Job Performance Measure

RO

Electrical Distribution Breaker and Voltage Verification for Bus 13-1

JPM Number:

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 8 and 11 below.

DELETE THIS PAGE!!!

_____ 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC __ (rst __).

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

2. Run the setup {e.g., Computer Aided Exercise _____-__ (jcae! _____-__)}

3. {Put additional setup requirements for this JPM here.}

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

6. Bus 13 and Bus 13-1 voltages are reading low. Bus 13 reads 3960 volts Bus 13-1 reads 3940 volts.

INITIAL CONDITIONS

Both Units are in Mode 1.

- Voltage level on Bus 13-1 is 4010 V and 4025 V on Bus 14-1 due to high energy consumption on the grid.
- Unit 1 EDG is Inoperable due to a broken fuel oil line.
- At least 2 345 kV lines are available.
- Switchyard voltage levels are greater than the minimum allowable voltages.

INITIATING CUE

As per LCO 3.8.1, Action B.1, BOP RO is to verify breaker lineup for offsite source supplying power to Bus 13-1 IAW QCOS 0005-08.

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.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE	**Evaluator: Provide Candidate copy of QCOS 0005-08.**		___	___	___
H.1.c.(2)	Verify XFMR 12 to Bus 13 circuit breaker is closed.	Verifies that breaker 1309 is closed.	___	___	___
*H.1.d.	Verify Bus 13 voltage is 4000 to 4400 VAC.	Verifies voltage level on Bus 13.	___	___	___
CUE: Indicate that Bus 13 voltage is reading 3960 V. Why give cue, isn't this given on CR meters?					
H.1.e.(1)	Verify Bus 13 to 13-1 Bus Tie Breaker closed.	Verifies Bus Tie Breaker 1312 at Bus 13 to be closed.	___	___	___
H.1.e.(2)	Verify Bus 13-1 to 13 Bus Tie Breaker closed.	Verifies Bus Tie Breaker 1327 at Bus 13-1 to be closed.	___	___	___
*H.1.f.	Verify Bus 13-1 voltage 4000 t0 4400 VAC.	Verifies voltage level on Bus 13-1.	___	___	___
CUE: Indicate that Bus 13-1 voltage is reading 3942 V. Why give cue, isn't this given on CR meters?					
EVALUATORS NOTE: JPM is considered complete when candidate completes QCOS 0005-08 and reports completion and inadequate voltage levels at Buses 13 and 13-1 to the Unit Supervisor.					

JPM Stop Time: _____

Operator's Name: _____
Job Title: ☐ NLO ☒ RO ☐ SRO ☐ STA ☐ SRO Cert Delete

JPM Title: Electrical Distribution Breaker and Voltage Verification for Bus 13-1

JPM Number: Revision Number :

K/A Number and Importance:
K/A: 2.1.31 **Rating:** 4.2

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate Alternate Path**:** ☐ Yes No
☒ Perform SRO Only**:** Yes ☐ No

Time Critical: ☐ Yes No

Estimated Time to Complete: 15 minutes **Actual Time Used:** ____ minutes

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

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

Comments:_____
_____
_____
_____
_____
_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

Both Units are in Mode 1.

- Voltage level on Bus 13-1 is 4010 V and 4025 V on Bus 14-1 due to high energy consumption on the grid.
- Unit 1 EDG is Inoperable due to a broken fuel oil line.
- At least 2 345 kV lines are available.
- Switchyard voltage levels are greater than the minimum allowable voltages.

INITIATING CUE

As per LCO 3.8.1, Action B.1, BOP RO is to verify breaker lineup for offsite source supplying power to Bus 13-1 IAW QCOS 0005-08.

Job Performance Measure

SRO

Degraded Voltage Condition on Bus 13-1

JPM Number:

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 8 and 11 below.

DELETE THIS PAGE!!

_____ 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC __ (rst __).

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

2. Run the setup {e.g., Computer Aided Exercise _____-__ (jcae! _____-__)}

3. {Put additional setup requirements for this JPM here.}

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

INITIAL CONDITIONS

Both Units are in Mode 1.

- Voltage level on Bus 13-1 is 4010 V and 4025 V on Bus 14-1 due to high energy consumption on the grid.
- Unit 1 EDG is Inoperable due to a broken fuel oil line.
- At least two 345 kV lines are available.
- Switchyard voltage levels are greater than the minimum allowable voltages.

INITIATING CUE

As per LCO 3.8.1, Action B.1, Instruct BOP RO to verify breaker lineup for offsite source supplying power to Bus 13-1 IAW QCOS 0005-08.

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.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE: Provide candidate with a copy of QCOS 0005-08.					
*QCOS 0005-08, steps H.1.c. through H.1.f.	Verify adequate lineup and voltage to Bus 13-1.	Instructs RO to verify lineup and adequate voltage to Bus 13-1 IAW QCOS 0005-08.	___	___	___
Evaluator: Results from QCOS 0005-08 should indicate that voltage level at Bus 13-1 is 3942 V. If voltage is reported to be greater 3948 V, cue the SRO that the voltage is 3942 V.					
*LCO 3.8.1	Review TS 3.8.1 for LCO entry.	Recognizes that entry into TS Action A and Action D are required.	___	___	___
*LCO 3.8.1	Reviews LCO 3.8.1, Action D, to determine applicability of NOTE.	Recognizes that NOTE is applicable and entry into LCO 3.8.7 is required.	___	___	___
*LCO 3.8.7	Reviews LCO 3.8.7 to determine applicable Action statement.	Recognizes that entry into LCO 3.8.7, Action A is required.	___	___	___
*LCO 3.3.8.1	Reviews LCO 3.3.8.1 to determine applicability.	Recognizes that voltage at bus is outside of the allowable range for the Degraded Voltage relays as given in Table 3.3.8.1-1 and determines that the degraded voltage relays for Bus 13-1 are inoperable.	___	___	___
EVALUATORS NOTE: If candidate determines that accuracy of voltage readings may be in question, provide the CUE that the meter reads within an accuracy of ± 5 volts.					
*LCO 3.3.8.1	Reviews LCO 3.3.8.1 to determine applicable Action(s).	Recognizes that entry into LCO 3.3.8.1, Action A is required.	___	___	___
?????????	????????				

JPM Stop Time: _____

Operator's Name: _____
Job Title: ☐ NLO ☒ RO ☐ SRO ☐ STA ☐ SRO Cert DELETE

JPM Title: Electrical Distribution Breaker and Voltage Verification for Bus 13-1

JPM Number: Revision Number :

K/A Number and Importance:
K/A: 2.1.31 **Rating:** 4.2

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate Alternate Path**:** ☐ Yes No
☒ Perform SRO Only**:** Yes ☐ No

Time Critical: ☐ Yes No

Estimated Time to Complete: 40 minutes **Actual Time Used:** ____ minutes

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

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

Comments:_____
_____
_____
_____
_____
_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

Both Units are in Mode 1.

- Voltage level on Bus 13-1 is 4010 V and 4025 V on Bus 14-1 due to high energy consumption on the grid.
- Unit 1 EDG is Inoperable due to a broken fuel oil line.
- At least two 345 kV lines are available.
- Switchyard voltage levels are greater than the minimum allowable voltages.

INITIATING CUE

As per LCO 3.8.1, Action B.1, BOP RO is to verify breaker lineup for offsite source supplying power to Bus 13-1 IAW QCOS 0005-08.

Job Performance Measure

RO

OPRM Trip Function Failure During a Power Oscillation Event

JPM Number:

Date:

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

DELETE THIS PAGE!!!

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC __ (rst __). Trip of both recirc pumps and core neutron oscillations.

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

2. Run the setup {e.g., Computer Aided Exercise _____-__ (jcae! _____-__)} for ATWS from full power. OPRMs indicate tripped on back panel, but rods did not go in.

3. Run this set for about 10 seconds, then put simulator in FREEZE.

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

INITIAL CONDITIONS

The simulator is frozen with static conditions. Prior to this static condition, the following plant conditions existed:

Both Units are in Mode 1.

- Unit 1 is at 80% power.
- Power descension using recirculation flow is in progress. Do you want a trip of both recirc pumps and power/flow in the area of instability here? OPRM oscillations?!

INITIATING CUE

Considering the plant conditions given above, review Control Room panels to determine if any conditions or indications exist that would indicate an abnormal plant condition and/or failure of a component and/or instrumentation.

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.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE: Instruct the candidate to review Control Room panels and indications.					
EVALUATOR: The following steps can be performed in any order.					
	Reviews Controls and Indications.	Performs a Control Room panel walkdown.	___	___	___
Evaluator: Results from QCOS 0005-08 should indicate that voltage level at Bus 13-1 is 3942 V. If voltage is reported to be greater 3948 V, cue the SRO that the voltage is 3942 V. Where did this cue come from??!!					
	Determines that APRM channels are reading ***significantly different*** power levels.	Recognizes differences in APRM power levels.	___	___	___
*	Observes indications at **Panel ???** that OPRMs have tripped.	Observes that OPRM trip lights are ON.	___	___	___
*	Verifies that plant scram has not occurred.	Verifies that RPS has not actuated and control rods are not fully inserted.	___	___	___
CUE: Task is complete when RO reports that OPRMs have tripped, but that the plant has not scrammed.					

JPM Stop Time: _____

Operator's Name: _____
Job Title: ☐ NLO ☒ RO ☐ SRO ☐ STA ☐ SRO Cert delete

JPM Title: OPRM Trip Function Failure During a Power Oscillation Event

JPM Number: Revision Number :

K/A Number and Importance:
K/A: 2.4.46 **Rating:** 3.5

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate ☒ Perform Alternate Path**:** ☐ Yes ☒ No SRO Only**:** ☐ Yes ☒ No

Time Critical: ☐ Yes ☒ No

Estimated Time to Complete: 15 minutes **Actual Time Used:** ____ minutes

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

The simulator is frozen with static conditions. Prior to this static condition, the following plant conditions existed:

Both Units are in Mode 1.

- Unit 1 was at 80% power.
- Power descension using recirculation flow is in progress. Do you want a trip of both recirc pumps and power/flow in the area of instability here? OPRM oscillations?!

INITIATING CUE

Considering the plant conditions given above, review Control Room panels to determine if any conditions or indications exist that would indicate an abnormal plant condition and/or failure of a component and/or instrumentation.

Job Performance Measure

Authorization of Overtime

JPM Number:

Date:

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

DELETE THIS PAGE!!!

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC __ (rst __).

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

2. Run the setup {e.g., Computer Aided Exercise _____-__ (jcae! _____-__)}

3. {Put additional setup requirements for this JPM here.}

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

INITIAL CONDITIONS

Unit 1 is in Mode 1. Unit 2 is in a refueling outage.

It is Friday, the 20th at 1900, and you are staffing NSOs for Surveillance Testing and other work activities on Saturday, the 21st at 0800. The work will last for 12 hours. The safety related work is scheduled for the first 8 hours , while the non-safety related work will occur during the last 4 hours of the 12 hour shift. The 3 NSO's that are available to work on Saturday have worked the following schedules during the week:

Name	Day	Hours Worked	Safety Related
Jack	Sunday the 15th	12 hours on days and afternoon shift	Yes
	Monday the 16th	12 hours on days and afternoon shift	Yes
	Tuesday the 17th	12 hours on days and afternoon shift	Yes
	Wednesday the 18th	8 hours on days	No
	Thursday the 19th	16 hours on days and afternoon shift	Yes
	Friday the 20th	8 hours on days	Yes
Jill	Sunday the 15th	8 hours on days and afternoon shift	Yes
	Monday the 16th	16 hours on days and afternoon shift	No
	Tuesday the 17th	12 hours on days and afternoon shift	No
	Wednesday the 18th	8 hours on days	Yes
	Thursday the 19th	12 hours on days and afternoon shift	Yes
	Friday the 20th	0 hours	NA
Jared	Sunday the 15th	12 hours on days and afternoon shift	Yes
	Monday the 16th	8 hours on days and afternoon shift	Yes
	Tuesday the 17th	12 hours on days and afternoon shift	Yes
	Wednesday the 18th	8 hours on days	Yes
	Thursday the 19th	16 hours on days and afternoon shift	Yes
	Friday the 20th	8 hours on days	Yes

Based upon the work history of the NSOs and the work required to be performed on Saturday, determine if any of the NSOs need prior authorization in accordance with (GL) 82-12 overtime guidelines, LS-AA-119 to perform the work on Saturday. Also, if authorization is required, authorize the worker(s) to work overtime in accordance with (GL) 82-12 overtime guidelines, LS-AA-119, and forward paperwork, if any, to the Shift Manager.

NOTE: None of the NSOs has been authorized to exceed required overtime hours during this week.

INITIATING CUE

Determine which NSOs, if any, need prior authorization in accordance with (GL) 82-12 overtime guidelines, LS-AA-119 to perform work on Saturday (12 hours). Also, if authorization is required, authorize the worker(s) to work overtime in accordance with (GL) 82-12 overtime guidelines, LS-AA-119, and forward paperwork, if any, to the Shift Manager.

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.
- • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE: Provide Candidate copy of LS-AA-119 rev. 2					
EVALUATOR: Since the last 4 hours of work on Saturday is Non-Safety Related, those hours do not count against the weekly 72 hour requirement. Therefore, including Saturday but excluding the final 4 hours, Jill will work 64 hours and Jared will work 72 hours. Neither will require overtime authorization. Jack will require overtime authorization, because his work will total 76 hours for the week.					
*LS-AA-119 Step 4.1.2.	Reviews procedure to determine if any overtime guidelines will be exceeded.	Determines that only **Jack** will exceed limits by exceeding 72 hours in a 7-day period.	___	___	___
EVALUATOR: The total hours for Jill during the 48 hour period covering Monday and Tuesday is 28 hours. This exceeds the 24 hour requirement for a 48 hour period.					
EVALUATOR: The total hours for Jill during the 48 hour period covering Monday and Tuesday is 28 hours. This exceeds the 24 hour requirement for a 48 hour period.					
*LS-AA-119 Step 4.1.2.	Reviews procedure to determine if any overtime guidelines were exceeded.	Determines that **Jill** exceeded the "24 hour in a 48 hour period" requirement.			
CUE: When candidate recognizes that Jill's hours were exceeded, instruct the candidate to continue with the rest of the exercise.					
LS-AA-119 Step 4.2.	Reviews procedure to determine if it allows personnel who will exceed GL 82-12 to work overtime.	Determines that if there are not enough individuals available to fill the required assignments, then trained and qualified individuals who would exceed the overtime guidelines will then be asked to work.			
CUE: If the candidate asks if there are any other individuals available to work, say, "These are the only NSOs available."					

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
LS-AA-119 Step 4.2.	Determines need to initiate Attachment 1, of procedure.	Determines that prior to an individual performing safety-related work while exceeding the GL 82-12 overtime guidelines the cognizant supervisor shall initiate Attachment 1, "Overtime Guideline Deviation Authorization."	___	___	___
*LS-AA-119 Step 4.3.1.	●Fills out Attachment 1.●	Completes columns one through five of Attachment 1, filling in: (1)= Barney Gumbel (2) = Operations (3) = D – more than 72 hours in a seven day period. (4) = 0900 / 21st (5) = 1500 / 21st			
*LS-AA-119 Step 4.3.2.	●Fills out Attachment 1.●	Fills out a description of safety-related work to be accomplished as "NSO shift responsibilities".	___	___	___
*LS-AA-119 Step 4.3.3.	●Fills out Attachment 1.●	Provides justification for needed overtime such as "Only qualified person available on short notice."			
LS-AA-119 Step 4.3.4.	Forwards Attachment 1 to the cognizant department head.	Forwards Attachment 1 to the cognizant department head. (Shift Manager)			

CUE	**EVALUATORS NOTE: JPM is considered complete when candidate fills out Attachment 1 and forwards it to the Shift Manager.**	

JPM Stop Time: _____

Operator's Name: _____
Job Title: ☐ NLO ☐ RO ☒ SRO ☐ STA ☐ SRO Cert Delete this

JPM Title:Authorization of Overtime IAW GL 82-12 Requirements

JPM Number: Revision Number :

K/A Number and Importance:
K/A: 2.1.4 **Rating:** 3.4

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate ☐ Perform Alternate Path**:** ☐ Yes ☒ No SRO Only**:** ☒ Yes ☐ No

Time Critical: ☐ Yes No

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

References:
QAP 0300-03 rev 34
LS-AA-119 rev 2

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

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

Comments:_____
_____
_____
_____
_____
_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

Unit 1 is in Mode 1. Unit 2 is in a refueling outage.

It is Friday, the 20th at 1900, and you are staffing NSOs for Surveillance Testing and other work activities on Saturday, the 21st at 0800. The work will last for 12 hours. The safety related work is scheduled for the first 8 hours , while the non-safety related work will occur during the last 4 hours of the 12 hour shift. The 3 NSO's that are available to work on Saturday have worked the following schedules during the week:

Name	Day	Hours Worked	Safety Related
Jack	Sunday the 15th	12 hours on days and afternoon shift	Yes
	Monday the 16th	12 hours on days and afternoon shift	Yes
	Tuesday the 17th	12 hours on days and afternoon shift	Yes
	Wednesday the 18th	8 hours on days	No
	Thursday the 19th	16 hours on days and afternoon shift	Yes
	Friday the 20th	8 hours on days	Yes
Jill	Sunday the 15th	8 hours on days and afternoon shift	Yes
	Monday the 16th	16 hours on days and afternoon shift	No
	Tuesday the 17th	12 hours on days and afternoon shift	No
	Wednesday the 18th	8 hours on days	Yes
	Thursday the 19th	12 hours on days and afternoon shift	Yes
	Friday the 20th	0 hours	NA
Jared	Sunday the 15th	12 hours on days and afternoon shift	Yes
	Monday the 16th	8 hours on days and afternoon shift	Yes
	Tuesday the 17th	12 hours on days and afternoon shift	Yes
	Wednesday the 18th	8 hours on days	Yes
	Thursday the 19th	16 hours on days and afternoon shift	Yes
	Friday the 20th	8 hours on days	Yes

Based upon the work history of the NSOs and the work required to be performed on Saturday, determine if any of the NSOs need prior authorization in accordance with (GL) 82-12 overtime guidelines, LS-AA-119 to perform the work on Saturday. Also, if authorization is required, authorize the worker(s) to work overtime in accordance with (GL) 82-12 overtime guidelines, LS-AA-119, and forward paperwork, if any, to the Shift Manager.

NOTE: None of the NSOs has been authorized to exceed required overtime hours during this week.

INITIATING CUE

Determine which NSOs, if any, need prior authorization in accordance with (GL) 82-12 overtime guidelines, LS-AA-119 to perform work on Saturday (12 hours). Also, if authorization is required, authorize the worker(s) to work overtime in accordance with (GL) 82-12 overtime guidelines, LS-AA-119, and forward paperwork, if any, to the Shift Manager.

Job Performance Measure

SRO

Determine Isolation Points for a Clearance Order for the Safe Shutdown Makeup Pump

JPM Number:

Date:

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

DELETE THIS PAGE!!

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SIMULATOR SETUP INSTRUCTIONS

1. None. This JPM may be completed at any location, provided that the appropriate reference material is available.

2. Ensure that the following references are available:

   - P&IDs **??????**

   - **Electrical Prints ??????**

   - A complete set of procedures (QOP, QCOP, et cetera) including the Electrical QOMs (U1, ½, and U2)

   - OP-MW-109-101, Clearance and Tagging

3. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

4. This completes the setup for this JPM.

INITIAL CONDITIONS

- Mechanical Maintenance has an emergent work package to uncouple the Unit 1 Safe Shutdown Makeup Pump from the pump motor for motor replacement. No draining is required.

- Because of computer problems, PASSPORT is not available, but it is expected back later on your shift. Another NSO located the drawings that may be required to write the Clearance, but was called away to assiste on the other unit. The Unit Supervisor has directed you to "be ready" to write a C/O as soon as PASSPORT becomes available, later in the shift.

INITIATING CUE

Determine the isolation points which will be required for the preparation of a Clearance Order that will adequately protect Operators and equipment while hanging the Clearance Order, and adequately protect Mechanical Maintenance while they uncouple the Unit 1 Safe Shutdown Makeup Pump

On the attached worksheet, record the isolation point(s), the required hang position, and any applicable hang sequence.

Give the worksheet to the Unit Supervisor when complete.

Provide examinee with: Attached form to document isolation points on.

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.
- Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE:	**Isolation points with "•" below must be included for successful completion.** **Selection of ADDITIONAL components would constitute failure ONLY if manipulation of the additional component would cause a plant transient, personnel injury or equipment damage. Examples include: racking out a closed 480 VAC breaker or opening the drain valve on an unisolated portion of the system.**				
NOTE:	**The order in which the candidate lists the isolation points on the attached form is not critical. The SEQUENCE should be used when determining if critical tasks are met.**				
	Using QOMs, 4E-Prints and P&IDs, selects isolation points for the Unit 1 Safe Shutdown Makeup Pump. Records isolation points, position and sequences for each of the following components.		___	___	___
	SSMUP Control Power:		___	___	___
NOTE:	**If the candidate recognizes that the Control power fuse removal is required, and the it is required before the racking out of the breaker, but is unable to locate the specific fuse name, this would NOT constitute a failure because the fuses are all individually labeled at the MCC with the name of the associated component (breaker).**				
	Power breakers:		___	___	___
	Valves:				

JPM Stop Time: _____

Operator's Name: _____

Job Title: ☐ NLO ☒ RO ☒ SRO ☐ STA ☐ SRO Cert Delete

JPM Title: Determine Isolation Points for a Clearance Order for the Safe Shutdown Makeup Pump

JPM Number: Revision Number :

K/A Number and Importance:

K/A: 2.1.31 **Rating:** 4.2

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate ☒ Perform Alternate Path**:** ☐ Yes No SRO Only**:** Yes ☐ No

Time Critical: ☐ Yes No

Estimated Time to Complete: 40 minutes **Actual Time Used:** ____ minutes

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

- Mechanical Maintenance has an emergent work package to uncouple the Unit 1 Safe Shutdown Makeup Pump from the pump motor for motor replacement. No draining is required.

- Because of computer problems, PASSPORT is not available, but it is expected back later on your shift. Another NSO located the drawings that may be required to write the Clearance, but was called away to assiste on the other unit. The Unit Supervisor has directed you to "be ready" to write a C/O as soon as PASSPORT becomes available, later in the shift.

INITIATING CUE

Determine the isolation points which will be required for the preparation of a Clearance Order that will adequately protect Operators and equipment while hanging the Clearance Order, and adequately protect Mechanical Maintenance while they uncouple the Unit 1 Safe Shutdown Makeup Pump

On the attached worksheet, record the isolation point(s), the required hang position, and any applicable hang sequence.

Give the worksheet to the Unit Supervisor when complete.

Job Performance Measure

SRO

Select Personnel for Radiation Work

JPM Number:

Date:

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

DELETE THIS PAGE !!

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SIMULATOR SETUP INSTRUCTIONS

1. None. This JPM may be completed at any location, provided that the appropriate reference material is available.

2. Ensure that the following references are available:

   - A copy of RWP-10004577;

   - RPAA procedures, QCRP procedures.

3. This completes the setup for this JPM.

INITIAL CONDITIONS

The plant is in a scheduled refueling outage. You will be assigned Non-Licensed Operators to perform Surveillance Testing (Local Leak Rate Testing) in the Steam Tunnel Area under RWP 10004577.

Four Non-Licensed Operators are available to perform this work.

- None of the four have received dose at any location other than Quad Cities.
- None of the four have received dose since midnight on any RWPs other than 10004577.

The Surveillance Test will be performed by two workers; however, at least one worker needs to be present for the entire evolution for the purposes of work continuity. The work is expected to last for three hours. It is expected that one hour will be spent preparing for the test and two hours will be spent performing the testing and cleaning up after the evolution is over. It is expected that the testing will require 1 hour and the cleanup will require 1 hour. If it is necessary to use more than two workers for this evolution, the work should be divided as follows:

One worker:	3 hours	Present during the entire evolution to provide work continuity.
One worker	1 hour	Preparation
One worker	2 hours	Test (1 hour) and cleanup (1 hour)

The Radiation Protection Department has provided the following dose history for the four Operators to assist you in your planning:

Name	Annual TEDE dose as of Midnight today	DDE dose received on RWP 10004577 today
Jack	1975 mrem	60 mrem
Jill	1955 mrem	40 mrem
Jared	1900 mrem	0 mrem
Jasper	1800 mrem	45 mrem

Expected maximum dose rates during this evolution are as follows:

Preparation activities: 30 mrem/hr

Testing activities: 20 mrem/hr

Cleanup activities: 30 mrem/hr

INITIATING CUE

Determine how many workers are necessary to accomplish this work task, and determine which workers will need to accomplish each task. Explain the basis for your determination.

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.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
NOTE: **EVALUATOR: Give the candidate a copy of RWP# 10004577.**					
EVALUATOR: The following steps can be performed in any order					
	Reviews the RWP to determine approved Dose rates.	Review the RWP and determines the ED Dose alarm is set for 80 mrem.	___	___	___
EVALUATOR: The candidate will need to perform the following calculation to determine total projected dose that the Operators are expected to receive. These calculations are listed below for your reference: • **Preparation Activities = 30 mrem/hr x 1 hr = 30 mrem** **Testing Activities = 20 mrem/hr x 1 hr = 20 mrem** **Cleanup Activities = 30 mrem/hr x 1 hr = 30 mrem** • **Total Evolution = 30 mrem + 30 mrem + 20 mrem = 80 mrem** • **Testing Activities + Cleanup Activities = 30 mrem + 20 mrem = 50 mrem**					
*	Calculates the projected dose that will be received for each task.	Determines that an Operator will receive 80 mrem for the total evolution, 30 mrem for Preparation activities, and 50 mrem for Testing and Cleanup activities.	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

EVALUATOR: In the next step, the candidate will compare doses for each task with the list of available operators. Determines that Jack cannot perform any work for this evolution, Jared is the only operator that can perform the entire evolution, Jill must perform the one hour Preparation activities, and Jasper will need to perform the Testing and Cleanup activities.

Exceeded limits are in BOLD.

Name	Projected job dose for entire evolution (3 hrs)	Projected dose on RWP 1000457 for 24 hour period	Projected Annual TEDE (including all dose from last 24 hours)
Jack	80 mrem	**140 mrem**	**2055 mrem**
Jill	80 mrem	**120 mrem**	**2035 mrem**
Jared	80 mrem	80 mrem	1980 mrem
Jasper	80 mrem	**125 mrem**	1880 mrem

Name	Projected job dose for Testing and Cleanup activities (2 hrs)	Projected dose on RWP 1000457 for 24 hour period	Projected Annual TEDE (including all dose from last 24 hours)
Jack	50 mrem	**110 mrem**	**2025 mrem**
Jill	50 mrem	90 mrem	**2005 mrem**
Jared	50 mrem	50 mrem	1950 mrem
Jasper	50 mrem	95 mrem	1850 mrem

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

Name	Projected job dose for Praparation activities (1 hrs)	Projected dose on RWP 1000457 for 24 hour period	Projected Annual TEDE (including all dose from last 24 hours)		
Jack	30 mrem	90 mrem	**2015 mrem**		
Jill	30 mrem	70 mrem	1985 mrem		
Jared	30 mrem	30 mrem	1930 mrem		
Jasper	30 mrem	75 mrem	1830 mrem		

Cue: If the candidate inquires if any of the Operators have received permission to exceed any dose limits, respond, "None of the Operators have received permission to exceed any limits."

*	Determines that only Jared can work for the entire evolution.	All other candidate's exceed a dose limit.	___	___	___
*	Determines that Jasper is the only Operator that can perform the Testing and Cleanup Activities.	The only other Operator that can perform the Testing and Cleanup Activities is Jared, but he is required to be present for the entire evolution.	___	___	___
*	Determines that Jill must perform the Preparation Activities.	Jared and Jasper are already assigned activities, and Jack would exceed his annual dose limits.	___	___	___

CUE: Candidate should report the task is complete.

JPM Stop Time: _____

Operator's Name: _____

Job Title: ☐ NLO ☒ RO ☒ SRO ☐ STA ☐ SRO Cert Delete

JPM Title: Determine Isolation Points for a Clearance Order for the Safe Shutdown Makeup Pump

JPM Number: Revision Number :

K/A Number and Importance:

K/A: 2.3.2 **Rating:** 2.5/2.9

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate ☒ Perform Alternate Path**:** ☐ Yes ☒ No SRO Only**:** ☐ Yes ☒ No

Time Critical: ☐ Yes No

Estimated Time to Complete: 30 minutes **Actual Time Used:** ____ minutes

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

The plant is in a scheduled refueling outage. You will be assigned Non-Licensed Operators to perform Surveillance Testing (Local Leak Rate Testing) in the Steam Tunnel Area under RWP 10004577.

Four Non-Licensed Operators are available to perform this work.

- None of the four have received dose at any location other than Quad Cities.
- None of the four have received dose since midnight on any RWPs other than 10004577.

The Surveillance Test will be performed by two workers; however, at least one worker needs to be present for the entire evolution for the purposes of work continuity. The work is expected to last for three hours. It is expected that one hour will be spent preparing for the test and two hours will be spent performing the testing and cleaning up after the evolution is over. It is expected that the testing will require 1 hour and the cleanup will require 1 hour. If it is necessary to use more than two workers for this evolution, the work should be divided as follows:

One worker:	3 hours	Present during the entire evolution to provide work continuity.
One worker	1 hour	Preparation
One worker	2 hours	Test (1 hour) and cleanup (1 hour)

The Radiation Protection Department has provided the following dose history for the four Operators to assist you in your planning:

Name	Annual TEDE dose as of Midnight today	DDE dose received on RWP 10004577 today
Jack	1975 mrem	60 mrem
Jill	1955 mrem	40 mrem
Jared	1900 mrem	0 mrem
Jasper	1800 mrem	45 mrem

Expected maximum dose rates during this evolution are as follows:

Preparation activities: 30 mrem/hr

Testing activities:	20 mrem/hr
Cleanup activities:	30 mrem/hr

INITIATING CUE

Determine how many workers are necessary to accomplish this work task, and determine which workers will need to accomplish each task. Explain the basis for your determination.

Job Performance Measure

SRO

OPRM Trip Function Failure During a Power Oscillation Event

JPM Number:

Date:

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

DELETE THIS PAGE!!

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 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, or simulator)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC __ (rst __).

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

2. Run the setup {e.g., Computer Aided Exercise _____-__ (jcae! _____-__)}

3. {Put additional setup requirements for this JPM here.}

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.

5. This completes the setup for this JPM.

INITIAL CONDITIONS

The simulator is frozen with static conditions. Prior to this static condition, the following plant conditions existed:

Both Units are in Mode 1.

- Unit 1 is at 80% power.
- Power descension using recirculation flow is in progress. Do you want a trip of both recirc pumps and power/flow in the area of instability here? OPRM oscillations?!

INITIATING CUE
Considering the plant conditions given above, review Control Room panels to determine if any conditions or indications exist that would indicate an abnormal plant condition and/or failure of a component and/or instrumentation.

Based upon conditions found during the Control Room walkdown, determine the appropriate emergency action level classification for this event.

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.
* • Denotes critical elements of a critical step.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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.

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE: Instruct the candidate to review Control Room panels and indications.					
EVALUATOR: The following steps can be performed in any order.					
	Reviews Controls and Indications.	Performs a Control Room panel walkdown.	___	___	___
Evaluator: Results from QCOS 0005-08 should indicate that voltage level at Bus 13-1 is 3942 V. If voltage is reported to be greater 3948 V, cue the SRO that the voltage is 3942 V. Where did this cue come from??!!					
	Determines that APRM channels are reading ***significantly different*** power levels.	Recognizes differences in APRM power levels.	___	___	___
*	Observes indications at **Panel ???** that OPRMs have tripped.	Observes that OPRM trip lights are ON.	___	___	___
*	Verifies that plant scram has not occurred.	Verifies that RPS has not actuated and control rods are not fully inserted.	___	___	___
*	Determines that an ATWS has occurred.	Determines that plant should have scrammed due to flow oscillations, but did not.	___	___	___
CUE: Inform the candidate that the Emergency Action Level must be classified with the next 15 minutes.					
Evaluator: Provide a copy of EP-AA-1006 to the candidate.					
	Reviews EP-AA-1006 to determine Emergency Action Level.	Reviews EP-AA-1006 for action level associated with an ATWS with no automatic scram.	___	___	___
*	Determines that Action MA3 for a Failure of the Reactor Protection System is the appropriate Recognition Category.	Identifies MA3 on page QC 3-11 as appropriate Recognition Category.	___	___	___
*	Classifies the event correctly.	Classifies the event as an "Alert."	___	___	___

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE: Task is complete when SRO classifies the event.					

JPM Stop Time: _____

Operator's Name: _____
Job Title: ☐ NLO ☐ RO ☒ SRO ☐ STA ☐ SRO Cert

JPM Title: OPRM Trip Function Failure During a Power Oscillation Event

JPM Number: Revision Number :

K/A Number and Importance:
K/A: 2.4.46 **Rating:** 3.6

Suggested Testing Environment: Simulator

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

Testing Method: ☐ Simulate ☒ Perform Alternate Path**:** ☐ Yes ☒ No SRO Only**:** ☐ Yes ☒ No

Time Critical: ☐ Yes ☒ No

Estimated Time to Complete: 30 minutes **Actual Time Used:** ____ minutes

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

The simulator is frozen with static conditions. Prior to this static condition, the following plant conditions existed:

Both Units are in Mode 1.

- Unit 1 is at 80% power.
- Power descension using recirculation flow is in progress. Do you want a trip of both recirc pumps and power/flow in the area of instability here? OPRM oscillations?!

INITIATING CUE

Considering the plant conditions given above, review Control Room panels to determine if any conditions or indications exist that would indicate an abnormal plant condition and/or failure of a component and/or instrumentation.

Based upon conditions found during the Control Room walkdown, determine the appropriate emergency action level classification for this event.