

Exelon Nuclear

Job Performance Measure

Perform a Manual Heat Balance

JPM Number: A-RO-41

Revision Number: 03

Date: 7 / 23 / 2020

Developed By: _____
Instructor Date

Validated By: Hodgen/Keller 8/21/2020
SME or Instructor Date

Reviewed By: _____
Training Department Date

Approved By: _____
Operations Representative 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 9 and 13 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, simulator, or other)
- _____ 4. Initial setup conditions are identified.
- _____ 5. Initiating cue (and terminating cue if required) 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. If an alternate path is used, the task standard contains criteria for successful completion.
- _____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
 Procedure LOS-CX-S001 Rev: 17
 Procedure _____ Rev: _____
 Procedure _____ Rev: _____
- _____ 10. Verify cues both verbal and visual are free of conflict.
- _____ 11. Verify performance time is accurate
- _____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- _____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

Revision 00, JPM developed new for the ILT 13-1 NRC Exam.

Revision 02, JPM updated for the ILT 19-1 NRC Exam.

Revision 03, Added a task standard following NRC submittal

SETUP INSTRUCTIONS

1. No SIM setup required.
2. Materials:
 - The following material is required to be provided to Candidate:
 - LOS-CX-S001 for Unit 1
 - A (Faulted) copy of CMSS Heat Balance (OD3)

INITIAL CONDITIONS

You are the Unit 1 NSO

- Unit 1 is operating at rated power.
- It is Monday evening Mid-Shift.

INITIATING CUE

Perform the Heat Balance Shiftly Surveillance, LOS-CX-S001.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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.

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JPM Start Time: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	<u>SAT</u>	<u>UNSAT</u>	<u>Comment Number</u>
1	If Core Power is > 60%, OBTAIN a copy of a CMSS Heat Balance (OD3).	OD3 Heat Balance obtained	—	—	—
CUE	After a copy of OD3 has been properly demanded, provide the candidate with the faulted (Pre-printed OD-3) version for this JPM. Direct the candidate to use only these PPC Printout values for completion of this task.				
2	CHECK the following points from the OD3 edit fall within characteristic curves of the attached graphs. Feedwater flow vs. CTP Identifies these points are inside the Attachment 1B curves	Feedwater flow vs. CTP accurately plotted inside the Attachment 1B curves	—	—	—
3	CHECK the following points from the OD3 edit fall within characteristic curves of the attached graphs. Feedwater Temperature vs. CTP Identifies these points are inside the Attachment 1C curves	Feedwater Temperature vs. CTP accurately plotted inside the Attachment 1C curves	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
4	<p>CHECK the following points from the PPC Printout fall within characteristic curves of the attached graphs.</p> <p>Individual RR Pump power vs. CTP</p> <p>Identifies these points are inside the Attachment 1D curves</p>	<p>Individual RR Pump power vs. CTP accurately plotted inside the Attachment 1D curves</p>	—	—	—
*5	<p>CHECK the following points from the OD3 edit fall within characteristic curves of the attached graphs.</p> <p>RWCU Temperatures vs. CTP</p> <p>Identifies these points are outside the Attachment 1E curves</p>	<p>RWCU Temperatures vs. CTP accurately plotted OUTSIDE the Attachment 1E curves</p>	—	—	—
6	<p>IMMEDIATELY NOTIFY the Unit Supervisor of any discrepancies found during the performance of this surveillance.</p>	<p>Unit supervisor notified of the discrepancies on Attachment 1E</p>	—	—	—
CUE	Role Play Unit Supervisor as necessary if notified of the points outside the Attachment 1E curves.				
7	<p>CHECK the following points from the OD3 edit fall within characteristic curves of the attached graphs.</p> <p>RWCU Flow vs. CTP</p> <p>Identifies these points are inside the Attachment 1F curves</p>	<p>RWCU Flow vs. CTP accurately plotted inside the Attachment 1F curves</p>	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
8	CHECK the following points from the OD3 edit fall within characteristic curves of the attached graphs. Control Rod Drive Flow vs. CTP Identifies these points are inside the Attachment 1F curves	Control Rod Drive Flow vs. CTP accurately plotted inside the Attachment 1F curves	—	—	—
*9	CHECK Control Valve Position (computer points may be utilized) vs. Core Thermal Power within limits of attachment 1G. Identifies these points are outside the Attachment 1G curves	Control Valve Position vs. Core Thermal Power accurately plotted OUTSIDE the Attachment 1G curves	—	—	—
10	IMMEDIATELY NOTIFY the Unit Supervisor and QNE of any discrepancies found during the performance of this surveillance.	Unit supervisor notified of the discrepancies on Attachment 1G	—	—	—
CUE	Role Play Unit Supervisor as necessary if notified of the points outside the Attachment 1G curves.				
11	Sign off on Attachment 1A (Unit 1)	Discrepancies noted on Attachment 1A	—	—	—
CUE	JPM Complete.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: EO RO SRO FS STA/IA SRO Cert

JPM Title: Perform a Manual Heat Balance

JPM Number: A-RO-41 Revision Number: 03

Task Number and Title: 656.010 Given the proper procedure, perform the NSO Shiftly Surveillance IAW station procedures.

Task Standard: Perform LOS-CX-S001, Heat Balance Input Shiftly Surveillance and determine if all the requirements are met. Identify requirements which have not been met and inform the Unit Supervisor.

K/A Number and Importance: 2.1.25 (3.9) Ability to interpret reference materials, such as graphs, curves, tables, etc.

Suggested Testing Environment: Simulator or Classroom

Alternate Path: Yes No SRO Only: Yes No Time Critical: Yes No
Reference(s): LOS-CX-S001, Heat Balance Shiftly Surveillance, Rev. 17

Actual Testing Environment: Simulator Control Room In-Plant Other

Testing Method: Simulate Perform

Estimated Time to Complete: 10 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date:** _____

LaSalle-1 CyC 15LV2

3-Nov-2020 08:10 CALCULATED
 3-NOV-2020 08:25 PRINTED

CORE POWER AND FLOW LOG

ENERGY BALANCE
 POWER (MW)

ELECTRICAL	1202.7	98.1%
CORE	3541.4	99.9%
FEEDWATER	3534.1	
CR DRIVES	11.2	
CLEAN-UP	3.6	
RADIATIVE LOSS	4.1	
PUMPS	11.6	

ENTHALPY/SUBCOOLING (BTU/LB)

SUBC	18.27
FEEDWATER	398.06
RECIRC INLET	527.55
CLEAN-UP IN	499.60
CLEAN-UP OUT	397.80

FLOW (MLB/HR)

TOTAL CORE	102.56	94.5%
MEASURED	102.56	
SUBSTITUTE	104.26	
FEEDWATER	15.19	
CLEAN-UP	0.12	
RECIRC	31.27	
CR DRIVES	0.03	

LOAD LINE SUMMARY

CORE POWER	99.9%
CORE FLOW	94.5%
LOAD LINE	103.7%
FLOW BASIS	MEAS.

PRESSURE (PSIa)

DOME	1018.2
DROP (MEAS)	15.433

TEMPERATURE (Deg F)

FEEDWATER	420.2
RECIRC IN	533.0
CLEAN-UP IN	510.0
CLEAN-UP OUT	420.0
CR DRIVES	80.0

APRM CALIBRATION

APRM ID	A	B	C	D	E	F
READING	100.0	99.6	99.7	99.9	99.3	99.7
AGAF	0.999	1.003	1.002	0.999	1.006	1.001
(APRM - %CTP)	0.1	-0.3	-0.2	0.1	-0.6	-0.1

RECIRC PUMP DATA:

PUMP ID	PUMP STAT	SENSOR VALUE	SENSOR STAT	CRITICAL CODE	RLL VALUE	RUL VALUE	CUT-OFF LIMIT
1	ON	N/A	N/A	0	-0.0200	8.0000	0.0000
2	ON	N/A	N/A	0	-0.0200	8.0000	0.0000

LOOP ACTIVE DETERMINED BY: RECIRC LOOP ACTIVE FLAG

FAILED SENSORS: 0

CRD Flow Temp F

SRRS: 3D.100; There are no retention requirements for this section

11/03/20 08:26:14

Tabular Display
LaSalle County Station

Page 1

	Point ID	Description	Value	Units	Quality
1	B725	RECIRC PUMP MTR A PWR	6.47819	MW	
2	B726	RECIRC PUMP MTR B PWR	6.49245	MW	

11/03/20 08:26:14

Tabular Display
LaSalle County Station

Page 1

	Point ID	Description	Value	Units	Quality
1	DEHC_A018	Control Valve 1 Position	49.15303	%	
2	DEHC_A019	Control Valve 2 Position	49.89535	%	
3	DEHC_A020	Control Valve 3 Position	65.05168	%	
4	DEHC_A021	Control Valve 4 Position	49.15303	%	

INITIAL CONDITIONS

You are the Unit 1 NSO

- Unit 1 is operating at rated power.
- It is Monday evening Mid-Shift.

INITIATING CUE

Perform the Heat Balance Shiftly Surveillance, LOS-CX-S001.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.



JOB PERFORMANCE MEASURE

Unit 1 Main Steam Isolation Valve Alternate Leakage Treatment Path Verification

JPM: NRC-LAS-2020-ROA1.2

November 2020

Facility: LaSalle

K/A Reference: 2.1.31 (4.6/4.3) Ability to locate control room switches, controls, and indications, and to determine that they correctly reflect the desired plant lineup.

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Exelon Nuclear

Job Performance Measure

Unit 1 Main Steam Isolation Valve Alternate Leakage Treatment Path Verification

JPM Number: NRC-LAS-2020-ROA1.2

Revision Number: 01

Date: 9 / 23 / 2020

Developed By: _____
Instructor Date

Validated By: Hodgen/Backo 8/29/2020
SME or Instructor Date

Reviewed By: _____
Training Department Date

Approved By: _____
Operations Representative 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 9 and 13 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, simulator, or other)
- _____ 4. Initial setup conditions are identified.
- _____ 5. Initiating cue (and terminating cue if required) 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. If an alternate path is used, the task standard contains criteria for successful completion.
- _____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
 Procedure LOS-MS-M2 Rev: 5
 Procedure _____ Rev: _____
 Procedure _____ Rev: _____
- _____ 10. Verify cues both verbal and visual are free of conflict.
- _____ 11. Verify performance time is accurate
- _____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- _____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to an IC in which the plant is in Mode 1 and stable.
2. Manual Actions:
 - a. Valves 1B21-F070, 1B21-F071, 1B21-F418B, 1B21-F020 are all in their normal positions with power available.
 - b. Valves listed in step 3.3 of Attachment A to LOS-MS-M2 are all in their normal position with power available.
 - c. Valve 1B21-F073 is CLOSED
 - d. EST on 1B21-F073 stating the valve is mechanically bound.
 - e. Valve 1B21-F418A has power removed
3. Malfunctions:
 - a. Valve 1B21-F073 is CLOSED
 - b. Valve 1B21-F418A has power removed
4. Remotes:
 - a. None
5. Overrides:
 - a. None
6. Procedures:
 - a. Copy of LOS-MS-M2, MSIV Alternate Leakage Treatment Path Verification
 - b. Copy of pertinent section of Degraded Equipment Log
 - c. Copy of TRM 3.6.a and associated tables
7. When the setup for this JPM is complete ensure that any other JPMs to be performed concurrently are also ready.
8. This completes the setup for this JPM.

INITIAL CONDITIONS

1. You are the Admin NSO
2. Unit 1 is in Mode 1 at 100% RTP

INITIATING CUE

The Unit Supervisor directs you to perform LOS-MS-M2, "MSIV Alternate Leakage Treatment Path Verification."

Provide examinee with: A copy of LOS-MS-M2, a copy of the pertinent section of DEL and a copy of TRM 3.6.a and associated tables.

Fill in the JPM Start Time when the examinee acknowledges the Initiating Cue.

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Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
Note	In the following steps: Available to Operate from the Control Room Means: Indicated power available with no C/O on the valve and no Equipment Status Tag, Work Request, DEL tag indicating back seat or other abnormal condition, as noted from the Control Room.				
1.1	Verify MOVs operable from the control room or in TRM 3.6a position	Verifies 1B21-F070 and F071 are operable from the control room	—	—	—
*2.1	Verify MOVs operable from the control room or in TRM 3.6a position	Verifies 1B21-F072 is operable from the control room • Identifies that 1B21-F073 is NOT operable from the control room and CLOSED	—	—	—
	Informs Unit Supervisor of discrepancy	Informs Unit Supervisor that 1B21-F073 is not operable from the control room and is not in the OPEN position required by TRM 3.6a, Table T3.6.a-1	—	—	—
Cue	As Unit Supervisor, instruct the applicant to make note of the condition of 1B21-F073 and continue with completing LOS-MS-M2.				
*3.1	Verify MOVs operable from the control room or in TRM 3.6a position	Verifies 1B21-F418B and F020 are operable from the control room • Identifies that 1B21-F418A has no power • Document in LOS-MS-M2 Comments section that 1B21-F418A has no power	—	—	—
	Informs Unit Supervisor of discrepancy	Informs Unit Supervisor that 1B21-F0418A has no power	—	—	—
Cue	As Unit Supervisor, instruct the applicant to make note of the condition of 1B21-F418A and continue performing LOS-MS-M2.				

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
3.2	Verify Outboard MSIVs operable from the control room	Verifies 1B21-F028A, F028B, F028C, and F028D are operable from the control room	—	—	—
3.3	Verify EHC Automatic Operating Valves are fully operable	Verifies 1B21-MSV-1, MSV-2, MSV-3, and MSV-4 are operable from the control room Verifies 1B21-MSBPV-1, MSBPV-2, MSBPV-3, MSBPV-4, and MSBPV-5 are operable from the control room	—	—	—
TERMINATING CUE:					
Inform the applicant that another operator will complete LOS-MS-M2.					

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____

Job Title: EO RO SRO FS STA/IA SRO Cert

JPM Title: MSIV Alt Path Verification

JPM Number: NEW

Revision Number: 01

Task Number and Title: Given the proper procedure, perform a Monthly Surveillance IAW station procedures

Task Standard: Perform LOS-MS-M2, "MSIV Alternate Leakage Treatment Path Verification" and identify, report, record, and if directed correct all discrepancies encountered.

K/A Number and Importance: 2.1.31 (4.6) Ability to locate control room switches, controls, and indications, and to determine that they correctly reflect the desired plant lineup

Suggested Testing Environment: Simulator or Classroom

Alternate Path: Yes No **SRO Only:** Yes No **Time Critical:** Yes No

Reference(s):

LOS-MS-M1, Revision 5, MSIV Alternate Leakage Treatment Path Verification

Actual Testing Environment: Simulator Control Room In-Plant Other

Testing Method: Simulate Perform

Estimated Time to Complete: 10 minutes

Actual Time Used: _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date:** _____

INITIAL CONDITIONS

1. You are the Admin NSO
2. Unit 1 is in Mode 1 at 100% RTP

INITIATING CUE

The Unit Supervisor directs you to perform LOS-MS-M2, "MSIV Alternate Leakage Treatment Path Verification."

Exelon Nuclear

Job Performance Measure

Calculating UAT 141 Operating Parameters/Limits

JPM Number: A-RO-24

Revision Number: 03

Date: 7 / 23 / 2020

Developed By: _____
Instructor Date

Validated By: Hodgen/Backo 8/29/2020
SME or Instructor Date

Reviewed By: _____
Training Department Date

Approved By: _____
Operations Representative 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 9 and 13 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, simulator, or other)
- _____ 4. Initial setup conditions are identified.
- _____ 5. Initiating cue (and terminating cue if required) 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. If an alternate path is used, the task standard contains criteria for successful completion.
- _____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
 Procedure LOA-TRAN-101 Rev: 031
 Procedure _____ Rev: _____
 Procedure _____ Rev: _____
- _____ 10. Verify cues both verbal and visual are free of conflict.
- _____ 11. Verify performance time is accurate
- _____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- _____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

- Revision 00** New JPM written for the 2011 Annual Exam by G. W. Beale.
- Revision 01** Updated for ILT Class 13-01 Cert Exam. Revised the title to accurately reflect the operators' response to a UAT, not SAT, trouble. Revised to include the latest JPM template and procedure revisions.
- Revision 02** Updated for the ILT 19-1 NRC Exam.
- Revision 03** Added a task standard following NRC submittal

SETUP INSTRUCTIONS

1. Reset the simulator to IC 218 (pwd 0218).
2. Go to RUN.

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

3. Insert the following Malfunction for this JPM:
 - **imf r0164 on** (1PM01J-A305, UAT 141 Trouble alarm ON)
4. Provide the examinee an unmarked copy of:
 - LOA-TRAN-101 Attachment B, SAT 142/UAT 141 OPERATING PARAMETERS/LIMITS
5. Verify that the following equipment is available in the simulator.
 - A calculator
6. This completes the setup for this JPM.

INITIAL CONDITIONS

You are an extra NSO

- Unit 1 is at rated conditions.
- It is a hot summer day.
- Unit 1 UAT has alarmed and current oil temperature is 92°C and stable.
- Outside Rounds reports the following:
 - No Oil pumps are running on Unit 1 UAT
 - 9 fans are running on Unit 1 UAT
 - SAT Oil Temperature is 70°C and stable
 - An Equipment Operator is standing by to assist you.

INITIATING CUE

The Unit Supervisor has assigned you to perform LOA-TRAN-101 Attachment B Steps 3 and 9 for Unit 1 UAT only. Notify US when Attachment B of LOA-TRAN-101 is complete. All other sections of LOA-TRAN-101 will be performed by another NSO.

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.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the Candidate had while performing the JPM. Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
<p>Note: In the following step the Examinee may use Control Board Meters or computer points to determine the voltage and currents for the UAT. Numbers do not have to be written down as long as they are determined.</p> <p>Examinee should start on step 3.</p> <p>The following calculation is used to determine SAT and UAT KVA:</p> $kVA = \frac{(1.73)[(Ix*Vx) + (Iy*Vy)]}{1000}$					
*1	I _x =X Winding current (amps)	Examinee determines 6.9 KV amps to be between 900 and 1100 amps.	—	—	—
*2	I _y =Y Winding current (amps)	Examinee determines 4.16 KV amps to be between 900 and 1100 amps.	—	—	—
*3	V _x =X Winding voltage (volts)	Examinee determines 6.9 KV voltage to be between 6600 and 7000 amps.	—	—	—
*4	V _y =Y Winding voltage (volts)	Examinee determines 4.16 KV voltage to be between 4100 and 4300 amps.	—	—	—
5	$kVA = \frac{(1.73)[(Ix*Vx) + (Iy*Vy)]}{1000}$	Examinee determines kVA for UAT. Answer must be less than 43, 700 KVA	—	—	—
<p>Note: Examinee should move on to Step 9 for UAT</p>					
6	Number of oil pumps running	Examinee determines from initial conditions that no oil pumps are running.	—	—	—
7	Number of fans running for Acceptable KVA	Examinee determines from initial conditions that 9 fans are running.	—	—	—

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
*8	Verification Table in Step 9 is met.	Examinee determines the that load on UAT is less than 43,700 kVA and therefore the transformer is self cooled.	—	—	—
9	Inform US that Attachment B is complete.	Examinee informs US that Attachment B is complete.	—	—	—
CUE	Acknowledge report. The JPM is considered complete at this time.				

JPM Stop Time: _____

JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: EO RO SRO FS STA/IA SRO Cert

JPM Title: Calculating UAT 141 Operating Parameters/Limits

JPM Number: A-RO-24 Revision Number: 03

Task Number and Title: 5.005 Provided initial conditions, perform Control Room Action for a Transformer Trouble Alarm IAW station procedures.

Task Standard: Given a UAT trouble alarm calculate the operating parameters and ensure they are within the UAT cooling requirements and load limits IAW LOA-TRAN-101, Unit 1 Transformer Trouble attachment B.

K/A Number and Importance: 2.2.44 (4.2) Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions

Suggested Testing Environment: Simulator

Alternate Path: Yes No SRO Only: Yes No Time Critical: Yes No

Reference(s): LOA-TRAN-101, Unit 1 Transformer Trouble, Rev.30

LOR-1PM01J-A305, Unit Auxiliary Transformer 141 Trouble Alarm, Rev. 4

Actual Testing Environment: Simulator Control Room In-Plant Other

Testing Method: Simulate Perform

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 standards contained within this JPM and has been determined to be: Satisfactory Unsatisfactory

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date:** _____

INITIAL CONDITIONS

You are an extra NSO

- Unit 1 is at rated conditions.
- It is a hot summer day.
- Unit 1 UAT has alarmed and current oil temperature is 92°C and stable.
- Outside Rounds reports the following:
 - No Oil pumps are running on Unit 1 UAT
 - 9 fans are running on Unit 1 UAT
 - SAT Oil Temperature is 70°C and stable
 - An Equipment Operator is standing by to assist you.

INITIATING CUE

The Unit Supervisor has assigned you to perform LOA-TRAN-101 Attachment B Steps 3 and 9 for Unit 1 UAT only. Notify US when Attachment B of LOA-TRAN-101 is complete. All other sections of LOA-TRAN-101 will be performed by another NSO.

Exelon Nuclear

Job Performance Measure

Evaluate Eligibility of a Radiological Worker

JPM Number: A-RO-08

Revision Number: 03

Date: 7 / 23 / 2020

Developed By: _____
Instructor Date

Validated By: Hodgen/Keller 8/21/2020
SME or Instructor Date

Reviewed By: _____
Training Department Date

Approved By: _____
Operations Representative 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 9 and 13 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, simulator, or other)
- _____ 4. Initial setup conditions are identified.
- _____ 5. Initiating cue (and terminating cue if required) 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. If an alternate path is used, the task standard contains criteria for successful completion.
- _____ 9. Verify the procedure(s) referenced by this JPM reflects the current revision:
 Procedure RP-AA-203 Rev: 005
 Procedure _____ Rev: _____
 Procedure _____ Rev: _____
- _____ 10. Verify cues both verbal and visual are free of conflict.
- _____ 11. Verify performance time is accurate
- _____ 12. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- _____ 13. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Revision Record (Summary)

- | | |
|--------------------|---|
| Revision 00 | New JPM. |
| Revision 01 | editorial changes for RWP # and date, changed numbers to reflect new Exelon admin limit without extension of 2000 mRem. |
| Revision 03 | JPM updated for the ILT 19-1 NRC Exam. |
| Revision 04 | Added a task standard and radiation survey map following NRC submittal |

SETUP INSTRUCTIONS

1. The following material may be located and utilized by the examinee:
 - RP-AA-203, Exposure Control and Authorization

INITIAL CONDITIONS

You are an extra NSO

- Today is November 11, 2020
- The Unit is at 100% RTP.
- Your current exposure history is:
 - Annual LSCS TEDE Dose – 1970 mrem
- You have been directed to support FIN team for NON-EMERGENCY maintenance on 1C11-F453A in the '1A' RWCU pump room.
- RWP exposure limit for the job is 50 mrem.
- It is expected that the task will take 30 minutes.

INITIATING CUE

The Unit Supervisor has ordered you to review the above conditions to determine if you are able to complete the task. Inform the Unit Supervisor when complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

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Information For Evaluator's Use:

Calculations to support Standards:

STEP 2 1970 mrem + 37.5 mrem (this job) = 2007.5 mrem which is above the administrative limit for Exelon personnel at all sites. Cannot complete this job.

STEP 4 Can receive 30 mrem without exceeding the limit.
 75 mrem field near the valve.
 30 mrem / 75 mrem = x minutes / 60 minutes
 24 minute stay time

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section. The comment section should be used to document: the reason that a step is marked as unsatisfactory, marginal performance relating to management expectations, or problems the examinee had while performing the JPM.

Comments relating to procedural or equipment issues should be entered and tracked using the site's appropriate tracking system.

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.

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JPM Start Time: _____

<u>STEP</u>	<u>ELEMENT</u>	<u>STANDARD</u>	SAT	UNSAT	Comment Number
NOTE: Examinee may obtain a copy of RP-AA-203.					
NOTE: Hand the Examinee a copy of the survey map of the RT Pump Rooms.					
1	Obtain a copy of RP-AA-203	Examinee obtains a copy of RP-AA-203.	—	—	—
CUE	If requested, provide a copy of RP-AA-203.				
*2	Determine if dose will be exceeded.	Examinee determines that they cannot perform the job without exceeding the administrative limit.	—	—	—
3	Inform Unit Supervisor.	Examinee informs Unit Supervisor that they would exceed the administrative limits to complete the job.	—	—	—
CUE	As Unit Supervisor, acknowledge report and then state: We really need you to support the job. How long can you support the job without an extension?				
*4	Determine maximum stay time.	Examinee determines maximum stay time of 24 minutes and informs Unit Supervisor.	—	—	—
CUE	As Unit Supervisor, acknowledge report. JPM is complete				

JPM Stop Time: _____

.....

JPM SUMMARY

Operator's Name: _____ **Emp. ID#:** _____

Job Title: EO RO SRO FS STA/IA SRO Cert

JPM Title: Evaluate Eligibility of a Radiological Worker

JPM Number: A-RO-08 Revision Number: 03

Task Number and Title: NGET task

Task Standard: Review a survey map and determine if work can be completed without exceeding radiation limit for TEDE of 2000 mrem/hr per RP-AA-203, "Exposure Control and Authorization". If a limit would be exceeded calculate how long you can work until you are at your limit.

K/A Number and Importance: 2.3.7 (3.5) Ability to comply with radiation work permit requirements during normal or abnormal conditions.

Suggested Testing Environment: Classroom

Alternate Path: Yes No SRO Only: Yes No Time Critical: Yes No

Reference(s): RP-AA-203, Exposure Control and Authorization, Rev.5

Actual Testing Environment: Simulator Control Room In-Plant Other

Testing Method: Simulate Perform

Estimated Time to Complete: 10 minutes **Actual Time Used:** _____ minutes

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ **Date:** _____

INITIAL CONDITIONS

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- RWP exposure limit for the job is 50 mrem.
- It is expected that the task will take 30 minutes.

INITIATING CUE

The Unit Supervisor has ordered you to review the above conditions to determine if you are able to complete the task. Inform the Unit Supervisor when complete.

RADIATION WORK PERMIT

LaSalle Nuclear Power Station

Operations Department Activities	 LA-0-20-00102 Revision: 00
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Comments: Passport RWP #10017733		
Access List Required: N	<u>Begin Date</u> 1/1/2016	<u>Close On Date</u> 12/31/2016

Locations		
Buildings	Elevations	Rooms
Reactor Building	761	A RT Pump Room
Back Out Radiological Conditions		
Description	Value	Unit
N/A		
RWP Tasks		
Task	Description	Status
1	Operations Activities Not Requiring ALARA Planning	Active
RWP Requirements		
Requirement Groups	Requirement Descriptions	
N/A		
Additional Instructions		
RP Brief is required prior to accessing areas greater than 7 ft.		
Approvals		
Approver Title	Name	Date
RWP Approver	CRYMES, KEVIN D	
Attachments		
N/A		

RADIATION WORK PERMIT

LaSalle Nuclear Power Station

Operations Activities Not Requiring ALARA Planning	LA-0-20-00102	1
	Revision: 00	Task

This Task Permits HRA Access. A specific HRA brief by RP is required for entry.

Access List Required: <input checked="" type="checkbox"/>	Task Status: Active
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Alarm Settings

	Dose (mrem)	Back Out (80%) Dose (mrem)	Dose Rate (mrem/hr)
Gamma	50	40	200

Back Out Radiological Conditions

Description	Value	Unit
Gamma Dose Rate General Area	>400	mrem/hr
Beta/Gamma Loose Surface Contamination General Area	>200K	dpm/100cm ²
Alpha Loose Surface Contamination General Area	>20	dpm/100cm ²
Particulate and Iodine DAC	>0.3	DAC

RWP Requirements

Requirement Groups	Requirement Descriptions
1. Risk Level	N/A
2. Alpha Level	Alpha Level 1
3. RP Coverage	RP required for working across Contaminated Area boundary
5. Dosimetry	Electronic Dosimeter and DLR required
7. Protective Clothing	See RP-AA-410 Attachment 1. *Any deviations will be documented in the RWP Log and Approved by RPSS. - *Use of alternate gloves may be authorized by RP.

Additional Instructions

RP Brief is required prior to accessing areas greater than 7 ft.

RP HOLD POINTS: (Worker actionable steps)
 CONTACT RP BEFORE PERFORMING THE FOLLOWING:

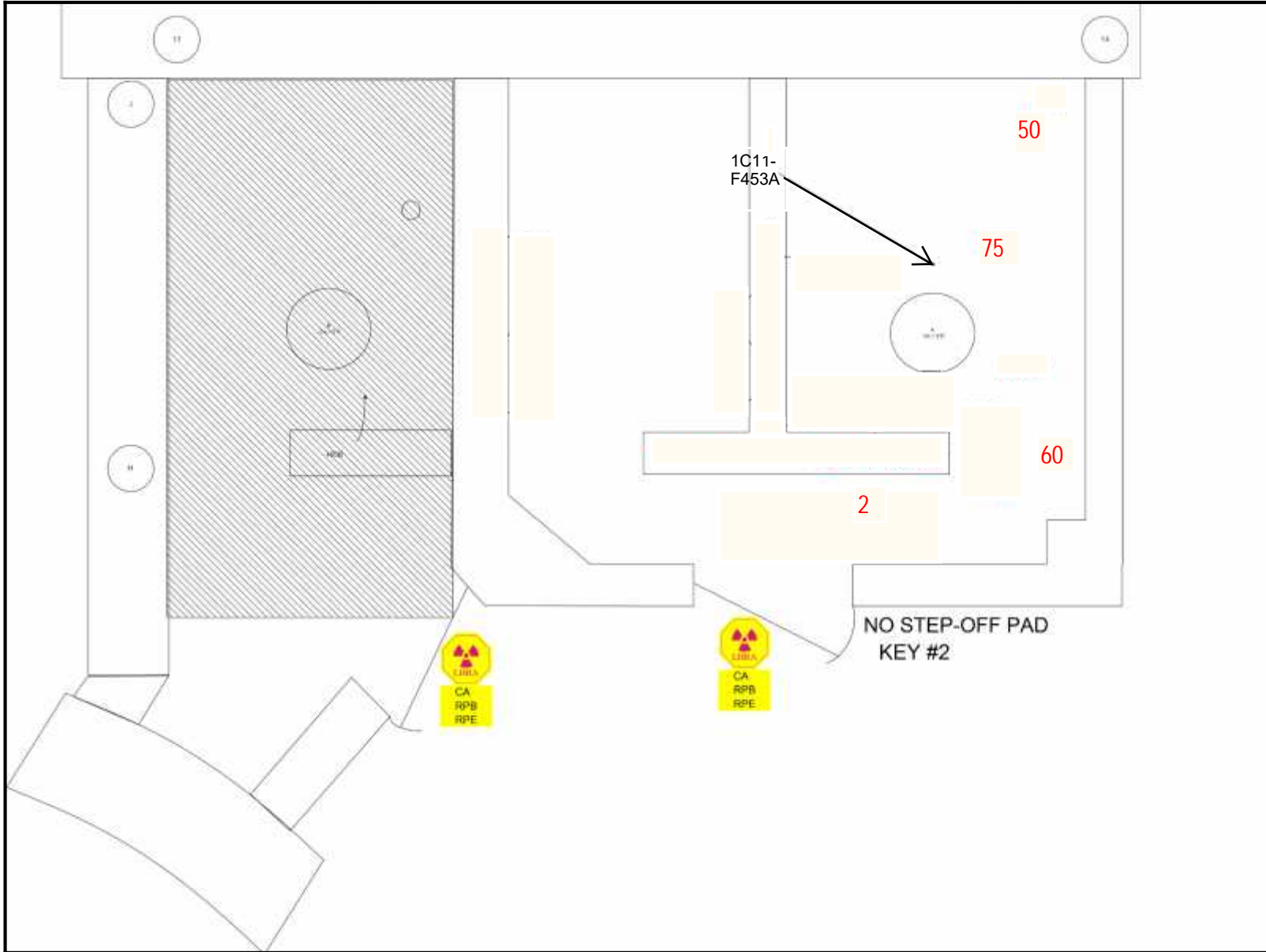
- * Removing material from a contaminated area
- * Erecting scaffolding / Ladders / moving tele-scaffolds
- * Draining systems
- * Opening process lines
- * Breaching a contaminated system
- * Packing or insulation removal
- * Installing, modifying or removing lead shielding
- * Welding/cutting/grinding of contaminated equipment/material
- * Using any volatile solvents
- * Cleaning, brushing, scotchbriting contaminated equipment/material
- * Personnel to utilize low dose areas and avoid hot spots.
- * Transfer components as removed to maintain work area dose rates ALARA.
- * Personnel are to be aware of general area dose rates and contamination levels prior to commencing activities.
- * When exiting satellite RCAs personnel shall perform a hand-and-shoe frisk and proceed to nearest whole body monitor.

Attachments

N/A

STATION	UNIT	BLG	ELEV	ROOM#	MAP#	AREA DESC/COMPONENT	DATE	TIME	RX POWER	H2SCFM	SURVEY #
LAS	1	React	761	RT Pump	820	RT Pump Rooms	11/03/2020	12:25	U1[0.00] U2[0.00] MWe	N/A	2020-069411

*Unless otherwise noted on the survey, all radiation dose rates are in mRem/hr and contamination units are in dpm/100cm2 (beta/gamma contamination)



RADIATION AREA RANGE

2 TO 75 mRem/hr

AIRBORNE RESULTS
UID (Unidentified DAC)

N/A

CONTAMINATION SURVEY RESULTS

N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

dpm/LAS ncpm/LAS
 dpm/100cm2 mRad/hr/100cm2

ALPHA CONTAMINATION RESULTS

#	DPM/100CM2	RATIO (B/G:A)
N/A	N/A	N/A

NOTES: 1C11-F453A work

SURVEYORS: John Smith

SURVEY INSTRUMENT INFORMATION

INST. TYPE	INST. NUMBER	CAL DUE	MDA*
RO-20	079228	02/02/2021	N/A

* INSTRUMENT MDA IS IN DPM UNLESS OTHERWISE SPECIFIED

SURVEY #	APPROVED BY	EMPLOYEE ID #
2020-069411	Doug Williams	001234

DATE	TIME	SURVEY TYPE
11/03/2020	12:25	Other

RWP #	WO #	SURVEY DOSE
LA-1-20-00304	N/A	9.50

TEMPLATE #	DESCRIPTION
820	1RB761 RT Pump Rooms

NEXT DUE DATE	RX POWER	H2 SCFM
N/A	U1[0.00] U2[0.00] MWe	N/A

SURVEYOR NAME	EMPLOYEE ID #
John Smith	012345

NOTES:

Survey Comments: 1C11-F453A work

COMMON POSTINGS, ABBREVIATIONS & SYMBOLS: (VHRA)-Very High Rad Area (LHRA)-Locked High Rad Area (HRA)-High Rad Area (KO)-Keep Out (RA)-Radiation Area (RCA)-Radiologically Controlled Area (RM)-Radioactive Materials (ARA)-Airborne Radioactivity Area (CA)-Contaminated Area (HCA)-High Contamination Area (DRP)-DRP Buffer Area (L2AA)-Level 2 Alpha Area (L3AA)-Level 3 Alpha Area (RPB)- Radiation Protection Brief Required For Entry (NMR)-Neutron Monitoring Required (RPE)- Radiation Protection Escort Required For Entry (RWP)- Radiation Work Permit Required For Entry (DRFE)-Dosimetry Required For Entry (CRP7)-Contact RP Prior To Working Above 7FT (NEDS)-No Eating Drinking Smoking (ND)-Non Detectable (NDB)-No Detectable Beta (t:)-Telemetry (#)-Gamma Dose Rate(mRem/hr) (#B)-Beta Dose Rate(mRad/hr) (#N)-Neutron Dose Rate(mRem/hr) (**/#)-Dose Rate @ Contact/30cm (H|C|W|K)-Head|Chest|Waist|Knee (K)-Kilo x 1000 (LAS)-Large Area Smear (DRP)-Discrete Radioactive Particle (DPM)-Disintegrations per Minute ()-Smear Location ()-Radiological Boundary ()-Step Off Pad ()-Air Sample Location