DUANE ARNOLD ENERGY CENTER

JOB PERFORMANCE MEASURE

2007 NRC EXAM ADMIN JPM COO1

TITLE: Generate a Fire Impairment

	JOB PERFORMANCE MEASURE (JPM)

SITE: DAEC

JPM TITLE: **Generate a Fire Impairment for an Appendix R Barrier, Complete appropriate paperwork.**

JPM NUMBER: **2007 NRC ADMIN JPM COO1** **REV. 0**

RELATED PRA INFORMATION:

TASK NUMBER(S) / TASK TITLE(S):

K/A NUMBERS AND VALUES:

Justification (FOR K/A VALUES <3.0):

APPLICABLE METHOD OF TESTING: ☐ **RO** ☒ **SRO** ☐ **STA** ☐ **NSPEO** ☒ **SRO CERT**

Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION:

In-Plant:	[ ]	Control Room:	[ ]
Simulator:	[X]	Other:	[ ]
Lab:	[ ]		

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO

Developed by:	Instructor	Date
Validated by:	Validation Instructor	Date
Reviewed by:	Plant Reviewer	Date
Approved by:	Training Supervisor	Date

2007 NRC ADMIN C001, Generate Fire Impairment, Rev. 0

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15. Are all critical steps clearly identified by procedural guidance? If licensing, EP or other groups were needed to determine correct actions, then the answer should be NO. (ACE 1729)	☐	☐	☐
16. If the JPM is to be administered for initial qualification, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge. (ACE 1729)	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

SIMULATOR SET UP: (*Modify table as necessary) (Only required for simulator JPMs)*

Simulator Setup Instructions:
1. None

SIMULATOR MALFUNCTIONS:
EVENT TRIGGERS:

None

SIMULATOR MALFUNCTIONS:

None

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

Required Materials: DAEC Fire Plan – Volume 1
ACP1412.4 – Impairments to Fire Protection Systems

ACP 1412.4 Work Request Card and Answer Key

General References: DAEC Fire Plan – Volume 1
ACP1412.4 – Impairments to Fire Protection Systems

Task Standards:

1. Identify that Door 405 is in the Fire Plan as an Appendix R barrier
2. Declare the door inoperable
3. Enter FPLCO 12.1.F.1 –Condition A.
4. Identifies that an hourly firewatch is required.
5. Complete Fire Impairment as attached.

NOTE: The steps may be completed in any order however the form must be completed as per the attached key.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Control Room Supervisor on Night Shift
- DAEC is operating in Mode 1.
- The NSPEO just informed you that while going through Door 405, he observed one of the hinges broken and the door would not close fully.
- Security has been notified.
- There are no Fire Suppression systems or Fire Detection systems inoperable.
- The Fire Marshall is not on site.
- Work request card A81700 has been generated by the NSPEO.

INITIATING CUES:

You are directed to complete a Fire Protection Impairment Request to address the issue found by the NSPEO and complete the appropriate sections.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

EXAMINER NOTE: Provide the candidate with the completed Work Request Card when going over the initiating cue.

INITIAL CONDITIONS:

- You are the Control Room Supervisor on Night Shift
- DAEC is operating in Mode 1.
- The NSPEO just informed you that while going through Door 405, he observed one of the hinges broken and the door would not close fully.
- Security has been notified.
- There are no Fire Suppression systems or Fire Detection systems inoperable.
- The Fire Marshall is not on site.
- Work request card A81700 has been generated by the NSPEO.

INITIATING CUES:

You are directed to complete a Fire Protection Impairment Request to address the issue found by the NSPEO and complete the appropriate sections.

JPM PERFORMANCE INFORMATION

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Performance Step: **Critical N**	Reviews procedures: DAEC Fire Plan – Volume 1 and ACP1412.4 – Impairments to Fire Protection Systems
Standard:	DAEC Fire Plan – Volume 1 and ACP1412.4 – Impairments to Fire Protection Systems reviewed
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	

Performance Step: **Critical**	Identifies the following and documents appropriately on the Fire Protection impairment form. 1. Identify that Door 405 is in the Fire Plan as an Appendix R barrier 2. Declare the door inoperable 3. Identifies FPLCO 12.1F –Condition A. 4. Identifies that an hourly firewatch is required. 5. Complete Fire Impairment as attached. NOTE: The steps may be completed in any order however the form must be completed as per the attached key.
Standard:	Form filled out correctly
Performance:	**SATISFACTORY** **UNSATISFACTORY** _____
Comments:	NOTE: The steps may be completed in any order however the form must be completed as per the attached key. FPLCO just needs to be identified, e-log or paperwork is not required.

Terminating Cues: Fire Impairment completed.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator. (CA 46394)

Stop Time: _____

2007 NRC ADMIN C001, Generate Fire Impairment, Rev. 0

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **NSPEO** ☐ **SRO CERT** **Date:** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Remediation required: **YES** ☐ **NO:** ☐ **YES:** ☐

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

DUANE ARNOLD ENERGY CENTER

JOB PERFORMANCE MEASURE

2007 NRC EXAM ADMIN JPM COO2

TITLE: Evaluate control room Instrument Checks, OOS readings, TS requirements

SITE: **DAEC**

JPM TITLE: Evaluate control room Instrument Checks, OOS readings, TS requirements

JPM NUMBER: **2007 NRC ADMIN COO2** **REV.** **0**

RELATED PRA INFORMATION:

TASK NUMBER(S)/ TASK TITLE(S):

K/A NUMBERS: **2.1.18 SRO 3.0, 2.1.12 SRO 4.0**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/STA

Developed by:	Instructor	Date
Validated by:	Validation Instructor	Date
Reviewed by:	Plant Reviewer	Date
Approved by:	Training Supervisor	Date

JPM Number: **2007 NRC ADMIN JPM EC**

JPM Title: Evaluate control room Instrument Checks, OOS readings, TS requirements

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER
Use OTI 105 Attachment 6, DAEC Walkthrough Exam Briefing Checklist, to conduct the JPM Briefing.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Control Room Supervisor
- DAEC is operating in Mode 1.

EXAMINER NOTE: Provide candidate with completed log pages for evaluation

INITIATING CUES:

You are directed to review Instrument checks for accuracy and determine any appropriate actions..

JPM PERFORMANCE INFORMATION

Required Materials:

1. Calculator
2. The marked up STP 3.0.0-01 with OOS readings recorded

Marked Up STP 3.0.0-01

General References: None

Task Standards:

1. Identifies 80% of OOS readings (4 out of 5)
2. Corrects inaccurate entries
3. identifies Technical Specification required actions

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

EXAMINER NOTE:
Provide the candidate with a portion of the control room logs.
Each item is considered a critical step

Performance Step: **Critical Y (SEQ-)**	Reviews logs
Standard:	Determines that the following items are OOS or incorrect and associated TS, if any, must be addressed 1. Page 33 - Panel 1C19 – RWCU -Difference between FI 2749 and Calculated Flow HIGH (logged as 12) – TS entry 3.3.6.1 Condition A 2. Page 33 – Panel 1C06 – River Water Supply Flow – FI 4916 or FI 4917 – Flow on "C" indicates LOW (logged as 5200 gpm) – IST Program, LCO is met, Pump is INOP. 3. Page 39 – Panel 1C21 – Reactor Vessel Pressure relief Valve Bellows Integrity Light for PSV 4401 is OFF – TS 3.4.3, Condition A. 4. Page 40 – SBLC, Effective Tank Level in Gallons is calculated and therefore plotted wrong. (Logged as 2555, actual is 2429) – TS 3.1.7 Condition B 5. Page 40 – SBLC – Tank Level vs Boron Concentration plotted wrong. – TS 3.1.7 Condition B
Performance: **COMMENTS:**	**SATISFACTORY** **UNSATISFACTORY** _____ **NOTE: Step is SATISFACTORY with a performance level of 80% (4 out of 5 items identified and addressed** **NOTE: See attached answer key**

Terminating Cues: Logs reviewed, deficiencies noted, TS addressed.

Stop Time: _____

SIMULATOR SET UP: None

EVENT TRIGGERS:

None

SIMULATOR MALFUNCTIONS:

None

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

INSTRUCTOR ACTIONS:

1. Read initial conditions and initiating cues to the operator.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Control Room Supervisor
- DAEC is operating in Mode 1.

EXAMINER NOTE: Provide candidate with completed log pages for evaluation

INITIATING CUES:

You are directed to review Instrument checks for accuracy and determine any appropriate actions..

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

DUANE ARNOLD ENERGY CENTER

JOB PERFORMANCE MEASURE

2007 NRC EXAM ADMIN JPM EC

TITLE: Determine operability, reportability and technical specification requirements for an identified equipment deficiency.

	JOB PERFORMANCE MEASURE (JPM)

SITE: **DAEC**

JPM TITLE: Determine operability, reportability and technical specification requirements for an identified equipment deficiency.

JPM NUMBER: **2007 NRC ADMIN EC** **REV.** **0**

RELATED PRA INFORMATION:

TASK NUMBER(S) / TASK TITLE(S):

K/A NUMBERS AND VALUES: **2.2.22 SRO 3.5**

Justification (FOR K/A VALUES <3.0):

APPLICABLE METHOD OF TESTING: ☐ **RO** ☒ **SRO** ☐ **STA** ☐ **NSPEO** ☐ **SRO CERT**

Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION:

In-Plant:	[ ]	Control Room:	[ ]
Simulator:	[X]	Other:	[ ]
Lab:	[ ]		

Time for Completion: 20 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/STA

Developed by:	Instructor	Date
Validated by:	Validation Instructor	Date
Reviewed by:	Plant Reviewer	Date
Approved by:	Training Supervisor	Date

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15. Are all critical steps clearly identified by procedural guidance? If licensing, EP or other groups were needed to determine correct actions, then the answer should be NO. (ACE 1729)	☐	☐	☐
16. If the JPM is to be administered for initial qualification, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge. (ACE 1729)	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

SIMULATOR SET UP: NONE

Simulator Setup Instructions:
1. NONE

SIMULATOR MALFUNCTIONS:
1. NONE

SIMULATOR OVERRIDES:
1. NONE

SIMULATOR REMOTE FUNCTIONS:
1. NONE

Required Materials:

TRM 3.7.3 Condition A – Structural Integrity

TS 3.5.1. Condition F.

TS/TRM LCO paperwork Key

Blank TS/TRM LCO forms

TS-HPCI.doc TRM-HPCI.doc

General References:

TRM

Technical Specifications

ACP 110.3 – Operability Determinations

Task Standards:

1. Determine that HPCI is inoperable and enter TRM 3.7.3. Condition A – Mode 3 within 12 hours.
2. Completes paperwork associated with the TRM LCO
3. Determine that with HPCI inoperable TS 3.5.1. Condition F applies – 14 day LCO
4. Completes paperwork associated with TS LCO
5. Recognizes that the HPCI inoperability is reportable to the NRC per 50.72 requirements.

TURNOVER SHEET

INITIAL CONDITIONS:

- You are the Control Room Supervisor on Night Shift
- DAEC is operating in Mode 1.
- All LCOs are met, all Technical Specifications and TRM equipment are OPERABLE
- The System Engineer just informed you that there is a steady stream of water coming from a cracked weld between the HPCI pump casing and valve V23-0012. You are also informed that the crack is on Code Class 2 piping.
- The System Engineer is writing a work request and a CAP.
- The Local Area Network (LAN) is NOT available (computers are down).

INITIATING CUES:

You are directed to assess operability, reportability and determine the actions required to address this issue and complete any associated paperwork..

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- You are the Control Room Supervisor on Night Shift
- DAEC is operating in Mode 1.
- All LCOs are met, all Technical Specifications and TRM equipment are OPERABLE
- The System Engineer just informed you that there is a steady stream of water coming from a cracked weld between the HPCI pump casing and valve V23-0012. You are also informed that the crack is on Code Class 2 piping.
- The System Engineer is writing a work request and a CAP.
- The Local Area Network (LAN) is NOT available (computers are down).

INITIATING CUES:

You are directed to assess operability, reportability and determine the actions required to address this issue and complete any associated paperwork..

JPM PERFORMANCE INFORMATION

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

EXAMINER NOTE:

The candidate will refer to TRM LCO 3.7.3 "Structural Integrity", and per the note may isolate the system, in which case a shutdown is not required. If this occurs, the candidate must then refer to Tech Specs because the system is considered inoperable when isolated. (ACP 110.3 may be referenced)

If the candidate enters the TRM Shutdown LCO (does not isolate HPCI) then the operability determination procedure, ACP 110.3, will declare that the system be declared inoperable due to leakage from a Class 2 pressure boundary. The Technical Specification must then be referenced. In either of these cases HPCI is inoperable and is reportable as noted in steps below.

See attached reference ACP 110.3

Performance Step: **Critical Y**	Refers to TRM to determine how the piping crack is addressed in the Structural Integrity Section – TRM 3.7.3
Standard:	Recognizes TRM 3.7.3 Condition A applies and determines that the plant must be in Mode 3 within 12 hours. Also reads note that states if the system is isolated then the TRM spec is not applicable. Completes associated TRM LCO worksheet if the system is not isolated.
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
COMMENTS:	**NOTE: See attached worksheet key**

Performance Step: **Critical Y**	Technical specification 3.5.1 is referenced
Standard:	Determines that TS 3.5.1 Condition F applies – 14 day LCO Completes TS LCO worksheet
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	**CUE:** If asked about risk, state that the engineer determined that HPCI should be considered unavailable. If asked, state that the HPCI INOP STP will be performed by the crew. NOTE: See attached worksheet key

EXAMINER NOTE: The candidate must now address reportability. Once the requirements are determined, tell the candidate that the reporting paperwork does not need to be completed and the JPM is complete.

Performance Step: **Critical Y**	Refers to ACP 1402.3 "Regulatory Reporting Activities", OR NUREG 1022 Event Reporting OR 10 CFR to determine reporting requirements
Standard:	Determines that per 50.72(b)(3)(V) applies and requires an 8 hour report to the NRC
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Terminating Cues: HPCI declared INOP, LCO paperwork completed, reportability determined

Stop Time: _____

2007 NRC EC, Determine Operability, Reportability, TS, Rev. #0

Examinee: _____ **Evaluator:** _____

☐ **RO** ☒ **SRO** ☒ **STA** ☐ **NSPEO** ☒ **SRO CERT** **Date:** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Remediation required: **YES** ☐ **NO:** ☐ **YES:** ☐

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

DUANE ARNOLD ENERGY CENTER

JOB PERFORMANCE MEASURE

2007 NRC EXAM ADMIN JPM RC

TITLE: Review Survey Map and Perform Dose calculation. Determine if a dose extension is required

	JOB PERFORMANCE MEASURE (JPM)

SITE:	**DAEC**
JPM TITLE:	Survey Map review and dose Calculations to determine the adequacy of the RWP dose setting and determine if a dose extension is required.
JPM NUMBER:	**2.3.10-02** **REV. 2**
RELATED PRA INFORMATION:	
TASK NUMBER(S) / TASK TITLE(S):	**1.11 (Senior Reactor Operator)**
K/A NUMBERS AND VALUES:	**Generic 2.3.10-02 3.3**
Justification (FOR K/A VALUES <3.0):	

APPLICABLE METHOD OF TESTING: ☐ **RO** ☒ **SRO** ☐ **STA** ☐ **NSPEO** ☐ **SRO CERT**

Simulate/walkthrough: ☐ Perform: X

EVALUATION LOCATION:

In-Plant:		Control Room:	
Simulator:	X	Other:	
Lab:			

Time for Completion: 25 Minutes Time Critical: NO

Alternate Path / Faulted: NO

Developed by:	Instructor	Date
Validated by:	Validation Instructor	Date
Reviewed by:	Plant Reviewer	Date
Approved by:	Training Supervisor	Date

2.3.10-02, Survey Map Review, Rev #2

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
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9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Is justification provided for tasks with K/A values less than 3.0?	☐	☐	☐
11. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
12. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
13. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
14. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐
15. Are all critical steps clearly identified by procedural guidance? If licensing, EP or other groups were needed to determine correct actions, then the answer should be NO. (ACE 1729)	☐	☐	☐
16. If the JPM is to be administered for initial qualification, has the required knowledge been taught to the individual prior to administering the JPM? TPE does not have to be completed, but the JPM evaluation may not be valid if they have not been taught the required knowledge. (ACE 1729)	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

_____ _____
Validation Personnel /Date Validation Personnel/Date

_____ _____
Validation Personnel /Date Validation Personnel/Date

2.3.10-02, Survey Map Review, Rev #2

SIMULATOR SET UP: None

Simulator Setup Instructions:
None

SIMULATOR MALFUNCTIONS:

None

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

Required Materials:

- Ensure that there is a copy of a Duane Arnold Energy Center HP Survey map of the Heater Bay.
- Ensure that there is a copy of ACP-1411.17, Occupational Dose Limits and Upgrades.
- Survey map of the Heater Bay at 61% power.
- Copy of ACP 1411.17 to write on.

General References: ACP 1411.17

Task Standards:

- Determines that the total dose for the prep, support and weld is approximately 157.5 mrem.
- Determine that the worker **will** need a dose extension.

TURNOVER SHEET

INITIAL CONDITIONS:

The plant is operating at about 60% power.

The date is currently 11/28/07. You are the CRS.

The piping supporting Level Transmitter LT-1065B, to the drain valve of 1T93A Moisture Separator Drain Tank that controls the Drain to the 1E-05A heater, has failed.

The old piping and LT have been removed. The New piping and LT are ready for installation.

Brad Pit is the only qualified welder who can perform the job.

A welder apprentice has run all of the required material to the job site.

The following are the estimated times required for the job:

- 10 minutes to prep the welds.
- 20 minutes to secure the new LT and pipes in place.
- 15 minutes to actually weld the pipes.

Brad has received 1855 mrem for the year.

Scaffolding for the job has been erected at location 5 on the survey map.

INITIATING CUES (IF APPLICABLE):

Given a Duane Arnold survey map, determine the specific dose for the job, and any other dose considerations, if any.

Show all work assumptions on the survey map.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

The plant is operating at about 60% power.

The date is currently 11/28/07. You are the CRS.

The piping supporting Level Transmitter LT-1065B, to the drain valve of 1T93A Moisture Separator Drain Tank that controls the Drain to the 1E-05A heater, has failed.

The old piping and LT have been removed. The New piping and LT are ready for installation.

Brad Pit is the only qualified welder who can perform the job.

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Brad has received 1855 mrem for the year.

Scaffolding for the job has been erected at location 5 on the survey map.

INITIATING CUES (IF APPLICABLE):

Given a Duane Arnold survey map, determine the specific dose for the job, and any other dose considerations, if any.

Show all work assumptions on the survey map.

JPM PERFORMANCE INFORMATION

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Performance Step: **Critical** Y	Determine the dose needed for the job.
Standard:	Determines that the total dose for the prep, support and weld is approximately 157.5 mrem.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	Note, the Candidate may add some additional dose for the trip to and from the job. This will not affect the fact that Brad will need a dose extension for the job.

Performance Step: **Critical** Y	Determine **if** the worker will need a dose extension.
Standard:	Determine that the worker **will** need a dose extension.
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	_____

Performance Step: **Critical Y**	Per ACP 1411.17, the workers first line supervisor may extend the individuals dose.
Standard:	Determine that Brad's supervisor or higher will have to extend his dose to greater than 2000 mrem.
Performance:	**SATISFACTORY _____ UNSATISFACTORY _____**
Comments:	_____

Terminating Cues: The JPM is complete when the candidate has determined the dose for the weld job, and the first line supervisor, or higher, must grant a dose extension.
If the Candidate continues on with ACP 1411.17 requirements, **Cue** him that the Shift Manager will identify the other requirements. The JPM is complete.

NOTE: Ensure the turnover sheet that was given to the examinee is returned to the evaluator. (CA 46394)

Stop Time: _____

Examinee: _____ **Evaluator:** _____

☐ **RO** ☐ **SRO** ☐ **STA** ☐ **NSPEO** ☐ **SRO CERT** **Date:** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

Remediation required: **YES** ☐ **NO:** ☐ **YES:** ☐

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

DUANE ARNOLD ENERGY CENTER

JOB PERFORMANCE MEASURE

2007 NRC EXAM ADMIN JPM EP

TITLE: PERFORM OP 28, EPIP OFFSITE AGENCIES NOTIFICATION WEEKLY TEST (ALTERNATE PATH)

SITE: **DAEC**

JPM TITLE: **PERFORM OP 28, EPIP OFFSITE AGENCIES NOTIFICATION WEEKLY TEST (ALTERNATE PATH)**

JPM NUMBER: **2.4.43-01** **REV.** **3**

RELATED PRA INFORMATION:

TASK NUMBER(S)/ TASK TITLE(S): **SRO 3.01**
STA 4.09

K/A NUMBERS: **GENERIC** **2.4.43** **2.8/3.5**

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [X] Perform: [ ]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 15 Minutes Time Critical: NO

Alternate Path / Faulted: NO

TASK APPLICABILITY: SRO/STA

Additional signatures may be added as needed.

Developed by:	Instructor	Date
Validated by:	Validation Instructor	Date
Reviewed by:	Plant Reviewer	Date
Approved by:	Training Supervisor	Date

JPM Number: 2.4.43-01

JPM Title: PERFORM OP 28, EPIP OFFSITE AGENCIES NOTIFICATION WEEKLY TEST (ALTERNATE PATH)

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

JPM BRIEFING/TURNOVER
Use OTI 105 Attachment 6, DAEC Walkthrough Exam Briefing Checklist, to conduct the JPM Briefing.

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

- This JPM is to be simulated.
- You are the Control Room Supervisor.
- It is Wednesday at 10:00 am.
- The STA is out of the Control Room.

INITIATING CUES (IF APPLICABLE):

- The Shift Manager directs you to perform OP-28, EPIP Offsite Agencies Notification Weekly Test.

JPM PERFORMANCE INFORMATION

Required Materials: OP-28, EPIP OFFSITE AGENCIES NOTIFCATION WEEKLY TEST

OP-028 Rev 14 Fax Report

General References: OP-28, EPIP OFFSITE AGENCIES NOTIFCATION WEEKLY TEST

Task Standards: NOTE: This test would normally be performed by the OSS or STA. Notifications would be made by Operations personnel during a Security Emergency.

1. Communication has been established with offsite agencies. (Linn County, Benton County and Iowa Emergency Management Agencies) Simulated
2. A roll call of offsite agencies is performed to confirm that they are on line. Simulated0
3. Offsite agencies notified that this a test of the DAEC Notification System and that a FAX will be sent. Simulated
4. Message receipt is confirmed by all offsite agencies. Simulated
5. FAX form inserted into the Control Room FAX machine. Simulated
6. #01 push button depressed. Simulated
7. Linn County has been contacted using the numbers in the Emergency Telephone Book Simulated

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e. the examinee looks or asks for the indication).

NOTE: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

Performance Step: **Critical Y**	Pick up Control Room Microwave telephone receiver, dial 9999.
Standard:	Communication has been established with offsite agencies. (Linn County Emergency Management Agency, Benton County Emergency Management Agency, and Iowa Emergency Management Division) Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	NOTE: Linn County Emergency Management Agency DOES NOT ANSWER

Performance Step: **Critical N**	After the offsite agencies have answered, or approximately 12 rings, dial #### to cancel the ringer.
Standard:	#### dialed. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: **Critical** Y	Perform a roll call of offsite agencies to confirm that they are on line.
Standard:	A roll call of offsite agencies is performed to confirm that they are on line. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	CUE the student that Benton County Emergency Management Agency and Iowa Emergency Management Division agencies answer but, Linn County Emergency Management Agency does not answer.

Performance Step: **Critical** Y	Inform offsite agencies "This is a test of the DAEC Notification System. A test FAX will be sent. Please call back at 2222 if the FAX is not received."
Standard:	Offsite Agencies notified that this is a test of the DAEC Notification System and that a fax will be sent. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: **Critical** Y	Ask for confirmation of message receipt.
Standard:	Message receipt is confirmed by all offsite agencies. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	CUE: Inform the student that Benton County Emergency Management Agency and Iowa Emergency Management Division agencies respond that they received the message but, Linn County does not reply.

Performance Step: **Critical** N	Hang up the microwave telephone receiver.
Standard:	Microwave telephone receiver hung up. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: **Critical** Y	Insert FAX form (Attachment 1) into Control Room FAX face down.
Standard:	FAX form inserted into the Control Room FAX machine. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Performance Step: **Critical** Y	After "Document Ready" message is displayed, push button #01 for normal hours or #02 for off-hours
Standard:	#01 push button depressed. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	Cue: When asked if "Document Ready" is observed reply that it is.

Performance Step: **Critical** N	After the FAX has been sent, the machine will print out "**MULTI TX/RX REPORT**". Include this with the procedure.
Standard:	**MULTI TX/RX REPORT** included with OP-28. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	Cue: **MULTI TX/RX REPORT** has been printed OR you may give the candidate the included Fax Report.

Performance Step: **Critical** N	Verify that the **MULTI TX/RX REPORT** indicates the FAX forms were received by **"TRANSACTION OK".**
Standard:	Receipt of the Fax forms has been verified. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	Cue: **MULTI TX/RX REPORT** indicates that the FAXes were received by **"TRANSACTION OK".** Cue not needed if Fax Report given.

Performance Step: **Critical** Y	If any offsite agencies cannot be contacted via the Control Room microwave telephone, contact those agencies using the telephone numbers in the Emergency Telephone Book, Manual Notifications Process section, part 1.0 (MANUAL STATE & COUNTY NOTIFICATIONS). (N/A if no problems).
Standard:	Linn County has been contacted using the numbers in the Emergency Telephone Book. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	Number from Emergency Telephone Book for the Linn County Emergency management is 363-2671 or 398-3911. When the student identifies the correct telephone number, respond as Linn County Emergency Management and report that you understand the message that this is a test .

Performance Step: **Critical** N	If any problems are encountered with the FAX, inform the Manager of Emergency Planning during normal working hours. (N/A if no problems)
Standard:	Manager of Emergency Planning notified of any problems noted during the test. Simulated
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	This step will be NA'd.

Performance Step: **Critical** N	Section 8.0 ACCEPTANCE CRITERIA completed.
Standard:	Section 8.1 • Problems encountered; Yes • An AR should be completed, but at least a comment should be entered regarding microwave telephone. Section 8.2 • Test Comments • Test Date • CRS Signature and Date
Performance:	**SATISFACTORY** _____ **UNSATISFACTORY** _____
Comments:	

Terminating Cues: OP-28 completed.

Stop Time: _____

SIMULATOR SET UP: None

EVENT TRIGGERS:

None

SIMULATOR MALFUNCTIONS:

None

SIMULATOR OVERRIDES:

None

SIMULATOR REMOTE FUNCTIONS:

None

INSTRUCTOR ACTIONS:

1. Read initial conditions and initiating cues to the operator.

TURNOVER SHEET

INITIAL CONDITIONS:

- This JPM is to be simulated.
- You are the Control Room Supervisor.
- It is Wednesday at 10:00 am.
- The STA is out of the Control Room.

INITIATING CUES (IF APPLICABLE):

- The Shift Manager directs you to perform OP-28, EPIP Offsite Agencies Notification Weekly Test.

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	☐	☐	☐
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	☐
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	☐
6. Has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required?	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required?	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	☐
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	☐	☐	☐
12. Are all references identified, current, accurate, and available to the trainee?	☐	☐	☐
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	☐

All questions/statements must be answered "YES" or the JPM is not valid for use. If all questions/statements are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation shall sign and date this form.

Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date
Validation Personnel /Date	Validation Personnel/Date