JOB PERFORMANCE MEASURE
NRC EXAM 2008

Job Position SRO / RO	No. 08-P-002	Revision 0
JPM Title Defeat ARI Logic Trips (**BANK**)	Duration 15 minutes	Page COVER SHEET

Examinee: _____ SRO / RO / NO / STA

Evaluator: _____

JPM Type: **Normal** / Alternate Path **/** Time Critical

Evaluation Method: Perform / **Walkthrough** / Discuss

(Circle method used) **Plant** / Simulator / Classroom

Start Time _____

Stop Time _____

Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
*** 1.**							
*** 2.**							
*** 3.**							
*** 4.**							
*** 5.**							
*** 6.**							
*** 7.**							
*** 8.**							
*** 9.**							
***10.**							

_____ SATISFACTORY _____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ /

JPM Title Defeat ARI Logic Trips	No.: 08-P-002 Revision: 0 Page 1

Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____

Plant X Simulator _____ Classroom _____

System:

C1150 – Control Rod Drive Hydraulic System

Task:

02A0004026 - Execute steps of Alternate Control Rod Insertion

References: Required (R) / Available (A)

29.ESP.10, "Defeat of ARI Logic Trips" (R)

Tools and Equipment Required:

None

Initial Conditions:

- You are the Patrol NSO.
- The plant has scrammed, and power is **NOT** less than 3%.

Initiating Cue(s):

- The CRS directs you to defeat ARI Logic Trips per 29.ESP.10 for level **AND** pressure.

Terminating Cue(s):

ARI logic trips have been defeated per 29.ESP.10.

Task Standard:

ARI functions have been defeated in accordance with 29.ESP.10.

Licensed Operator Exam Information (required for NRC exams)

Safety Function:

1 – Reactivity Control

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 295037- SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown

K/A STATEMENT:

EA1 Ability to operate and/or monitor the following as they apply to SCRAM CONDITION PRESENT AND REACTOR POWER ABOVE APRM DOWNSCALE OR UNKNOWN :

EA1.03 ARI/RPT/ATWS: Plant-Specific..... ..... 4.1 / 4.1

Maintenance Rule Safety Classification:

C1100-03

Maintenance Rule Risk Significant? (Yes or No)

Yes

JPM Title Defeat ARI Logic Trips	No.: 08-P-002 Revision: 0 Page 2

PERFORMANCE EVALUATION

Start Time _____

ELEMENT		STANDARD	
PREREQUSITES: None			
CUE:	**Provide Examinee with CUE SHEET.**		
* 1.	Obtain EOP Cabinet key.	* 1.	Examinee goes to the SM and obtains the key to the EOP cabinet.
CUE:	**Hand examinee a copy of 29.ESP.10 and a laser pointer after the examinee demonstrates how he would obtain an Emergency Support Procedure Package from the SM's locked cabinet. Examinee should indicate any necessary tools he will take with him.**		
* 2.	Open EOP Cabinet and obtain ESP support package.	* 2.	Examinee opens cabinet, finds the correct package and ensures the proper equipment is in the package.
NOTE:	**Examinee should proceed to Testability Panels on Aux Building Fourth Floor (AB4).**		
NOTE:	**Plug-in relays have seismic clips which need to be removed first and then the relays are grasped on both sides and pulled straight back out of the cabinet. Minimum PPE per ODE14 Attachment 9 is safety glasses and 100% cotton long sleeve shirts.**		
CUE:	**B3100-M038A is removed.**		
* 3.	At H21-P082 (AB4-F12): Remove plug-in relay B3100-M038A.	* 3.	Locates relay and describes removal. (Squeeze both sides of Seismic Clips, then pull to remove. Next grasp the relay on both sides and pull to remove, then place relay in package.)
CUE:	**B3100-M038C is removed.**		
* 4.	At H21-P082 (AB4-F12): Remove plug-in relay B3100-M038C.	* 4.	Locates relay and describes removal.
CUE:	**B3100-M038B is removed.**		
* 5.	At H21-P083 (AB4-F11): Remove plug-in relay B3100-M038B.	* 5.	Locates relay and describes removal.
CUE:	**B3100-M038D is removed.**		
6.	At H21-P083 (AB4-F11): Remove plug-in relay B3100-M038D.	6.	Locates relay and describes removal.
CUE:	**B21-N611A SETPOINT Pot is fully clockwise.**		
* 7.	At H21-P082 (AB4-F12): Adjust MTU SET POINT ADJ Pot fully clockwise on B21-N611A using a small screwdriver.	* 7.	Locates MTU and SETPOINT Pot and describes clockwise adjustment.
CUE:	**B21-N611C SETPOINT Pot is fully clockwise.**		
* 8.	At H21-P082 (AB4-F12): Adjust MTU SET POINT ADJ Pot fully clockwise on B21-N611C using a small screwdriver.	* 8.	Locates MTU and SETPOINT Pot and describes clockwise adjustment.

JPM Title Defeat ARI Logic Trips	No.: 08-P-002 Revision: 0 Page 3

ELEMENT		STANDARD	
CUE:	**B21-N611B SETPOINT Pot is fully clockwise.**		
* 9.	At H21-P083 (AB4-F11): Adjust MTU SET POINT ADJ Pot fully clockwise on B21-N611B using a small screwdriver.	* 9.	Locates MTU and SETPOINT Pot and describes clockwise adjustment.
CUE:	**B21-N611D SETPOINT Pot is fully clockwise.**		
*10.	At H21-P083 (AB4-F11): Adjust MTU SET POINT ADJ Pot fully clockwise on B21-N611D using a small screwdriver.	*10.	Locates MTU and SETPOINT Pot and describes clockwise adjustment.
CUE:	**End JPM when 29.ESP.10 is complete for level and pressure.**		

_____ SATISFACTORY _____ UNSATISFACTORY

Stop Time _____

*** Critical Step**

JPM Title Defeat ARI Logic Trips	No.: 08-P-002 Revision: 0 Page 4

Evaluator Notes:

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating __X__ amps."

Pump stop: "Switch has been rotated to the stop position, green light is lit, red light is out, amperage indicates 0 amps."

Remotely operated valve position is determined with open and close indicating lights. A RED light only would indicate that the valve is open. A GREEN light only would indicate that the valve is closed. Dual indication would indicate that the valve is in some intermediate position.

Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

Opening a valve: "Valve handwheel has been rotated in the fully counterclockwise direction until no additional valve movement, valve stem is out."

Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

None

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room.

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

Simulator Setup

IC#:

N/A

Malfunctions:

Number	Title	Value	Delay	Ramp
N/A				

Remote Functions:

Number	Title	Value	Delay	Ramp
N/A				

Override Functions:

Number	Title	Value	Delay	Ramp
N/A				

Special Instructions:

N/A

Cue Sheet

Initial Conditions:

- You are the Patrol NSO.
- The plant has scrammed, and power is **NOT** less than 3%.

Initiating Cue(s):

- The CRS directs you to defeat ARI Logic Trips per 29.ESP.10 for level **AND** pressure.

JOB PERFORMANCE MEASURE
NRC EXAM 2008

Job Position SRO / RO	No. 08-P-003	Revision 2
JPM Title Place ESF Battery Charger in Service	Duration 15 minutes	Page COVER SHEET

Examinee: _____ SRO / RO / NO / STA

Evaluator: _____

JPM Type: **Normal** / Alternate Path **/** Time Critical

Evaluation Method: Perform / **Walkthrough** / Discuss

(Circle method used) **Plant** / Simulator / Classroom

Start Time _____

Stop Time _____

Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
1.							
*** 2.**							
3.							
4.							
*** 5.**							
*** 6.**							
*** 7.**							

_____ SATISFACTORY _____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ /

JPM Title Place ESF Battery Charger in Service	No.: 08-P-003 Revision: 2 Page 1

Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____

Plant X Simulator _____ Classroom _____

System:

R3200 – DC 130/260 VDC ESF and BOP

Task:

04R3201001 - Place a 130/260 VDC Battery Charger in Service in the Float mode

References: Required (R) / Available (A)

23.309, "260/130 VDC Electrical System" – (R)

Tools and Equipment Required:

None

Initial Conditions:

- You are the Reactor Building Rounds NO.
- Battery charger 2A-1 is to be placed in service.
- A visual inspection of the equipment has been completed.
- All electrolyte levels are normal on the Battery.
- Battery room ventilation is established.
- Battery charger AC and DC circuit breakers are OFF.
- Battery charger CMC switch is in OFF in the Control Room.
- 72B-2A Position 3D to the battery charger is closed and energized.
- All General and Specific Prerequisites are complete.

Initiating Cue(s):

- The CRS directs you to place Battery Charger 2A-1 in service.

Terminating Cue(s):

Battery Charger 2A-1 is in service per 23.309, "260/130 VDC Electrical System".

Task Standard:

Battery charger 2A-1 is in service and ready to be loaded in accordance with 23.309 Section 5.1.

JPM Title Place ESF Battery Charger in Service	No.: 08-P-003 Revision: 2 Page 2

Licensed Operator Exam Information (required for NRC exams)

Safety Function:

6 - Electrical

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 2.1 - Generic Knowledge and Abilities

K/A STATEMENT:

2.1.30 Ability to locate and operate components including local controls. .....3.4 / 3.5

K/A SYSTEM: 263000 - DC Electrical Distribution

K/A STATEMENT:

A1. Ability to predict and/or monitor changes inparameters associated with operating the D.C. ELECTRICAL DISTRIBUTION controls including: (CFR: 41.5 / 45.5)

A1.01 Battery charging/discharging rate . . . . . 2.5 / 2.8

Maintenance Rule Safety Classification:

R3200-05

Maintenance Rule Risk Significant? (Yes or No)

Yes

JPM Title Place ESF Battery Charger in Service	No.: 08-P-003 Revision: 2 Page 3

PERFORMANCE EVALUATION

Start Time _____

ELEMENT	STANDARD
PREREQUSITES: Specific Prerequisites of 23.309, 5.1.1, are met.	
1. Verify battery charger AC Feed Breaker is OFF (front panel).	1. Battery charger AC Feed Breaker is verified OFF on front panel.
* 2. Turn ON battery charger DC Output Breaker (front panel).	2. Battery charger DC Output Breaker is turned ON (CLOSED).
CUE: DC Bus voltage indicates ~129 VDC.	
3. Verify DC Bus voltage indication is approximately 129V DC (front panel).	3. DC Bus voltage is verified approximately 129V DC.
NOTE: A click can be heard when float mode is reached.	
4. Place battery charger Timer switch (front panel) in FLOAT (approximately zero time on timer switch).	4. Battery charger Timer switch is placed in FLOAT.
* 5. Turn ON battery charger AC Feeder Breaker (front panel).	* 5. Battery charger AC Feed Breaker is turned ON (CLOSED).
CUE: Control Room reports that Div 1 130VDC Batt Charger 2A-1 CMC Switch is in ON.	
* 6. Place ESF and BOP battery charger switch for 2A-1 in ON (H11-P809).	* 6. Request CR place battery charger switch for 2A-1 in ON (H11-P809).
CUE: DC Bus voltage indicates ~129 VDC.	
* 7. At Battery Charger 2A-1 Voltmeter verify normal output voltage is approximately 129 VDC.	* 7. Battery Charger 2A-1 output voltage is verified as ~129 VDC.
CUE: End JPM when proper Battery Charger 2A-1 output voltage is verified.	

_____ SATISFACTORY _____ UNSATISFACTORY

Stop Time _____

*** Critical Step**

JPM Title Place ESF Battery Charger in Service	No.: 08-P-003 Revision: 2 Page 4

Evaluator Notes:

Inform examinee that a CMC has been placed to the ON position when requested.

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating __X__ amps."

Pump stop: "Switch has been rotated to the stop position, green light is lit, red light is out, amperage indicates 0 amps."

Remotely operated valve position is determined with open and close indicating lights. A RED light only would indicate that the valve is open. A GREEN light only would indicate that the valve is closed. Dual indication would indicate that the valve is in some intermediate position.

Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

Opening a valve: "Valve handwheel has been rotated in the fully counterclockwise direction until no additional valve movement, valve stem is out."

Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

Battery Chargers are used to provide DC loads during normal operation and to provide a means of maintaining the batteries at full charge, in the event the charger is lost. The components of this system are as follows:

H11P809 and H11P810 (All are prefaced with R3200 unless noted)

- S020A 2A-1 Battery Charger OFF/ON/TRIPPED
- S020B 2A-2 Battery Charger OFF/ON/TRIPPED
- S020C 2A1-2 Battery Charger OFF/ON/TRIPPED
- S021A 2B-1 Battery Charger OFF/ON/TRIPPED
- S021B 2B-2 Battery Charger OFF/ON/TRIPPED
- S021C 2B1-2 Battery Charger OFF/ON/TRIPPED

Local Indications

- Battery Charger 2A-1
  Voltages (0-150v) reads ~129 volts
  Amperage (0-150a) reads ~26 amps in service.
- Battery Charger 2A-2
  Voltage reads ~129 volts and amps read ~16 in service.

- Battery Charger 2A1-2
  Voltage reads ~129 volts and amps read ~16-26 amps in service.
- Battery Charger 2B-1
  Voltage reads ~129 volts and amps read ~16 amps in service.
- Battery Charger 2B-2
  Voltage reads ~129 volts and amps ~23 amps in service.
- Battery Charger 2B1-2
  Voltage reads ~129 volts and amps read ~16-23 amps in service.

Battery Charger AC Power Supplies:

- 2A-1 72B-2A Pos. 3D
- 2A-2 72C-3A Pos.10E
- 2A1-2 72B-3A Pos. 2C
- 2B-1 72E-5A Pos. 5B
- 2B-2 72F-2A Pos. 3D
- 2B1-2 72F-2A Pos. 2B

Battery Chargers are placed into service by closing the DC Breaker first and verifying that DC bus voltage is read. Then place the front panel control for the timer in FLOAT position. The AC breaker is then closed which will cause the charger to supply DC loads and amps will rise as loads are applied. Verify proper DC voltage and ensure that amps are steady and at an expected level, as above.

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room.

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

Simulator Setup

IC#:

None

Malfunctions:

Number	Title	Value	Delay	Ramp

None

Remote Functions:

Number	Title	Value	Delay	Ramp

None

Override Functions:

Number	Title	Value	Delay	Ramp

None

Special Instructions:

None

Cue Sheet

Initial Conditions:

- You are the Reactor Building Rounds NO.
- Battery charger 2A-1 is to be placed in service.
- A visual inspection of the equipment has been completed.
- All electrolyte levels are normal on the Battery.
- Battery room ventilation is established.
- Battery charger AC and DC circuit breakers are OFF.
- Battery charger CMC switch is in **OFF** in the Control Room.
- 72B-2A Position 3D to the battery charger is closed and energized.
- **NOTE:** All General and Specific Prerequisites are complete.

Initiating Cue(s):

- The CRS directs you to place Battery Charger 2A-1 in service.

JOB PERFORMANCE MEASURE
NRC EXAM 2008

Job Position SRO / RO	No. 08-P-001	Revision 0
JPM Title Shift In Service IAS Dryers	Duration 15 minutes	Page COVER SHEET

Examinee: _____ SRO / RO / NO / STA

Evaluator: _____

JPM Type: **Normal** / Alternate Path **/** Time Critical

Evaluation Method: Perform / **Walkthrough** / Discuss

(Circle method used) **Plant** / Simulator / Classroom

Start Time _____

Stop Time _____

Total Time: _____

PERFORMANCE EVALUATION SUMMARY							
Element	S	U	Comments	Element	S	U	Comments
1.							
2.							
*** 3.**							
*** 4.**							
*** 5.**							
6.							
7.							
8.							

_____ SATISFACTORY _____ UNSATISFACTORY

OVERALL EVALUATOR COMMENTS:

Evaluator Signature / Date: _____ /

JPM Title Shift In Service IAS Dryers	No.: 08-P-001 Revision: 0 Page 1

Preferred Evaluation Method:

Perform _____ Walkthrough X Discuss _____

Plant X Simulator _____ Classroom _____

System:

P5000 – Station and Control Air Systems

Task:

04-P5000-01 Shift In-service IAS air dryers

References: Required (R) / Available (A)

23.129, "Station And Control Air System", Section 6.2 (R)

Tools and Equipment Required:

None

Initial Conditions:

- You are the Patrol NSO.

Initiating Cue(s):

- The Control Room directs you to shift In Service IAS Dryers.
- The West Dryer is in service and causing alarms in the Control Room.
- The East Dryer is to be placed in service.
- All Prerequisites are met.
- You have the required panel key.

Terminating Cue(s):

East IAS Dryer is in service.

Task Standard:

Operator shifts IAS air dryers IAW 23.129.

JPM Title Shift In Service IAS Dryers	No.: 08-P-001 Revision: 0 Page 2

Licensed Operator Exam Information (required for NRC exams)

Safety Function:

8 - Plant Service Systems

K/A Reference: (from NUREG 1123)

K/A SYSTEM: 300000 – Instrument Air System

K/A STATEMENT:

A2. Ability to (a) predict the impacts of the following on the INSTRUMENT AIR SYSTEM and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal operation:

A2.01 Air dryer and filter malfunctions ..... 2.9 / 2.8

Maintenance Rule Safety Classification:

P5002-01

Maintenance Rule Risk Significant? (Yes or No)

No

JPM Title Shift In Service IAS Dryers	No.: 08-P-001 Revision: 0 Page 3

PERFORMANCE EVALUATION

Start Time _____

ELEMENT		STANDARD	
PREREQUSITES: None			
CUE:	**Provide Examinee with CUE SHEET.** A**fter the examinee demonstrates / explains how he would obtain a controlled copy of the procedure, hand the examinee a copy of 23.129 and a laser pointer.**		
NOTE:	**Controlled procedure copies are located in the Tagging Center. Procedures may be obtained and/or verified current electronically using Automated Record Management System (ARMS). "Current" status is coded "AFC".**		
NOTE:	**Tower Degrading alarm may occur upon dryer shift. This will bring in local and Control Room alarm. Examinee may notify Main CR of potential for alarms.**		
CUE:	**P5000-F1019A, IAS East Dryer Pre-filter Auto/Manual Blowdown Iso Vlv is open.**		
1.	Open or verify open P5000-F1019A, IAS East Dryer Pre-filter Auto/Manual Blowdown Iso Vlv.	1.	Describes that the handle is aligned with the tubing to verify open. (normally open).
CUE:	**Bleed flow is present at P50-R481A, East Air Dryer Outlet Moisture Indicator.**		
2.	Verify bleed flow is present at P50-R481A, East Air Dryer Outlet Moisture Indicator.	2.	Feels for bleed flow at P50-R481A, East Air Dryer Outlet Moisture Indicator. (Rear of panel).
NOTE:	**When opening Outlet Valves, the examinee should not let Dryer Outlet Pressure decrease to < 90 psig as read on P50-R479A (B), East (West) Air Dryer Outlet Air Pressure Indicator.**		
CUE:	**P5000-F1025A, East After filter Outlet Iso Valve is open.**		
* 3.	Slowly open P5000-F1025A, East After filter Outlet Iso Valve.	* 3.	Describes slowly turning valve so valve handle aligns with the pipe to open.
CUE:	**IAS Dryer Alarm Selector is in EAST.**		
* 4.	Place IAS Dryer Alarm Selector Switch (P5000-M001) to P5002-D030A (East Dryer).	* 4.	Describes placing IAS Dryer Alarm Selector to EAST, using key from initial cue.
CUE:	**P5000-F1025B, West After filter Outlet Valve is closed.**		
* 5.	Close P5000-F1025B, West After filter Outlet Valve.	* 5.	Describes turning the valve handle perpendicular to the pipe, to close the valve.
CUE:	**P5000-F1018A, East Pre-filter Bypass Valve is closed.**		
6.	Close or verify closed P5000-F1018A, East Pre-filter Bypass Valve.	6.	Describes the valve handle is perpendicular to the pipe, to verify the valve closed. (normally closed)
CUE:	**P5000-F1015A, East Air Dryer Bypass Valve is closed.**		
7.	Close or verify closed P5000-F1015A, East Air Dryer Bypass Valve.	7.	Describes the valve handle is perpendicular to the pipe, to verify the valve closed. (normally closed)

JPM Title Shift In Service IAS Dryers	No.: 08-P-001 Revision: 0 Page 4

ELEMENT	STANDARD
CUE: P5000-F1026A, East Afterfilter Bypass Valve is closed.	
8. Close or verify closed P5000-F1026A, East After filter Bypass Valve.	8. Describes the valve handle is perpendicular to the pipe, to verify the valve is closed. (normally closed)
CUE: End JPM when East IAS Dryer is in service.	

_____ SATISFACTORY _____ UNSATISFACTORY

Stop Time _____

*** Critical Step**

JPM Title Shift In Service IAS Dryers	No.: 08-P-001 Revision: 0 Page 5

Evaluator Notes:

ENSURE ALL INDUSTRIAL AND PERSONNEL SAFETY PRACTICES ARE USED AND ENFORCED AT ALL TIMES.

Generic Notes and Cues:

CMC switches will turn RED and amperage will increase when the switch is rotated to the start position started. The current should initially be five to seven times the normal running amps with the ammeter flashing. As counter EMF is developed, the amperage will lower to the normal running amperage and the ammeter will no longer flash. CMC switches will turn GREEN when the pumps are stopped and amperage will decrease to zero.

Ex.: Pump start: "Switch has been rotated to the start position, red light is lit, green light is out, amperage initially pegs out high, and is now indicating __X__ amps."

Pump stop: "Switch has been rotated to the stop position, green light is lit, red light is out, amperage indicates 0 amps."

Remotely operated valve position is determined with open and close indicating lights. A RED light only would indicate that the valve is open. A GREEN light only would indicate that the valve is closed. Dual indication would indicate that the valve is in some intermediate position.

Manual valves are checked in the closed direction (MOP02 and MOP05). Valve stem position may aid in valve position determination, but cannot be used as Independent Verification (MOP02).

Ex.: Verify valve closed: "Valve handwheel indicates no valve movement in the clockwise direction."

Verify valve open: "Valve handwheel has been rotated slightly in the clockwise direction and returned to the original positions."

Closing a valve: "Valve handwheel has been rotated in the fully clockwise direction until no additional valve movement. Valve stem is down."

Opening a valve: "Valve handwheel has been rotated in the fully counterclockwise direction until no additional valve movement, valve stem is out."

Controllers have an Auto light that is GREEN when selected and AMBER (YELLOW) when Manual is selected. When in Manual, the open and closed pushbuttons control the parameter to be changed by adjusting position or speed. When the deviation meter is nulled, then the process can be shifted to Auto to allow the desired setpoint to control the process.

System Specific Notes and Cues:

None

Task Performance and Cues:

The Elements of this JPM are step by step in accordance with the procedure. The Standard is that the procedure is performed as written. The Cues are as listed above for indication or as each step is completed the appropriate information is reported to the examinee. Notify Examinee that time compression may be used for activities performed outside of the Control Room.

Critical Steps:

Critical Tasks are identified by asterisk (*) and **bolded** steps on the cover sheet. Verify that the latest revision of the procedure is used and critical tasks are correctly identified.

FOLLOW-UP DOCUMENTATION QUESTIONS

Reason for follow-up question(s):

Question:

Reference:

Response:

Question:

Reference

Response:

Simulator Setup

IC#:

N/A

Malfunctions:

Number	Title	Value	Delay	Ramp
N/A				

Remote Functions:

Number	Title	Value	Delay	Ramp
N/A				

Override Functions:

Number	Title	Value	Delay	Ramp
N/A				

Special Instructions:

N/A

Cue Sheet

Initial Conditions:

- You are the Patrol NSO.

Initiating Cue(s):

- The Control Room directs you to shift In Service IAS Dryers.
- The West Dryer is in service and causing alarms in the Control Room.
- The East Dryer is to be placed in service.
- All Prerequisites are met.
- You have the required panel key.