

Facility: <u>ANO-2</u>		Date of Examination: <u>February 11, 2002</u>
Examination Level (circle one): <u>RO</u> / SRO		Operating Test Number: <u>1</u>
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct Of Operations 2.1.20	Ability to execute procedure steps.  Old Question (determine adequate HPSI flow) (OPEN)
	Conduct Of Operations 2.1.2	Knowledge of operator responsibilities during all modes of operation. New Question (Manual safety system actuation) (CLOSED)
	Conduct Of Operations 2.1.23	Ability to perform specific and integrated plant procedures during all modes of operation. New Admin JPM (1015.008 time to boil LOSDC calculation)
A.2	Equipment Control 2.2.13	Knowledge of the process for making configuration changes. Modified Admin JPM (Identify errors on Clearance)
A.3	Radiation Controls 2.3.11	Ability to control radiation releases.  Modified Old Question (Isolate letdown with failed fuel determination AOP) (OPEN)
	Radiation Controls 2.3.4	Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.  Modified Old Question (authorization to exceed admin Radiation limits. Includes calculation and determination) (OPEN)
A.4	Emergency Plan 2.4.43	Knowledge of emergency communication systems and techniques. Old Question (Time limits to notify ADH and NRC) (OPEN)
	Emergency Plan 2.4.29	Knowledge of the Emergency Plan.  Modified Old Question ( Identify methods to determine failed fuel) (OPEN)

**TYPE: OPEN REFERENCE**

**COMPLETION TIME 10 Min.**

**KA VALUE RO: 4.3 SRO: 4.2 KA REFERENCE: 2.1.20**

**REFERENCE: EOP 2202.010, REV 4, EXHIBIT 2**

**RO OPERATING ADMIN TEST 1 SUBJECT A.1**

**QUESTION 1:**

Is HPSI flow acceptable for the given conditions and explain your answer?

- Mode 3
- Post trip from full power
- RCS leak in progress
- Electrical Bus 2A4 lockout
- RCS pressure 1100 psia.
- HPSI flow 400 gpm.
- 2CV-5015-1, HPSI injection MOV, will not move from 10% OPEN position.
- 2P89C aligned to green bus.
- HPSI termination criteria is NOT met.

**ANSWER:**

NO, since one HPSI pump is running, ALL injection MOV's NOT open and HPSI termination Criteria is NOT met.

**COMMENTS:**

**EXAMINEE'S COPY**

**RO OPERATING ADMIN TEST 1 SUBJECT A.1**

**TYPE: OPEN REFERENCE**

**QUESTION 1:**

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- Mode 3
- Post trip from full power
- RCS leak in progress
- Electrical Bus 2A4 lockout
- RCS pressure 1100 psia.
- HPSI flow 400 gpm.
- 2CV-5015-1, HPSI injection MOV, will not move from 10% OPEN position.
- 2P89C aligned to green bus.
- HPSI termination criteria is NOT met.

**TYPE: CLOSED REFERENCE**

COMPLETION TIME 10 Min.

KA VALUE RO: 3.0 SRO: 4.0 KA REFERENCE: 2.1.2

REFERENCE: EOP 2202.003, REV 005-01-0, SECTION 3 STEP 20 AND 2202.010 ATTACHMENT 20. STM 2-08 REV 7, SECTION 5.2.2

RO OPERATING ADMIN TEST 1 SUBJECT A.1

**QUESTION 2:**

After a Large Break LOCA, the following conditions are observed:

- RCS pressure is 350 psia
- Pressurizer is empty
- All ESF pumps operating with all their recirculation valves open
- Containment pressure is 24 psia
- RWT outlet valves are open
- Containment Sump outlet valves outside containment are closed
- Containment Flood Level reads 7 feet
- RWT level is 5.4% and dropping

What actions are required and describe any changes to safety system components (component numbers are not required)?

**ANSWER:**

Manually initiate Recirc Actuation Signal (RAS) and verify RAS component actuation.

Automatic component actuation's include (Valve numbers not required for full credit):

- Containment Sump outlet valves open (2CV-5647-1 & 2CV5647-1, 2CV-5648-2 & 2CV-5650-2)
- RWT outlet valves close (2CV-5630-1 & 2CV5631-2)
- LPSI pumps stop (2P-60A & 2P-60B)
- Closes the ESF pumps minimum recirculation isolations (2CV-5123-1 & 2CV-5124-1 & 2CV-5673-1 & 2CV-5672-1 & 2CV5626-1 & 2CV5628-1 & 2CV5627-1, 2CV-5628-2)
- Opens the Service Water isolation valves to the SDC Heat Exchangers (2CV-1453-1 & 2CV1456-2)

( Manually initiate RAS and four (4) of the five (5) system component actuations required for full credit)

**COMMENTS:**

**EXAMINEE'S COPY**

**RO OPERATING ADMIN TEST 1 SUBJECT A.1**

**TYPE: CLOSED REFERENCE**

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- RWT level is 5.4% and dropping

What actions are required and describe any changes to safety system components (component numbers are not required)?

**TYPE: OPEN REFERENCE**

**COMPLETION TIME 10 Min.**

**KA VALUE RO: 2.7 SRO: 3.2 KA REFERENCE: 2.3.11**

**REFERENCE: AOP 2203.020, REVISION 007-05-0, STEP 8.F**

**RO OPERATING ADMIN TEST 1 SUBJECT A.3**

**QUESTION 1:**

Given the following:

- 100% full power
- 2RITS-4806A (Letdown Radiation Gross Activity Monitor) reads  $4.3E5$  CPM and 2RITS-4806B (Letdown Radiation Iodine-131 Activity Monitor) reads  $3.1E5$  CPM.
- Auxiliary building general area radiation is 300 mr/hr.
- Letdown has been isolated using 2CV-4820-2.

What action should be performed to directly prevent RCS fluid from leaving the Containment Building?

**ANSWER:**

With SM concurrence:

- Isolate Reactor Coolant Pump controlled bleedoff to VCT.

**COMMENTS:**

**EXAMINEE'S COPY**

**TYPE: OPEN REFERENCE**

**RO OPERATING ADMIN TEST 1 SUBJECT A.3**

**QUESTION 1:**

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- 100% full power
- 2RITS-4806A (Letdown Radiation Gross Activity Monitor) reads  $4.3E5$  CPM and 2RITS-4806B (Letdown Radiation Iodine-131 Activity Monitor) reads  $3.1E5$  CPM.
- Auxiliary building general area radiation is 300 mr/hr.
- Letdown has been isolated using 2CV-4820-2.

What action should be performed to directly prevent RCS fluid from leaving the Containment Building?



TYPE: OPEN REFERENCE

COMPLETION TIME 10 Min.

KA VALUE RO: 2.5 SRO: 3.1 KA REFERENCE: 2.3.4

REFERENCES: 1012.021, Exposure Limits and Controls, Rev 004-02-0, Steps 4.5, 4.7, 4.19, 6.2.2 & 6.3.1.B.1

RO OPERATING ADMIN TEST 1 SUBJECT A.3

QUESTION 2:

A radiation worker has been assigned the task of breaking Incore Flanges. The general area dose rate on the Reactor Vessel Head area work platform is 1 R/Hr gamma radiation. The time needed for this worker to break the incore flanges is 2 hours. The year to date dose for the radiation worker is:

- Deep Dose Equivalent (DDE) = 0.2 Rem
- Committed Effective Dose Equivalent (CEDE) = 0.3 Rem
- Shallow Dose Equivalent (SDE) = 0.8 Rem
- Eye Dose Equivalent (LDE) = 0.6 Rem

What would be the radiation workers **Total Effective Dose Equivalent (TEDE)** after completion of this task and who is required to authorize any dose control level extensions for this task?

ANSWER:

TEDE = DDE + CEDE  
TEDE = 0.2 Rem + 0.3 Rem  
Before task TEDE = 0.5 Rem

1 R/Hr dose rate for 2 Hour task = 2 Rem

TEDE = 2 Rem + 0.5 Rem

**After task TEDE = 2.5 Rem**

Admin TEDE limit for radiation worker is 2 Rem/yr.

To exceed 2.0 Rem for the year requires **designated Radiation Protection Manager** authorization for up to 3 Rem.

COMMENTS:

**EXAMINEE'S COPY**

**TYPE: OPEN REFERENCE**

**RO OPERATING ADMIN TEST 1 SUBJECT A.3**

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- Shallow Dose Equivalent (SDE) = 0.8 Rem
- Eye Dose Equivalent (LDE) = 0.6 Rem

What would be the radiation workers Total Effective Dose Equivalent (TEDE) after completion of this task and who is required to authorize any dose control level extensions for this task?

**TYPE: OPEN REFERENCE**

**COMPLETION TIME 10 Min.**

**KA VALUE RO: 2.8 SRO: 3.5 KA REFERENCE: 2.4.43**

**REFERENCE: OP 1903.011 REVISION 026-00-0, INITIAL NOTIFICATION CHECKLIST (1903.011BB) AND ATTACHMENT 10, TIME REQUIREMENTS**

**RO OPERATING ADMIN TEST 1 SUBJECT A.4**

**QUESTION 1**

After the declaration of a Notification of Unusual Event (NUE), how much time is allowed to notify the:

- Arkansas Department of Health (ADH)
- and**
- Nuclear Regulatory Commission (NRC)?

**ANSWER:**

- Initial Notification Message (1905.011Y) to ADH within 15 minutes
- To NRC immediately following ADH and not to exceed one (1) hour from declaration.

**COMMENTS:**

**EXAMINEE'S COPY**

**TYPE: OPEN REFERENCE**

**RO OPERATING ADMIN TEST 1 SUBJECT A.4**

**QUESTION 1**

After the declaration of a Notification of Unusual Event (NUE), how much time is allowed to notify the:

- Arkansas Department of Health (ADH)
- and**
- Nuclear Regulatory Commission (NRC)?

**TYPE: OPEN REFERENCE**

**COMPLETION TIME 15 Min.**

**KA VALUE RO: 2.6 SRO: 4.0 KA REFERENCE: 2.4.29**

**REFERENCES:**

**1903.010, EAL Classification, Rev 036-03-0, Step 4.16.1.B.**

**1903.010, EAL Classification, Rev 036-03-0, Attachments 6 and 8**

**1905.003, Post Accident Sampling of RCS, Rev 008-00-0, Steps 5.1.3, 5.1.4 & Att. 2**

**1903.011, Emergency Response/Notifications, Rev 026-00-0, Attachment 8**

**RO OPERATING ADMIN TEST 1 SUBJECT A.4**

**QUESTION 2:**

Given the following plant conditions:

- Plant operating in Mode 3.
- Manual reactor trip initiated ten (10) minutes ago due to “B” RCP seal failure.
- RCS leakage calculated at 62 gpm inside Containment.
- Post SPTA brief in progress.

The Shift Manager states during the brief that an Alert EAL has been declared and the conditions for upgrade to Site Area Emergency (SAE) include greater than 1% fuel cladding failure.

State two methods that could be used to determine when 1% fuel cladding failure is exceeded.

**ANSWER:**

(any 2 of the following for full credit)

1. Nuclear Chemistry analysis of RCS Sample.
2. Radiation Levels at 2TCD-19 (RCS Sample Tubing in hallway behind door 230) (1903.010 Attachment 8 and 1905.003)
3. Containment Radiation Levels above SAE levels (1903.010 Attachment 6)
4. Engineering assessment of core damage. (1903.011 Attachment 8)

**COMMENTS:**

**EXAMINEE'S COPY**

**TYPE: OPEN REFERENCE**

**RO OPERATING ADMIN TEST 1 SUBJECT A.4**

**QUESTION 2:**

Given the following plant conditions:

- Plant operating in Mode 3.
- Manual reactor trip initiated ten (10) minutes ago due to "B" RCP seal failure.
- RCS leakage calculated at 62 gpm inside Containment.
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The Shift Manager states during the brief that an Alert EAL has been declared and the conditions for upgrade to Site Area Emergency (SAE) include greater than 1% fuel cladding failure.

State two methods that could be used to determine when 1% fuel cladding failure is exceeded.

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

UNIT:  2  REV #:  000  DATE: \_\_\_\_\_

SYSTEM/DUTY AREA:  Conduct of Operations (A.1)

TASK:  Calculate Time to Boil using computer program

JTA#: \_\_\_\_\_

KA VALUE RO:  3.9  SRO:  4.0  KA REFERENCE:  2.1.23

APPROVED FOR ADMINISTRATION TO: RO:  X  SRO:  X

TASK LOCATION: INSIDE CR: \_\_\_\_\_ OUTSIDE CR: \_\_\_\_\_ BOTH:  X

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: \_\_\_\_\_ SIMULATOR:  Perform  Classroom:  Perform

POSITION EVALUATED: RO: \_\_\_\_\_ SRO: \_\_\_\_\_

ACTUAL TESTING ENVIRONMENT: SIMULATOR: \_\_\_\_\_ PLANT SITE: \_\_\_\_\_ Classroom: \_\_\_\_\_

TESTING METHOD: SIMULATE: \_\_\_\_\_ PERFORM: \_\_\_\_\_

APPROXIMATE COMPLETION TIME IN MINUTES:  10 Minutes

REFERENCE(S):  1015.008 Attachment E, Rev 017-02-0

EXAMINEE'S NAME: \_\_\_\_\_ SSN: \_\_\_\_\_

EVALUATOR'S NAME: \_\_\_\_\_

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: \_\_\_\_\_ UNSATISFACTORY: \_\_\_\_\_

PERFORMANCE CHECKLIST COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_

Start Time \_\_\_\_\_ Stop Time \_\_\_\_\_ Total Time \_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

**THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:**

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The examiner shall review the "Briefing Checklist - System Walkthrough" portion of 1064.023 Attachment 6 with the examinee.

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**JPM INITIAL TASK CONDITIONS:**

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Plant shutdown for repair of Steam Generator Tube Leak. Making preparations for draining the RCS to 24 inches above the bottom of the hotleg to install nozzle dams. PZR level is 40% and open to atmosphere. Time after shutdown = 72 hours; one (1) PZR code safety valve is removed; PZR manway is installed; ECCS vent valves are de-energized OPEN; NO RCP seal work inprogress; NO RCS cold leg openings; RCS Temperature is 105°F.

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**TASK STANDARD:**

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Time to boil calculation has been calculated using the computer program.

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**TASK PERFORMANCE AIDS:**

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1015.008 attachment E, Computer operational with the current revision of LOSDC2 installed (SP-94-C-0001, Rev. 10)., set up shortcut to program on the desktop.

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**SIMULATOR SETUP:**

NA

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**EXAMINER'S NOTES:**

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**ADMINISTRATIVE JOB PERFORMANCE MEASURE****INITIATING CUE:**

The SM/CRS directs, "Using the computer program LOSDC2, calculate a projected time to boil 7.5 hours from now with RCS level 24" above bottom of Hot Leg, using current temperature and pressure."

**CRITICAL ELEMENTS (C):** 19

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)
1.	Start the LOSDC2 program. (it is permissible to start the program using windows file manager or double click )	Double click on the shortcut to start the LOSDC2 program  <u>OR</u> Go to file manager and start LOSDC2 program.	N/A SAT UNSAT
2.	Verify that program is current.	At question prompt, "Is this the current version of program?" (version SP-94-C-0001-01, Rev. 10) Type 'Y' and hit ENTER.	N/A SAT UNSAT
3.	Input that RCS pressure boundary is closed.	At Question prompt, "Pressure Boundary Closed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
4.	Input that Reactor Head is not removed.	At Question prompt, "Reactor Head removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
5.	Input that ECCS valves are open.	At Question prompt, "ECCS Valve Open?" , type 'Y' and hit ENTER.	N/A SAT UNSAT
6.	Input that One PZR code safety valve is removed.	At Question prompt, "Number of Code Safety Valves removed, 0,1,2?" , type '1' and hit ENTER.	N/A SAT UNSAT
7.	Input that the pressurizer manway is not removed.	At Question prompt, "Pressurizer manway removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
8.	Input that the RCS cold legs are not open.	At Question prompt, "Cold Leg hole?" , type 'N' and hit ENTER.	N/A SAT UNSAT
9.	Input that RCP seal work is not in progress.	At Question prompt, "RCP seal work in progress?" , type 'N' and hit ENTER.	N/A SAT UNSAT
10.	Input that 'A' SG cold leg manway is not removed.	At Question prompt, "'A' SG cold leg manway removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
11.	Input that 'B' SG cold leg manway is not removed.	At Question prompt, "'B' SG cold leg manway removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
	12.	Input that 'A' SG hot leg manway is not removed.	At Question prompt, "'A' SG hot leg manway removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
	13.	Input that 'B' SG hot leg manway is not removed.	At Question prompt, "'B' SG hot leg manway removed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
	14.	Input that time after shutdown is 3 days 7.5 hours. (note this is the 3 days time after shutdown given in initial conditions plus the 7.5 hour given in the initiating cue.)	At Question prompt, "Enter time after shutdown?" , type '3,7.5' and hit ENTER.	N/A SAT UNSAT
	15.	Input that water level input is to be in inches above bottom of hot leg.	At Question prompt, "Enter water level above the bottom of the hot leg?" , type '1' and hit ENTER.	N/A SAT UNSAT
	16.	Input that projected water level is 24" above the bottom of the hotleg.	At Question prompt, "water level projected?" , type '24' and hit ENTER.	N/A SAT UNSAT
	17.	Input that current RCS temperature is 105°F.	At Question prompt, "Current Coolant temperature?" , type '105' and hit ENTER.	N/A SAT UNSAT
	18.	Input that this is not a refueling outage and that core reload is not to be done.	At Question prompt, "Has core shuffle/reload been completed?" , type 'N' and hit ENTER.	N/A SAT UNSAT
C	19.	Record / Report that Time to Boil the RCS is 19 minutes 19 seconds. Acceptable value $\mp$ 2 minutes	Report that the Time to boil the RCS is 19 minutes and 19 seconds.	N/A SAT UNSAT
<b>EXAMINER'S NOTE:</b>				
Prompt the Examinee that the file should not be printed but, may be saved and then reviewed. The file should be saved as 'Their First Name.dat'. (Examinee will then open the file via file manager). This file should then be deleted after the JPM is over.				
<b>END</b>				

**ADMINISTRATIVE JOB PERFORMANCE MEASURE****EXAMINEE'S COPY****JPM INITIAL TASK CONDITIONS:**

Given the following Plant conditions:

- Plant shutdown for repair of Steam Generator Tube Leak.
- Making preparations for draining the RCS to 24 inches above the bottom of the hot leg to install nozzle dams.
- PZR level is 40% and open to atmosphere.
- Time after shutdown = 72 hours;
- One (1) PZR code safety valve is removed;
- PZR manway is installed;
- ECCS vent valves are de-energized OPEN;
- NO RCP seal work in progress;
- NO RCS cold leg openings;
- RCS Temperature is 105°F.

**INITIATING CUE:**

The SM/CRS directs, "Using the computer program LOSDC2, calculate a projected time to boil 7.5 hours from now with RCS level 24" above bottom of Hot Leg, using current temperature and pressure."

ADMINISTRATIVE JOB PERFORMANCE MEASURE

UNIT:  2  REV #:  001  DATE: \_\_\_\_\_

SYSTEM/DUTY AREA:  Equipment Control (A.2)

TASK:  Review Clearance Authorization Form for errors

JTA#: \_\_\_\_\_

KA VALUE RO:  3.6  SRO:  3.8  KA REFERENCE:  2.2.13

APPROVED FOR ADMINISTRATION TO: RO:  X  SRO: \_\_\_\_\_

TASK LOCATION: INSIDE CR: \_\_\_\_\_ OUTSIDE CR: \_\_\_\_\_ BOTH:  X

SUGGESTED TESTING ENVIRONMENT AND METHOD (PERFORM OR SIMULATE):

PLANT SITE: \_\_\_\_\_ SIMULATOR:  Perform  Classroom:  Perform

POSITION EVALUATED: RO: \_\_\_\_\_ SRO: \_\_\_\_\_

ACTUAL TESTING ENVIRONMENT: SIMULATOR: \_\_\_\_\_ PLANT SITE: \_\_\_\_\_ Classroom: \_\_\_\_\_

TESTING METHOD: SIMULATE: \_\_\_\_\_ PERFORM: \_\_\_\_\_

APPROXIMATE COMPLETION TIME IN MINUTES:  10 Minutes

REFERENCE(S):  OP 1000.027 Rev. 26-03-0 Sections 6.0 and Attachment 'A'

EXAMINEE'S NAME: \_\_\_\_\_ SSN: \_\_\_\_\_

EVALUATOR'S NAME: \_\_\_\_\_

THE EXAMINEE'S PERFORMANCE WAS EVALUATED AGAINST THE STANDARDS CONTAINED IN THIS JPM AND IS DETERMINED TO BE:

SATISFACTORY: \_\_\_\_\_ UNSATISFACTORY: \_\_\_\_\_

PERFORMANCE CHECKLIST COMMENTS:

\_\_\_\_\_  
\_\_\_\_\_

Start Time \_\_\_\_\_ Stop Time \_\_\_\_\_ Total Time \_\_\_\_\_

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNATURE INDICATES THIS JPM HAS BEEN COMPARED TO ITS APPLICABLE PROCEDURE BY A QUALIFIED INDIVIDUAL (NOT THE EXAMINEE) AND IS CURRENT WITH THAT REVISION.

**ADMINISTRATIVE JOB PERFORMANCE MEASURE****THE EXAMINER SHALL REVIEW THE FOLLOWING WITH THE EXAMINEE:**

The examiner shall review the "Briefing Checklist - System Walkthrough" portion of OP 1064.023 Attachment 6 with the examinee.

**JPM INITIAL TASK CONDITIONS:** Plant is at 100% power. 'D' Condensate Pump is being tagged out to repack the pump and the Computerized Tagging System is not available.

**TASK STANDARD:** Identify at least two errors on the Clearance Installation Authorization Form. Errors include: (1) sequence wrong, should open breaker and place HS in PTL before closing pump discharge valve and suction valve; (2) no 'NO TAG' entry made requiring review of the Special Instructions; (3) Preparer did not sign form.

**TASK PERFORMANCE AIDS:** OP 1000.027 Rev 026-03-0, P&ID M2204, Sheet 1, E2004 Sheet 1

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

**INITIATING CUE:**

The SM/CRS directs, “The Computer Tagging System is out of service, Perform a Clearance Review of the Manual Clearance for ‘D’ Condensate pump (2P-2D) and identify at least two of the errors made by the Clearance Preparer.”

**CRITICAL ELEMENTS (C):** 3, 4, 6

PERFORMANCE CHECKLIST		STANDARDS	(Circle One)	
<u>EXAMINER'S NOTE:</u>				
Examinee may be able to identify two of three errors without reviewing 1000.027, Protective Tagging Control procedure.				
	1.	Review 1000.027, Protective Tagging Procedure, Section 6 and Attachment A	Reviewed at least the following sections of 1000.027, Hold and Caution Card Control Procedure.  - Section 6 – Clearance Reviewer  - Attachment A – General Tagging Requirements	N/A SAT UNSAT
	2.	Verified that the Tag number, Clearance number, and purpose for the clearance were correct.	Reviewed the first section of the clearance Installation Authorization Form and determined that the Tag number, Clearance number, and purpose for the clearance were correct.	N/A SAT UNSAT
C	3.	Identify that “Prepared By” signature is not filled in.	Identified that no name or signature had been provided in the “Prepared By” blank.	N/A SAT UNSAT
C	4.	Identify that there was not a ‘NO TAG’ entry made that required review of the Special Instructions.	Identified that a Special Instructions entry was made but a ‘NO TAG’ entry was not made that required a review of the special instructions.	N/A SAT UNSAT
	5.	Verify boundary isolations selected provide adequate plant and personnel safety for the work activity listed.	Reviewed appropriate P&IDs and Electrical prints to verify boundary isolations selected provide adequate plant and personnel safety for the work activity listed.	N/A SAT UNSAT

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

PERFORMANCE CHECKLIST			STANDARDS	(Circle One)
C	6.	Identify sequence for installing the Hold Cards is incorrect.	Reviewed sequence for Clearance installation on Clearance Installation Authorization Form. Identified that the Handswitch and the Breaker should have been placed in the Pull-to-Lock and Racked Down position respectively before the pump was isolated by the discharge and suction valves to prevent pump damage.	N/A SAT UNSAT
INSTRUCTOR'S NOTE				
If examinee asks about the Danger Tags, they have been printed exactly as the information appears on Clearance Installation Authorization Form.				
<b>END</b>				

**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

**EXAMINER'S COPY**

**JPM INITIAL TASK CONDITIONS:** Plant is at 100% power. 'D' Condensate Pump is being tagged out to repack the pump and the Computerized Tagging System is not available.

**INITIATING CUE:**

The SM/CRS directs, "The Computer Tagging System is out of service, perform a Clearance Review of the Manual Clearance for 'D' Condensate pump (2P-2D) and identify at least two of the errors made by the Clearance Preparer."



**ADMINISTRATIVE JOB PERFORMANCE MEASURE**

**EXAMINEE'S COPY**

**JPM INITIAL TASK CONDITIONS:** Plant is at 100% power. 'D' Condensate Pump is being tagged out to repack the pump and the Computerized Tagging System is not available.

**INITIATING CUE:**

The SM/CRS directs, "The Computer Tagging System is out of service, perform a Clearance Review of the Manual Clearance for 'D' Condensate pump (2P-2D) and identify at least two of the errors made by the Clearance Preparer."

CLEARANCE INSTALLATION AUTHORIZATION FORM

COMPONENT TO BE TAGGED  <b>2P2D PUMP</b>  <b>CONDENSATE PUMP</b>	CLEARANCE NUMBER:  <b>MANUAL – 2/11/02 - 0800</b>
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PURPOSE: <b>REPACK 2P-2D</b>
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SPECIAL INSTRUCTIONS:	DRAWING CROSS-REFERENCE: <u>M-2204, SHEET 1; E2004, SHEET 1</u>
<b>Verify 2P2A, B and C are inservice and operating properly. Monitor condenser oxygen levels after pump isolated and vented to verify boundary valves are holding.</b>	

PREPARED BY:  DATE/TIME	REVIEWED BY:  DATE/TIME
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AUTHORIZED TO HANG:	DATE/TIME:
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<b>TAG INSTALLATION SECTION</b>
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SEQ	TAG#	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY	VERIFIED BY
1	1	2CS-2D VALVE 2P-2D Discharge Valve	<b>EQUIPMENT AREA - TB</b>	<b>CLOSED</b>		
2	2	2CS-2H VALVE 2P-2D Discharge Bypass	<b>EQUIPMENT AREA - TB</b>	<b>CLOSED</b>		
3	3	2CS-15B VALVE 2P-2D Equalizing	<b>EQUIPMENT AREA - TB</b>	<b>CLOSED</b>		

FORM TITLE: CLEARANCE INSTALLATION AUTHORIZATION FORM	FORM NO. 1000.027A	CHANGE NO. 026-03-0
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		vent to 2E11A				
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\*-NO TAG

FORM TITLE: CLEARANCE INSTALLATION AUTHORIZATION FORM	FORM NO. 1000.027A	CHANGE NO. 026-03-0
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## CLEARANCE CONTINUATION AUTHORIZATION FORM

TAGOUT NO. <u>MANUAL - 2/11/02 - 0800</u>		TAG INSTALLATION SECTION				
SEQ	TAG#	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY	VERIFIED BY
4	4	2CS-24D VALVE 2P-2D Seal Water Inlet	EQUIPMENT AREA - TB	CLOSED		
5	5	2CV-0626 VALVE 2P-2D Suction Valve	EQUIPMENT AREA - TB	CLOSED		
6	6 *	2HS-0626 HANDSW CFW Cond PP 2P2D	U2 CONTROL RM - RAB	HANDSWITCH IN PULL TO LOCK		
7	7	2A-206 CKTBRK CONDENSATE PUMP 2P-2D	ELECTRICAL SWITCHGEAR - TB	BREAKER RACKED DOWN		
8	8 *	2CS-1125 VALVE 2P-2D Discharge line Drain	EQUIPMENT AREA - TB	OPEN		
9	9 *	2CS-1126 VALVE 2P-2D Discharge line Drain	EQUIPMENT AREA - TB	OPEN		
10	10 *	2CS-1054 VALVE 2P-2D ATMOS Vent	EQUIPMENT AREA - TB	OPEN		

\*-NO TAG

FORM TITLE: CLEARANCE INSTALLATION AUTHORIZATION FORM	FORM NO. 1000.027A	CHANGE NO. 026-03-0
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# CLEARANCE KEY

CLEARANCE INSTALLATION AUTHORIZATION FORM

COMPONENT TO BE TAGGED  <p style="text-align: center;"><b>2P2D                      PUMP</b></p> <p style="text-align: center;"><b>CONDENSATE PUMP</b></p>	CLEARANCE NUMBER:  <p style="text-align: center;"><b>MANUAL – 2/11/02 - 0800</b></p>
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PURPOSE:  
**REPACK 2P-2D**

SPECIAL INSTRUCTIONS: DRAWING CROSS-REFERENCE: M-2204, SHEET 1; E2004, SHEET 1

**Verify 2P2A, B and C are inservice and operating properly. Monitor condenser oxygen levels after pump isolated and vented to verify boundary valves are holding.**

PREPARED BY: <span style="float: right;">DATE/TIME</span> <i>ERROR #3 PREPARER DID NOT SIGN</i>	REVIEWED BY: <span style="float: right;">DATE/TIME</span>
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AUTHORIZED TO HANG: DATE/TIME:

*ERROR #1 SEQUENCE WRONG - SHOULD TAG HANDSWITCH, BREAKER BEFORE VALVE (SEQUENCE STEPS 1,6 &7)*

**TAG INSTALLATION SECTION**

SEQ	TAG#	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY	VERIFIED BY
1	1	2CS-2D VALVE 2P-2D Discharge Valve	<b>EQUIPMENT AREA - TB</b>	<b>CLOSED</b>		
2	2	2CS-2H VALVE 2P-2D Discharge Bypass	<b>EQUIPMENT AREA - TB</b>	<b>CLOSED</b>		

FORM TITLE: CLEARANCE INSTALLATION AUTHORIZATION FORM	FORM NO. 1000.027A	CHANGE NO. 026-03-0
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# CLEARANCE KEY

3	3	2CS-15B VALVE 2P-2D Equalizing vent to 2E11A	EQUIPMENT AREA - TB	CLOSED		
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\*-NO TAG

FORM TITLE: CLEARANCE INSTALLATION AUTHORIZATION FORM	FORM NO. 1000.027A	CHANGE NO. 026-03-0
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# CLEARANCE KEY

## CLEARANCE CONTINUATION AUTHORIZATION FORM

TAGOUT NO. <u>MANUAL - 2/11/02 - 0800</u>		TAG INSTALLATION SECTION				
SEQ	TAG#	DEVICE AND COMPONENT NAME	LOCATION	TAGGED POSITION	HUNG BY	VERIFIED BY
4	4	2CS-24D VALVE 2P-2D Seal Water Inlet	EQUIPMENT AREA - TB	CLOSED		
5	5	2CV-0626 VALVE 2P-2D Suction Valve	EQUIPMENT AREA - TB	CLOSED		
6	6 *	2HS-0626 HANDSW CFW Cond PP 2P2D	U2 CONTROL RM - RAB	HANDSWITCH IN PULL TO LOCK		
7	7	2A-206 CKTBRK CONDENSATE PUMP 2P-2D	ELECTRICAL SWITCHGEAR - TB	BREAKER RACKED DOWN		
8	8 *	2CS-1125 VALVE 2P-2D Discharge line Drain	EQUIPMENT AREA - TB	OPEN		
9	9 *	2CS-1126 VALVE 2P-2D Discharge line Drain	EQUIPMENT AREA - TB	OPEN		
10	10*	2CS-1054 VALVE 2P-2D ATMOS Vent	EQUIPMENT AREA - TB	OPEN		
		<i>ERROR #2 NO COMMENT STEP TO REVIEW SPECIAL INSTRUCTIONS (NO TAG STEP)</i>				

FORM TITLE: CLEARANCE CONTINUATION AUTHORIZATION FORM	FORM NO. 1000.027H	CHANGE NO. 026-03-0
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# CLEARANCE KEY

\*-NO TAG

FORM TITLE: CLEARANCE CONTINUATION AUTHORIZATION FORM	FORM NO. 1000.027H	CHANGE NO. 026-03-0
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