

INITIAL SUBMITTAL OF ADMINISTRATIVE JPMS

FOR THE DRESDEN INITIAL EXAMINATION THE WEEKS OF FEBRUARY 5 AND 12, 2001

Nuclear Generation Group

Job Performance Measure

Perform APRM Gain Verification

JPM Number: A.1.a-RO

Revision Number: 00

Date: 12/05/00

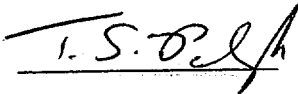
Author:



12/5/00

Date

Facility Representative:



12-5-00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Perform APRM Gain Verification
Task Number: 215L003
Procedure : DOS 0500-06
Procedure Rev : 18

Task Standards : Determine if ARPRM AGAFs are within tolerances as required by Tech Specs per DOS 0500-06.

Validated Time : _____ Time Critical: No

Evaluation Method : Perform Evaluation Location : In-Plant

K & A Number : 2.1.19 K & A Rating : 3.0 / 3.0

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |
| 5. | List below any weaknesses noted : | | | | |

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. Unit 2 is operating at about 95% reactor power.
2. All APRMs are operable.
3. The POWERPLEX and Process Computers are unavailable.

Initiating Cues (Read to Examinee)

Note: Provide the examinee with a blank copy of DATA SHEET 1 from DOS 0500-06.

1. You are the Nuclear Station Operator (NSO) on dayshift, Monday, November 6, 2000.
2. The Unit 2 Unit Supervisor has directed you to perform DOS 0500-06, APRM Gain Adjustment Factor Verification.
3. Inform the Unit Supervisor when DATA SHEET 1 is ready for review.
4. Core Thermal Power (CTP) is 2361 MWt as calculated per DOS 0500-05, Calculation of Core Thermal Power.
5. 1st stage turbine pressure is 850 psig on Panel 902-7.
6. The Nominal AGAF is 1.00.
7. The Aux NSO has just provided you with the following APRM readings from Panel 902-37:

APRM #1	92.0	APRM #4	93.0
APRM #2	93.0	APRM #5	95.0
APRM #3	95.0	APRM #6	94.5

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
Note: AGAFs should be calculated using the CTP already provided.				
1. Record the CTP on DATA SHEET 1.	CTP recorded on DATA SHEET 1.	_____	_____	_____
2. Calculate percent CTP (CTP%) using the formula from DOS 0500-06, step I.2.e., and record on DATA SHEET 1.	Percent CTP (CTP%) calculated and recorded on DATA SHEET 1. "93.4" recorded.	_____	_____	_____
* 3. Calculate the AGAF using the formula in DOS 0500-06, step I.2.b.(2), for each of the operable APRMs.	AGAFs calculated using the formula in DOS 0500-06, step I.2.b.(2), for APRMs 1 – 6.	_____	_____	_____
4. Record the AGAFs on DATA SHEET 1.	AGAFs recorded on DATA SHEET 1.	_____	_____	_____
5. On DATA SHEET 1, record 1 st stage turbine pressure from indication on Panel 902-7.	1 st stage turbine pressure from indication on Panel 902-7 recorded as 850 psig on DATA SHEET 1.	_____	_____	_____
* 6. Using the 1 st stage turbine pressure reading and the graph of 1 st Stage Turbine Pressure vs Core Thermal Power, record whether CTP falls within allowable range (Yes or No).	1 st stage turbine pressure reading and graph of 1 st Stage Turbine Pressure vs Core Thermal Power used to verify that CTP falls within allowable range. "Yes" recorded on DATA SHEET 1..	_____	_____	_____
7. IF CTP falls outside the allowable range, THEN notify the Unit Supervisor of a potential problem with the CTP data AND to contact a QNE for further review of the data.	CTP does not fall outside the allowable range. "N/A" recorded on DATA SHEET 1.	_____	_____	_____
8. Record nominal AGAF from Unit Status Sheet on DATA SHEET 1.	Nominal AGAF from Unit Status Sheet recorded as "1.00" on DATA SHEET 1.	_____	_____	_____
* 9. Obtain AGAF limit from Table 1 using CTP% (round CTP% up).	AGAF limit obtained from Table 1 using CTP%. Obtained 0.021 by rounding 93.4 up to 94. Recorded "0.021" on DATA SHEET 1.	_____	_____	_____
* 10. Calculate the adjusted high AGAF limit using the formula from DOS 0500-06, step I.5., and record on DATA SHEET 1.	Adjusted high AGAF limit calculated and recorded as "1.021" on DATA SHEET 1.	_____	_____	_____

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
* 11. Calculate the adjusted low AGAF limit using the formula from DOS 0500-06, step I.6., and record on DATA SHEET 1.	Adjusted low AGAF limit calculated and recorded as "0.979" on DATA SHEET 1.	_____	_____	_____
* 12. For each operable APRM, IF the AGAF is less than or equal to the adjusted high AGAF limit AND greater than or equal to the adjusted low AGAF limit, THEN check (✓) the AGAF value on DATA SHEET 1.	All AGAF values checked (✓) on DATA SHEET 1.	_____	_____	_____
13. The Nuclear Station Operator shall initial DATA SHEET 1.	DATA SHEET 1 initialed.	_____	_____	_____
14. Notify the Unit Supervisor to initial DATA SHEET 1.	Unit Supervisor notified.	_____	_____	_____
CUE: Acknowledge notification.	END			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-RO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. Unit 2 is operating at about 95 % reactor power.
2. All APRMs are operable.
3. The POWERPLEX and Process Computers are unavailable.

Initiating Cues

1. You are the Nuclear Station Operator (NSO) on dayshift, Monday, November 6, 2000.
2. The Unit 2 Unit Supervisor has directed you to perform DOS 0500-06, APRM Gain Adjustment Factor Verification.
3. Inform the Unit Supervisor when DATA SHEET 1 is ready for review.
4. Core Thermal Power (CTP) is 2361 MWt as calculated per DOS 0500-05, Calculation of Core Thermal Power.
5. 1st stage turbine pressure is 850 psig on Panel 902-7.
6. The Nominal AGAF is 1.00.
7. The Aux NSO has just provided you with the following APRM readings from Panel 902-37:

APRM #1	92.0	APRM #4	93.0
APRM #2	93.0	APRM #5	95.0
APRM #3	95.0	APRM #6	94.5

CATEGORY 1

KEY

UNIT 2(3)
 DOS 0500-06
 REVISION 18

DATA SHEET 1
 APRM GAIN ADJUSTMENT FACTOR

WEEK FROM Nov/6/2000 TO Nov/12/2000

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
APRM #1 RAP*	92.0						
AGAF	1.015						
√ if AC H.2 met	✓						
APRM #2 RAP*	93.0						
AGAF	1.004						
√ if AC H.2 met	✓						
APRM #3 RAP*	95.0						
AGAF	0.983						
√ if AC H.2 met	✓						
APRM #4 RAP*	93.0						
AGAF (also √ if AC H.2 met)	1.004						
√ if AC H.2 met	✓						
APRM #5 RAP*	95.0						
AGAF	0.983						
√ if AC H.2 met	✓						
APRM #6 RAP*	94.5						
AGAF	0.988						
√ if AC H.2 met	✓						
CTP	2361						
CTP% = (CTP/2527) * 100%	93.4						
AGAF and CTP Obtained From (Identify source)							
OD-03 (√)	N/A						
OD-09, Option 1 or 2	N/A						
1 st Stage Turb. Press.	850						
1 st Stage Turb. Press. Obtained From (Identify source) T206(T306) (√)	N/A						
Panel 902(3)-7	✓						

CATEGORY 1

KEY

UNIT 2(3)
 DOS 0500-06
 REVISION 18

DATA SHEET 1
 APRM GAIN ADJUSTMENT FACTOR (CONTINUED)

	MON	TUE	WED	THU	FRI	SAT	SUN
(AC) Using graph of 1 st Stage Turb. Press. Vs CTP, CTP within allowable range (Yes or No).	YES						
IF CTP outside allowable, THEN notify Unit Supv. AND initial, otherwise N/A.	N/A						
Nominal AGAF	1.00						
Record AGAF Limit	0.021						
Adjusted High AGAF Limit = (Nominal AGAF + AGAF Limit)	1.021						
Adjusted Low AGAF Limit = (Nominal AGAF - AGAF Limit)	0.979						
Recorded By: NSO Initials							
Reviewed By: Unit Supervisor (Initials)							

* RAP = Indicated APRM reading.

Nuclear Generation Group

Job Performance Measure

Calculate Drywell Leak Rate

JPM Number: A.1.b-RO

Revision Number: 00

Date: 12/05/00

Author:

[Handwritten Signature]

12/5/00

Date

Facility Representative:

T.S. Delf

12/5/00

Date

Please change to have applicant take the
examiner to the integrators (DWED, DWFD) prior
to getting cue of # gallons pumped.

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-RO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Calculate Drywell Leak Rate
Task Number : 268L002
Procedure : DOP 2000-24
Procedure Rev : 08

Task Standards : Calculate the reactor coolant system leakage and verify it is within tech spec limitations IAW daily checklist sheets in Appendix A of the unit operators round.

Validated Time : _____ Time Critical: No

Evaluation Method : Perform Evaluation Location : In-Plant

K & A Number : 2.1.20 K & A Rating : 4.3 / 4.2

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-RO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-RO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. Unit 3 is operating at rated power.
2. No equipment is inoperable or out of service.

Initiating Cues (Read to Examinee)

Note: Provide marked up copy of MODE 1, 2, AND 3 REACTOR COOLANT LEAKAGE LOG to the examinee.

1. It is Saturday and you are the Unit 3 NSO on dayshift.
2. At 1200 the Drywell Sumps were pumped and the following data obtained:
DWFD Integrator Reading - Gallons Pumped: 672
DWED Integrator Reading - Gallons Pumped: 408
3. Complete the MODE 1, 2, AND 3 REACTOR COOLANT LEAKAGE LOG for 1200 and determine if the Appendix A Surveillance Acceptance Criteria have been met.
4. Inform the Unit Supervisor when complete.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
1. Record time in time column.	Time recorded in time column as 1200.	_____	_____	_____
2. Record Integrator Reading for Floor Drain Leakage (FDL).	Recorded "672" as Integrator Reading for Floor Drain Leakage (FDL).	_____	_____	_____
* 3. Calculate GPM and record for Floor Drain Leakage.	GPM calculated as "2.8" and recorded for Floor Drain Leakage.	_____	_____	_____
* 4. Check if Floor Drain Leakage meets acceptance criteria.	Acceptance Criteria (AC) NOT checked for Floor Drain Leakage.	_____	_____	_____
Note: Examinee may notify Unit Supervisor at this step.				
CUE: (If Unit Supervisor notified) Acknowledge report and direct that remainder of log be completed.				
5. Record Integrator Reading for Equipment Drain Leakage (EDL).	Recorded "408" as Integrator Reading for Equipment Drain Leakage (EDL)..	_____	_____	_____
* 6. Calculate GPM and record for Equipment Drain Leakage.	GPM calculated as "1.7" and recorded for Equipment Drain Leakage.	_____	_____	_____
* 7. Calculate Total FDL and EDL.	Calculated total FDL and EDL as 4.5.	_____	_____	_____
8. Notify Unit Supervisor that log is complete.	Unit Supervisor notified that FDL did not meet Acceptance Criteria (if not done previously) and log is complete.	_____	_____	_____
CUE: Acknowledge report.				
END				

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-RO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. Unit 3 is operating at rated power.
2. No equipment is inoperable or out of service.

Initiating Cues

1. It is Saturday and you are the Unit 3 NSO on dayshift.
2. At 1200 the Drywell Sumps were pumped and the following data obtained:
 DWFD Integrator Reading - Gallons Pumped: 672
 DWED Integrator Reading - Gallons Pumped: 408
3. Complete the MODE 1, 2, AND 3 REACTOR COOLANT LEAKAGE LOG for 1200 and determine if the Appendix A Surveillance Acceptance Criteria have been met.
4. Inform the Unit Supervisor when complete.

UNIT 3 OPERATOR'S DAILY SURVEILLANCE LOG
 MODE 1, 2 and 3 REACTOR COOLANT LEAKAGE LOG
 Tech Spec 4.6.H.2 associated Tech Spec 3.6.G

Day	Floor Drain Leakage (FDL)					Equipment Drain Leakage (EDL) Note 4			
	Note 1	Time Note 2	Integrator Reading Gallons Pumped	GPM Note 5 (AC) ≤ 5 GPM	(AC) ≤ 2 gpm increase within 24 hr or less (N)	Integrator Reading Gallons Pumped	GPM Note 5	Total FDL & EDL (AC) ≤ 25 GPM	Unit Supervisor's Initials
SUN	2000								
	1600								
	1200								
	0800								
	0400								
	0000								
SAT	2000								
	1600								
	1200								
	0800	0800	140	.58	✓	398	1.66	2.24	130
	0400	0400	151	.63	✓	375	1.65	2.28	DB
	0000	0000	136	.57	✓	400	1.67	2.24	DB
FRI	2000	2000	145	.6	✓	415	1.73	2.33	DB
	1600	1600	154	.64	✓	408	1.7	2.34	DB
	1200	1200	154	.64	✓	401	1.67	2.31	DB
	0800	0800	154	.64	✓	414	1.73	2.37	DB
	0400	0400	133	.55	✓	424	1.77	2.32	DBT
	0000	0000	122	.51	✓	435	1.81	2.32	DBT
THU	2000	2000	112	.47	✓	445	1.85	2.32	DB
	1600	1600	108	.45	✓	439	1.83	2.28	DB
	1200	1200	117	.49	✓	435	1.81	2.30	DB
	0800	0800	130	.54	✓	425	1.77	2.31	DB
	0400	0400	107	.45	✓	433	1.80	2.28	DBT
	0000	0000	156	.65	✓	411	1.71	2.36	DBT

UNIT 3 OPERATOR'S DAILY SURVEILLANCE LOG
MODE 1, 2 and 3 REACTOR COOLANT LEAKAGE LOG
Tech Spec 4.6.H.2 associated Tech Spec 3.6.G

NOTES:

1. Pump the floor drain sump no later than within 30 minutes of the time listed in this column.
2. Log actual time the floor drain sump pump was started. The integrated reading will be taken after pump trips on low sump level.
3. The equipment drain sump will be routinely pumped twice per shift.
4. Divide FDL and EDL (gallons) by the difference in elapsed time (in minutes) between attempted pump starts. Use 240 minutes as the time interval following a four hour period where the pump did not start as this is conservative and will give early indication of a problem.
5. For drywell leakage limitations refer to Tech Spec 3.6.H and DOP 2000-24.
6. Copy the appropriate Sunday 0000-2000 readings from the previous week Unit Operator's Daily Surveillance Log.
7. Calculate each of Drywell Floor/Equipment Drain Sump Pump flowrates sometime during Monday's pumping of the Drywell Sumps utilizing calibrated stopwatches (refer to attached Drywell Floor/Equipment Drain Sump Pump Flowrate Worksheet). Perform only once for each Drywell Sump pump every Monday (check table when flowrate calculated, otherwise N/A). Pump flowrates can be calculated independent of each other (no specific pump order).

Nuclear Generation Group

Job Performance Measure

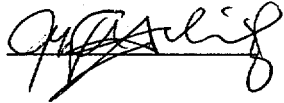
Verify a Safety Tagout

JPM Number: A.2-RO

Revision Number: 00

Date: 12/15/00

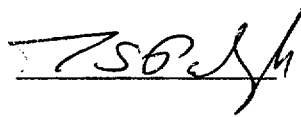
Author:



12/15/00

Date

Facility Representative:



12/15/00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Verify a Safety Tagout
Task Number: 29900LP003
Procedure : OP-AA-101-201
Procedure Rev : 02

Task Standards : Verify a Safety Tagout IAW OP-AA-101-201.

Validated Time : 10 minutes Time Critical: No

Evaluation Method : Perform Evaluation Location : Simulator

K & A Number : 2.2.13 K & A Rating : 3.6 / 3.8

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)**

Initial Conditions

1. Any IC.
2. OOS cards placed on the 902-3 Panel for the following components:
 - i. 2B CORE SPRAY PP BUS 24-1
 - ii. PP SUCT VLV MO 2-1402-3B MC 29-4
 - iii. 2B MIN FLOW VLV MO 2-1402-38B MC 29-4
 - iv. FLOW TEST VLV MO 2-1401-4B MCC 29-4
 - v. PP DISCH VLV MO 2-1401-24B MCC 29-1
 - vi. PP DISCH VLV MO 2-1401-25B MCC 29-1 THROT

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

An OOS has been hung by the Unit 2 NSO for the Unit 2 Division 2 Core Spray subsystem.

Initiating Cues (Read to Examinee)

Note: Provide the examinee with a printed copy of OOS 99002784.

1. You are the Unit 2 Aux NSO.
2. The Unit 2 Supervisor has directed you to verify the control room portion of OOS 990027824 for Division 2 Core Spray .
3. Inform the Unit 2 Supervisor when the verification is complete.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
Note: 2B Core Spray Pump control switch is in AUTO position, rather than PTL.				
* 1. Verify OOS card and position of 2B CORE SPRAY PP BUS 24-1.	OOS card is correct per OOS 990027824. Determines that 2B CORE SPRAY PP BUS 24-1 control switch is NOT in correct position	_____	_____	_____
* 2. Notifies Unit 2 Supervisor that 2B Core Spray Pump control switch is not in correct position.	Unit 2 Supervisor notified that 2B Core Spray pump control switch is not in correct position.	_____	_____	_____
CUE: Acknowledge report. Direct examinee to place 2B Core Spray Pump control switch in proper position and continue with OOS verification.				
* 3. Places 2B Core Spray Pump control switch in PTL.	2B Core Spray Pump control switch placed in PTL.	_____	_____	_____
4. Verify OOS card and position of PP SUCT VLV MO 2-1402-3B MC 29-4	PP SUCT VLV MO 2-1402-3B MC 29-4 OOS card and position verified correct per OOS 990027824. "Hung IV" column initialed.	_____	_____	_____
5. Verify OOS card and position of 2B MIN FLOW VLV MO 2-1402-38B MC 29-4.	2B MIN FLOW VLV MO 2-1402-38B MC 29-4 OOS card and position verified correct per OOS 990027824. "Hung IV" column initialed.	_____	_____	_____
6. Verify OOS card and position of FLOW TEST VLV MO 2-1401-4B MCC 29-4.	FLOW TEST VLV MO 2-1401-4B MCC 29-4 card and position verified correct per OOS 990027824. "Hung IV" column initialed.	_____	_____	_____
Note: PP DISCH VLV MO 2-1401-24B is open rather than closed.				
* 7. Verify OOS card and position of PP DISCH VLV MO 2-1401-24B MCC 29-1.	OOS card is correct per OOS 990027824. Determines that 2B CORE SPRAY PP BUS 24-1 valve is NOT in correct position.	_____	_____	_____
* 8. Notifies Unit 2 Supervisor that 2-1401-24B valve is not in correct position.	Unit 2 Supervisor notified that 2-1401-24B valve is not in correct position.	_____	_____	_____

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
CUE: Acknowledge report. Direct examinee to place the 2-1401-24B valve in proper position and continue with OOS verification				
* 5. Places 2-1401-24B valve in close position.	2-1401-24B control switch placed in close until Red close light illuminated.	_____	_____	_____
8. Verify OOS card and position of PP DISCH VLV MO 2-1401-25B MCC 29-1 THROT.	PP DISCH VLV MO 2-1401-25B MCC 29-1 THROT OOS card and position verified per OOS 990027824.	_____	_____	_____
7. Report completion of verification to Unit 2 Supervisor.	Completion verbally reported to Unit 2 Supervisor.	_____	_____	_____
CUE: Acknowledge report.	END			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-RO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

An OOS has been hung by the Unit 2 NSO for the Unit 2 Division 2 Core Spray subsystem.

Initiating Cues

1. You are the Unit 2 Aux NSO.
2. The Unit 2 Supervisor has directed you to verify the control room portion of OOS 990027824 for Division 2 Core Spray.
3. Inform the Unit 2 Supervisor when the verification is complete.



DRESDEN STATION

MASTER

CHECKLIST: 001

990027824

UNIT 02

FIRST HANG

PAGE: 1

EPN: ALT EPN: NAME: DIV 2 CORE SPRAY SYSTEM WORK DESC: ADMINISTRATIVE CONTROL

MC LOC: 02 NA NA PREPARED BY: T D KOPPEN 1ST APPR: T D KOPPEN 2ND APPR: [Signature]

SPECIAL INST: REVIEWENTER T.S.3.5.A FOR DIV 2 CORE SPRAY INOP.

TECH SPEC : APPLIC MODE : REQUIRED MODE :

AUTH BY:

Table with columns: HANG SEQ, HANG POS, HANG BY, HANG IV, ISOLATION POINT LOCATION & DESCRIPTION, LIFT SEQ, LIFT POS, LIFT BY, LIFT IV. Contains 5 rows of work items with handwritten 'TJD' in the HANG BY column.

COMPLETED BY: DATE: TIME:



DRESDEN STATION

MASTER

CHECKLIST: 001

990027824

UNIT 02

FIRST HANG

PAGE: 2

HANG SEQ	HANG POS	HANG BY	HANG IV	ISOLATION POINT LOCATION & DESCRIPTION							LIFT SEQ	LIFT POS	LIFT BY	LIFT IV
HANG 002	OOS-S NAC	TJD		2-1430-303B (C/S) PP DISCH VLV MO 902-3	2-1402-25B CONTROL RM	534	E	31	CR	GEN				
ECODE: 0000795894				ECODE:										
HANG 003	OOS-R R/O			2-67241-10 BUS 24-1	2-1401B 2B CORE SPRAY PUMP BUS 24-1	545	M	41	RB2	GEN				
ECODE: 0000814528				WHEN REMOVING FROM SERVICE, PLACE DANGER HIGH VOLTAGE SIGN ECODE:										
HANG 003	OOS-R OFF			2-7829-4A1 (BKR) 2-1402-3B 2B CORE SPRAY PMP SUCTION VLV FROM TORUS	2-1402-3B MCC 29-4, CUB A1	517	M	43	RB2	GEN				
ECODE: 0000815798				ECODE:										
HANG 003	OOS-R OFF			2-7829-4E3 (BKR) 2-1402-38B 2B CORE SPRAY PUMP MINIMUM FLOW VLV	2-1402-38B MCC 29-4, CUB E3	517	M	43	RB2	GEN				
ECODE: 0000815815				ECODE:										
HANG 003	OOS-R OFF			2-7829-4A2 (BKR) 2-1402-4B 2B CORE SPRAY PUMP TEST VLV	2-1402-4B MCC 29-4, CUB A2	517	M	43	RB2	GEN				
ECODE: 0000815799				ECODE:										
HANG 003	OOS-R OFF			2-7829-1E1 (BKR) 2-1402-24B 2B CORE SPRAY PUMP UPSTREAM INJECTION VLV	2-1402-24B MCC 29-1, CUB E1	517	K	43	RB2	GEN				
ECODE: 0000815699				ECODE:										
HANG 003	OOS-R OFF			2-7829-1E2 (BKR) 2-1402-25B 2B CORE SPRAY PUMP DOWNSTREAM INJECTION VLV	2-1402-25B MCC 29-1, CUB E2	517	K	43	RB2	GEN				
ECODE: 0000815700				ECODE:										
**** END OF ISOLATION POINTS ****														



DRESDEN STATION

MASTER

HECKLIST: 001

990027824

UNIT (J2

FIRST HANG

PAGE: 3

EQUIPMENT NOTES003

EPN: 2-67241-10

ALT EPN: 2-1401B

WHEN REMOVING FROM SERVICE, PLACE DANGER HIGH VOLTAGE SIGN

F HANG



DRESDEN STATION

MASTER

CHECKLIST: 001

990027824

UNIT (J2

FIRST HANG

PAGE:

4

OUT OF SERVICE PRINCIPLE EQUIPMENT

T213-COND : APR WORK REQUEST: STAT: DESC:
NAME : 2-1401-4 U2 EMERGENCY CORE COOLING SYSTEM JOCKEY PUMP
EPN : 2-1401-4 ALT EPN: 2-1401-4
BUILDING : RB2 ELEVATION: 476 ROOM: LPCIE COLUMN : 38 ROW: M
PANEL/RACK: LOC DESC : E. CORNER RM; E. WALL



DRESDEN STATION

MASTER

FIRST HANG

CHECKLIST: 001

990027824

UNIT 02

PAGE: 5

OUT OF SERVICE HOLDERS:

Holder	Holder Name	Dept	--Accepted---	----Released----	Auth. By	Exp	Act	Extension
DREZK	KOPPEN	T D				1		2071

* * * * END OF REPORT * * * *

Nuclear Generation Group

Job Performance Measure

NCAD Flow Meter Correction

JPM Number: A.3-RO

Revision Number: 00

Date: 12/05/00

Author:

J. A. Arling

12/5/00

Date

Facility Representative:

T. S. O. J. A.

12/15/00

Date

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.3-RO Rev. 00 (12/00)**

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : NCAD Flow Meter Correction
Task Number: 295L103
Procedure : DEOP 0500-04
Procedure Rev : 09

Task Standards : Correct the NCAD flow meter reading IAW DEOP 0500-04.

Validated Time : N/A Time Critical: No

Evaluation Method : Simulate Evaluation Location : In-Plant

K & A Number : 2.3.9 K & A Rating : 2.5 / 3.4

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |
| 5. | List below any weaknesses noted : | | | | |

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.3-RO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.3-RO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. A LOCA has occurred on Unit 2.
2. DEOP 0500-04, Attachment 2, is in progress due high hydrogen in the drywell.
3. Nitrogen makeup is unavailable.

Initiating Cues (Read to Examinee)

Note: Provide the examinee with a blank copy of DEOP 0500-04, Attachment 10.

1. The NCAD bypass is being aligned on Unit 2 to purge the drywell with nitrogen.
2. Valve 2-8599-769, U2 N2 BYPASS SUPPLY TO N2 NORM MU STOP VLV has been opened.
3. The Unit Supervisor has directed you to perform Attachment 10 NCAD Flow Meter Correction to set flowrate.
4. Valve 2/3-8505-500, U 2/3 N2 MU HEADER OUTLET ISOL VLV TO U2 AND U3 has just been closed.
5. Inform the Unit Supervisor when the indicated flowrate (Q) has been determined.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.3-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
* 1. Record pressure indicated on PI 2/3-8541-8003, NITROGEN PRIMARY STORAGE TANK.	Records 135 for PI 2/3-8541-8003 pressure reading.	_____	_____	_____
CUE: After pressure gauge is located, "pressure is 135 psig."				
* 2. Record temperature indicated on TI 2/3-8541-33, 2/3 N2 VAPORIZER OUTLET TEMP.	Records 50 for TI 2/3-8541-33 temperature reading.	_____	_____	_____
CUE: After temperature indicator is located, "temperature is 50°F."				
* 3. Using Table 1, NCAD FLOWMETER CORRECTION determine the indicated flowrate (Q) to be read on FI 2/3-8541-34, 2/3 N2 VAPORIZER OUTLET FLOW for system flow rate of 35 scfm.	Determines flowrate of 35 scfm using Table 1, NCAD FLOWMETER CORRECTION.	_____	_____	_____
4. Notify Unit Supervisor that indicated flowrate (Q) has been determined.	Unit Supervisor notified that indicated flowrate (Q) is 35 scfm.	_____	_____	_____
CUE: Acknowledge report.				
	END			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.3-RO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. A LOCA has occurred on Unit 2.
2. DEOP 0500-04, Attachment 2, is in progress due high hydrogen in the drywell.
3. Nitrogen makeup is unavailable.

Initiating Cues

1. The NCAD bypass is being aligned on Unit 2 to purge the drywell with nitrogen.
2. Valve 2-8599-769, U2 N2 BYPASS SUPPLY TO N2 NORM MU STOP VLV has been opened.
3. The Unit Supervisor has directed you to perform Attachment 10 NCAD Flow Meter Correction to set flowrate.
4. Valve 2/3-8505-500, U 2/3 N2 MU HEADER OUTLET ISOL VLV TO U2 AND U3 has just been closed.
5. Inform the Unit Supervisor when the indicated flowrate (Q) has been determined.

CATEGORY 1

UNIT 2(3)
DEOP 0500-04
REVISION 09

ATTACHMENT 10 NCAD FLOW METER CORRECTION

1. Perform the following to calculate the indicated flowmeter reading for an actual flowrate of 35 scfm:
 - a. Close 2/3-8505-500, U 2/3 N2 MU HEADER OUTLET ISOL VLV TO U2 AND U3 (located on wall, downstream of normal N2 MU PRV)
 - b. Record pressure indicated on PI 2/3-8541-8003, 2/3 NITROGEN PRIMARY STORAGE TANK:

PI 2/3-8541-8003 = _____ psig
 - c. Record temperature indicated on TI 2/3-8541-33, 2/3 N2 VAPORIZER OUTLET TEMP:

TI 2/3-8541-33 = _____ °F
 - d. Using Table 1, NCAD FLOWMETER CORRECTION determine the indicated flowrate(Q) to be read on FI 2/3-8541-34, 2/3 N2 VAPORIZER OUTLET FLOW for system flow rate of 35 scfm:

Q = _____ scfm

2. Adjust flowrate as follows:
 - a. Throttle valve 2/3-8599-782A(B) 2/3 NCAD MU/INERT BYPASS PRV A(B) OUTLET ISOL VLV, for the in service regulator, to achieve flow as read on FI 2/3-8541-34, 2/3 N2 VAPORIZER OUTLET FLOW as recorded in step 1.d.
 - b. Record final flow as read FI 2/3-8541-34, 2/3 N2 VAPORIZER OUTLET FLOW.

FI 2/3-8541-34 = _____ scfm
 - c. Verify that final flow measured in step 2.b is greater than or equal the flow in step 1.d.
 - d. Open 2/3-8505-500, U 2/3 N2 MU HEADER OUTLET ISOL VLV TO U2 AND U3 (located on wall, next to N2 tank downstream of normal N2 MU PRV)
 - e. Notify the Unit Supervisor that NCAD flow has been adjusted.

CATEGORY 1

ATTACHMENT 10 NCAD FLOW METER CORRECTION(Continued)

UNIT 2(3)
DEOP 0500-04
REVISION 09

TABLE 1
NCAD FLOWMETER CORRECTION

Pressure (PSIG)

	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250
-20	34	34	33	33	32	32	31	31	30	30	29	29	29	28	28	28	27	27	27	26	26	26	26	25	25	25	25
-15	35	34	33	33	32	32	31	31	30	30	30	29	29	28	28	28	27	27	27	27	26	26	26	25	25	25	25
-10	35	34	34	33	33	32	32	31	31	30	30	29	29	29	28	28	28	27	27	27	26	26	26	26	25	25	25
-5	35	34	34	33	33	32	32	31	31	30	30	30	29	29	28	28	28	27	27	27	27	26	26	26	25	25	25
0	35	35	34	33	33	32	32	31	31	31	30	30	29	29	29	28	28	28	27	27	27	26	26	26	26	25	25
5	35	35	34	34	33	33	32	32	31	31	30	30	29	29	29	28	28	28	27	27	27	27	26	26	26	26	25
10	36	35	34	34	33	33	32	32	31	31	30	30	30	29	29	29	28	28	28	27	27	27	26	26	26	26	25
15	36	35	35	34	33	33	32	32	31	31	31	30	30	29	29	29	28	28	28	27	27	27	27	26	26	26	26
20	36	35	35	34	34	33	33	32	32	31	31	30	30	30	29	29	29	28	28	28	27	27	27	26	26	26	26
25	36	36	35	34	34	33	33	32	32	31	31	31	30	30	29	29	29	28	28	28	27	27	27	27	26	26	26
30	36	36	35	35	34	33	33	32	32	31	31	31	30	30	30	29	29	28	28	28	28	27	27	27	26	26	26
35	37	36	35	35	34	34	33	33	32	32	31	31	30	30	30	29	29	29	28	28	28	27	27	27	27	26	26
40	37	36	35	35	34	34	33	33	32	32	31	31	31	30	30	29	29	29	28	28	28	28	27	27	27	26	26
45	37	36	36	35	34	34	33	33	32	32	32	31	31	30	30	30	29	29	29	28	28	28	28	27	27	27	26
50	37	36	36	35	35	34	34	33	33	32	32	31	31	30	30	30	29	29	29	28	28	28	28	28	27	27	26
55	37	37	36	35	35	34	34	33	33	32	32	31	31	31	30	30	30	29	29	29	28	28	28	28	27	27	27
60	37	37	36	36	35	34	34	33	33	32	32	32	31	31	30	30	30	29	29	29	28	28	28	28	27	27	27
65	38	37	36	36	35	35	34	34	33	33	32	32	31	31	31	30	30	29	29	29	29	28	28	28	27	27	27
70	38	37	37	36	35	35	34	34	33	33	32	32	31	31	31	30	30	30	29	29	29	29	28	28	28	28	27
75	38	37	37	36	35	35	34	34	33	33	32	32	32	31	31	30	30	30	29	29	29	29	28	28	28	28	27
80	38	38	37	36	36	35	35	34	34	33	33	32	32	31	31	31	30	30	30	29	29	29	28	28	28	28	27
85	38	38	37	36	36	35	35	34	34	33	33	32	32	32	31	31	30	30	30	29	29	29	28	28	28	28	27
90	39	38	37	37	36	35	35	34	34	33	33	32	32	32	31	31	31	30	30	30	29	29	29	28	28	28	27
95	39	38	37	37	36	36	35	34	34	34	33	33	32	32	31	31	31	30	30	30	29	29	29	28	28	28	28
100	39	38	38	37	36	36	35	35	34	34	33	33	32	32	32	31	31	30	30	30	29	29	29	29	28	28	28

°F

Nuclear Generation Group

Job Performance Measure

Respond to a Fire Alarm

JPM Number: A.4-RO

Revision Number: 00

Date: 12/05/00

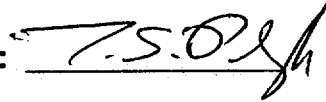
Author:



12/5/00

Date

Facility Representative:



12/5/00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-RO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Respond to a Fire Alarm
Task Number: 295L009
Procedure : DOA 0010-10
Procedure Rev : 05

Task Standards : Respond to a fire/explosion IAW DOA 0010-10.

Validated Time : N/A Time Critical: No

Evaluation Method : Simulate Evaluation Location : Simulator

K & A Number : 2.4.27 K & A Rating : 3.0 / 3.5

Exam Results

1. Did the examinee complete all the critical steps? Yes _____ No _____
2. Was the JPM completed within the validated time? Yes _____ No _____
3. Did the examinee pass the JPM? Yes _____ No _____
4. Is remediation recommended (req'd. if # 3 marked No) Yes _____ No _____
5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-RO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-RO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. Unit 2 is operating at rated power.
2. There is no inoperable or out of service equipment.

Initiating Cues (Read to Examinee)

1. You are the Unit 2 NSO.
2. DOS 6600-01, Diesel Generator Surveillance Tests, was completed for the Unit 2 D/G about 30 minutes ago.
3. An XL3 alarm for Device 23-23 has just been received.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-RO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
1. Inform the Operations Supervisor.	Unit Supervisor notified.	_____	_____	_____
CUE: Acknowledge report.				
* 2. Dispatch an Operator to determine cause of alarm.	NLO dispatched to U2 D/G room to investigate fire alarm.	_____	_____	_____
CUE: NLO reports "Smoke coming from U2 D/G Room and the fire suppression alarm is ringing.				
* 3. IF fire exists, THEN ENTER DOA 0010-10 to assemble the Fire Brigade.	Entering DOA 0010-10 announced.	_____	_____	_____
Note: Steps 4 - 7 are the DOA 0010-10 immediate actions.				
* 4. Initiate the Plant Fire Siren. a. Verify FIRE/EVAC ALARM ENABLE control switch is in NORMAL. b. Depress and release FIRE ALARM pushbutton. c. Observe audible ALTERNATING TONE for 10 seconds.	Plant fire siren initiated: a. FIRE/EVAC ALARM ENABLE control switch verified in NORMAL. b. FIRE ALARM pushbutton depressed and released. c. Audible ALTERNATING TONE observed for 10 seconds.	_____	_____	_____
* 5. Announce fire location on Plant Public Address System (repeat announcement).	Fire location (U2 D/G Room) announced on Plant PA System and announcement repeated.	_____	_____	_____
* 6. Announce fire location on Plant Radio System (Channel FM-1) (repeat announcement).	Fire location (U2 D/G Room) announced on Plant Radio System (Channel FM-1) and announcement repeated.	_____	_____	_____
* 7. Announce fire location on Plant Radio System (OPS Channel) (repeat announcement).	Fire location (U2 D/G Room) announced on Plant Radio System (Radio System) and announcement repeated.	_____	_____	_____
CUE: Acknowledge report.				
	END			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-RO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. Unit 2 is operating at rated power.
2. There is no inoperable or out of service equipment.

Initiating Cues

1. You are the Unit 2 NSO.
2. DOS 6600-01, Diesel Generator Surveillance Tests, was completed for the Unit 2 D/G about 30 minutes ago.
3. An XL3 alarm for Device 23-23 has just been received.

CATEGORY 1

DAN XL3
DEVICE 23-23
REVISION 03

SETPOINT: Actual: 1. Diesel room temperature of at least 225°F.
2. Local electric push button station.

2 DG ROOM FIRE
B1

Tech Spec: NONE.

SENSOR: 23-23 in ALARM, TRX Device 2-4132-323 activated by Cardox alarm relay (PNL 2223-53) associated with U-2 D/G Room CO₂ fire suppression system heat detectors AND push button station.

NOTE

If the device is in TROUBLE, refer to DFPP 4185-1, Table 1 for the proper response to the trouble message. Do NOT continue with this DAN.

A. AUTOMATIC ACTIONS:

1. Trips room vent fan, fan louvers and door louvers.
2. Sounds local siren (Cardox).
3. Floods room with CO₂ after 60 seconds.

B. OPERATOR ACTIONS:

1. Inform the Operations Supervisor
2. Dispatch an Operator to determine cause of alarm.
3. IF fire exists, THEN ENTER DOA 0010-10 to assemble the Fire Brigade and THEN GO TO Step B.4.
4. IF Cardox System needs to be isolated:
 - Close valves 2/3-7699-48 AND 2/3-7699-49 (top of Cardox tank).
 - CTS ENTER DATR 3/4.1.4.
 - ITS comply with the requirements of TRM 3.7.k, Gaseous Suppression System.
 - GO TO step B.5.
5. RESET the Cardox System at the relay cabinet near the Cardox Tank to silence the local alarm AND RESET XL3 system to its normal condition.

CONTINUED

AUG 16 2000

CATEGORY 1

DAN XL3
DEVICE 23-23
REVISION 03

B. 6. IF alarm is spurious AND will not reset, THEN submit an Action Request to repair cause of alarm.

C. PROBABLE CAUSES:

1. Fire causing heat detectors to actuate.
2. Personnel detected fire actuated push button station.

D. USER REFERENCES:

1. CTS DATR 3/4.1.1, Fire Detection Instrumentation, Section 3.1.1.1
ITS TRM Section 3.3.e, Fire Detection Instrumentation
2. CTS DATR 3/4.1.4 Gaseous Suppression Systems. Section 3.1.4.2.
ITS TRM Section 3.7.k, Gaseous Suppression System.
3. © DFPP 4185-01, XL3 Fire Detection System Operation, Table 1, Trouble Response Listings. © (W-3)
4. DOA 0010-10, Fire/Explosion.

END

AUG 16 2000

CATEGORY 1

UNIT 2(3)
DOA 0010-10
REVISION 05

FIRE/EXPLOSION

REQUIREMENTS:

NONE

TECHNICAL REVIEW AND CONTROL:

Disciplines:	NPPT	RO	RE/QNE	CH	RS	I&C	M&ES
Required:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Unit 1 Review Required: YES NO

Special Reviews: NONE

ON-SITE REVIEW AND INVESTIGATIVE FUNCTION (OnSR&IF):

OnSR&IF REQUIRED YES NO

Required Review Participants:

NONE.

APPROVAL AUTHORITY: Shift Operations Supervisor (SOS), or designee

POST PERFORMANCE REVIEWS:

NONE.

APR 24 1996

EFFECTIVE DATE

CATEGORY 1

UNIT 2(3)
DOA 0010-10
REVISION 05

FIRE/EXPLOSION

A. SYMPTOMS:

1. Multiple Fire Alarm indication on Control Room printer (XL-3 detection system) or Control Room Annunciator.
2. Report of fire/explosion OR local fire alarm activation by site personnel.

B. AUTOMATIC ACTIONS:

1. Possible automatic initiation of local area fire suppression systems.

C. IMMEDIATE OPERATOR ACTIONS:

1. IF fire/explosion is located inside Protected Area, THEN perform the following:
 - a. Initiate the Plant Fire Siren as follows:
 - (1) Verify FIRE/EVAC ALARM ENABLE control switch is in NORMAL.
 - (2) Depress and release FIRE ALARM pushbutton.
 - (3) Observe audible ALTERNATING TONE for 10 seconds.
 - b. Announce fire location on Plant Public Address System (repeat announcement).
 - c. Announce fire location on Plant Radio system (Channel FM-1) (repeat announcement).
 - d. Announce fire location on Plant Radio system (OPS Channel) (repeat announcement).
2. IF fire/explosion is located outside the Protected Area, THEN perform the following:
 - a. Notify Coal City Fire Protection District (Refer to DOA 0010-S1, Key Phone Numbers for DOA 0010 Block Procedures).

D. SUBSEQUENT OPERATOR ACTIONS:

1. IF fire/explosion is located inside Protected Area, THEN perform the following:
 - a. Request personnel reporting fire to remain in a nearby safe area to direct the fire brigade to fire location.

CATEGORY 1

UNIT 2(3)
DOA 0010-10
REVISION 05

- D. 1. b. IF outside fire department assistance is needed, THEN request assistance from the Coal City Fire Protection District (Refer to DOA 0010-S1, Key Phone Numbers for DOA 0010 Block Procedures).
- c. Notify Security Shift Supervisor that outside fire department will be responding AND perform the following:
- (1) Request expedited entry provisions be implemented.
 - (2) Direct Security to provide dosimetry packets (stored in gatehouse) to arriving fire department personnel.
 - (3) Provide Security location of the fire AND request Security to direct fire department personnel to fire location.
- d. IF the situation requires plant evacuation or accountability of personnel, THEN implement EPIP 0400-01, Plant Assembly.
- e. Review EPIP 0200-01, Classification of GSEP Conditions, IF conditions of an Emergency Action Level (EAL) are met, THEN declare a GSEP Emergency Classification level.
- f. IF a GSEP Emergency Classification level is declared, THEN implement required notifications per EPIP 300-1, Notification for GSEP Emergencies.
- g. Contact Station Manager, Assistant Superintendent Operations and Operating Engineer AND provide a briefing of the situation.
- h. Review DSSP (Safe Shutdown) Procedures to determine applicability based on plant conditions.
- i. Direct Radiation Protection personnel to collect dosimetry AND complete necessary paperwork for responding outside fire department personnel after the fire is extinguished.
- j. Once the control room has been notified, announce twice "THE ALL CLEAR" on the Plant Public Address System AND Plant Radio System.

CATEGORY 1

UNIT 2(3)
DOA 0010-10
REVISION 05

- D. 2. IF fire/explosion is located outside Protected Area, THEN perform the following:

NOTE

The initial response may be just one person to provide an early assessment of the emergency.

- a. IF adequate manpower is available, THEN initiate a response.
- b. Notify Security Shift Supervisor that outside fire department will be responding AND perform the following:
 - (1) Request assistance in providing access to affected area if necessary.
- c. IF determined Coal City Fire Protection District assistance is not necessary, THEN notify them to discontinue response as soon as possible.

E. USER REFERENCES:

1. Procedures:

- a. DOA 0010-S1, Key Phone Numbers for DOA 010 Block Procedures.
- b. EPIP 0200-01, Classification of GSEP Conditions.
- c. EPIP 0300-01, Notifications for GSEP Emergencies.
- d. EPIP 0400-01, Plant Assembly.
- e. DAP 03-01, Fire Protection Program.
- f. Dresden Safe Shutdown Procedures (DSSP).

F. DISCUSSION:

The Coal City Fire Protection District is the primary fire department for response to the site. Additional support will be activated, as needed, by the Coal City Fire Protection District through mutual aid agreements.

W. WRITER'S REFERENCES:

NONE.

Nuclear Generation Group

Job Performance Measure

Determine Reportability Requirements

JPM Number: A.1.a-SRO

Revision Number: 00

Date: 12/05/00

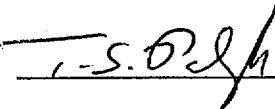
Author:



12/5/00

Date

Facility Representative:



12/5/00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-SRO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Determine Reportability Requirements
Task Number: 299L001
Procedure : Reportability Manual, SAF 1.7
Procedure Rev : 3

Task Standards : Given a plant in an off-normal condition, determine reportability requirements IAW the Reportability Manual.

Validated Time : N/A Time Critical: Yes

Evaluation Method : Perform Evaluation Location : In-Plant

K & A Number : 2.1.33 K & A Rating : 3.4 / 4.0

Exam Results

- | | | | | |
|---|-----|-------|----|-------|
| 1. Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-SRO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-SRO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. RFP 2B has been out of service for two days.
2. A loss of feedwater occurred on Unit 2 due to a Bus 21 overcurrent trip.
3. The reactor was manually scrammed three minutes ago due to decreasing water level.
4. HPCI automatically began injecting one minute ago after reactor water level decreased to -65 inches.
5. Reactor water level was restored using HPCI and is being maintained +8 to +48 inches.

Initiating Cues (Read to Examinee)

1. You are the Unit 2 Unit Supervisor and the Shift Manager has directed you to determine reportability requirements for the events on Unit 2.
2. Report any reportability requirements to the Shift Manager after they have been determined.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
	Record start time: _____			
1. Obtain the Reportability Manual.	Reportability Manual obtained.	_____	_____	_____
2. Read Reportability Manual to determine event reportability requirements.	Reportability Manual read to determine reportability requirements.	_____	_____	_____
<p>Note: The examinee may also determine that the event is reportable within 4 hours as an ESF Actuation IAW SAF 1.12; however, the one hour notification takes precedence.</p>				
* 3. Determine that event requires notification of the NRC Operations Center via the Emergency Notification System (ENS), within one hour of the occurrence of any event that results or should have resulted in ECCS discharge into the reactor coolant system as a result of a valid signal (SAF 1.7)	Determined that event requires NRC Operations Center notification via the ENS within one hour.	_____	_____	_____
4. Notify Shift Manager that a one hour notification of the NRC via the ENS is required due to an ECCS Actuation.	Shift Manager notified that a one hour notification of the NRC via the ENS is required due to an ECCS Actuation.	_____	_____	_____
<p>CUE: Acknowledge report.</p>				
* TIME CRITICAL – JPM must be completed within 59 minutes.	Record End Time: _____ Elapsed Time: _____ minutes			
END				

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.a-SRO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. RFP 2B has been out of service for two days.
2. A loss of feedwater occurred on Unit 2 due to a Bus 21 overcurrent trip.
3. The reactor was manually scrammed three minutes ago due to decreasing water level.
4. HPCI automatically began injecting one minute ago after reactor water level decreased to -65 inches.
5. Reactor water level was restored using HPCI and is being maintained +8 to +48 inches.

Initiating Cues

1. You are the Unit 2 Unit Supervisor and the Shift Manager has directed you to determine reportability requirements for the events on Unit 2.
2. Report any reportability requirements to the Shift Manager after they have been determined.

REPORTABLE EVENT SAF 1.7:

ECCS Actuation

Requirement: 10 CFR 50.72(b)(1)(iv)
10 CFR 50.73(a)(2)(iv)

50.72(b)(1)(iv): The licensee shall notify the NRC as soon as practical and in all cases within one hour of the occurrence of . . . any event that results or should have resulted in Emergency Core Cooling System (ECCS) discharge into the reactor coolant system as a result of a valid signal.

50.73(a)(2)(iv): The licensee shall report . . . any event or condition that resulted in a manual or automatic actuation of any Engineered Safety Feature (ESF), . . .

Time Limit	Required Notification(s):
SAF 1.1	See SAF 1.1 for notifications required for declaration of an emergency class.
SAF 1.4	See SAF 1.4 for notifications required for initiation or shutdown required by the technical specifications.
1 HOUR	Notify the NRC Operations Center via the Emergency Notification System, within one hour of the occurrence of any event that results or should have resulted in ECCS discharge into the reactor coolant system as a result of a valid signal. [10 CFR 50.72(b)(1)(iv)]
AS REQ'D	Notify the NRC Operations Center during the course of the event, immediately (but not later than one hour after determination is made) report any further degradation in the level of safety of the plant or other worsening plant conditions. [10 CFR 50.72(c)(1)]
AS REQ'D	Notify the NRC Operations Center during the course of the event, immediately (but not later than one hour after determination is made) report the results of ensuing evaluations or assessments of plant conditions, the effectiveness of response protective measures taken, or information related to plant behavior that is not understood. [10 CFR 50.72(c)(2)]

**Time
Limit** **Required Written Report(s):**

30 DAYS Provide NRC (Document Control Desk) with a written report using NRC Form 366, "Licensee Event Report" (LER), within 30 days of discovery of the event. [10 CFR 50.73(a)(1) and 10 CFR 50.73(a)(2)(iv)]

90 DAYS **BYRON, BRAIDWOOD, LASALLE, DRESDEN AND QUAD CITIES ONLY:** Submit a special report to the Commission within 90 days describing the circumstance of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided whenever it exceeds a value of 0.70. [B/B Technical Requirements Manual Section 5.3.c.4; LaSalle Technical Specification 3.5.1., Dresden/Quad Cities Technical Specification 3.5.A.]

Discussion:

- o The occurrence of this event may require activation of the Emergency Plan. In that case, notification will be made per the Emergency Plan and a duplicate notification per this Reportable Event is not required. [See SAF 1.1]
- o Those events that result in either automatic or manual actuation of the ECCS or would have resulted in activation of the ECCS if some component had not failed or an operator action had not been taken are reportable. For example, if a valid ECCS signal was generated by plant conditions and the operator put all ECCS pumps in pull-to-lock position, although no ECCS discharge occurred, the event is reportable.
- o The NRC considers deliberate manual ECCS initiations or actuations based on the operator's understanding of actual plant conditions or parameters as valid signals. However, inadvertent manual ECCS initiations or actuations that occur because of human error, such as errors that occur during surveillance tests or maintenance activities, are not considered as valid signals. If the ECCS discharged or should have discharged into the reactor coolant system as a result of an invalid signal, no ENS notification under this reporting criterion is required. (Such a condition may be reportable as an ESF actuation under 10 CFR 50.72(b)(2)(ii). [See SAF 1.12]
- o A "valid signal" refers to the actual plant conditions or parameters satisfying the requirements for ECCS initiation. Valid actuations also include intentional manual

actuators, unless the actuation is part of a preplanned sequence during test or operation. Excluded from this reporting requirement would be those instances in which instrument drift, spurious signals, human error, or other invalid signals caused actuation of the ECCS (e.g., jarring a cabinet, an error in the use of jumpers or lifted leads, an error in the actuation of switches or controls, equipment failure or radio frequency interference). However, such events may be reportable under other criteria; in particular, if an ESF is actuated 10 CFR 50.72(b)(2)(ii) requires a report within four hours and 10 CFR 50.73(a)(2)(iv) requires submittal of an LER. [See SAF 1.12]

- o ECCS discharge is a subset of 10 CFR 50.73(a)(2)(iv), actuation of an engineered safety feature. Any event reportable under 10 CFR 50.72(b)(1)(iv) also requires a 30-day LER under 10 CFR 50.73(a)(2)(iv) because an ESF was actuated. [See SAF 1.12]
- o If an LER has been provided to the NRC documenting the event and that report included all of the special report requirements, no additional submittal is required. [Byron and Braidwood only]
- o Emergency Core Cooling System (ECCS) discharge means the flow of ECCS water into the reactor coolant system via the normal ECCS system flow path. Not all ECCS system actuations result in a discharge. The ECCS systems which typically can perform this function are:

BWR

PWR

- (1) High Pressure Coolant Injection System (D/QC) or High Pressure Core Spray (L)
- (2) Core Spray System
- (3) Low Pressure Coolant Injection System

- (1) High-Head Safety Injection System
- (2) Intermediate-Head Safety Injection System
- (3) Low-Head Safety Injection System
- (4) Accumulators

Examples The following are examples for Reportable Event SAF 1.7

(1) BWR Scram and ECCS Injection on Valid Signal

A loss of instrument air caused the feedwater pump minimum flow valves to fail open and decrease reactor vessel level. This resulted in an automatic reactor scram/turbine trip and high-pressure core spray and reactor core isolation cooling injection into the reactor vessel for 4 minutes. After reactor vessel level and the condensate and feedwater systems were restored, these pumps were secured.

An ENS notification is required under 10 CFR 50.72(b)(1)(iv) because an ECCS system injected water into the RCS as a result of a valid ECCS signal. Although the RPS actuation also is reportable within 4 hours under 10 CFR 50.72(b)(2)(ii), this more limiting criterion applies. An LER is required under 10 CFR 50.73(a)(2)(iv) because an ESF actuation occurred.

(2) PWR ECCS Injection following Surveillance Testing

While making preparations for a normal plant cooldown in Mode 5, the licensee performed stroke time testing of the safety injection isolation valves. Following the test these valves were not returned to the closed position. This resulted in approximately 2000 gallons of borated water injecting into the reactor coolant system when the plant was depressurized below the safety injection tank pressure of 260 psia.

This event is reportable as an ECCS injection under 10 CFR 50.72(b)(1)(iv). ECCS initiation was based on RCS pressure being less than safety injection tank pressure. Therefore, ECCS initiation is considered to result from a valid signal. An LER is required under 10 CFR 50.73(a)(2)(iv).

(3) PWR ECCS Injection Caused by Personnel Error

While surveillance testing containment isolation valves, a test push-button was inadvertently released, which initiated a "B" train containment isolation and ECCS. High-pressure ECCS pumps injected 300 gallons of borated water from the refueling water storage tank into the reactor before the "B" pumps were secured while the reactor remained at 94-percent power.

This event is not reportable under 10 CFR 50.72(b)(1)(iv), even though it was an ECCS injection into the RCS, because it resulted from an invalid signal; however, it is reportable as an ESF actuation under 10 CFR 50.72(b)(2)(ii) and an LER is required under 10 CFR 50.73(a)(2)(iv).

Nuclear Generation Group

Job Performance Measure

Review a Faulty APRM Surveillance

JPM Number: A.1.b-SRO

Revision Number: 00

Date: 12/05/00

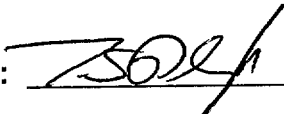
Author:



12/6/00

Date

Facility Representative:



12-6-00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Review a Faulty APRM Surveillance
Task Number: 215L003
Procedure : DOS 0500-06
Procedure Rev : 18

Task Standards : Determine if APRM AGAFs are within tolerances as required by Tech Specs per
DOS 0500-06.

Validated Time : N/A Time Critical: No

Evaluation Method : Simulate Evaluation Location : In-Plant

K & A Number : 2.1.12 K & A Rating : 2.9 / 4.0

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. Unit 2 is operating at about 95% reactor power.
2. All APRMs are operable.
3. The POWERPLEX and Process Computers are unavailable.

Initiating Cues (Read to Examinee)

Note: Provide the examinee with a marked up copy of DATA SHEET 1 from DOS 0500-06.

1. You are the Unit 2 Unit Supervisor on dayshift, Monday, November 6, 2000.
2. The Unit 2 NSO has just given you DATA SHEET 1 from DOS 0500-06, APRM Gain Adjustment Factor Verification, and informed you that it is ready for review.
3. Core Thermal Power (CTP) was 2361 MWt as calculated per DOS 0500-05, Calculation of Core Thermal Power.
4. 1st stage turbine pressure was 850 psig on Panel 902-7.
5. The Nominal AGAF is 1.00.
6. Inform the Shift Manager when the review of DOS 0500-06 is complete.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
<p>* 1. Review data collected and hand calculations used for AGAFs.</p>	<p>RAP data for each APRM reviewed and determined to be correct. AGAF hand calculations reviewed and noted error in AGAF calculations for APRM #4 and APRM #6. Actual APRM #4 AGAF is 1.032, not 1.020 as written on DATA SHEET 1. Actual APRM #6 AGAF is 0.978, not 0.998 as written on DATA SHEET 1.</p>	_____	_____	_____
<p>Note: Examinee may notify Shift Manager when errors are detected.</p>				
<p>CUE: (If Shift Manager notified at this point) Acknowledge report. Continue review of DATA SHEET 1 and determine if there are any other errors.</p>				
<p>2. Review of data collected and hand calculation for CTP and CTP%.</p>	<p>CTP data and CTP% hand calculation reviewed and determined to be correct.</p>	_____	_____	_____
<p>3. Review of data collected for 1st stage turbine pressure.</p>	<p>Recorded 1st stage turbine pressure determined to be correct.</p>	_____	_____	_____
<p>4. Review of 1st Stage Turbine Pressure vs CTP.</p>	<p>CTP determined to be within range of 1st Stage Turbine Pressure vs CTP.</p>	_____	_____	_____
<p>5. Review of Nominal AGAF.</p>	<p>Recorded nominal AGAF determined to be correct.</p>	_____	_____	_____
<p>6. Review of AGAF limit.</p>	<p>Recorded AGAF limit determined to be correct.</p>	_____	_____	_____
<p>7. Review of hand calculation for Adjusted High AGAF Limit.</p>	<p>Adjusted High AGAF Limit calculation determined to be correct.</p>	_____	_____	_____
<p>8. Review of hand calculation for Adjusted Low AGAF Limit.</p>	<p>Adjusted Low AGAF Limit calculation determined to be correct.</p>	_____	_____	_____
<p>* 9. Initial DATA SHEET 1 signifying concurrence and approval of the information.</p>	<p>DATA SHEET 1 is NOT initialed due to the errors with APRM #4 and APRM #6.</p>	_____	_____	_____

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
<p>10. Determine actions required for AGAFs outside limits using DOS 0500-06, Limitations and Actions.</p>	<p>Determines the following actions per DOS 0500-06:</p> <p>APRM #4 (AGAF greater than the adjusted AGAF limit) – within 2 hours have the Instrument Maintenance Department perform an APRM gain adjustment per DIS 0700-17. [reference TS Table 4.1.A-1, note (d)]</p> <p>APRM #6 (AGAF less than the adjusted low AGAF limit) – within 12 hours have the Instrument Maintenance Department perform an APRM gain adjustment per DIS 0700-17. [reference TS Table 4.1.A-1, note (d)]</p>	<p>_____</p>	<p>_____</p>	<p>_____</p>
<p>11. Notify Shift Manager that review of DATA SHEET 1 is complete.</p>	<p>Shift Manager notified that review of DATA SHEET 1 is complete. Shift Manage notified of errors with APRM #4 and APRM #6 calculations (if not previously notified).</p>	<p>_____</p>	<p>_____</p>	<p>_____</p>
<p>CUE: Acknowledge report.</p>				
	<p>END</p>			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.1.b-SRO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. Unit 2 is operating at about 95% reactor power.
2. All APRMs are operable.
3. The POWERPLEX and Process Computers are unavailable.

Initiating Cues

1. You are the Unit 2 Unit Supervisor on dayshift, Monday, November 6, 2000.
2. The Unit 2 NSO has just given you DATA SHEET 1 from DOS 0500-06, APRM Gain Adjustment Factor Verification, and informed you that it is ready for review.
3. Core Thermal Power (CTP) was 2361 MWt as calculated per DOS 0500-05, Calculation of Core Thermal Power.
4. 1st stage turbine pressure was 850 psig on Panel 902-7.
5. The Nominal AGAF is 1.00.
6. Inform the Shift Manager when the review of DOS 0500-06 is complete.

CATEGORY 1

UNIT 2(3)
 DOS 0500-06
 REVISION 18

DATA SHEET 1 APRM GAIN ADJUSTMENT FACTOR

WEEK FROM 11/06/00 TO 11/12/00.

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
APRM #1 RAP*	92.0						
AGAF	1.015						
√ if AC H.2 met	✓						
APRM #2 RAP*	93.0						
AGAF	1.004						
√ if AC H.2 met	✓						
APRM #3 RAP*	95.0						
AGAF	0.983						
√ if AC H.2 met	✓						
APRM #4 RAP*	90.5						
AGAF (also √ if AC H.2 met)	1.020						
√ if AC H.2 met	✓						
APRM #5 RAP*	94.5						
AGAF	0.988						
√ if AC H.2 met	✓						
APRM #6 RAP*	95.5						
AGAF	0.998						
√ if AC H.2 met	✓						
CTP	2361						
CTP% = (CTP/2527) * 100%	93.4						
AGAF and CTP Obtained From (Identify source) OD-03 (√)	* N/A						
OD-09, Option 1 or 2	N/A						
1 st Stage Turb. Press.	850						
1 st Stage Turb. Press. Obtained From (Identify source) T206(T306) (√)	N/A						
Panel 902(3)-7	✓						

* CALCULATED

CATEGORY 1

UNIT 2(3)
 DOS 0500-06
 REVISION 18

DATA SHEET 1 APRM GAIN ADJUSTMENT FACTOR (CONTINUED)

	MON	TUE	WED	THU	FRI	SAT	SUN
(AC) Using graph of 1 st Stage Turb. Press. Vs CTP, CTP within allowable range (Yes or No).	YES						
IF CTF outside allowable, THEN notify Unit Supv. AND initial, otherwise N/A.	N/A						
Nominal AGAF	1.00						
Record AGAF Limit	0.021						
Adjusted High AGAF Limit = (Nominal AGAF + AGAF Limit)	1.021						
Adjusted Low AGAF Limit = (Nominal AGAF - AGAF Limit)	0.979						
Recorded By: NSO Initials	ABC						
Reviewed By: Unit Supervisor (Initials)							

* RAP = Indicated APRM reading.

Nuclear Generation Group

Administrative Topics Question

High Radiation Area Entry Requirements

Question Number: A.3.Q2-SRO

Revision Number: 00

Date: 12/14/00

Author:

[Handwritten Signature]

12/14/00

Date

Facility Representative:

[Handwritten Signature]

12/15/00

Date

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q2-SRO Rev. 00 (DRAFT)**

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

ADMINISTRATIVE TOPICS QUESTION

Question Topic: High Radiation Area Entry Requirements

References Used: Yes

References : RP-AA-460, Rev. 1, Controls for High and Very High Radiation Areas

K & A Number : 2.3.1 K & A Rating : 2.6 / 3.0

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q2-SRO Rev. 00 (DRAFT)**

QUESTION

Unit 2 is operating at rated power.

There is a steam leak in the heater bay.

The Shift Manager has directed you to enter the heater bay to inspect the steam leak.

Electronic dosimetry is not available due to an RP computer system outage.

A current survey of the heater bay is not available; however, the most recent survey taken at rated power indicated general area dose rates of 150 - 200 mrem/hr.

What actions must be taken for you to enter the heater bay and inspect the steam leak?

KEY

1. Review and sign the appropriate RWP.
2. Review survey data for the area (following completion of an updated survey),
OR
Enter the area with a Radiation Protection Technician
3. Be equipped with a radiation monitoring device which continuously indicates the radiation dose rate in the area,
OR
Enter the area with a qualified representative of the RP Department with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area, and who performs periodic radiation surveillance at the frequency specified for the applicable RWP.

SCORE: _____

SAT: _____

UNSAT: _____

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q2-SRO Rev. 00 (DRAFT)**

EXAMINEE COPY

QUESTION

Unit 2 is operating at rated power.

There is a steam leak in the heater bay.

The Shift Manager has directed you to enter the heater bay to inspect the steam leak.

Electronic dosimetry is not available due to an RP computer system outage.

A current survey of the heater bay is not available; however, the most recent survey taken at rated power indicated general area dose rates of 150 - 200 mrem/hr.

What actions must be taken for you to enter the heater bay and inspect the steam leak?

Nuclear Generation Group

Job Performance Measure

Classify a GSEP Event and Determine PARS

JPM Number: A.4 -SRO

Revision Number: 00

Date: 12/05/00

Author: *[Signature]*

12/6/00
Date

Facility Representative: *[Signature]*

12/6/00
Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-SRO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Classify a GSEP Event and Determine PARS
Task Number: 295L160
Procedure : EPIP 0100-01
Procedure Rev : 12

Task Standards : Given a plant in an off normal condition, determine the GSEP classification IAW EPIP 200-01 and table 200-T1.

Validated Time : N/A Time Critical: No

Evaluation Method : Perform Evaluation Location : Simulator / In-Plant

K & A Number : 2.4.38 K & A Rating : 2.2 / 4.0

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-SRO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-SRO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. A LOCA has occurred on Unit 2 resulting in the following conditions:
 - reactor water level decreased to -170 inches and is now steady
 - drywell temperature is 290°F and decreasing slowly
 - drywell pressure is 12 psig and decreasing
 - drywell radiation is 7500 rem/hour and rising slowly
2. Drywell spray is in progress.
3. An off-site release is in progress at the rate of 5.2E07 uCi/sec.
4. The Shift Manager is the acting Emergency Director.

Initiating Cues (Read to Examinee)

1. The Shift Manager has directed you to determine the GSEP classification of the event and determine the Protective Action Recommendations (PARS) required.
2. Notify the Shift Manager when:
 - the classification has been determined
 - the PARS have been determined.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
* 1. Determine an Emergency Classification level based on the Emergency Action Levels (EAL) listed in EPIP 0200-T1, Dresden Station Emergency Action Levels.	Determines Emergency Classification level to be GENERAL EMERGENCY based on EAL FG1.	_____	_____	_____
2. Notify the person with command and control of the results of the determination.	Notifies Shift Manager of the GENERAL EMERGENCY classification.	_____	_____	_____
CUE: Acknowledge report				
* 3. Determine Protective Action Recommendations (PARS) per EPIP 0100-01, Attachment A, PARs Flowchart for Control Room.	PARS determined to be: (E) E) S [9C, H, J&G] per EPIP 0100-01, Attachment A.	_____	_____	_____
4. Notify Shift Manager of PARS.	Shift Manager notified of PARS.	_____	_____	_____
CUE: Acknowledge report				
END				

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.4-SRO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. A LOCA has occurred on Unit 2 resulting in the following conditions:
 - reactor water level decreased to -170 inches and is now steady
 - drywell temperature is 290°F and decreasing slowly
 - drywell pressure is 12 psig and decreasing
 - drywell radiation is 7500 rem/hour and rising slowly
2. Drywell spray is in progress.
3. An off-site release is in progress at the rate of 5.2E07 uCi/sec.
4. The Shift Manager is the acting Emergency Director.

Initiating Cues

1. The Shift Manager has directed you to determine the GSEP classification of the event and determine the Protective Action Recommendations (PARS) required.
2. Notify the Shift Manager when:
 - the classification has been determined
 - the PARS have been determined.

Nuclear Generation Group

Job Performance Measure

Initiate a Caution Card

JPM Number: A.2-SRO

Revision Number: 00

Date: 12/05/00

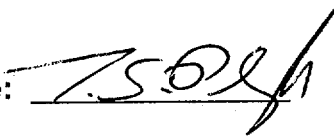
Author:



12/5/00

Date

Facility Representative:



12/5/00

Date

LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)

Examinee Information

Examinee's Name : _____ Date : _____

Time Started : _____ Time Completed : _____

Evaluator Name : _____

JPM Information

Standard Faulted Alternate Path Time Critical

Task Title : Initiate a Caution Card
Task Number: 299L014
Procedure : OP-AA-101-102
Procedure Rev : 1

Task Standards : Given a condition for hanging a caution card and a copy of OP-AA-101-102, properly complete the card and log.

Validated Time : N/A Time Critical: No

Evaluation Method : Perform Evaluation Location : Simulator / In-Plant

K & A Number : 2.2.13 K & A Rating : - / 3.8

Exam Results

- | | | | | | |
|----|--|-----|-------|----|-------|
| 1. | Did the examinee complete all the critical steps? | Yes | _____ | No | _____ |
| 2. | Was the JPM completed within the validated time? | Yes | _____ | No | _____ |
| 3. | Did the examinee pass the JPM? | Yes | _____ | No | _____ |
| 4. | Is remediation recommended (req'd. if # 3 marked No) | Yes | _____ | No | _____ |

5. List below any weaknesses noted :

6. List below remediation recommended by the evaluator :

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)**

Revision Record (Summary)

Rev. 00

Initial Issue

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)**

Initial Conditions

None

Remotes/Alarms Required

None

Malfunction Required

None

Task Conditions (Read to Examinee)

1. Unit 2 is operating at rated power.
2. DOS 1500-10, LPCI System Pump Operability Test With Torus Available and In-Service Testing (IST) Program, was just completed on dayshift.

Initiating Cues (Read to Examinee)

Note: Provide the trainee with the attached hardcopy Caution Card Log.

1. You have just assumed the evening shift on Unit 2 as the Unit Supervisor.
2. The Shift Manager informs you that the LPCI system engineer (K. C. Jones) called to notify operations that LPCI Pump 2C had horizontal vibration readings in the ALERT range and he has requested that a Caution Card be placed to notify Engineering for vibration readings when LPCI Pump 2C is operated.
3. The Shift Manager directs you to initiate and place the Caution Card.
4. The Ops Logs computer programs have been out of service since yesterday and are expected to be returned to service tomorrow morning.
5. Notify the Shift Manager after placing the Caution Card.

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
Note: Caution Card use is controlled by procedure OP-AA-101-102.				
* 1. Retrieve a blank Miniature Caution Card.	Blank Miniature Caution Card retrieved.	_____	_____	_____
CUE: When a Miniature Caution Card has been retrieved, then direct examinee: - to fill out the attached sheet in lieu of the Miniature Caution Card - use the Miniature Caution Card for placement				
* 2. Enter the following information into the fields on the Caution Card Log: - Card Number - EPN / Noun Name - Requestor / Department - Location - Instructions - Actions Required for Removal - Authorization / Date - Placement / Date	Entered the following (or similar) information into the fields on the Caution Card Log: - 02-4567 - LPCI Pump 2C - K. C. Jones / ENG - Panel 902-3 - Notify ENG for vibration readings when operating pump. - Vibration readings returned to normal. - Unit Supervisor Name / Today's Date - Unit Supervisor Name / Today's Date	_____	_____	_____
* 3. Enter the following information into the fields on the Caution Card: - EQUIPMENT - INSTRUCTIONS - PLACED BY - REQUESTED BY - DATE	Entered the following (or similar) information into the fields on the Caution Card: - LPCI Pump 2C - Notify ENG for vibration readings when operating pump. - Unit Supervisor Name - K. C. Jones - Today's Date	_____	_____	_____
* 4. Attach Caution Card to location indicated on the Caution Card Log.	Caution Card attached to LPCI Pump 2C control switch on Panel 902-3.	_____	_____	_____

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)**

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	N/A
5. Verify Caution Card is attached such that necessary status indication such as indicating lights, parameter indications, etc., are not obscured.	Verifies that Caution Card is attached such that necessary status indications are not obscured.	_____	_____	_____
6. Notify Shift Manager that Caution Card was placed.	Shift Manager notified.			
Cue: Acknowledge report.				
	END			

**LICENSED OPERATOR REQUAL
JOB PERFORMANCE MEASURE
A.2-SRO Rev. 00 (12/00)**

EXAMINEE COPY

Task Conditions

1. Unit 2 is operating at rated power.
2. DOS 1500-10, LPCI System Pump Operability Test With Torus Available and In-Service Testing (IST) Program, was just completed on dayshift.

Initiating Cues

1. You have just assumed the evening shift on Unit 2 as the Unit Supervisor.
2. The Shift Manager informs you that the LPCI system engineer (K. C. Jones) called to notify operations that LPCI Pump 2C had horizontal vibration readings in the ALERT range and he has requested to that a Caution Card be placed to notify engineering for vibration readings when LPCI Pump 2C is operated.
3. The Shift Manager directs you to initiate and place the Caution Card.
4. The EWCS computer has been out of service since yesterday and is expected to be returned to service tomorrow morning.
5. Notify the Shift Manager after placing the Caution Card.

CAUTION

EQUIPMENT—

INSTRUCTIONS—

CAUTION

PLACED BY—

REQUESTED BY—

DATE—

C. E. CO. 86-2112(S) 7-82

CAUTION

EQUIPMENT _____

PLACED BY: _____

DATE: _____

REQUESTED BY: _____

INSTRUCTIONS: _____

RELATED REFERENCE: _____

C. E. CO. 86-2262 11/2/93

CARD NO. _____

(OPTIONAL)

CAUTION

Nuclear Generation Group

Administrative Topics Question

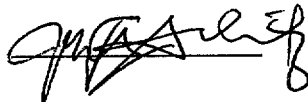
Exposure Limits Approval

Question Number: A.3.Q1-SRO

Revision Number: 00

Date: 12/14/00

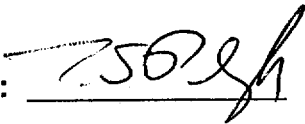
Author:



12/14/00

Date

Facility Representative:



12/15/00

Date

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q1-SRO Rev. 00 (DRAFT)**

Examinee Information

Examinee's Name : _____ **Date :** _____

Time Started : _____ **Time Completed :** _____

Evaluator Name : _____

ADMINSTRATIVE TOPICS QUESTION

Question Topic: Emergency Exposure Limits

References Used: Yes

References : EPIP 0100-01, Rev. 12, Acting Station Director Implementing Procedure
EPIP 0150-01, Rev. 07, Radiation Protection Director Implementing Procedure
EPIP 0165-01, Rev. 08, Operations Support Center Supervisor Implementing Procedure

K & A Number : 2.3.4 **K & A Rating :** 2.5 / 3.1

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q1-SRO Rev. 00 (DRAFT)**

QUESTION

You are the acting Station Director following a LOCA outside primary containment.

It is necessary to send two operators into the reactor building to align valves to prevent significant damage to the reactor recirculation pumps.

The dose rate in the area is 20 rem/hour.

What is the maximum stay time for this activity?

KEY

30 minutes (0.5 hour)

Per EPIP 0150-01, Attachment D, a dose limit of 10 rem is allowed for protecting valuable property. Therefore, the maximum stay time would be:

$$[10 \text{ rem}] / [20 \text{ rem/hour}] = 0.5 \text{ hour}$$

SCORE: _____

SAT: _____

UNSAT: _____

**LICENSED OPERATOR EXAM
ADMINISTRATIVE TOPICS QUESTION
A.3.Q1-SRO Rev. 00 (DRAFT)**

EXAMINEE COPY

QUESTION

You are the acting Station Director following a LOCA outside primary containment.

It is necessary to send two operators into the reactor building to align valves to prevent significant damage to the reactor recirculation pumps.

The dose rate in the area is 20 rem/hour.

What is the maximum stay time for this activity?