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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-124

# Determine if RO License requirements are met

CANDIDATE

EXAMINER

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### Task:

Determine if RO License requirements are met per NSD 512 for minimum On-Shift Experience

#### Alternate Path:

N/A

#### Facility JPM #:

ADMIN-124

#### K/A Rating(s):

 System:
 Gen

 K/A:
 2.1.4

 Rating:
 3.3/3.8

#### Task Standard:

Completes Form 512-1 and determines requirements of NSD 512 are NOT met.

Preferred Evaluation Location:	Preferred Evaluation Method:
Simulator In-Plant Classroom X	Perform X Simulate
References:	
NSD 512 (Maintenance of RO/SRO NRC Licenses)	
Validation Time: 15 minutes	Time Critical: NO
Candidate:	Time Start:
NAME	Time Finish:
Performance Rating: SAT UNSAT	Performance Time
Examiner:	/
NAME	SIGNATURE DATE
COMMENTS	

## SIMULATOR OPERATOR INSTRUCTIONS:

NONE

### **Tools/Equipment/Procedures Needed:**

NSD 512 (Maintenance of RO/SRO NRC Licenses)

## **READ TO OPERATOR**

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Today's date is 10/29/12. You are a Reactor Operator. Your work history for October of this year is as follows:

10/12/12	Worked 12 hours as BOP on Unit 1 (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/13/12	Worked 8 hours as OATC on Unit 1 and 4 hours OATC doing crew JIT training on Simulator A (day shift). Took turnover at beginning and gave turnover at end of both of these assignments.
10/14/12	Worked 10 hours as BOP on Unit 1 (day shift). Took turnover at beginning of shift.
10/19/12	Worked 12 hours as BOP on Unit 1 (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/20/12	Worked 12 hours as OATC on Unit 3 (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/21/12	Worked 6 hours as OATC on Unit 3 and 6 hours as BOP on Unit 1 (night shift). Took turnover at beginning of shift and did NOT give turnover at end of shift.
10/27/12	Worked 12 hours as NEO on Unit 3 (day shift). Took turnover at beginning of shift and gave turnover at end of shift.

#### **INITIATING CUES:**

The OSM directs you to review your work history for October, complete Section 3 of form NSD 512-1 based on the above work history, and determine if you meet NSD 512 requirements to maintain an active RO license for the following quarter.

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# START TIME: \_\_\_\_\_

STEP 1:	Evaluate 10/12/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT
<u>STEP 2</u> :	Evaluate 10/13/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is not met because Simulator time does not count toward maintain RO license requirements	SAT
COMMENTS:		UNSAT
······································		
STEP 3:	Evaluate 10/14/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is not met. No turnover at end of shift, <12hrs worked in position.	SAT
COMMENTS:		UNSAT
<u>STEP 4</u> :	Evaluate 10/19/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT

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STEP 5	Evaluate 10/20/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT
<u>STEP 6</u> :	Evaluate 10/21/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that requirement is not met. No turnover at end of shift and position not filled for entire shift.	SAT
COMMENTS:		UNSAT
STEP 7:	Evaluate 10/27/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that NEO is not a required position and cannot be credited toward maintenance of RO license	SAT
COMMENTS:		UNSAT
<u>STEP 8</u> :	Compares credited time vs minimum requirements	CRITICAL STEP
<u>STANDARD</u> :	Determines that there are only 3 12 hour shifts that can be credited and therefore his minimum fourth quarter requirements to maintain his active RO License are not met.	SAT
COMMENTS:		UNSAT
	END OF TASK	

TIME STOP: \_\_\_\_\_

# **CRITICAL STEP EXPLANATIONS:**

#### STEP #

#### Explanation

- 1 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 2 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 3 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 4 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 5 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 6 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 7 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 8 This step makes the determination regarding minimum license requirment.

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

Today's date is 10/29/12. You are a Reactor Operator. Your work history for October of this year is as follows:

- 10/12/12 Worked 12 hours as BOP on Unit 1 (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/13/12 Worked 8 hours as OATC on Unit 1 and 4 hours OATC doing crew JIT training on Simulator A (day shift). Took turnover at beginning and gave turnover at end of both of these assignments.
- 10/14/12 Worked 10 hours as BOP on Unit 1 (day shift). Took turnover at beginning of shift.
- 10/19/12 Worked 12 hours as BOP on Unit 1 (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/20/12 Worked 12 hours as OATC on Unit 3 (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/21/12 Worked 6 hours as OATC on Unit 3 and 6 hours as BOP on Unit 1 (night shift). Took turnover at beginning of shift and did NOT give turnover at end of shift.
- 10/27/12 Worked 12 hours as NEO on Unit 3 (day shift). Took turnover at beginning of shift and gave turnover at end of shift.

#### **INITIATING CUES:**

The OSM directs you to review your work history for October, complete Section 3 of form NSD 512-1 based on the above work history, and determine if you meet NSD 512 requirements to maintain an active RO license for the following quarter.

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-125

# **Determine if SRO License Requirements are met**

CANDIDATE

EXAMINER

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### Task:

Determine if SRO License Requirements are met per NSD 512 for minimum On-Shift Experience

#### Alternate Path:

N/A

#### Facility JPM #:

ADMIN-125

#### K/A Rating(s):

System: Gen K/A: 2.1.4 Rating: 3.3/3.8

#### Task Standard:

Completes Form 512-1 and determines requirements of NSD 512 are met.

Preferred Evaluation Location:	Preferred Evaluation Method:
Simulator In-Plant Classroom X_	Perform X Simulate
References:	
NSD 512 (Maintenance of RO/SRO NRC Licenses)	
<u>Validation Time:</u> 15 min. ====================================	<u>Time Critical:</u> NO
Candidate: NAME	Time Start : Time Finish:
Performance Rating: SAT UNSAT Qu	lestion Grade Performance Time
Examiner:	//
СОММЕ	

### **SIMULATOR OPERATOR INSTRUCTIONS:**

NONE

#### Tools/Equipment/Procedures Needed:

NSD 512 (Maintenance of RO/SRO NRC Licenses)

#### **READ TO OPERATOR**

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Today is 10/29/12. You have just obtained your Senior Reactor Operator license and were assigned you first SRO watch on 10/13/12. Your work history for October of this year is as follows:

10/05/12	Worked 10 hours as Unit 3 BOP (day shift). Took turnover at beginning of shift and gave turnover at the end.
10/06/12	Worked 12 hours as Unit 3 BOP (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/07/12	Worked 12 hours as Unit 3 OATC (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/12/12	Worked 12 hours as Unit 1 BOP (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/13/12	Worked 12 hours (night shift). Worked 3 hours as the CR SRO and then 9 hours as WCC SRO. Took turnover at beginning and gave turnover at the end for his CR SRO position and his WCC SRO position .
10/14/12	Worked 12 hours as Unit 1 CR SRO (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
10/20/12	Worked 12 hours as Unit 3 OATC (day shift). Took turnover at beginning of shift and gave turnover at end of shift.

#### **INITIATING CUES:**

The OSM directs you to review your work history for October, complete Section 3 of form NSD 512-1 based on the above work history, and determine if you meet NSD 512 requirements to maintain an active SRO license for the following quarter.

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# START TIME: \_\_\_\_\_

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<u>STEP 1</u> :	Evaluate 10/05/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is not met; <12hrs worked in position.	0.17
COMMENTS:		SAT
		UNSAT
<u>STEP 2</u> :	Evaluate 10/06/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
		UNSAT
COMMENTS:	-	
STEP 3:	Evaluate 10/07/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT

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·····		
STEP 4:	Evaluate 10/12/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT
<u>STEP 5</u> :	Evaluate 10/13/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is not met since 9 of the hours were not at a required position (WCC SRO).	SAT
COMMENTS:		UNSAT
<u>STEP 6</u> :	Evaluate 10/14/12 work period	CRITICAL STEP
<u>STANDARD</u> :	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT
<u>STEP 7</u> :	Evaluate 10/20/12 work period	CRITICAL STEP
STANDARD:	Determines that requirement is met and adds this period to Form 512-1. Required position for 12 hrs. with Turnover at beginning and end of shift.	SAT
COMMENTS:		UNSAT

STEP 8:	Compares credited time vs minimum requirements	CRITICAL STEP
STANDARD:	Determines that 5 12-hr shifts at a required position meets one of the SRO position requirements and that the NSD-512 requirement of at least 1 shift/qtr at an SRO position is also met; so he meets the requirements to maintain his active SRO License.	SAT UNSAT
	END OF TASK	

TIME STOP: \_\_\_\_\_

### **CRITICAL STEP EXPLANATIONS:**

#### STEP #

#### Explanation

- 1 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 2 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 3 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 4 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 5 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 6 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 7 Required to determine if minimum On Shift Experience requirements of NSD 512 have been met.
- 8 This step makes the determination regarding minimum license requirment.

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

Today is 10/29/12. You have just obtained your Senior Reactor Operator license and were assigned you first SRO watch on 10/13/12. Your work history for October of this year is as follows:

- 10/05/12 Worked 10 hours as Unit 3 BOP (day shift). Took turnover at beginning of shift and gave turnover at the end.
- 10/06/12 Worked 12 hours as Unit 3 BOP (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/07/12 Worked 12 hours as Unit 3 OATC (day shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/12/12 Worked 12 hours as Unit 1 BOP (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/13/12 Worked 12 hours (night shift). Worked 3 hours as the CR SRO and then 9 hours as WCC SRO. Took turnover at beginning and gave turnover at the end for his CR SRO position and his WCC SRO position .
- 10/14/12 Worked 12 hours as Unit 1 CR SRO (night shift). Took turnover at beginning of shift and gave turnover at end of shift.
- 10/20/12 Worked 12 hours as Unit 3 OATC (day shift). Took turnover at beginning of shift and gave turnover at end of shift.

### **INITIATING CUES:**

The OSM directs you to review your work history for October, complete Section 3 of form NSD 512-1 based on the above work history, and determine if you meet NSD 512 requirements to maintain an active SRO license for the following quarter.

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-132

# Determine makeup requirements for Hotwell and minimum UST level.

CANDIDATE

EXAMINER

**Preferred Evaluation Method:** 

Perform X Simulate

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### Task:

Determine the Volume of DW Required to Raise Hotwell Inventory to 60" and the Minimum UST Level required to Meet EFDW Requirements

#### Alternate Path:

N/A
-----

#### Facility JPM #:

NEW

#### K/A Rating(s):

System: Gen K/A: 2.1.25 Rating: 3.9/4.2

#### Task Standard:

Determine that 22,500 gal of DW is required to Raise Hotwell level to 60" and the minimum UST level required to Meet EFDW Requirements is 6 feet.

#### Preferred Evaluation Location:

Simulator _	In-Plant	Classroom	Х	
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#### **References:**

OP/0/A/1108/001 (Curves and General Information) Tech Spec 3.7.6 (Upper Surge Tank and Hotwell) PT/1/A/0600/001 (Periodic Instrument Surveillance) PT/1/A/0600/001 B (Instrument Surveillance Prior to Mode change)

Validation Time: 12 minutes	Time Critical: NO
Candidate:	Time Start:
NAME	Time Finish:
Performance Rating: SAT UNSAT	Performance Time
Examiner:NAME	/////

COMMENTS

### SIMULATOR OPERATOR INSTRUCTIONS:

NONE

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#### Tools/Equipment/Procedures Needed:

OP/0/A/1108/001 (Curves and General Information) Tech Spec 3.7.6 (Upper Surge Tank and Hotwell) PT/1/A/0600/001 (Periodic Instrument Surveillance) PT/1/A/0600/001 B (Instrument Surveillance Prior to Mode change)

### READ TO OPERATOR

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Unit 1 RCS temperature is 205°F Startup following refueling is in progress Upper Surge Tank Level = 8.4 feet Hotwell level = 50 inches UST level control valves 1C-903, 1C-904, 1C-906, and 1C-907 in OVERRIDE

#### **INITIATING CUES:**

The CRS directs you to determine the following:

- 1. The volume (in gallons) of water required to increase Hotwell level to 60 inches?
- 2. If the volume of water added to the Hotwell in (1.) above all came from the Upper Surge Tank would there still be enough level in the UST to meet the minimum level requirements to transfer decay heat removal from LPI to the Steam Generators?

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# START TIME: \_\_\_\_\_

<u>STEP 1</u> : <u>STANDARD</u> :	Candidate refers to OP/0/A/1108/001 (Curves and General Information) Enclosure 4.9 to determine the number of gallons required to raise the level in the hotwell from 50 inches to 60 inches. Candidate determines the following: Volume associated with 50 inches in the hotwell = 127,500 gallons ± 500 gallons	CRITICAL STEP
<u>STEP 2</u> :	Candidate refers to OP/0/A/1108/001 (Curves and General Information) Enclosure 4.9 to determine the number of gallons required to raise the level in the hotwell from 50 inches to 60 inches.	CRITICAL STEP
<u>STANDARD</u> :	Candidate determines the following: Volume associated with 60 inches in the hotwell = 150,000 gallons ± 500 gallons	UNSAT
<u>COMMENTS</u> :		
<u>STEP 3</u> :	Candidate refers to OP/0/A/1108/001 (Curves and General Information) Enclosure 4.9 to determine the number of gallons required to raise the level in the hotwell from 50 inches to 60 inches.	CRITICAL STEP
<u>STANDARD</u> :	Candidate determines the following: 150,000 – 127,500 = <b>22,500 ± 1000 gallons</b> (volume (in gallons) of UST water required to raise Hotwell level to 60 inches)	UNSAT
<u>COMMENTS</u> :		

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		P**
<u>STEP 4</u> :	Candidate determines the current volume of water in the Upper Surge Tank using Enclosure 4.10 of OP/1108/01 (UST Volume Vs. Level Curve (All Units))	SAT
STANDARD:	Current level is 8.4 feet which equates to 54,000 gal.	UNSAT
COMMENTS:		
<u>STEP 5</u> :	Candidate determines the volume of water that will remain once the 22,500 gal have been transferred to the Hotwell	SAT
STANDARD:	54,000 gal - 22,500 gal = 31,500 gal	UNSAT
COMMENTS:		
<u>STEP 6</u> :	Candidate determines the level associated with the new volume	CRITICAL STEP
	of 6 feet specified in PT/1/A/0600/001 (Periodic Instrument Surveillance) Enclosure 13.3 (Mode 4) Page 4 of 18.	SAT
STANDARD:	Using OP/1108/01 Encl. 4.10, 31,500 gal equates to 5.4 feet which is < 6 feet	UNSAT
COMMENTS:		

TIME STOP: \_\_\_\_\_

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# **CRITICAL STEP EXPLANATIONS:**

### STEP #

### Explanation

- 1 Required to determine the DW volume
- 2 Required to determine the DW volume
- 3 Required to determine the DW volume
- 6 Required to ensure Tech Spec compliance

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

Unit 1 RCS temperature is 205°F Startup following refueling is in progress Upper Surge Tank Level = 8.4 feet Hotwell level = 50 inches UST level control valves 1C-903, 1C-904, 1C-906, and 1C-907 in OVERRIDE

#### **INITIATING CUES:**

The CRS directs you to determine the following:

- 1. The volume (in gallons) of water required to increase Hotwell level to 60 inches?
- 2. If the volume of water added to the Hotwell in (1.) above <u>All</u> came from the Upper Surge Tank would there still be enough level in the UST to meet the minimum UST level requirements to transfer decay heat removal from LPI to the Steam Generators?

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-238

# Perform NI Surveillance and Determine Any Required Actions

CANDIDATE

EXAMINER

Admin-238 Page 2 of 9

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### <u>Task:</u>

Perform NI Surveillance and Determine Any Required Actions

#### Alternate Path:

N/A

#### Facility JPM #:

NEW

#### K/A Rating(s):

System: Gen K/A: 2.2.12 Rating: 3.7/4.1

#### Task Standard:

Perform SR 3.3.1.2 in accordance with PT/1/A/0600/001 (Periodic Instrument Surveillance) and determine that the power increase must be stopped and actions taken to correct NI calibration.

Preferred Evaluation Location:	Preferred Evaluation_Method:
Simulator In-Plant Classroom X	Perform <u>X</u> Simulate
References:	
PT/1/A/0600/001 (Periodic Instrument Surveillance) OP/1/A/1102/004 (Operation at Power)	
Validation Time: 14 minutes	Time Critical: NO
Candidate:	 Time Start:
NAME	Time Finish:
Performance Rating: SAT UNSAT	Performance Time
Examiner:	/
COMMENTS	

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#### **SIMULATOR OPERATOR INSTRUCTIONS:**

NONE

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### **Tools/Equipment/Procedures Needed:**

PT/1/A/0600/001 (Periodic Instrument Surveillance) OP/1/A/1102/004 (Operation at Power)

#### **READ TO OPERATOR**

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Power escalation to 100% RTP is in progress. Current Time is 0730 Reactor Power = 91.7% Power history is attached

#### **INITIATING CUES:**

Using the attached power history, you are to perform the Day Shift RPS Instrumentation Heat Balance Check Power Range Amplifiers Surveillance (SR 3.3.1.2) on Page 8 of 27 of PT/1/A/0600/001 (Periodic Instrument Surveillance) Enclosure 13.1 (Mode 1&2) and determine the current minimum actions required (if any).

START TIME: \_\_\_\_\_

.

STEP 1:	Determine if the unit is at Steady State	
	<b>NOTE:</b> Steady State is defined as being $\pm 2\%$ of a steady power level for $\ge 4$ hours	SAT
<u>STANDARD</u> :	Using the NOTE above and the attached power history, determine that the unit is NOT at Steady State as defined by this surveillance ( $\pm$ 2% of a steady power level for $\geq$ 4 hours).	UNSAT
COMMENTS:		
<u>STEP 2</u> <u>STANDARD</u> :	<ul> <li>IF in Mode 1 during non steady state conditions OR Rx Power 15%- 90% power, verify Rx Power within applicable limits:</li> <li>Refer to Limits and Precautions of OP/1/A/1102/004 (Operation At Power) for applicable limits.</li> <li>Candidate refers to Limits and Precautions of OP/1/A/1102/004 (Operation At Power)</li> </ul>	SAT UNSAT
<u>COMMENTS</u> :		
1		
<u>STEP 3</u> :	Determine the magnitude of NI offset.	CRITICAL STEP
<u>STANDARD</u> :	Candidate refers to the power history provided and determines that CTP = $91.737\%$ and NI-7 = $89.94\%$ therefore NI-7 is out of calibration by $1.797\%$	SAT
COMMENTS:	· · · · · · · · · · · · · · · · · · ·	UNSAT

		Admin-238 Page 6 of 9
STEP 4:	Determine if NI's are conservative or non-conservative.	CRITICAL STEP
<u>STANDARD</u> :	Candidate refers to the Note for limit and precaution step 2.2.5 and determines that NI's are non-conservative since Core Thermal Power is > NI's.	SAT
COMMENTS:		UNSAT
<u>STEP 5</u> :	Determine which Limit and Precaution contains guidance needed.	
STANDARD:	Based on power history, 2.2.6 C applies since it is for use "During operation with Reactor > 90% CTP (power maneuvering OR steady state)"	SAT
COMMENTS:		
<u>STEP 6</u> :	Determine actions required by Limit and Precaution 2.2.6 C.	CRITICAL STEP
STANDARD:	Determine that the following are required:	SAT
	<ul> <li>Stop the power increase</li> <li>Perform an NI calibration to restore NI's to allowable range</li> </ul>	UNSAT
Note: Since 2.2.6.C.2 are	NI's have not been out by 2% for $\geq$ 2 hours, the actions of NOT required.	
COMMENTS:		
	END TASK	

TIME STOP: \_\_\_\_\_

# **CRITICAL STEP EXPLANATIONS:**

#### STEP #

#### Explanation

- 3 Determining the magnitude of NI error is required to determine the correct NI tolerance allowed for the current plant conditions.
- 4 Determining that NI's are non-conservative is required to determine the correct NI tolerance allowed for the current plant conditions.
- 6 These actions are required based on current status of NI's to ensure Safety Analysis assumptions are met.

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

### **INITIAL CONDITIONS:**

Power escalation to 100% RTP is in progress. Current Time is 0730 Reactor Power = 91.7% Power history is attached

#### **INITIATING CUES:**

Using the attached power history, you are to perform the Day Shift RPS Instrumentation Heat Balance Check Power Range Amplifiers Surveillance (SR 3.3.1.2) on Page 8 of 27 of PT/1/A/0600/001 (Periodic Instrument Surveillance) Enclosure 13.1 (Mode 1&2) and the current minimum actions required (if any).

Unit 1 Power history is as follows:

	O1P0899	O1E4066	O1E4067	O1E4068	O1E4069
0430	86.462%	89.21%	89.14%	88.51%	89.30%
0630	86.462%	89.21%	89.14%	88.51%	89.30%
0645	90.114%	89.95%	89.91%	89.20%	90.02%
0700	90.561%	90.15%	90.13%	89.48%	90.51%
0715	91.337%	91.01%	90.97%	89.89%	91.29%
0730	91.737%	91.62%	91.42%	89.94%	91.59%

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-239

# Perform NI Surveillance and Determine Any Required Actions

**SRO Only** 

CANDIDATE

EXAMINER

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### <u>Task:</u>

Perform NI Surveillance and Determine Any Required Actions

#### Alternate Path:

N/A

#### Facility JPM #:

NEW

#### K/A Rating(s):

System: Gen K/A: 2.2.12 Rating: 3.7/4.1

#### Task Standard:

Perform SR 3.3.1.2 in accordance with PT/1/A/0600/001 (Periodic Instrument Surveillance) and determine that the power increase must be stopped and actions taken to correct NI calibration.

Preferred Evaluation Location:	Preferred Evaluation Method:
Simulator In-Plant Classroom X	Perform <u>X</u> Simulate
References:	
PT/1/A/0600/001 (Periodic Instrument Surveillance) OP/1/A/1102/004 (Operation at Power)	
<u>Validation Time:</u> 14 minutes	Time Critical: NO
Candidate:	Time Start:
NAME	Time Finish:
Performance Rating: SAT UNSAT	Performance Time
Examiner:	/
NAME	SIGNATURE DATE
COMMENTS	

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#### **SIMULATOR OPERATOR INSTRUCTIONS:**

NONE

### Tools/Equipment/Procedures Needed:

PT/1/A/0600/001 (Periodic Instrument Surveillance) OP/1/A/1102/004 (Operation at Power)

#### **READ TO OPERATOR**

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Power escalation to 100% RTP is in progress. Current Time is 0730 Reactor Power = 91.7% RPS channel 1D is in Manual Bypass for I&E Power history is attached

#### **INITIATING CUES:**

Using the attached power history, you are to perform the Day Shift RPS Instrumentation Heat Balance Check Power Range Amplifiers Surveillance (SR 3.3.1.2) on Page 8 of 27 of PT/1/A/0600/001 (Periodic Instrument Surveillance) Enclosure 13.1 (Mode 1&2) and determine the current minimum actions required (if any).

START TIME: \_\_\_\_\_

STEP 1:	Determine if the unit is at Steady State	
	<b>NOTE:</b> Steady State is defined as being $\pm 2\%$ of a steady power level for $\ge 4$ hours	SAT
<u>STANDARD</u> :	Using the NOTE above and the attached power history, determine that the unit is NOT at Steady State as defined by this surveillance ( $\pm$ 2% of a steady power level for $\geq$ 4 hours).	UNSAT
COMMENTS:		
STEP 2 STANDARD: COMMENTS:	<ul> <li>IF in Mode 1 during non steady state conditions OR Rx Power 15%- 90% power, verify Rx Power within applicable limits:</li> <li>Refer to Limits and Precautions of OP/1/A/1102/004 (Operation At Power) for applicable limits.</li> <li>Candidate refers to Limits and Precautions of OP/1/A/1102/004 (Operation At Power)</li> </ul>	SAT UNSAT
<u>STEP 3</u> :	Determine the magnitude of NI offset.	CRITICAL STEP
<u>STANDARD</u> :	Candidate refers to the power history provided and determines that CTP = 91.737% and NI-7 = 89.94% therefore NI-7 is out of calibration by 1.797%	SAT
COMMENTS:		UNSAT

		Admin-239 Page 6 of 9
<u>STEP 4</u> :	Determine if NI's are conservative or non-conservative.	CRITICAL STEP
<u>STANDARD</u> :	Candidate refers to the Note for limit and precaution step 2.2.5 and determines that NI's are non-conservative since Core Thermal Power is > NI's.	SAT
COMMENTS:		UNSAT
<u>STEP 5</u> :	Determine which Limit and Precaution contains guidance needed.	
		SAT
<u>STANDARD</u> :	Based on power history, 2.2.6 C applies since it is for use "During operation with Reactor > 90% CTP (power maneuvering OR steady state)"	UNSAT
COMMENTS:		

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		8
<u>STEP 6</u> :	Determine actions required by Limit and Precaution 2.2.6 C.	CRITICAL STEP
STANDARD:	Determine that the following are required:	SAT
	<ul> <li>Stop the power increase</li> <li>Perform an NI calibration to restore NI's to allowable range</li> </ul>	UNSAT
Note: Since 2.2.6.C.2 are	NI's have not been out by 2% for $\geq$ 2 hours, the actions of NOT required.	
CUE: Inform low and Rx E the candidate that apply.	candidate that while attempting to calibrate the NI's, 1NI-7 failed Engineering has determined that 1NI-7 is NOT operable. Instruct to determine ALL Tech Spec Conditions and Required Actions	
<u>COMMENTS</u>		
<u>STEP 7</u> :	Determine all Tech Spec Conditions and Required Actions that	*CRITICAL STEP
	appiy.	SAT
<u>STANDARD</u> :	<ul> <li>Determine the following:</li> <li>With NI-7 inoperable, all functions in 1C BPS cabinet that use</li> </ul>	UNSAT
	<ul> <li>NI-7 are inoperable.</li> <li>Since 1D RPS channel is in Manual Bypass, all functions in 1C</li> </ul>	
	<ul> <li>RPS channel are "required".</li> <li>*Tech Spec 3.3.1 (RPS Instrumentation) Condition A will be entered for the following functions:</li> </ul>	
	<ul> <li>Nuclear Overpower</li> <li>Nuclear Overpower Flux/Flow Imbalance</li> <li>Reactor Coolant Pump to Power</li> </ul>	
COMMENTS	• *10 RPS channel must be placed in "Trip" within 4 hours No TIS Entry Required A	
* During Was	administration of JPM, the Cue Sheet For Admin 3PM 238 (120 handed out. This sheet Did not have ID RPS in manual Byp	Jan) uss.
	Based on a post exam comment the STANDARD FOR	THUS
TIME STOP: _	STEP was changed to NO T/S. EARLY REED	iréd.

# **CRITICAL STEP EXPLANATIONS:**

#### STEP #

#### Explanation

- 3 Determining the magnitude of NI error is required to determine the correct NI tolerance allowed for the current plant conditions.
- 4 Determining that NI's are non-conservative is required to determine the correct NI tolerance allowed for the current plant conditions.
- 6 These actions are required based on current status of NI's to ensure Safety Analysis assumptions are met.
- 7 These actions are required to determine the correct Tech Spec Condition and Required Action.

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

Power escalation to 100% RTP is in progress. Current Time is 0730 Reactor Power = 91.7% RPS channel 1D is in Manual Bypass for I&E Power history is attached

### **INITIATING CUES:**

Using the attached power history, you are to perform the Day Shift RPS Instrumentation Heat Balance Check Power Range Amplifiers Surveillance (SR 3.3.1.2) on Page 8 of 27 of PT/1/A/0600/001 (Periodic Instrument Surveillance) Enclosure 13.1 (Mode 1&2) and the current minimum actions required (if any).

# Unit 1 Power history is as follows:

	O1P0899	O1E4066	O1E4067	O1E4068	O1E4069
0430	86.462%	89.21%	89.14%	88.51%	89.30%
0630	86.462%	89.21%	89.14%	88.51%	89.30%
0645	90.114%	89.95%	89.91%	89.20%	90.02%
0700	90.561%	90.15%	90.13%	89.48%	90.51%
0715	91.337%	91.01%	90.97%	89.89%	91.29%
0730	91.737%	91.62%	91.42%	89.94%	91.59%

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

Admin-305

# **Determine RP Requirements for an Assigned Task**

CANDIDATE

EXAMINER

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### Task:

Determine the RP requirements for entering the MWHUT room to verify valve positions

#### Alternate Path:

N/A

#### Facility JPM #:

NEW

#### K/A Rating(s):

System: Gen K/A: 2.3.7 Rating: 3.5/3.6

#### Task Standard:

Determines the correct RWP number, Task number, Dose and Dose Rate alarm setpoints, and dress category for the assigned task.

Preferred Evaluation Location:	Preferred Evaluation Method:	
Simulator In-Plant Classroom X	Perform X Simulate	
References:		
Various RWP's MWHUT room plan view		
Validation Time:         14 minutes	Time Critical: NO	
Candidate:	Time Start:	
NAME	Time Finish:	
Performance Rating: SAT UNSAT	Performance Time	
Examiner:	//	
NAME	SIGNATURE DATE	
COMMENTS		
SIMULATOR OPERATOR INSTRUCTIONS:		

NONE

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#### **Tools/Equipment/Procedures Needed:**

Various RWP's MWHUT room plan view

### READ TO OPERATOR

#### **DIRECTION TO TRAINEE:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

Over the last several days there has been a slow unexplained decrease in Miscellaneous Waste Holdup Tank (MWHUT) level and a corresponding slow increase in High Activity Waste Tank (HAWT) level.

Due to possible leakage past the seats, the Unit 1 CRS has directed you to go to the Unit 1&2 MWHUT room and verify the following valves (located in a congested area underneath the MWHUT) are CLOSED:

- LWD-970 (1A MWHUT Drain Block to HAWT)
- LWD-972 (1B MWHUT Drain Block to HAWT)

### INITIATING CUES

Determine the following requirements for entry into the MWHUT room to check the above listed valves CLOSED:

- RWP number
- RWP Task number
- Dose Alarm setpoint
- Dose Rate Alarm setpoint
- Dress Category

Indicate your answers below.

START TIME: \_\_\_\_\_

<u>STEP 1:</u>	Determine the RWP to be used.	
<u>STANDARD</u> :	Candidate reviews the RWP's provided and determines that RWP 23 is correct for this job.	SAT
COMMENTS:		UNSAT
<u>STEP 2</u> :	Determine the RWP Task to be used.	CRITICAL STEP
<u>STANDARD</u> :	Candidate reviews RWP 23 tasks and the provided plan view of the MWHUT room and determines that the work will require entry into a High Badiation Area and therefore determines that Task 2 is	SAT
	correct.	UNSAT
COMMENTS:		
<u>STEP 3</u> :	Determine the Dose and Dose Rate ED setpoints.	CRITICAL STEP
<u>STANDARD</u> :	Candidate reviews RWP 23 Task 2 and determines that the setpoints are as follows:	SAT
	<ul><li>Dose Alarm: 25 mrem</li><li>Dose Rate Alarm : 500 mrem/hr</li></ul>	UNSAT
COMMENTS:		

<b>-</b>		Admin-305 Page 6 of 8
STEP 4	Determine the Dress Category for protective clothing requirements	CRITICAL STEP
STANDARD:	The candidate will review the plan view provided and determine that the work will require entry into a High Radiation Area and a Contaminated Area. Based on the Plan View assessment the candidate should determine that Dress Category "H" applies	SAT UNSAT
COMMENTS:		
	END OF TASK	

TIME STOP: \_\_\_\_\_

# **CRITICAL STEP EXPLANATIONS:**

#### STEP #

### Explanation

- 2 Critical since some of the RP requirements for Task 2 (other than Dose and Dose Alarm setpoints) are different
- 3 Critical since proper ED setpoints provide personnel protection
- 4 Critical to prevent personnel contamination protections as well as preventing the spread of contamination

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

Over the last several days there has been a slow unexplained decrease in Miscellaneous Waste Holdup Tank (MWHUT) level and a corresponding slow increase in High Activity Waste Tank (HAWT) level.

Due to possible leakage past the seats, the Unit 1 CRS has directed you to go to the Unit 1&2 MWHUT room and verify the following valves (located in a congested area underneath the MWHUT) are CLOSED:

- LWD-970 (1A MWHUT Drain Block to HAWT)
- LWD-972 (1B MWHUT Drain Block to HAWT)

#### **INITIATING CUES**

Determine the following requirements for entry into the MWHUT room to check the above listed valves CLOSED:

- RWP number
- RWP Task number
- Dose Alarm setpoint
- Dose Rate Alarm setpoint
- Dress Category

Indicate your answers below.

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# REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

# Admin-407

# Determine Emergency Classification and Complete Emergency Notification Form

# **SRO Only**

CANDIDATE

EXAMINER

#### REGION II INITIAL LICENSE EXAMINATION JOB PERFORMANCE MEASURE

#### <u>Task</u>:

Determine Emergency Classification and Protective Action Recommendations

#### Alternate Path:

N/A

#### Facility JPM #:

ADM-407

#### K/A Rating(s):

System: G K/A: 2.4.38 Rating: 2.4/4.4

#### Task Standard:

Appropriate classification is determined within 15 minutes and associated Emergency Notification Form is completed within an additional 15 minutes.

Preferred Evaluation Location:	Preferred Evaluation Method:		
Simulator In-Plant ClassroomX	PerformX Simulate		
References:			
RP/0/B/1000/01 RP/0/B/1000/02 BASIS Document (Volume "A", Section "D" of the Emergency Plan)			
<u>Validation Time:</u> 20 min. ====================================	Time Critical: Yes		
Candidate:	Time Start:		
NAME	Time Finish:		
Performance Rating: SAT UNSAT	Performance Time:		
Examiner:	/		
NAME	SIGNATURE DATE		
<u>Comments</u>			

### **SIMULATOR OPERATOR INSTRUCTIONS:**

NONE

#### **Tools/Equipment/Procedures Needed:**

RP/0/B/1000/001 RP/0/B/1000/002 Emergency Notification Forms

#### **READ TO OPERATOR**

#### **DIRECTIONS TO STUDENT:**

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

#### **INITIAL CONDITIONS:**

08:00:00	Unit 1 experiences a SG Tube Leak	of 35 gpm in the "1A" SG.
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08:05:00 ERO activated by the OSM due to the SG Tube Leak.

08:15:00 Message sheet 1 provided to offsite agencies.

While performing the Unit 1 shutdown the following event/time line occurs;

- 08:28:20 With Reactor power = 39% decreasing, a spurious Turbine/Generator trip occurs. An automatic Reactor trip did not occur. The Reactor was manually tripped.
- 08:31:28 CT-1 Lockout occurs. The Unit 1 BOP dispatched to activate the SSF using AP/0/A/1700/025. TDEFWP feeding Steam Generators
- 08:32:50 Control Room reports to the OSM that MFB's have failed to automatically re-energize and efforts are underway to energize MFB's manually from CT-4 in accordance with the EOP ENCL 5.38.
- 08:42:00 SSF operator reports that per AP/1/A/1700/025 flow has been established to Unit 1's RCP Seals
- 08:44:00 MFB's energized from CT-4

(continued on next page)

#### **INITIATING CUE:**

You are to perform the required actions of the Emergency Coordinator by referring to RP/0/B/1000/01, Emergency Classification:

- 1. Determine Emergency Classification at 08:45:00.
- 2. Complete appropriate Emergency Notification Form for the current conditions.

### THIS IS A TIME CRITICAL JPM

Note: Do not use Emergency Coordinator's judgment while classifying the event. When required, an operator will maintain the Emergency Coordinator's Log and assume the duties of the Control Room Offsite Communicator.

START TIME: \_\_\_\_\_

Classify the Event at 0845	TIME CRITICAL STEP
Refer to RP/0/B/1000/01 (Emergency Classification) Enclosure 4.4 (Loss of Shutdown Function).	<b>-</b>
Classify the event as an "Alert" due to the following:	SAT
Valid reactor trip signal received or required WITHOUT automatic scram	UNSAT
AND	
DSS has inserted Control Rods	
OR	
Manual trip from the Control Room is successful and reactor power is less than 5% and decreasing	
Time for Classification	
Step 2.7	CRITICAL STEP
Obtain the appropriate Offsite Notification form from the Emergency Plan cart.	SAT
<b>Initial ALERT form # 4.4.A.1</b> is selected and candidate continues to fillout form per substeps of Step 2.7.	UNSAT
	Classify the Event at 0845 Refer to RP/0/B/1000/01 (Emergency Classification) Enclosure 4.4 (Loss of Shutdown Function). Classify the event as an "Alert" due to the following: Valid reactor trip signal received or required WITHOUT automatic scram AND DSS has inserted Control Rods OR Manual trip from the Control Room is successful and reactor power is less than 5% and decreasing Time for Classification Step 2.7 Obtain the appropriate Offsite Notification form from the Emergency Plan cart. Initial ALERT form # 4.4.A.1 is selected and candidate continues to fill- out form per substeps of Step 2.7.

<u>STEP 3</u> :	Step 1.7 Complete the Emergency Notification Form.	TIME CRITICAL STEP
<u>STANDARD</u> :	Correctly fills out Emergency Notification Form for 0845 In Accordance With Key provided. The following steps are the "Critical Steps" Step 1 (message number only) Step 2 Step 6 Step 8 Step 10 (Time and Date) Step 11 Step 17	SAT UNSAT
<u>COMMENTS</u> :	Form complete within 15 minutes of classification in step 1.	
· · · · · · · · · · · · · · · · · · ·	END OF TASK	

TIME STOP: \_\_\_\_\_

## **CRITICAL STEP EXPLANATIONS:**

#### STEP #

#### Explanation

- 1 The candidate needs to be able to utilize the procedure and determine that an Alert has occurred.
- 2 Required to successfully notify offsite agencies
- 3 The candidate must be able to complete the emergency notification form to provide accurate information.

#### CANDIDATE CUE SHEET (TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

#### **INITIAL CONDITIONS:**

08:00:00 Unit 1 experiences a SG Tube Leak of 35 gpm in the "1A" SG.

08:05:00 ERO activated by the OSM due to the SG Tube Leak.

08:15:00 Message sheet 1 provided to offsite agencies.

While performing the Unit 1 shutdown the following event/time line occurs;

- 08:28:20 With Reactor power = 39% decreasing, a spurious Turbine/Generator trip occurs. An automatic Reactor trip did not occur. The Reactor was manually tripped.
- 08:31:28 CT-1 Lockout occurs. The Unit 1 BOP dispatched to activate the SSF using AP/0/A/1700/025. TDEFWP feeding Steam Generators
- 08:32:50 Control Room reports to the OSM that MFB's have failed to automatically re-energize and efforts are underway to energize MFB's manually from CT-4 in accordance with the EOP ENCL 5.38.
- 08:42:00 SSF operator reports that per AP/1/A/1700/025 flow has been established to Unit 1's RCP Seals
- 08:44:00 MFB's energized from CT-4

#### **INITIATING CUE:**

You are to perform the required actions of the Emergency Coordinator by referring to RP/0/B/1000/01, Emergency Classification:

- 1. Determine Emergency Classification at 08:45:00.
- 2. Complete appropriate Emergency Notification Form for the current conditions.

#### THIS IS A TIME CRITICAL JPM

Note: Do not use Emergency Coordinator's judgment while classifying the event. When required, an operator will maintain the Emergency Coordinator's Log and assume the duties of the Control Room Offsite Communicator.