raised to > 19000 gallons prior to changing modes per the provided KEY.
Required Materials:	Robinson Technical Specifications and Basis must be available.
General References:	OMM-001-12 (Minimum Equipment List and Shift Relief), Rev 85 Technical Specifications for H. B. Robinson Steam Electric Plant Unit No. 2
Handouts:	Handout 1: Attachment 2 of OMM-001-12 marked up for this JPM
Time Critical Task:	NO
Validation Time:	15 minutes

Critical Step Justification	
Step 9	This step is critical because LCO 3.7.6 is NOT met, and meeting this LCO is necessary to change Modes.
Step 10	This step is critical because LCO 3.7.7 is NOT met, and meeting this LCO is necessary to change Modes.
Step 11	This step is critical because LCO 3.7.10 is NOT met, and meeting this LCO is necessary to change Modes.
Step 12	This step is critical because LCO 3.8.3 is NOT met, and meeting this LCO is necessary to change Modes.
Step 14	This step is critical because LCO 3.8.7 is NOT met, and meeting this LCO is necessary to change Modes.
Step 15	This step is critical because LCO 3.8.9 is NOT met, and meeting this LCO is necessary to change Modes.
Step 18	This step is critical because the report to the SM must be correct prior to changing Modes.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue and the Available Equipment Inoperable List (Last Two Pages of this JPM), and Handout 1.

START TIME: _____

STEP 1: Evaluate ITS LCO 3.4.17 requirements. **STANDARD:** The operator recognizes that 2 Charging Pumps must be OPERABLE, and that the "A" Charging Pump is inoperable. The operator determines minimum requirement is met with "B" and "C" Charging Pumps OPERABLE, and initials the appropriate block. The operator recognizes that the Seal Water Injection flow to EACH of the RCPs is greater than 6 gpm, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 2: Evaluate ITS LCO 3.5.4 requirements. **STANDARD:** The operator recognizes that the RWST level is greater than 91 %, and initials the appropriate block. The operator recognizes that the RWST Boron concentration is ≥ 1950 ppm and ≤ 2400 ppm, and initials the appropriate block. The operator recognizes that the RWST temperature is ≥ 45°F and ≤ 100°F, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT

STEP 3: Evaluate ITS LCO 3.6.4 requirements. **STANDARD:** The operator recognizes that the Containment Pressure is ≥ -0.8 psig AND ≤ +1.0 psig, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 4: Evaluate ITS LCO 3.6.5 requirements. **STANDARD:** The operator recognizes that the Containment Air Temperature is ≤120°F, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 5: Evaluate ITS LCO 3.6.7 requirements. **STANDARD:** The operator recognizes that the Spray Additive Tank Level is ≥32%, and initials the appropriate block. The operator recognizes that the Spray Additive Tank concentration is ≥30% NAOH, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT

STEP 6: Evaluate ITS LCO 3.6.8 requirements. **STANDARD:** The operator recognizes that the IVSW pressure is ≥49 psig as indicated locally on PI-1910, and initials the appropriate block. The operator recognizes that the IVSW tank level is ≥49%, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 7: Evaluate ITS LCO 3.7.4 requirements. **STANDARD:** The operator recognizes that 1 MDAFW Pump (LCO-3.0.4.b N/A) is required to be OPERABLE, and that the "B" MDAFW Pump is inoperable. The operator determines minimum requirement is met with the "A" MDAFW Pump OPERABLE, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 8: Evaluate ITS LCO 3.7.5 requirements. **STANDARD:** The operator recognizes that the Condensate Storage Tank level is ≥26%, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT

STEP 9: Evaluate ITS LCO 3.7.6 requirements. **STANDARD:** The operator recognizes that 2 Trains powered from Emergency Power supplies ("B" and "C" pumps) are required to be OPERABLE, and that the “C” CCW Pump is inoperable. The operator determines that the “C” CCW Pump must be restored to OPERABLE prior to changing modes, and does NOT initial the associated block. **EXAMINER’S CUE:** NONE **EXAMINER’S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 10: Evaluate ITS LCO 3.7.7 requirements. **STANDARD:** The operator recognizes that the Turbine Bldg Loop Isolation valves are required to be OPERABLE, and that V6-16B is inoperable. The operator determines that V6-16B must be restored to OPERABLE prior to changing modes, and does NOT initial the associated block. **EXAMINER’S CUE:** NONE **EXAMINER’S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 11: Evaluate ITS LCO 3.7.10 requirements. **STANDARD:** The operator recognizes that 2 HVAC WCCU Trains are required to be OPERABLE, and that WCCU-1A is inoperable. The operator determines that WCCU-1A must be restored to OPERABLE prior to changing modes, and does NOT initial the associated block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 12: Evaluate ITS LCO 3.8.3 requirements. **STANDARD:** The operator recognizes that ≥ 19,000 gallons is NOT available from DFO Storage tank, and recognizes that tank level must be raised to > 19000 gallons prior to changing modes, and does NOT initial the associated block. The operator recognizes that ≥ 15,000 gallons is available from Unit 1 IC Turbine Fuel Oil Storage tanks, and initials the appropriate block. (Not Critical) The operator recognizes that the "A" EDG Air receiver pressure is greater than 210 psig, and initials the appropriate block. (Not Critical) The operator recognizes that the "B" EDG Air receiver pressure is greater than 210 psig, and initials the appropriate block. (Not Critical) **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 13: Evaluate ITS LCO 3.8.4 requirements. **STANDARD:** The operator recognizes that MCC-A Voltage is > 126 VDC, and initials the appropriate block. The operator recognizes that MCC-B Voltage is > 126 VDC, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 14: Evaluate ITS LCO 3.8.7 requirements. **STANDARD:** The operator recognizes that Inverter A Voltage is > 114 VAC, and initials the appropriate block. (Not Critical) The operator recognizes that Inverter B Voltage is > 114 VAC, and initials the appropriate block. (Not Critical) The operator recognizes that CVT 1, must be OPERABLE, and that that it is currently inoperable. The operator determines that CVT 1 must be restored to OPERABLE prior to changing modes, and does NOT initial the associated block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 15: Evaluate ITS LCO 3.8.9 requirements. **STANDARD:** The operator recognizes that 4KV Bus 2 Voltage is > 3.2 KV, and initials the appropriate block. (Not Critical) The operator recognizes that 4KV Bus 3 Voltage is > 3.2 KV, and initials the appropriate block. (Not Critical) The operator recognizes that 480V Bus E-1 Voltage (lowest phase) is > 440 VAC, and initials the appropriate block. (Not Critical) The operator recognizes that 480V Bus E-2 Voltage (lowest phase) is > 440 VAC, and initials the appropriate block. (Not Critical) The operator recognizes that MCC-5 breaker, CMPT NO. 4BL, FEED TO INSTRUMENT BUS 1, must be closed to be OPERABLE, and that that it is currently OPEN due to problem with No. 1 Constant Voltage Transformer. The operator determines that MCC-5 breaker, CMPT NO. 4BL, FEED TO INSTRUMENT BUS 1, must be closed prior to changing modes, and does NOT initial the associated block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

STEP 16: Evaluate TRMS 3.6.b requirements.

STANDARD: The operator recognizes that the "A" Boric Acid Tank Level is > 42%, and initials the appropriate block.

The operator recognizes that the "A" Boric Acid Tank boron concentration is between 20,000 ppm - 22,500 ppm, and initials the appropriate block.

The operator recognizes that the "A" Boric Acid Tank temperature is > 145°F, and initials the appropriate block.

The operator recognizes that the "B" Boric Acid Tank Level is > 42%, and initials the appropriate block.

The operator recognizes that the "B" Boric Acid Tank boron concentration is between 20,000 ppm - 22,500 ppm, and initials the appropriate block.

The operator recognizes that the "B" Boric Acid Tank temperature is > 145°F, and initials the appropriate block.

___ SAT

___ UNSAT

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: This evaluation can be made in ANY order. See provided KEY.

COMMENTS:

STEP 17: Evaluate TRMS 3.6.d requirements. **STANDARD:** The operator recognizes that the Primary Water Storage Tank Level is > 45%, and initials the appropriate block. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** This evaluation can be made in ANY order. See provided KEY. COMMENTS:	___ SAT ___ UNSAT
STEP 18: The operator reports findings to the Shift Manager. **STANDARD:** The operator reports findings / provides applicable pages or all pages of Attachment 2 to Shift Manager. • CCW Pump "C" must be restored to operable prior to changing modes. • V6-16B must be restored to operable prior to changing modes. • WCCU-1A must be restored to operable prior to changing modes. • CVT #1 must be repaired • Instrument Bus 1 must be powered from MCC-5 prior to changing modes. • DFO Storage tank level must be raised to > 19000 gallons **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** See provided KEY. COMMENTS:	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A2 SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

Inoperable Equipment List

- Charging Pump “A”
- Component Cooling Water Pump “C”
- MDAFW Pump “B”
- V6-16B, SW TURB BLDG SUPPLY, is OPEN with the motor leads disconnected for control circuit troubleshooting.
- Instrument Bus 1 is being powered from MCC-8. MCC-5 feed to Instrument Bus 1 is de-energized due to problem with No. 1 Constant Voltage Transformer.
- Control Room Water Cooled Condensing Unit, WCCU-1A

INITIAL CONDITIONS:

- The plant is in Mode 5, returning from a refueling outage.
- RCS temperature is 165°F and there is a bubble in the PZR.
- RHR Loop “A” is maintaining RCS temperature.
- You are an extra SRO assigned to support the shift during re-start activities.
- An Inoperable Equipment List is available.

INITIATING CUE:

- The SM has directed you to complete the attached partially completed OMM-001-12, MINIMUM EQUIPMENT LIST AND SHIFT RELIEF, Att. 2, 200°F to 350°F (MODE 4) MEL that was started on the previous shift and determine if any Mode 4 restrictions exist.
- The SM has indicated that it is expected to make the Mode change without reliance upon Technical Specification 3.0.4.b.

JPM A3 RO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Evaluate Stay Time with Lowered SFP Level	JPM No.:	2016 Admin – JPM A3 RO
K/A Reference:	2.3.7 (3.5)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

Initial Conditions:

- A station wide accident has occurred due to an Earthquake.
- The plant is in Mode 6 with a full core off-load.
- The Spent Fuel Pool level has lowered to 10 feet above the top of the fuel, and has stabilized at this level.
- The crew is implementing AOP-036 (SFP Events).
- R-5, Spent Fuel Building Rad Monitor, reads 1.93E+2 mr/hr.
- A dose limit of 25 mrem has been placed on all personnel performing emergency tasks within the building.
- You have been assigned a repetitive task within AOP-036 which will require you to enter the Spent Fuel Building and proceed to the area around the Spent Fuel Pool, and remain there for 3 minutes, before exiting the building.
- The exposure traveling to and from the Spent Fuel Pool area results in no appreciable exposure.

Initiating Cue: The OSC Leader has directed you to estimate how many times you can perform this repetitive task before you must be replaced by another operator.

Task Standard: The operator will determine that the repetitive task can be performed 2 times before another operator will need to perform the task.

Required Materials: Calculator

General References: AOP-036 (SFP Events), Rev 48
OMM-014 (Radiation Monitor Setpoints), Rev 51

Handouts: None

Time Critical Task: NO

Validation Time: 7 minutes

Critical Step Justification	
Step 3	This step is critical because it is necessary to determine how many times the task can be performed without exceeding a limit.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM).

START TIME: _____

STEP 1: Determine dose rate in the Spent Fuel Pool Area **STANDARD:** The operator evaluates the R-5 reading and determines that the area radiation levels are 193 mrem/hour. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT
STEP 2: Determine the accumulated Dose each time the repetitive task is performed. **STANDARD:** The operator determines that 3 minutes in a radiation field of 193 mrem/hour will yield a dose of 9.65 mrem 193 mrem/hr x 1hr/60 minutes x 3 minutes/task = 9.65 mrem/task **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT

STEP 3:	Determine how many times the repetitive task can be performed before allowable RWP limits have been reached.	**CRITICAL STEP**
STANDARD:	The operator determines that a Task which accumulates 9.65 mrem can be performed **twice** without exceeding a dose limit of 25 mrem. 25 mrem x task/9.65 mrem = 2.6 tasks Since the task cannot be partially performed, the task can be performed twice before the operator must be replaced with another operator.	___ SAT ___ UNSAT
EXAMINER'S CUE:	NONE	
EXAMINER'S NOTE:	NONE	
COMMENTS:		

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A3 RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS:

- A station wide accident has occurred due to an Earthquake.
- The plant is in Mode 6 with a full core off-load.
- The Spent Fuel Pool level has lowered to 10 feet above the top of the fuel, and has stabilized at this level.
- The crew is implementing AOP-036 (SFP Events).
- R-5, Spent Fuel Building Rad Monitor, reads 1.93E+2 mr/hr.
- A dose limit of 25 mrem has been placed on all personnel performing emergency tasks within the building.
- You have been assigned a repetitive task within AOP-036 which will require you to enter the Spent Fuel Building and proceed to the area around the Spent Fuel Pool, and remain there for 3 minutes, before exiting the building.
- The exposure traveling to and from the Spent Fuel Pool area results in no appreciable exposure.

INITIATING CUE: The OSC Leader has directed you to estimate how many times you can perform this repetitive task before you must be replaced by another operator.

JPM A3 SRO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Approve a Waste Gas Release Permit	JPM No.:	2016 Admin – JPM A3 SRO
K/A Reference:	2.3.8 (3.7)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

Initial Conditions:	• The plant is in Mode 1 at 100% power. • A Waste Gas Release Permit for the "A" WGDT has been presented to the Shift Manager for review and approval.
Initiating Cue:	• Review and Approve the Waste Gas Release Permit. • Identify all issues found (if any) which would prevent approval.

Task Standard: The operator will review the WGDT Release Permit and identify that it cannot be approved because (1) it has been written for the wrong WGDT and (2) the R14C setpoint is less conservative than required.

Required Materials: None

General References: EMP-022 (Gaseous Waste Release Permits), Rev 56
OMM-014 (Radiation Monitor Setpoints), Rev 51
OP-706 (Waste Disposal – Gaseous Rad Waste Release), Rev 18

Handouts: Handout 1: Completed Attachment 10.3 of EMP-022 marked up for this JPM.

Time Critical Task: NO

Validation Time: 8 minutes

Critical Step Justification	
Step 4	This step is critical because denial of permit approval, and identification of the reasons for this denial is necessary to prevent an uncontrolled release of “B” WGDT and/or a release with the radiation monitor setpoint at a non-conservative value.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handout 1.

START TIME: _____

STEP 1: Review the Waste Gas Release Permit preliminary Information **STANDARD:** The operator observes that the following preliminary information is completed on Attachment 10.3 of EMP-022: • Release #: G-2016-015 • SSN (XXXX) • Date (of Permit preparation) • Printed Name (of Individual preparing the Permit) • Initial (of Individual preparing the Permit) • Signature (of Individual preparing the Permit) • Date (of Signature) The operator recognizes that the preliminary information is acceptable and proceeds. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS:	___ SAT ___ UNSAT

STEP 2: Review the Waste Gas Release Permit PART I Information

STANDARD: The operator observes that the following PART I information is completed on Attachment 10.3 of EMP-022:

- Waste Gas Decay Tank: B
- Estimated Release Start Date/Time: 2/6/16 2100
- Estimated Release Stop Date/Time: 2/6/16 2130
- Monitor R14C Setpoint: 5.6E3
- Basis: Activity Circled
- CV Purge: Not In Service Circled
- Maximum WGDT Flow Rate: 90 CFM
- Prepared By: name of preparer
- Peer Review: name of reviewer
- Verified By: NA
- Chemistry Supervisor: NA

The operator identifies that the Permit is for the "B" WGDT and the Permit was requested for the "A" WGDT, and identifies that this must be modified before approval.

___ SAT

___ UNSAT

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 3: Review the Waste Gas Release Permit PART II Information

STANDARD: The operator observes that the following PART II information is completed on Attachment 10.3 of EMP-022:

- PRIOR[1] (Channel Check): 19.9
- SOURCE CHECK[2]: Initialed
- SETPOINT VERF. AT[3]: 1.0E4
- UPDATE STATUS BOARD[4]: Initialed
- DURING RELEASE: Left Blank
- AFTER RELEASE: Left Blank
- SETPOINT RETURNED TO[3,5]: Left Blank
- STATUS BOARD UPDATED[4]: Left Blank

The operator identifies that the R14C setpoint is less conservative than required and identifies that this must be modified before approval.

___ SAT

___ UNSAT

EXAMINER'S CUE: NONE

EXAMINER'S NOTE: NONE

COMMENTS:

STEP 4:	Approve the Waste Gas Release Permit or identify all issues found which would prevent approval	**CRITICAL STEP**
STANDARD:	The operator identifies that the Waste Gas Permit cannot be approved until: • The Permit is identified with the correct WGDT in PART I ("A" WGDT) • The R14C setpoint is verified in PART II to be at or less conservative than the setpoint listed in PART I	___ SAT ___ UNSAT
EXAMINER'S CUE:	NONE	
EXAMINER'S NOTE:	If the operator indicates after discovering only one of two errors that the permit would not be approved until corrected, correct the error, and return the permit and provide the Initiating CUE a second time.	
COMMENTS:		

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A3 SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- The plant is in Mode 1 at 100% power.
- A Waste Gas Release Permit for the “A” WGDT has been presented to the Shift Manager for review and approval.

INITIATING CUE:

- Review and Approve the Waste Gas Release Permit.
- Identify all issues found (if any) which would prevent approval.

JPM A4 SRO

Developed By: _____ **Date:** _____
Instructor/Developer

Concurred By: _____ **Date:** _____
Line Superintendent/Supervisor SRO

Approved By: _____ **Date:** _____
Superintendent/Supervisor Training

Facility:	HB Robinson	Task No.:	
Task Title:	Emergency Classification	JPM No.:	2016 Admin – JPM A4 SRO
K/A Reference:	2.4.41 (4.4)		

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: ____ Actual Performance: X

Classroom X Simulator ____ Plant ____

READ TO THE EXAMINEE

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this Job Performance Measure will be satisfied.

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handouts 1-2.

Initial Conditions:

- The plant is operating at 100% power.
- Protesters have illegally entered the plant, and have gained entry to the protected area.
- Security has declared a Security Event (Confirmed Protected Area Intrusion).
- Security has all intruders under restraint and has prevented further entry into the plant.
- Other than minor damage to the security fences and protest slogans spray painted on some walls, there was no plant damage.

Initiating Cue:

- Classify the event in accordance with the Robinson Nuclear Plant Emergency Action Level Matrix.
- Then prepare an Emergency Notification Form for this classification.

THIS JPM IS TIME CRITICAL

Task Standard: The operator will declare an ALERT based on HA4.1, Confirmed Security event in a plant Protected Area or notification of either an airborne attack threat or hostile threat within the Owner Controlled Area, within 15 minutes. Then, the operator will prepare an Emergency Notification Form for this event in accordance with EPCLA-01 (Emergency Control) in accordance with the attached KEY, also within 15 minutes.

Required Materials: None

General References: Robinson Nuclear Plant Emergency Action Level Matrix, Sheet 1 of 3, Rev 4

Robinson Nuclear Plant Emergency Action Level Matrix, Sheet 2 of 3, Rev 7

Robinson Nuclear Plant Emergency Action Level Matrix, Sheet 3 of 3, Rev 1

EPCLA-01 (Emergency Control), Rev 43

EPCLA-04 (Emergency Action Level Technical Basis Document), Rev 13

EPNOT-01 (CR/EOF Emergency Communicator), Rev 46

Handouts: Handout 1: Robinson Nuclear Plant Emergency Action Level Matrix Sheets 1-3

Handout 2: Blank Copy of EPCLA-01

Time Critical Task: YES - 15 Minutes to classify the event, and then 15 minutes to generate an ENF for the classification

Validation Time: 15 minutes

Critical Step Justification	
Step 1	This step is critical because accurately classifying the event is necessary to properly implement on-site and off-site response to an emergency event.
Step 2	This step is critical because the completion of the ENF is necessary to properly communicate to local, state and federal organizations the status of on-going emergency events.

(Critical Steps are identified as such in right-hand column)

Provide Operator with Initial Conditions/Cue (Last Page of this JPM), and Handouts 1-2.

START TIME: _____

STEP 1: Classify the event in accordance with the Robinson Nuclear Plant Emergency Action Level Matrix **STANDARD:** The operator will declare an ALERT based on HA4.1 due to threshold 1 (Security event in the plant Protected Area as determined and reported by Security shift supervision) **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS: **TIME CRITICAL STOP TIME #1: _____**	**CRITICAL STEP** ___ SAT ___ UNSAT
STEP 2: Prepare an ENF **STANDARD:** The operator completes Attachment 10.5, Page 9 of 10 (Or Equivalent ENF Form) of EPCLA-01 IAW the provided KEY. **EXAMINER'S CUE:** NONE **EXAMINER'S NOTE:** NONE COMMENTS: **TIME CRITICAL STOP TIME #2: _____**	**CRITICAL STEP** ___ SAT ___ UNSAT

Terminating Cue: **Evaluation on this JPM is complete.**

STOP TIME: _____

VERIFICATION OF COMPLETION

Job Performance Measure No.: 2016 Admin – JPM A4 SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

JPM CUE SHEET

INITIAL CONDITIONS:

- The plant is operating at 100% power.
- Protesters have illegally entered the plant, and have gained entry to the protected area.
- Security has declared a Security Event (Confirmed Protected Area Intrusion).
- Security has all intruders under restraint and has prevented further entry into the plant.
- Other than minor damage to the security fences and protest slogans spray painted on some walls, there was no plant damage.

INITIATING CUE:

- Classify the event in accordance with the Robinson Nuclear Plant Emergency Action Level Matrix.
- Then prepare an Emergency Notification Form for this classification.

THIS JPM IS TIME CRITICAL