# JOB PERFORMANCE MEASURE APPROVAL SHEET

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JPM Title: RO Shift Turnover

ID Number:

JPM-A01

Revision: 0

II. Initiated:

Fred Mygard Developer

6/13/2000 Date

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III. Reviewed:

Moberto Min Fechnical Reviewer

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IV. Approved:

User Department Supervisor

Muclear Training Supervisor

Date

Date

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Facility: MP-2	Examinee:
JPM Number:	_JPM-A01 Rev
Task Title: RO Shift	Turnover
System: Administrativ	e
Time Critical Task: Yes	. No X
Validated Time (minutes)	. 10
Task No.(s): <u>NUTIMS</u>	119-02-030
Applicable To: SR	0 RO <b>_X</b> PEO
K/A No.: 2.1.3	K/A Rating: 3.0/3.4
Method of Testing: Simulated Performance	: Actual Performance:X
Location:	
Classroom: X	Simulator: X In-Plant: X
Task Standards:	At the completion of this JPM, the RO should perform a review of documents and find incorrect information related to a shift turnover.
<u>Required Materials</u> (procedures,equipment):	<ul> <li>OPS Form 2669A-4, "Shift Turnover Report"</li> <li>Shift Manager Log (Auto Log)</li> <li>Night Order Book</li> <li>Radwaste Log Book (Auto Log)</li> <li>Radwaste Night Order Book</li> </ul>
General References:	U2 COP 200.1 "Conduct of Operations", Section 1.19 (Rev.3,Ch.1)

# \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

 JPM Number:
 JPM-A01
 Rev.
 0

 Initiating Cues:
 • You have just arrived in the control room at the beginning of your shift. Take necessary actions required for a shift turnover as the BOP.

 • I will act as the off going BOP.

Simulator Requirements: N/A

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### \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

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JPM ID NUME	3ER: <u>JPM-A01</u>	TITLE: <u>RO Shift Turnover</u>	
START TIME:			
STEP 1	Performance	<ul> <li>Steps: Prior to conducting the control board walkdown, it is recommended that the oncoming licensed operators review the following:</li> <li>OPS Form 2619A-4, "Shift Turnover Report" (Autolog)</li> <li>ODI Form 6.15-6, "Work Control Turnover Report</li> <li>SM Log</li> <li>Night Order Log (for any new Night Orders)</li> <li>Radwaste Log Book (Auto Log)</li> <li>Radwaste Night Order Book</li> </ul>	s s
GRADE	Standards:	Examinee reviews provided copy of the SM log (auto Lo Printout) and states he would also need to review the shift turnover report, the work control turnover report, th night order log, the radwaste log book and the radwaste night order book.	ng he
	Cue: If e rev to Affi att If h tha sta	xaminee does not ask for or list documents he needs to iew, prompt him by asking him what documents he nee review. er he lists the documents he needs to review, provide th ached copy of the SM auto log for his review. e does not recognize you as the off-going US, remind h t you are and are able to provide information about plan tus.	he im

Comments: U2 OP 2200.1 is an information level of use.

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| STEP 2 | х | Performance S | teps: Walk down appropriate control boards <i>with</i> off-going                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------|---|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SIEP Z |   | Performance S | <ul> <li>Walk down appropriate control boards with off-going operators.</li> <li>Discussions should include but <i>not</i> be limited to the following: <ul> <li>Unusual events that occurred during last 24 hou</li> <li>Inoperable equipment and ACTION Statements, including surveillance requirements</li> <li>Reasons for annunciator alarms</li> <li>Tagged equipment, including any surveillance or equipment work in progress at time of shift relief and turnover</li> <li>Running equipment and train alignments</li> <li>The status of systems, equipment, alignments, controllers, and annunciators</li> <li>Plant evolutions in progress and or planned</li> <li>Potentially hazardous activities or conditions reported during the previous shift</li> <li>Unusual events within the last 24 hours</li> <li>Significant surveillances completed or carried ov</li> <li>Significant Work activities, including restorations completed or carried over (SRO)</li> <li>The status of any outstanding Radwaste Release permits (SRO)</li> <li>Temporary modifications (jumpers) installed sinct the previous shift</li> </ul></li></ul> |
| GRADE  | X | Standards:    | During the review of the SM log the examinee should<br>recognize that there is a potential problem with taking the<br>'B' AFW pump out of service when Facility 2 is protected<br>The examinee may also ask why both AFW pumps are<br>out of service at the same time. Facility 2 is protected<br>and 'A' AUX Feed pump out for PMs as described in the<br>0730 entry. The 109 and 1110 entries are related to the<br>'B' Aux Feed pump.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

Comments: After this step is completed, the JPM is considered complete.

STOP TIME:

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## VERIFICATION OF JPM COMPLETION

| Job Performance Measure No.                                                                             | JPM-A01                                                                | Rev.                       | <u>0</u>                       |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|--------------------------------|
| Date Performed:                                                                                         |                                                                        |                            |                                |
| Operator:                                                                                               |                                                                        |                            |                                |
| Evaluator(s):                                                                                           |                                                                        |                            |                                |
| For examinee to achieve a satis<br>correctly. If task is Time Critical<br>achieve a satisfactory grade. | factory grade, <u>ALL</u> critical<br>, it <u>MUST</u> be completed wi | steps must<br>thin the spe | be completed<br>cified time to |
|                                                                                                         |                                                                        |                            |                                |
| Time Critical Task? Yes                                                                                 | No <u>X</u>                                                            |                            |                                |
| Validated Time (minutes):                                                                               | 10                                                                     |                            |                                |
| Actual Time to Complete (minutes                                                                        | ):                                                                     |                            |                                |
| Result of JPM: (Denote                                                                                  | by an <u>S</u> for satisfactory or a                                   | <u>U</u> for unsati        | sfactory)                      |
| Areas for Improvement:                                                                                  |                                                                        |                            |                                |

## **EXAMINEE HANDOUT**

JPM ID Number: A01

Initiating Cues:

- You have just arrived in the control room at the beginning of your shift. Take necessary actions required for a shift turnover as the BOP.
- I will act as the off going BOP.

Initial Conditions:

| 07/01/00 | 0730  | Shift Hours: 07-19, Tuesday, SM: H. Williamson, US: J.<br>Hoagland, WCSRO: J. Fillion, SPO: M. Lettrich, PPO J.<br>Jorinscay, STA:M. Strollo, U/I: K. Dingle (US), TB: G.<br>Chaude, AB: L. Swadley, FL/FBA: M. Pucel. Plant in<br>Mode:1, Rx power: 100 %, MWe: 904, Control Rods: ARO,<br>Blowdown: 45gpm (#1), 45gpm (#2), RCS Circulation:<br>RCPs, Tave: 571, Onsite Power: NSST, Pzr Level: 65%,<br>SFP Lvl: 36' 10", TSAS: 3.4.11b act a (PZR vent path<br>isolated), 3.3.39b act 2 (RM-4262), 3.7.1.2 act a ('A' Aux<br>Feed pump out for PM's) TRMs: F.3.1.a.1 & F.3.1.a.2<br>(Fire Barriers), B.3.1 (U-2 fire pump), Also see | clairjj | myerstm |
|----------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| 07/01/00 | 0810  | Impairment sheet. Facility 2 Protected.<br>RM-8132 is secured to change out Chargesl and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | clairii | mvoretm |
| 01/01/00 | 0010  | Particulate filters for Chemistry, Table 3.3-13 No Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ciaiijj | myersum |
|          |       | Required due to that outages are permitted for a                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |         |
|          |       | maximum of 12 hours for the purpose of maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |         |
|          |       | and performance of required tests, checks, calibrations,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |         |
|          |       | or sampling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | • • ••  |         |
| 07/01/00 | 0817  | Chemist returned RM-8132 to service, flow 3.25 CFM.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | clairjj | myerstm |
| 07/01/00 | 0825  | Entered TSAS 3.7.6.1b. Both trains of Control Room                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | clairjj | myerstm |
|          |       | trains of Control Room ventilation Inonerable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         |         |
|          |       | immediately suspend the movement of fuel assemblies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |
|          |       | within the Spent Fuel Pool and the movement of shielded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |         |
|          |       | casks over the Spent Fuel Pool cask laydown area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |         |
|          |       | Restore at least one Inoperable train to Operable status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |         |
|          |       | within 1 hour, or be in Hot Standby within the next 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |         |
|          |       | hours, and cold shutdown within the following 30 hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |         |
| 07/01/00 | 0840  | Exited TSAS 3.7.6.1b. Door testing complete. Both                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | clairjj | myerstm |
|          |       | trains of Control Room ventilation are Operable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |         |
| 07/01/00 | 0845  | Released the following AWOs to the WIN Team:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | clairjj | myerstm |
|          |       | M2-00-12193 Replace gasket on LS-5331 (2B feedwater                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |         |
| 05/01/00 | 0000  | heater low level alarm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1 · ··  | ,       |
| 07/01/00 | 0930  | Commenced Discharge of TK-10 to LIS. Level 86%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | clairjj | myerstm |
| 07/01/00 | 1040  | Shift Managar acconted 06-12 portion of 2610A 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | clairjj | myerstm |
| 07/01/00 | 11045 | Placed 'B' Aux Feed nump out of service for PMs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | clairii | myerstm |
| 07/01/00 | 1110  | Released AWO M2-00-08904 'B' Aux Feed pump PMs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | parre   | mverstm |
|          |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | T       |         |

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# JOB PERFORMANCE MEASURE APPROVAL SHEET

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JPM Title: Determine Shutdown Margin

ID Number:

JPM-A08

Revision: 0

II. Initiated:

Developer

6/15/2000 Date

III. Reviewed:

nm u **Technical Reviewer** 

IV. Approved:

User Department Supervisor

Date

Training pervisor Νų

| Facility: MP-2                                       | Examinee:                                                                                |                                                                  |
|------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| JPM Number:                                          | JPM-A08                                                                                  | Rev0                                                             |
| Task Title: Determine                                | e Shutdown Margin                                                                        |                                                                  |
| System: N/A                                          |                                                                                          |                                                                  |
| Time Critical Task: Yes                              | No <b>_X</b>                                                                             |                                                                  |
| Validated Time (minutes):                            | 15                                                                                       |                                                                  |
| Task No.(s): <u>NUTIMS</u> #                         | 121-01-145                                                                               |                                                                  |
| Applicable To: SRC                                   | D X RO X PEO                                                                             |                                                                  |
| K/A No.: 2.1.25<br>192002 K1                         | K/A Rating: 2.8/3.1<br>I.13 3.5/3.7                                                      |                                                                  |
| Method of Testing:                                   |                                                                                          |                                                                  |
| Simulated Performance:                               | Actual Performan                                                                         | ace: X                                                           |
| Location:                                            |                                                                                          |                                                                  |
| Classroom: X                                         | Simulator: X                                                                             | In-Plant: X                                                      |
| <u>Task Standards:</u>                               | At the completion of this JPM, ex<br>required shutdown boron concen<br>SDM is being met. | aminee has determined the<br>tration within +50/-15 ppm and that |
| <u>Required Materials</u><br>(procedures,equipment): | <ul><li>OP 2208 (and all associated)</li><li>Calculator</li></ul>                        | OPS Forms)                                                       |
| General References:                                  | OP 2208, Section 4.3 (Rev. 12, 0                                                         | Ch. 2)                                                           |

## \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

| JPM Number:         | JPM-A08                                                                                                                                                                                                     | Rev.                                                                                                                                                                      | 0                                                                                                    |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Initiating Cues:    | <ul> <li>The Unit Supervise<br/>the first full hour in<br/>advantage of the &gt;<br/>with OP 2208.</li> </ul>                                                                                               | or has directed you to ve<br>nmediately following the<br>(enon worth modificatior                                                                                         | erify adequate SDM for<br>plant trip, taking<br>n option, in accordance                              |
| Initial Conditions: | <ul> <li>The plant has tripp<br/>It is expected to st</li> <li>The trip was uncorpressure are being</li> <li>Chemistry Departr<br/>boron concentration</li> <li>Reactor Engineering<br/>MWD/MTU.</li> </ul> | ed from 100% steady-st<br>artup in approximately 8<br>nplicated and normal ter<br>maintained.<br>nent has sampled the Re<br>n to be 1176 ppm.<br>ng has indicated core av | tate equilibrium power.<br>hours.<br>mperature and<br>CS and determined the<br>rerage burnup is 2000 |

Simulator Requirements: N/A

# \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. As necessary use Data Sheet to verify parameters used.

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| JPM ID NUMB | BER: <u>JPM-A08</u> | TITLE: Determine Shutdown Margin                                                                                                                                                                                                                                                                                                         |
|-------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME: |                     |                                                                                                                                                                                                                                                                                                                                          |
| STEP 1      | _ Performance S     | <ul> <li>Steps: 1. OBTAIN present burnup from one of the following and RECORD: <ul> <li>"CVBURNUP" (PPC)</li> <li>Reactor Engineering</li> </ul> </li> <li>2. RECORD RCS temperature (T<sub>AVG</sub>).</li> </ul>                                                                                                                       |
| GRADE       | _ Standards:        | Examinee obtains a copy of OPS Form 2208-13, "SDM<br>Determination in MODES 3, 4, and 5" and records burnup<br>and T <sub>avg</sub> .                                                                                                                                                                                                    |
|             | Cue:                |                                                                                                                                                                                                                                                                                                                                          |
| Comments:   | Burnup was provide  | ed and $T_{avg}$ used should be 532 °F.                                                                                                                                                                                                                                                                                                  |
|             | ~~~~~~              | ~~~~~                                                                                                                                                                                                                                                                                                                                    |
| STEP 2      | X Performance S     | <ul> <li>Steps: Refer To OPS Form 2208-12 and DETERMINE required shutdown boron concentration for existing core burnup and T<sub>AVG</sub> and RECORD.</li> <li>If any untrippable CEA(s) <i>not</i> fully inserted, ADD 350 ppm for <i>each</i> CEA <i>not</i> fully inserted, to the required shutdown boron concentration.</li> </ul> |
| GRADE       | <u>X</u> Standards: | Examinee uses burnup and T <sub>avg</sub> and determines required<br>boron on OPS Form 2208-12 and records on OPS Form<br>2208-13. Since trip was uncomplicated, examinee<br>determines it is <u>not</u> necessary to add 350 ppm.<br><b>Tolerance is +50/-15 ppm.</b>                                                                   |
|             | Cue:                |                                                                                                                                                                                                                                                                                                                                          |

Comments: As necessary Refer to Data Sheet for value.

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| JPM ID NUM | BER: JPM-A08 TITLE: Determine Shutdown Margin                                                                                                                                                                                                                                                                                                                       |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 3     | Performance Steps: RECORD present RCS boron concentration, date, and time and SIGN "Determined By" section.                                                                                                                                                                                                                                                         |
| GRADE      | _ Standards: Examinee records present RCS boron concentration, date, and time on OPS Form 2208-13 and signs form.                                                                                                                                                                                                                                                   |
|            | Cue:                                                                                                                                                                                                                                                                                                                                                                |
| Comments:  |                                                                                                                                                                                                                                                                                                                                                                     |
|            | ~~~~~~                                                                                                                                                                                                                                                                                                                                                              |
| STEP 4     | <ul> <li>X Performance Steps: If xenon worth modification is applicable (i.e., post trip or shutdown), PERFORM the following once every hour for a maximum of 24 hours:</li> <li>a) RECORD date and time</li> <li>b) Refer To OPS Form 2208-5 and DETERMINE Inverse Boron Worth at present burnup.</li> <li>c) RECORD Inverse Boron Worth in column "A."</li> </ul> |
| GRADE      | <u>X</u> Standards: Examinee identifies that xenon worth modification is applicable and uses burnup to determine inverse boron worth on OPS Form 2208-5 and records in column "A" on OPS Form 2208-13 (also date and time). <b>Tolerance is</b> $\pm$ <b>0.2 ppm/%</b> $\Delta$ <i>K</i> / <i>K</i> .                                                               |
|            | Cue:                                                                                                                                                                                                                                                                                                                                                                |

Comments: As necessary Refer to Data Sheet for value.

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| JPM ID NU | MBER | : <u>JPM-A08</u> | TITLE:                                                                  | Determine Shutdown Margin                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|------|------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 5    | X    | Performance S    | Steps: <u>N(</u><br>wc<br>ho<br>•                                       | <u>OTE</u> : When determining the smallest xenon reactivity<br>orth expected to occur at any time during the next 1<br>ur periods, the following should be considered:<br>If xenon is building in, the value at the beginning of<br>the hour should be used.<br>If xenon is decaying, the value at the end of the<br>hour should be used.                                                                         |
|           |      |                  | 1.<br>2.                                                                | <ul> <li>Refer To one of the following and DETERMINE the <i>smallest</i> xenon reactivity worth expected within the hour being evaluated:</li> <li>"Xenon-Samarium Post Trip Report" (printed automatically on special typer following trips)</li> <li>OPS Form 2208-4</li> <li>"XENON-SAMARIUM DEMAND" PPC program</li> <li>Reactor Engineering</li> <li>RECORD xenon reactivity worth in column "B."</li> </ul> |
| GRADE     | X    | Standards:       | Examir<br>building<br>determ<br><u>beginn</u><br>OPS F<br><b>Tolera</b> | nee reads note and determines that xenon is<br>g in. Using OPS Form 2208-4, examinee<br>ines the xenon reactivity worth value at the<br>ing of the hour and records in column "B" on<br>orm 2208-13.<br><b>nce is</b> ± <b>0.1%</b> Δ <i>K</i> / <i>K</i> .                                                                                                                                                       |
|           |      | Cue: If asked    | which so                                                                | urce to use, suggest OPS Form 2208-4.                                                                                                                                                                                                                                                                                                                                                                             |

Comments: Xenon value will be 100% power equilibrium xenon. As necessary Refer to Data Sheet for value.

| JPM ID NUM | BER: <u>JPM-A08</u>                                          | TITLE: Determine Shutdown Margin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 6     | <u>X</u> Performance                                         | Steps: CALCULATE Boron Equivalent of Xenon Reactivity<br>Worth as follows and RECORD in column "C":<br>Boron Equivalent of Xenon Reactivity Worth =<br>(Inverse Boron Worth) x (Xenon Reactivity Worth)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| GRADE      | <u>X</u> Standards:                                          | Examinee multiplies column "A" (Inverse Boron Worth)<br>times column "B" (Xenon Reactivity Worth) and records<br>Boron Equivalent of Xenon in column "C" on<br>OPS Form 2208-13.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|            | Cue:                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Comments:  | As necessary Refe<br>Question the exam<br>This question does | r to Data Sheet for value.<br>inee as to how this result was obtained.<br>not constitute a critical component of this step.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| STEP 7     | X Performance                                                | <ul> <li>Steps: CALCULATE Xenon Corrected Required Shutdown<br/>Boron Concentration as follows:</li> <li>1. RECORD the <i>lowest expected</i> RCS T<sub>AVG</sub> in the<br/>next hour.</li> <li>2. Refer To OPS Form 2208-12 and DETERMINE<br/>required shutdown boron concentration.</li> <li>3. RECORD required shutdown boron concentration<br/>in column "D."</li> <li>4. CALCULATE and RECORD in column "E": <ul> <li>Xenon Corrected Required Shutdown Boron<br/>Concentration = Required Shutdown Boron<br/>Concentration - Boron Equivalent of Xenon<br/>Reactivity Worth</li> </ul> </li> <li>5. SIGN "Calculated By" column.</li> </ul> |
| GRADE      | <u>X</u> Standards:                                          | Examinee records data (T <sub>avg</sub> as 532°F), subtracts Boron<br>Equivalent of Xenon Reactivity Worth determined in step<br>6 from the Required Shutdown Boron Concentration<br>determined in step 2 and signs OPS Form 2208-13.<br><b>Tolerance is +50/-15 ppm.</b>                                                                                                                                                                                                                                                                                                                                                                          |
|            | Cue:                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Comments:  | As necessary Refe                                            | er to Data Sheet for value.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

Question examinee as to how this result was obtained. This question does not constitute a critical component of this step.

| JPM ID NUM | BER: | <u>JPM-A08</u>  | TITLE:             | Determine Shutdown Margin                                             |
|------------|------|-----------------|--------------------|-----------------------------------------------------------------------|
| STEP 8     | X    | Performance     | Steps: Re<br>ver   | port that SDM for the first hour, post-trip, has been ified adequate. |
| GRADE      | X    | Standards:      | Examir<br>first ho | nee states SDM reported adequate (verified) for the<br>ur, post-trip. |
|            | (    | Cue: Acknov     | vledge repo        | ort.                                                                  |
| Comments:  | Afte | er this step is | completed          | d, the JPM is considered complete.                                    |

STOP TIME:

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## JPM ID NUMBER: JPM-A08 TITLE: Determine Shutdown Margin

### **DATA SHEET**

The values for this data sheet must be determined and verified using the current OPS Forms in OP 2208. The data on this sheet may be updated as necessary if the data in OP 2208 changes.

RCS Boron Concentration: <u>1176 ppm</u>

| <u>F</u> | PERFORMANCE STEP                         | VALUE                                                | FORM AND REV. #               |
|----------|------------------------------------------|------------------------------------------------------|-------------------------------|
| Step 2:  | Required Shutdown Boron<br>Concentration | 1309 ppm                                             | OPS Form 2208-12<br>(Rev. 19) |
| Step 4:  | Inverse Boron Worth                      | 123.9 ppm/% ΔK/K                                     | OPS Form 2208-5<br>(Rev.17)   |
| Step 5:  | Xenon Reactivity Worth                   | 2.530 % ΔK/K                                         | OPS Form 2208-4<br>(Rev. 37)  |
| Step 6:  | Boron Equivalent of Xenon                | Value in step 4 times value<br>in step 5 = 313.5 ppm | N/A                           |
| Step 7:  | Required Shutdown Boron<br>Concentration | Value in step 2 minus value<br>in step 6 = 995.5 ppm | N/A                           |

| Values Determined by: | Fred Nygard | Values Verified by: | let Cimmon     |
|-----------------------|-------------|---------------------|----------------|
| Date                  | 05/30/2000  | Date                | <u>0/13/08</u> |

#### VERIFICATION OF JPM COMPLETION

For examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. If task is Time Critical, it <u>MUST</u> be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes \_\_\_\_ No \_\_X\_\_\_

Validated Time (minutes): 15

Actual Time to Complete (minutes):

Result of JPM: \_\_\_\_\_ (Denote by an <u>S</u> for satisfactory or a <u>U</u> for unsatisfactory)

Areas for Improvement:

# EXAMINEE HANDOUT

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| JPM ID Number:      | <u>A08</u>  |                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Initiating Cues:    | •           | The Unit Supervisor has directed you to verify adequate SDM for<br>the first full hour immediately following the plant trip, taking<br>advantage of the Xenon worth modification option, in accordance<br>with OP 2208.                                                                                                                                                                              |
| Initial Conditions: | •<br>•<br>• | The plant has tripped from 100% steady-state equilibrium power.<br>It is expected to startup in approximately 8 hours.<br>The trip was uncomplicated and normal temperature and<br>pressure are being maintained.<br>Chemistry Department has sampled the RCS and determined the<br>boron concentration to be 1176 ppm.<br>Reactor Engineering has indicated core average burnup is 2000<br>MWD/MTU. |

# JOB PERFORMANCE MEASURE APPROVAL SHEET

JPM Title: RO Clearance Implementation - Tag Placement

ID Number:

JPM-A06

Revision: 0

II. Initiated:

1.

Fred Mygard Fred Nygard Developer

6/13/2000 Date

III. Reviewed:

u Technical Reviewer

IV. Approved:

User Department Supervisor

Date

Training pervisor Nyclear

6/20/00 Date

| Facility: <u>MP-2</u>                                | Examinee:                                                                                                                                                                                                 |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JPM Number: J                                        | PM- A06 Rev. 0                                                                                                                                                                                            |
| Task Title: Hang Dan                                 | ger and Caution Tags                                                                                                                                                                                      |
| System: Administrative                               |                                                                                                                                                                                                           |
| Time Critical Task: Yes                              | No                                                                                                                                                                                                        |
| Validated Time (minutes):                            | 15                                                                                                                                                                                                        |
| Task No.(s): <u>119-01-02</u> 8                      | 8                                                                                                                                                                                                         |
| Applicable To: SRC                                   | X RO PEO                                                                                                                                                                                                  |
| K/A No.: 2.2.13                                      | K/A Rating:3.6/3.8                                                                                                                                                                                        |
| <u>Method of Testing:</u><br>Simulated Performance:  | X Actual Performance:                                                                                                                                                                                     |
| Classroom:                                           | Simulator: In-Plant:X                                                                                                                                                                                     |
| <u>Task Standards:</u>                               | At the completion of this JPM, the examinee will start to hang tags<br>but will recognize an abnormal condition and stop and notify the<br>tagging authority.                                             |
| <u>Required Materials</u><br>(procedures,equipment): | <ul> <li>WC2 "Tagging"</li> <li>A training only clearance 2-1154-00 (attached)</li> <li>Copy of tags associated with 2-1154-00 (attached)</li> <li>P&amp;ID 25203 26011 Sh 1</li> <li>OP 2388J</li> </ul> |
| General References:                                  | WC-2, Section 1.6 (Rev.4, Ch.2)                                                                                                                                                                           |

### \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

| JPM Number:            | JP         | M-A06                                                                   | Rev                    | 0                                    |
|------------------------|------------|-------------------------------------------------------------------------|------------------------|--------------------------------------|
| Initiating Cues:       | •          | The WC SRO has directed you to p clearance.                             | lace the ta            | igs for the attached                 |
| Initial Conditions:    | •          | The attached clearance is for an AV and possible replacement of the 'A' | VO that pr<br>AFW purr | ovides for inspection<br>p coupling. |
| Simulator Requirements | <u>.</u> : | N/A                                                                     |                        |                                      |

## \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

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| JPM ID NUMBE | ER: <u>JPM- A06</u>                                                            | TITLE:                                                                                   | <b>Clearance Implementation - Tag Placement</b>                                                                                                                                                                                                                                                                                                    |
|--------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME:  |                                                                                |                                                                                          |                                                                                                                                                                                                                                                                                                                                                    |
| STEP 1       | Performance S                                                                  | Steps: BR<br>•<br>•                                                                      | IEF Tag Hanger as follows:<br>Describe purpose of clearance and conditions that<br>should be established within the clearance<br>boundary for safe performance of work<br>Emphasize areas where work will occur (this helps<br>ensure all work areas are drained and<br>depressurized)<br>Discuss any non-standard steps in the clearance<br>order |
| GRADE        | Standards:                                                                     | No acti                                                                                  | on by the examinee                                                                                                                                                                                                                                                                                                                                 |
|              | Cue: Provide<br>'A' AFW<br>replace<br>rotating<br>power o<br>ensure<br>me of a | required<br>/ pump sa<br>ment. The<br>due to en<br>or flow of<br>that the c<br>ny proble | brief: Hang tags for the purpose of making the<br>fe for coupling inspection and possible<br>tags are intended to keep the pump from<br>nergy input from any source such as electrical<br>water through the pump. As you hang tags,<br>learance meets the intended purpose. Notify<br>m you become concerned with.                                 |
| Comments:    | ~~~~~~~                                                                        | ~~~~~                                                                                    | ~~~~~~~~~~~~                                                                                                                                                                                                                                                                                                                                       |
| STEP 2       | Performance S                                                                  | steps: RE<br>aut                                                                         | VIEW the clearance for all applicable approvals and horizations.                                                                                                                                                                                                                                                                                   |
| GRADE        | Standards:                                                                     | Examin<br>approva                                                                        | ee reviews clearance and determines that all<br>als and authorizations are complete.                                                                                                                                                                                                                                                               |
|              | Cue:                                                                           |                                                                                          |                                                                                                                                                                                                                                                                                                                                                    |
| Comments: V  | Will D. Is the appro                                                           | ver for the                                                                              | boundary and the tags have been authorized.                                                                                                                                                                                                                                                                                                        |

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| JPM ID NUN | BER: | <u>JPM- A06</u> | TITLE:                                         | <b>Clearance Implementation - Tag Placement</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |
|------------|------|-----------------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| STEP 3     | X    | Performance     | Steps: IF<br>[St<br>an<br>•<br>•<br>•          | at any time during the performance of step 1.6.4<br>ep 4 of this JPM] any of the following occur, STOP<br>d NOTIFY the Tagging Authority:<br>Proper position can <i>not</i> be determined<br>If equipment is found in "other than expected" state<br>If step can <i>not</i> or should <i>not</i> be performed as<br>written<br>Action does <i>not</i> meet response<br>If desired conditions are <i>not</i> met or undesired<br>conditions are encountered, stop tagging<br>sequence. |         |
| GRADE      | X    | Standards:      | Examir<br>proces<br>during<br>recogn<br>and no | nee review the clearance. At some point in the<br>s, either before he leaves to hang the tags or<br>the process of hanging the tags, he should<br>ize step 2 of the clearance is incorrect and Stop<br>tify the Tagging.                                                                                                                                                                                                                                                              | Italics |
|            | C    | Cue:            |                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |
| Comments:  | Ensi | ure examinee    | does not a                                     | ctually hang the tags on plant equipment. The                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |

Comments: Ensure examinee does not actually hang the tags on plant equipment. The recognition of the need to stop and report may not occur until the next JPM step.

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| JPM ID NUMBER: | <u>JPM- A06</u> T                                                   | ITLE: Clearance Implementation - Tag Placement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 4 _       | Performance Step                                                    | <ul> <li>S: With clearance order (or copy) in hand, PERFORM isolation in the sequence given on the clearance order as follows: <ul> <li>a. PERFORM isolation in the sequence given on the clearance order.</li> <li>b. INITIAL and DATE each step as it is completed.</li> <li>c. OBSERVE the following guidelines:</li> </ul> </li> <li>Do <i>not</i> hang tags of different color on same component <ul> <li>Do <i>not</i> hang more than one blue tag on a component</li> <li>Do <i>not</i> hang red tag on closed breaker</li> <li>Tags will be conspicuously posted so that component can <i>not</i> be operated without tag being seen</li> <li>Except for panel tags, tie-wraps will be used whenever possible</li> <li>The use of adhesive hangers on cubicle doors to attach tags when breaker is removed is allowed</li> <li>If possible, two people shall perform switching orders involving the switchyard, as directed by Transmission System dispatch authority</li> <li>SRO has confirmed component is correct</li> <li>Do <i>not</i> hang a tag on installed equipment if the label is missing</li> <li>If tag description and label do <i>not</i> match, do <i>not</i> hang tag on the component unless tag hanger and SRO have confirmed the component is correct</li> </ul> </li> </ul> |
| GRADE          | Standards: W<br>is<br>fc<br>a.<br>b.<br>c.<br>•<br>•<br>•<br>•<br>• | <ul> <li>/ith clearance order (or copy) in hand, PERFORM olation in the sequence given on the clearance order as ollows:</li> <li>PERFORM isolation in the sequence given on the clearance order.</li> <li>INITIAL and DATE each step as it is completed. OBSERVE the following guidelines:</li> <li>Do not hang tags of different color on same component</li> <li>Do not hang more than one blue tag on a component</li> <li>Do not hang red tag on closed breaker</li> <li>Tags will be conspicuously posted so that component can not be operated without tag being seen</li> <li>Except for panel tags, tie-wraps will be used whenever possible</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| JPM ID NUM | MBER:         | <u>JPM- A06</u>                   | TITLE:                                                                                  | <b>Clearance Implementation - Tag Placement</b>                                                                                                                                                                                                                                                                                                                                                                               |
|------------|---------------|-----------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |               |                                   | atta<br>If po<br>invo<br>Sys<br>SR<br>Do<br>Do<br>mis<br>If tag do<br>on the<br>confirm | ich tags when breaker is removed is allowed<br>ossible, two people shall perform switching orders<br>olving the switchyard, as directed by Transmission<br>atem dispatch authority<br>O has confirmed component is correct<br>not hang a tag on installed equipment if the label is<br>sing<br>escription and label do not match, do not hang tag<br>component unless tag hanger and SRO have<br>red the component is correct |
|            | С             | ue:                               |                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Comments:  | This<br>proce | JPM step may<br>beding to the fie | not be pe<br>eld to han                                                                 | erformed if the error is recognized before<br>g tags.                                                                                                                                                                                                                                                                                                                                                                         |
| Comments:  | After         | this step is co                   | mpleted                                                                                 | , the JPM is considered complete.                                                                                                                                                                                                                                                                                                                                                                                             |

STOP TIME:

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## VERIFICATION OF JPM COMPLETION

| Job Performance Measure No.                                                                             | JPM- A06                                                              | Rev.                       | <u>0</u>                          |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------|-----------------------------------|
| Date Performed:                                                                                         |                                                                       |                            |                                   |
| Operator:                                                                                               |                                                                       |                            |                                   |
| Evaluator(s):                                                                                           |                                                                       |                            |                                   |
|                                                                                                         |                                                                       |                            |                                   |
| For examinee to achieve a satis<br>correctly. If task is Time Critical<br>achieve a satisfactory grade. | factory grade, <u>ALL</u> critical<br>, it <u>MUST</u> be completed w | steps must<br>thin the spe | t be completed<br>ecified time to |
|                                                                                                         |                                                                       |                            |                                   |
| Time Critical Task? Yes                                                                                 | No <u>X</u>                                                           |                            |                                   |
| Validated Time (minutes):                                                                               | 15                                                                    |                            |                                   |
| Actual Time to Complete (minutes                                                                        | s):                                                                   |                            |                                   |
| Result of JPM: (Denote                                                                                  | e by an <u>S</u> for satisfactory or a                                | <u>U</u> for unsati        | isfactory)                        |
| Areas for Improvement:                                                                                  |                                                                       |                            |                                   |

### **EXAMINEE HANDOUT**

JPM ID Number: A06

Initiating Cues: • The WC SRO has directed you to place the tags for the attached clearance.

Initial Conditions:

• The attached clearance is for an AWO that provides for inspection and possible replacement of the 'A' AFW pump coupling.

# CLEARANC\_ ORDER SHEET

| ·                                                                                                 |                                                                   | ARANC_ ORDER SHEET                                            | A<br>O                        | ddition<br>6/01/00    | PAG<br>nal F<br>0 04 | E NO.<br>Pages | <u>• 1</u> |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------|-----------------------|----------------------|----------------|------------|
| 1. Clearance Number         2. Date           2-1154-00         06/01/00                          | 3. AWO Number (or "Multiple")<br>M2-00-123456                     | 4. Contact Person (or "Multiple")<br>SHIFT MANAGER/UNIT SUPER |                               |                       |                      |                |            |
| 5. Equipment<br>P9A, "A" AUXILIARY FE                                                             | EDWATER PUMP ASSEMBLY                                             | (MTR HTR BKR LH51-6)                                          | 8. Tag Lift Sheet             | Attached              |                      |                | Yes        |
| 'A' PUMP OUTAGE (FEG 2                                                                            | 322X11)                                                           |                                                               | 9. Additional AWO             | s Under Thi<br>ration | is Clear             | ance           | Yes<br>Yes |
| 7. SPECIAL INSTRUCTIONS/CAUTION                                                                   |                                                                   |                                                               | 11. Prepared By<br>KENNETH G. | TRUESD                | DALE                 |                |            |
| No. 12b. Equipment Identification Ap                                                              | d Nomencel atoms bud to a si                                      |                                                               |                               | 12c. Tag<br>Action C  | Placed               | / Verifica     | ition      |
| 1 RACK DOWN, RACKED DOWN,<br>4.16KV BREAKER - P9A AUXILIARY FI<br>LOC: TB 31'6" LOWER SWITCHGE.   | and RED TAG, <u>A307</u> ,<br>SEDWATER PUMP 24C3-2<br>AR, BUS 24C |                                                               |                               | Date                  | Init                 | Date           | In         |
| 2 CLOSE, CLOSED, and RED<br>"B" AUX FEED PUMP DISCHARGE STOP<br>LOC: TB 4'6", "B" AUX FEED ;      | NAG, <u>2-FW-9B</u> ,<br>valve<br>vump                            |                                                               |                               |                       |                      |                |            |
| 3 CLOSE, CLOSED, and RED 7<br>"A" AUX FEED PUMP RECIRCULATION S<br>LOC: TB 1'6" TURBINE, ABOVE "  | AG, <u>2-FW-52B</u> ,<br>top valve<br>a" afp                      |                                                               |                               |                       |                      |                | +          |
| 4 CLOSE, CLOSED, and RED T<br>"A" AUX FEED PUMP SUCTION ISOLATI<br>LOC: TB 1'6" AUX FEED PUMP RO  | 'AG, <u>2-CN-29A,</u><br>on<br>om,                                |                                                               |                               |                       |                      |                |            |
| 5 CLOSE, CLOSED, and RED T<br>"A" AUX FEED PUMP EMERGENCY FIRE<br>LOC: TB 1'6", "A" AUX FEED P    | AG, <u>2-FIRE-94A</u> ,<br>water supply valve<br>ump              |                                                               |                               |                       |                      |                |            |
| 6 N/A, N/A, and YELLOW TAG<br>HANDSWITCH FOR "A" AUXILARY FEEDW.<br>LOC: CB 36'6" CONTROL ROOM, C | , <u>P9A-HS</u> ,<br>ATER PUMP, P9A<br>D5                         |                                                               |                               |                       |                      |                |            |
| CAUTION: BREAKER IS                                                                               | RED TAGGED                                                        |                                                               |                               |                       |                      |                |            |
| I3a. Clearance correct and equipment may<br>SM/US notified for power block - Ro                   | be isolated                                                       |                                                               |                               | 13b. Date             |                      |                |            |
| Authorize                                                                                         | And To Be Hung By: WILL                                           | D:<br>D:                                                      |                               | 06/                   | 01/0                 | 0              |            |

Note 1 Initial position for Blue Tags. N/A if position not required

TRAINING AND EXAM USE ONLY - - NOT FOR OPERATION



| ΥΕΓΓΟΨ<br>101108 ΤΑG | റ                  | PUMP,                      |
|----------------------|--------------------|----------------------------|
| NSIBLE FOR           | ( FE               | "A"<br>ER                  |
| .ON ĐAT              | OUTAGE             | Υ-HS<br>Η FOR "<br>FEEDWAT |
|                      | 11)<br>11)         | H P9A<br>WITC<br>ARY       |
|                      | 322X               | ANDS<br>JATIL              |
|                      | () - ()<br>() - () | PAH                        |



## JOB PERFORMANCE MEASURE APPROVAL SHEET

JPM Title: Calculate a new SG Blowdown Radiation Monitor Setpoint

ID Number:

JPMA07

Revision: 0

II. Initiated:

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Fred Mysard Developer

6/15/2000 Date

III. Reviewed:

Technical Reviewer

Dáte

IV. Approved:

User Department Supervisor

Nuqlear Training Supervisor

Date

| Facility: MP-2                                       | Examinee:                                                                                                                                                      |                           |            |            |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------|------------|
| JPM Number:                                          | JPMA07                                                                                                                                                         | Rev.                      | 0          |            |
| Task Title: Adjusting                                | SG Blowdown Radiation M                                                                                                                                        | Ionitor Setpoin           | its        | 2.44<br>   |
| System: Radiation Mon                                | itoring                                                                                                                                                        |                           |            |            |
| Time Critical Task: Yes                              | NoX                                                                                                                                                            |                           |            |            |
| Validated Time (minutes):                            | 15                                                                                                                                                             |                           |            |            |
| Task No.(s): NUTIMS #                                | 073-01-060                                                                                                                                                     |                           |            |            |
| Applicable To: SRC                                   | <b>X</b> RO X                                                                                                                                                  | PEO                       |            |            |
| K/A No.: 037-AA1.                                    | 13 K/A Rating:3.9                                                                                                                                              | 9/4.0                     |            |            |
| <u>Method of Testing:</u><br>Simulated Performance:  | Actual Perf                                                                                                                                                    | ormance: X                |            |            |
| Classroom: X                                         | Simulator: X                                                                                                                                                   | In-P                      | lant:      | <u>x</u>   |
| <u>Task Standards:</u>                               | At the completion of this JP<br>RM-4262 alarm and alert va                                                                                                     | 'M, the examine<br>alues. | e has calc | ulated new |
| <u>Required Materials</u><br>(procedures,equipment): | <ul> <li>OP 2383C and Attachments</li> <li>Authorized copy of OPS Form 2383C-1</li> <li>SG Blowdown RM (4262) Calibration Curve</li> <li>Calculator</li> </ul> |                           |            |            |
| <u>General References:</u>                           | OP 2383C, Sections 4.3, 4.                                                                                                                                     | .4, 4.6 (Rev. 11          | , Ch.2)    |            |

# \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

| JPM Number:         | JPMA07                                                                                                                            | Rev. 0                                                   |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Initiating Cues:    | <ul> <li>The Unit Supervisor has directed y<br/>Blowdown RM (RM-4262) setpoint</li> </ul>                                         | ou to calculate a new SG<br>s, as specified in OP 2383C. |
| Initial Conditions: | • 4 Circulating Water Pumps are op                                                                                                | erating.                                                 |
|                     | • Current reading on RM 4262 is 32                                                                                                | 00 cpm                                                   |
|                     | <ul> <li>The SG Blowdown RM (RM-4262)<br/>rising activity in the SGs and blowd<br/>automatically isolated 30 minutes a</li> </ul> | has alarmed due to slowly<br>down (25 gpm/SG),<br>ago.   |
|                     | <ul> <li>RM-4262 has been placed in "ALA alarm has been silenced.</li> </ul>                                                      | RM DEFEAT" and the local                                 |
|                     | • SG sample results are as follows:                                                                                               |                                                          |
| ,                   | <ul> <li>#1 SG = 6.95 x 10<sup>-7</sup> μCi/mI</li> </ul>                                                                         |                                                          |
|                     | • #2 SG = 5.57 x 10 <sup>-6</sup> μCi/mI                                                                                          |                                                          |
|                     |                                                                                                                                   |                                                          |
|                     |                                                                                                                                   |                                                          |
|                     |                                                                                                                                   |                                                          |

Simulator Requirements: • NA

# \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").

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| JPM ID NUM | BER:       | JPMA07                               | TITLE:                                                                                                      | Calculating a New SG Blowdown Radiation<br>Monitor Setpoint                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------|------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME | :          |                                      |                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| STEP 1     | X          | Performance S                        | iteps:<br>1.<br>2.                                                                                          | $\label{eq:norm} \underbrace{\text{NOTES}}_{\text{limit of 3 x 10}^{-7}} \\ \mu \text{Ci/ml for lodine 131. To be} \\ \text{conservative, the MPC limit is reduced by a factor of ten to 3 x 10^{-8} \\ \mu \text{Ci/ml.} \\ \text{To be conservative and eliminate the need to} \\ \text{frequently change alarm setpoints (i.e., stopping circulating water pumps), the flow value of 200,000 \\ \text{gpm for 2 circulating water pumps and 700 gpm for maximum blowdown is used for alarm setpoint calculation. Using these values yields a dilution factor of 286 and a high limit of 8.5 x 10-6 mCi/ml. \\ \end{aligned}$                                 |
|            |            |                                      | Re<br>a)<br>b)<br>c)<br>d)<br>e)<br>f)<br>If S<br><i>ala</i>                                                | fer To Attachment 4 and PERFORM the following:<br>Refer To the most recent calibration curve for SG<br>blowdown radiation monitor, RM-4262, (Radiation<br>Monitor Setpoint Book) and CONVERT high limit<br>from μCi/ml to cpm.<br>ROUND converted number down to closest scale<br>mark and RECORD.<br>OBSERVE current radiation monitor reading and<br>RECORD.<br>MULTIPLY current radiation monitor reading by 5.<br>ROUND value down to nearest scale mark and<br>RECORD.<br>SELECT <i>lower</i> value of (the two) and ENTER "High<br>Alarm Setpoint."<br>SG blowdown radiation monitor reading is still above<br><i>rm</i> setpoint, Go To (other Section). |
| GRADE      | X          | Standards:                           | Examir<br>Calibra<br>specifie<br>neares<br>Examir<br>multipli<br>mark a<br>The ex<br>limit" is<br>Att. 5 to | nee reads notes and refers to SG blowdown RM<br>tion curve (supplied) and converts high limit<br>ed on Att. 4 (8.5E-6 μCi/ml) to cpm, rounds down to<br>t scale mark and records.<br>nee also observes current reading (in cpm),<br>es value times 5 and rounds down to nearest scale<br>nd records.<br>aminee should determine that the "converted high<br>the <u>lower</u> of the two and it is necessary to Refer to<br>to calculate a higher setpoint.                                                                                                                                                                                                      |
|            | C          | Cue: If JPM is scale ma curve.       | not being<br>arks can b                                                                                     | g performed at RM 4262,, indicate that the com<br>be obtained from the vertical axis of the calibration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Comments:  | The<br>dow | "fixed" high lim<br>h to the closest | it (8.5E-6<br>scale ma                                                                                      | $\mu$ Ci/ml), converts to ~1,500 cpm, which is rounded irk of 1000 cpm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| JPM ID NU | IMBER:     | JPMA07          | TITLE:                                                                                                                                                                                                                                                 | Calculating a New SG Blowdown Radiation<br>Monitor Setpoint                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 2    | <u>X</u> F | Performance Ste | eps: <u>NO</u><br>1.<br>2.                                                                                                                                                                                                                             | <ul> <li><u>TES</u>:<br/>The maximum allowed <i>alarm</i> setpoint for RM-4262, is based on the following:</li> <li>10% of MPC limit for Iodine 131 (10% x 3x10<sup>-7</sup> μCi/ml = 3x10<sup>-8</sup> μCi/ml)</li> <li>SG blowdown flow rate</li> <li>The number of running circulating water pumps</li> <li>Current calibration curve for RM-4262</li> <li>If SG blowdown radiation monitor reading is still above <i>alarm</i> setpoint determined in (other Section), a higher alarm setpoint may be calculated and used. If any of the above conditions change, <i>alarm</i> setpoint must be recalculated based on actual conditions.</li> </ul> |
|           |            |                 | If S<br><i>alai</i><br>CA                                                                                                                                                                                                                              | G blowdown radiation monitor reading is still above<br>rm setpoint, Refer To Attachment 5 and<br>LCULATE higher setpoints as follows:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|           | ł          | a)<br>b)        | CALCULATE circulating water flow as follows:<br><i>Circulating Water Flow = #Running Circulating</i><br><i>Water Pumps x 100,000 gpm.</i><br>CALCULATE dilution factor as follows and<br>RECORD:<br><i>DF = Circulating Water Flow / Blowdown Flow</i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| GRADE     | X          | Standards:      | Examin<br>CW pi<br>calculat                                                                                                                                                                                                                            | ee reads notes and observes number of running<br>umps, total SG blowdown flow (given), and<br>tes dilution factor on Att. 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

Cue:

Comments:

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| JPM ID NUM | BER: | <u>JPMA07</u> | TITLE:                                                                                                           | Calculating a New SG Blowdown Radiation<br>Monitor Setpoint                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|------|---------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 3     | X    | Performance   | Steps: DE<br>a)<br>b)<br>c)<br>d)<br>e)<br>f)<br>g)                                                              | TERMINE "High Alarm Setpoint" limit as follows:<br>CALCULATE high limit as follows:<br><i>High Limit = DF x 3 x 10<sup>s</sup> <math>\mu</math>Ci/ml</i><br>Using most recent RM-4262 calibration curve,<br>CONVERT high limit from $\mu$ Ci/ml to cpm.<br>ROUND converted number down to closest scale<br>mark and RECORD.<br>OBSERVE current RM-4262 reading and<br>RECORD.<br>MULTIPLY current reading by 5.<br>ROUND down to nearest scale mark and<br>RECORD.<br>SELECT <i>lower</i> value of (the two) and ENTER "High<br>Alarm Setpoint." |
| GRADE      | X    | Standards:    | Examin<br>4262 u<br>and cou<br>then ro<br>module<br>Examin<br>multipli<br>mark au<br>The ex<br>Readin<br>alarm s | the calculates new higher alarm setpoint for RM-<br>sing Att. 5 by multiplying DF times $3 \times 10^8 \mu$ Ci/ml<br>nverts to cpm using calibration curve. The value is<br>bounded down to closest scale mark on RM-4262<br>the ealso observes current reading (in cpm),<br>es value times 5 and rounds down to nearest scale<br>and records.<br>aminee should determine that the "5 times Current<br>g" is the <u>lower</u> of the two and should be the new<br>betpoint.                                                                      |
|            | (    | Cue:          |                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

Comments: The calculated high limit (~2.4E-4  $\mu$ Ci/ml), converts to ~50,000 cpm. With an actual reading of ~3,200 cpm, the desired alarm should be ~16,000 cpm which is the rounded DOWN to 10,000 cpm.

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| JPM ID NUM | BER: <u>JPMA07</u>                           | TITLE: <u>Calculating a New SG Blowdown Radiation</u><br><u>Monitor Setpoint</u>                                                                                                                             |
|------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 4     | _ Performance S                              | <ul> <li>teps: DETERMINE <i>alert</i> setpoint as follows:</li> <li>a) MULTIPLY <i>alarm</i> setpoint by 0.75 and ROUND down to nearest scale mark.</li> <li>b) RECORD this value.</li> </ul>                |
| GRADE      | _ Standards:                                 | Examinee multiplies new alarm setpoint by 0.75, rounds down to nearest scale mark on RM-4262 module, and records new alert setpoint on Att. 5.                                                               |
|            | Cue:                                         |                                                                                                                                                                                                              |
| Comments:  | With an alarm setpo<br>which is then rounde  | oint of 10,000 cpm, the alert setpoint calculated is 7,500 cpm<br>ed DOWN to 7,000 cpm.                                                                                                                      |
|            |                                              |                                                                                                                                                                                                              |
| STEP 5     | _ Performance St                             | <ul> <li>teps: To calculate <i>fail</i> setpoint, PERFORM the following:</li> <li>a) DIVIDE current reading by 5.</li> <li>b) ROUND value up to nearest scale mark and<br/>ENTER "Fail Setpoint."</li> </ul> |
| GRADE      | _ Standards:                                 | Examinee divides current reading by 5, rounds up to nearest scale mark on RM-4262 module and records on Att. 5.                                                                                              |
|            | Cue:                                         |                                                                                                                                                                                                              |
| Comments:  | With an actual readi<br>cpm, which is then r | ng of ~3,200 cpm, the fail setpoint calculated would be 640<br>ounded UP to 700 cpm.                                                                                                                         |
| Comments:  | After this step is c                         | ompleted, the JPM is considered complete.                                                                                                                                                                    |
| STOP TIME: |                                              |                                                                                                                                                                                                              |

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# VERIFICATION OF JPM COMPLETION

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| Job Performance Measure No.                                                                            | JPMA07                                                                   | Rev.                       | <u>0</u>                        |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------|---------------------------------|
| Date Performed:                                                                                        |                                                                          |                            |                                 |
| Operator:                                                                                              |                                                                          |                            |                                 |
| Evaluator(s):                                                                                          |                                                                          |                            |                                 |
| For examinee to achieve a satis<br>correctly. If task is Time Critica<br>achieve a satisfactory grade. | sfactory grade, <u>ALL</u> critical<br>I, it <u>MUST</u> be completed wi | steps must<br>thin the spe | be completed<br>ecified time to |
| Time Critical Task? Yes                                                                                | No <u>X</u>                                                              |                            |                                 |
| Validated Time (minutes):                                                                              | 15                                                                       |                            |                                 |
| Actual Time to Complete (minutes                                                                       | s):                                                                      |                            |                                 |
| Result of JPM: (Denote                                                                                 | e by an <u>S</u> for satisfactory or a                                   | U for unsati               | sfactory)                       |
| Areas for Improvement:                                                                                 |                                                                          |                            |                                 |

#### **EXAMINEE HANDOUT**

JPM ID Number: A07

| ļ | In | it | iat | ing | l Cu | es: |
|---|----|----|-----|-----|------|-----|
|   |    |    |     |     |      |     |

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The Unit Supervisor has directed you to calculate a new SG Blowdown RM (RM-4262) setpoints, as specified in OP 2383C.

#### Initial Conditions:

- 4 Circulating Water Pumps are operating.
- Current reading on RM 4262 is 3200 cpm
- The SG Blowdown RM (RM-4262) has alarmed due to slowly rising activity in the SGs and blowdown (25 gpm/SG), automatically isolated 30 minutes ago.
- RM-4262 has been placed in "ALARM DEFEAT" and the local alarm has been silenced.
- SG sample results are as follows:
  - #1 SG =  $6.95 \times 10^{-7} \mu \text{Ci/ml}$
  - #2 SG = 5.57 x 10<sup>-6</sup> μCi/ml

#### TOWAAAA DATA

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|   | Normal SG Blowd     | own Radi | Attachment 4<br>ation Monitor, RM<br>(Sheet 1 of 1)         | 4262, Setpoint Calculation         |
|---|---------------------|----------|-------------------------------------------------------------|------------------------------------|
| - | High Alarm Setpoint | A.       | High Limit                                                  | $8.5 \ge 10^{-6} \mu \text{Ci/ml}$ |
|   |                     | B.       | Converted High Limit<br>(Convert to cpm<br>from Cal. Curve) | CD                                 |
|   |                     | C.       | Current Reading                                             | 32.00                              |
|   |                     | D.       | 5 times Current Readi                                       | ng $\frac{10000}{\text{cpm}}$      |
|   |                     | E.       | High Alarm Setpoint<br>(The <u>lowest</u> of B or D.)       | O_O<br>cpm                         |
|   | Alert Setpoint      | A.       | High Alarm Setpoint                                         |                                    |
|   |                     | B.       | Conversion Factor                                           | 0.75                               |
|   |                     | C.       | Alert Setpoint<br>(A. times B.)                             | cpm                                |
|   | Fail Setpoint       | A.       | Current Reading                                             |                                    |
|   |                     | В.       | Fail Setpoint<br>(A. divide by 5.)                          | cpm                                |
|   | Date                | Time     | Perform                                                     | ed by Sign/Print                   |
|   |                     |          |                                                             |                                    |
|   | Level of Use        | STOP     |                                                             | OP 2383C<br>REVIEW Rev. 11CHG2     |

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# JPMAD7 DATA

| Elevated SG I                    | Blowdown Rad | Attachm<br>iation Mon<br>(Sheet 1 c       | ent 5<br>itor, RM          | 4262, Set   | point Calcula                                  |
|----------------------------------|--------------|-------------------------------------------|----------------------------|-------------|------------------------------------------------|
| Circulating Water                | Flow A.      | Number of r<br>Circulating V              | unning<br>Vater Pum        | ips _       | 4                                              |
|                                  | В.           | Flow per Pu                               | np                         | -           | <u>100,000 gpm</u>                             |
|                                  | C.           | Circulating V<br>(A. times B.)            | Vater Flow                 | ۷.          | 400,000<br>Total Flow                          |
| Dilution Factor                  | A.           | Circulating                               | Water Flow                 | v .         | 400,000                                        |
|                                  | B.           | Blowdown F                                | low                        |             | 50                                             |
|                                  | C.           | Dilution Fac<br>(A. divided b             | tor (DF)<br>by B.)         |             | 8000<br>DF                                     |
| High Alarm Setp                  | oint A.      | Dilution Fac                              | tor                        |             | 8000                                           |
|                                  | B.           | ODCM Lim                                  | it                         |             | $\frac{3 \times 10^{-8}  \mu \text{Ci/ml}}{2}$ |
|                                  | C.           | High Limit<br>(A. times B.                | )                          |             | 2.4 ×/D <sup>-</sup><br>μCi/ml                 |
|                                  | D.           | Converted H<br>(Convert to<br>from Cal. C | Iigh Limit<br>cpm<br>1rve) |             | _ <u>50,000</u><br>cpm                         |
|                                  | E.           | Current Rea                               | ding                       |             | <u>3200</u>                                    |
|                                  | F.           | 5 times Curr                              | ent Read                   | ing         | 10,000                                         |
|                                  | G            | . High Alarm<br>(The lowest               | Setpoint<br>of D or F.     | )           |                                                |
| Alert Setpoint                   | А            | High Alarm                                | Setpoint                   |             | 10,000                                         |
| A der betpolite                  | B            | Conversion                                | Factor                     |             | 0.75                                           |
|                                  | D.<br>C      | Alart Satna                               | nt                         |             | 7000                                           |
|                                  | C.           | (A. times B.                              | )                          |             | cpm                                            |
| Fail Setpoint                    | А            | . Current Re                              | ading                      |             | 3200                                           |
| l                                | В            | . Fail Setpoir                            | ıt                         |             | 700                                            |
|                                  |              | (A. divide b                              | y 5.)                      |             | cpm                                            |
| Date                             | Time         |                                           | Perform                    | ned by Sigr | /Print                                         |
| Level of Us<br><b>C</b> ontinuou | e STOP       | THINK                                     | ACT                        | REVIEW      | OP 2383C<br>Rev. 11CHG2<br>33 of 33            |





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# S/G Blowdown Rad Monitor 4262

Calibration Date:

| μCi/cc   | СРМ      |
|----------|----------|
| 2.07E-05 | 4.60E+03 |
| 4.89E-04 | 9.96E+04 |
| 2.27E-03 | 4.50E+05 |

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Response Factor = 1.98E+08 CPM/µCi/cc Previous response factor = 1.77E+08 CPM/µCi/cc r = 0.9995

Millstone 2





Feb-96

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#### RO Exam Administrative Topic A.4

Administrative Topics Outline Statement: Question to test knowledge of the four NRC levels of activation for the emergency plan. K/A 2.4.29 Knowledge of the emergency plan. 2.6/3.0

#### Question:

List the NRC classification designations for the 4 levels of Emergency Plan activation starting with the least severe to the most severe.

#### Answer:

The examinee's response must include the following classifications listed in the following order (from least severe to most severe).

- Unusual Event
- Alert
- Site Area Emergency
- General Emergency

The examinee's response may also include, the State of Connecticut's classification designations that corresponds to the NRC classification.

<u>NRC</u> <u>Connecticut</u>

- (none) Echo
- Unusual Event Delta 1 and Delta 2
- Alert Charlie 1
- Site Area Emergency Charlie 2
- General Emergency Bravo and Alpha

Reference: EPIP 4400

Administrative Topics Outline Statement: Question to test actions required when exiting a contaminated area, in full PCs, during an emergency evacuation. K/A 2.4.29 Knowledge of the emergency plan. 2.6/3.0

#### Question:

You are in a contaminated area in full anti-contamination protective clothing after just completing a valve lineup verification when an announcement is made to evacuate the site via the south access points. Describe how you will exit the contaminated area.

#### Answer:

The examinee should include the following points in the response.

Proceed to the contaminated area exit and remove only the outer boots and gloves at the step off pad. Then exit the RCA and proceed to the exit point where a Health Physics Technician will assist in exiting the area.

The examinee may indicate that the exit point or evacuation point may be announced over the public address system.

Reference: RPM 5.2.2 and Plant Access Training Manual Chapter 9.

# JOB PERFORMANCE MEASURE APPROVAL SHEET

I. JPM Title: SRO Shift Turnover

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ID Number: JPM-A02

Revision: 0

II. Initiated:

Fred/Mygord Developer

06/13/2000 Date

III. Reviewed:

Her mmy Technical Reviewer

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IV. Approved:

User Department Supervisor

Nuclear Training Supervisor

Date

#### JOB PERFORMANCE MEASURE WORKSHEET

| Facility: MP-2                                                          | Examinee:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| JPM Number:                                                             | JPM-A02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Rev. 0                                                           |
| Task Title: SRO Shift                                                   | tTurnover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |
| System: Administrative                                                  | ۱<br>ــــــــــــــــــــــــــــــــــــ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |
| Time Critical Task: Yes                                                 | No <b>X</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                  |
| Validated Time (minutes):                                               | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                  |
| Task No.(s): NUTIMS 1                                                   | 19-02-030                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                  |
| Applicable To: SRC                                                      | SRO RO PEO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                  |
| K/A No.: 2.1.3                                                          | K/A Rating:3.0/3.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                  |
| <u>Method of Testing:</u><br>Simulated Performance:<br><u>Location:</u> | Actual Performance:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | X                                                                |
| Classroom: X                                                            | Simulator: X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | In-Plant: X                                                      |
| Task Standards:                                                         | At the completion of this JPM, the SF documents and find incorrect information of the second se | RO should perform a review of ation related to a shift turnover. |
| <u>Required Materials</u><br>(procedures,equipment):                    | <ul> <li>OPS Form 2669A-4, "Shift Turno</li> <li>Shift Manager Log (Auto Log)</li> <li>Daily Work plan and the work Co</li> <li>Night Order Book</li> <li>Radwaste Log Book (Auto Log)</li> <li>Radwaste Night Order Book</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ver Report"<br>introl turnover report                            |
| General References:                                                     | U2 COP 200.1 "Conduct of Operatio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ns", Section 1.19 (Rev.3,Ch.1 )                                  |

# \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

#### JOB PERFORMANCE MEASURE WORKSHEET

| JPM Number:           | JPM-A02                                                                                                                 | Rev. 0                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Initiating Cues:      | <ul> <li>You have just arrived in the shift. Take necessary activuts.</li> <li>I will act as the off going U</li> </ul> | e control room at the beginning of your<br>ons required for a shift turnover as the<br>IS. |
| Initial Conditions:   |                                                                                                                         |                                                                                            |
| Simulator Requirement | s: N/A                                                                                                                  |                                                                                            |

# \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

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| JPM ID NUME | BER: | <u>JPM-A02</u>      | TITLE:                                                 | SRO Shift Turnover                                                                                                                                                                                                                                                                                                                                        |
|-------------|------|---------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME: |      |                     |                                                        |                                                                                                                                                                                                                                                                                                                                                           |
| STEP 1      | P    | erformance          | e Steps: Priv<br>rec<br>rev<br>•<br>•<br>•<br>•        | or to conducting the control board walkdown, it is<br>ommended that the oncoming licensed operators<br>iew the following:<br>OPS Form 2619A-4, "Shift Turnover Report"<br>ODI Form 6.15-6, "Work Control Turnover Report"<br>SM Log (Auto log)<br>Night Order Log (for any new Night Orders)<br>Radwaste Log Book (Auto log)<br>Radwaste Night Order Book |
| GRADE       | \$   | Standards:          | Examin<br>Printou<br>shift tur<br>night or<br>night or | ee reviews provided copy of the SM log (auto Log<br>t) and states he would also need to review the<br>nover report , the work control turnover report, the<br>der log, the radwaste log book and the radwaste<br>der book.                                                                                                                                |
|             | Cu   | e: • If<br>re<br>to | examinee d<br>view, prom<br>review.                    | oes not ask for or list documents he needs to<br>ot him by asking him what documents he needs                                                                                                                                                                                                                                                             |
|             |      | • A1<br>at          | ter he lists<br>tached copy                            | the documents he needs to review, provide the<br>/ of the SM auto log for his review.                                                                                                                                                                                                                                                                     |
|             |      | • lf<br>th<br>st    | he does not<br>at you are a<br>atus.                   | recognize you as the off-going US, remind him<br>nd are able to provide information about plant                                                                                                                                                                                                                                                           |

Comments: U2 OP 200.1 is an information level of use.

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| JPM ID NUM | IBER: | <u>JPM-A02</u> | TITLE:                                                                                                                    | SRO Shift Turnover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------|-------|----------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 2     | X     | Performance S  | Steps: Wa<br>ope<br>Dis<br>foll<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | alk down appropriate control boards <i>with</i> off-going<br>erators.<br>scussions should include but <i>not</i> be limited to the<br>owing:<br>Unusual events that occurred during last 24 hours<br>Inoperable equipment and ACTION Statements,<br>including surveillance requirements<br>Reasons for annunciator alarms<br>Tagged equipment, including any surveillance or<br>equipment work in progress at time of shift relief<br>and turnover<br>Running equipment and train alignments<br>The status of systems, equipment, alignments,<br>controllers, and annunciators<br>Plant evolutions in progress and or planned<br>Potentially hazardous activities or conditions<br>reported during the previous shift<br>Unusual events within the last 24 hours<br>Significant surveillances completed or carried over<br>Significant Work activities, including restorations,<br>completed or carried over (SRO)<br>The status of any outstanding Radwaste Release<br>permits (SRO)<br>Temporary modifications (jumpers) installed since<br>the previous shift<br>cuss results of any administrative reviews or audits<br>RO |
| GRADE      | X     | Standards:     | During<br>recogni<br>the Tec<br>action l<br>describ<br>releasir                                                           | the review of the SM log the examinee should<br>ize that there is an emission error of not entering<br>chnical Specification LCO action statement 3.7.1.2<br>b. because of: 'A' AUX Feed pump out for PMs as<br>ed in the 0730 entry and the 1110 entry for<br>ng AWO M2-00-08904 for the 'B' Aux Feed pump,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|            | C     | Cue: If neces  | sary, indic                                                                                                               | ate that control board walkdown is to be simulated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Comments:  | After | this step is c | ompleted                                                                                                                  | , the JPM is considered complete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

STOP TIME:

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# VERIFICATION OF JPM COMPLETION

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| Job Performance Measure No.                                                                             | <u>JPM-A02</u>                                                         | Rev.                       | <u>0</u>                          |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|-----------------------------------|
| Date Performed:                                                                                         |                                                                        |                            |                                   |
| Operator:                                                                                               |                                                                        |                            |                                   |
| Evaluator(s):                                                                                           |                                                                        |                            |                                   |
| For examinee to achieve a satis<br>correctly. If task is Time Critical<br>achieve a satisfactory grade. | factory grade, <u>ALL</u> critical<br>I, it <u>MUST</u> be completed w | steps must<br>thin the spe | : be completed<br>ecified time to |
|                                                                                                         |                                                                        |                            |                                   |
| Time Critical Task? Yes                                                                                 | No <u>X</u>                                                            |                            |                                   |
| Validated Time (minutes):                                                                               | 10                                                                     |                            |                                   |
| Actual Time to Complete (minutes                                                                        | s):                                                                    |                            |                                   |
| Result of JPM: (Denote                                                                                  | e by an <u>S</u> for satisfactory or a                                 | <u>U</u> for unsati        | sfactory)                         |
| Areas for Improvement:                                                                                  |                                                                        |                            |                                   |

#### **EXAMINEE HANDOUT**

JPM ID Number: A02

Initiating Cues:

- You have just arrived in the control room at the beginning of your shift. Take necessary actions required for a shift turnover as the US.
- I will act as the off going US.

Initial Conditions:

| 07/01/00             | 0730         | Shift Hours: 07-19, Tuesday, SM: H. Williamson, US: J.<br>Hoagland, WCSRO: J. Fillion, SPO: M. Lettrich, PPO J.<br>Jorinscay, STA:M. Strollo, U/I: K. Dingle (US), TB: G.<br>Chaude, AB: L. Swadley, FL/FBA: M. Pucel. Plant in<br>Mode:1, Rx power: 100 %, MWe: 904, Control Rods: ARO,<br>Blowdown: 45gpm (#1), 45gpm (#2), RCS Circulation:<br>RCPs, Tave: 571, Onsite Power: NSST, Pzr Level: 65%,<br>SFP Lvl: 36' 10", TSAS: 3.4.11b act a (PZR vent path<br>isolated), 3.3.3.9b act 2 (RM-4262), 3.7.1.2 act a ('A' Aux<br>Feed pump out for PM's) TRMs: F.3.1.a.1 & F.3.1.a.2<br>(Fire Barriers), B.3.1 (U-2 fire pump), Also see<br>Impairment sheet. Facility 2 Protected. | clairjj            | myerstm            |
|----------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|
| 07/01/00             | 0810         | RM-8132 is secured to change out Charcoal and<br>Particulate filters for Chemistry. Table 3.3-13 No Action<br>Required due to that outages are permitted for a<br>maximum of 12 hours for the purpose of maintenance<br>and performance of required tests, checks, calibrations,<br>or sampling.                                                                                                                                                                                                                                                                                                                                                                                    | clairjj            | myerstm            |
| 07/01/00<br>07/01/00 | 0817<br>0825 | Chemist returned RM-8132 to service, flow 3.25 CFM.<br>Entered TSAS 3.7.6.1b. Both trains of Control Room<br>ventilation Inoperable while testing door 249. With both<br>trains of Control Room ventilation Inoperable<br>immediately suspend the movement of fuel assemblies<br>within the Spent Fuel Pool and the movement of shielded<br>casks over the Spent Fuel Pool cask laydown area.<br>Restore at least one Inoperable train to Operable status<br>within 1 hour, or be in Hot Standby within the next 6<br>hours, and cold shutdown within the following 30 hours                                                                                                        | clairjj<br>clairjj | myerstm<br>myerstm |
| 07/01/00             | 0840         | Exited TSAS 3.7.6.1b. Door testing complete. Both trains of Control Room ventilation are Operable.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | clairjj            | myerstm            |
| 07/01/00             | 0845         | Released the following AWOs to the WIN Team:<br>M2-00-12193 Replace gasket on LS-5331 (2B feedwater<br>heater low level alarm )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | clairjj            | myerstm            |
| 07/01/00             | 0930         | Commenced Discharge of TK-10 to LIS. Level 86%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | clairjj            | myerstm            |
| 07/01/00             | 1000         | Traveling screens placed in Manual slow for greasing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | clairjj            | myerstm            |
| 07/01/00             | 1049         | Shift Manager accepted 06-12 portion of 2619A-1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | clairjj            | myerstm            |
| 07/01/00             | 1110         | Released AWO M2-00-08904 for Water in Oil in 'B' Aux<br>Feed pump.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | parre              | myerstm            |

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# JOB PERFORMANCE MEASURE APPROVAL SHEET

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JPM Title: Shift Staffing Requirements

ID Number:

JPM-A03

Revision: 0

II. Initiated:

Fred Mygard Developer

6/14/2000 Date

III. Reviewed:

Cimm m Tober Technical Reviewer

IV. Approved:

User Department Supervisor

Nuclear Training Supervisor

Date

6/20/00

#### JOB PERFORMANCE MEASURE WORKSHEET

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| Facility: MP-2                                       | Examine                                                                                                                       | ee:                                                                               |  |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|
| JPM Number:                                          | JPM-A03                                                                                                                       | Rev.                                                                              |  |
| Task Title: Maintain                                 | minimum Control Room                                                                                                          | n shift complement                                                                |  |
| System: Administrative                               |                                                                                                                               |                                                                                   |  |
| Time Critical Task: Yes                              | NoX                                                                                                                           |                                                                                   |  |
| Validated Time (minutes):                            | 10                                                                                                                            |                                                                                   |  |
| Task No.(s): NUTIMS 1                                | 19-01-050                                                                                                                     |                                                                                   |  |
| Applicable To: SRC                                   | <b>SRO</b> RO                                                                                                                 | PEO                                                                               |  |
| K/A No.: 2.1.4                                       | K/A Rating:                                                                                                                   | 2.3/3.4                                                                           |  |
| <u>Method of Testing:</u><br>Simulated Performance:  | Actual F                                                                                                                      | Performance: X                                                                    |  |
| Location:                                            |                                                                                                                               |                                                                                   |  |
| Classroom: X                                         | Simulator:                                                                                                                    | X In-Plant: X                                                                     |  |
| Task Standards:                                      | At the completion of this in the event that an RO licensed activites).                                                        | s JPM, the SRO perform the action required becomes incapacitated (can not perform |  |
| <u>Required Materials</u><br>(procedures,equipment): | <ul> <li>Technical Specificat</li> <li>U2 OP 200.1 "Cond</li> <li>Operations Departm</li> <li>FFDM 3.7 Call-In for</li> </ul> | tions<br>luct of Operations"<br>nent Instructions<br>or Unscheduled Work          |  |
| General References:                                  |                                                                                                                               |                                                                                   |  |

# \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

#### JOB PERFORMANCE MEASURE WORKSHEET

| JPM Number:         | JPM-A03                                                                                                                        | Rev                                                                                                  | 0                                                                                       |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Initiating Cues:    | • You are the shift man<br>unable to perform lice<br>been successfully imp<br>facility. You are to car<br>requirements are met | ager. An RO on your s<br>insed duties. Arrangen<br>plemented to transport<br>ry out required actions | hift becomes ill and is<br>nents have already<br>him to a medical<br>to ensure staffing |
| Initial Conditions: | <ul> <li>Mode 1 operation.</li> <li>Your crew began its 1</li> <li>Current time is 10:30</li> </ul>                            | 2 hour shift at 7:00 pm<br>pm                                                                        | l .                                                                                     |

Simulator Requirements: N/A

#### \* \* \* \* NOTES TO EXAMINER \* \* \* \*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

| JPM ID NUM | IBER: JPM-A03 TITLE: Shift Staffing Requirements                                                                                                                                                                                                                                                                                                     |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME |                                                                                                                                                                                                                                                                                                                                                      |
| STEP 1     | X Performance Steps: Evaluate current staffing level meets requirements of Technical Specifications Section 6.2 Table 6.2-1.                                                                                                                                                                                                                         |
| GRADE      | X Standards: Examinee evaluates staffing level and determines that another RO must report within 2 hours.                                                                                                                                                                                                                                            |
|            | <ul> <li>Cue: When asked what the current staffing is report that there is 1 RO, 1.</li> <li>SRO as US, 1 SRO as SM (the examinee), 1 STA, 4 PEOs, and 1 HP technician. Work control is not staffed during this shift and no other licensed operators are on site.</li> <li>If examinee does not state action, prompt him for a response.</li> </ul> |
| Comments:  | U2 OP 200.1 Section 1.8 (Level of Use Information)                                                                                                                                                                                                                                                                                                   |
| STEP 2     | $\underline{X}$ Performance Steps: Determine which operator to call in.                                                                                                                                                                                                                                                                              |
| GRADE      | <ul> <li>X Standards: Determine which operator to call in by referring to:         <ul> <li>Operations Shift Schedule</li> <li>Work Control and Training Schedule</li> <li>Active License List</li> <li>Overtime List</li> <li>Selects an RO with an active license who will not exceed overtime limits</li> </ul> </li> </ul>                       |
|            | The US or SM could call for the operations manager or assistant operation manager to provide assistance in calling in personnel.                                                                                                                                                                                                                     |
|            | Cue: Provide the above lists, as attached to this JPM.                                                                                                                                                                                                                                                                                               |
| Comments:  | ODI 2-OPS 2.03 "Overtime", ODI 2-OPS-1.18 "Maintaining Active NRC<br>Licenses", NGP 1.09 "Overtime Controls for All Personnel at Millstone Station"                                                                                                                                                                                                  |

|           | IBER: <u>JPM-A03</u> | TITLE:                                                                   | Shift Staffing Requirements                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|----------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 3    | Performan            | ce Steps: Co<br>wo<br>•<br>•                                             | ntact the individual selected to support unscheduled<br>rk. Ask individual the following questions:<br>Have you consumed any alcoholic beverages<br>within the past 5 hours?<br>Have you consumed any alcoholic beverages that<br>may affect your ability to perform assigned duties?<br>Have you taken any medications or drugs that may<br>affect your ability to perform assigned duties? |
| GRADE     | _ Standards          | : Contac<br>work. A<br>• Hav<br>the<br>• Hav<br>may<br>Have y<br>your ab | t the individual selected to support unscheduled<br>sk individual the following questions:<br>ve you consumed any alcoholic beverages within<br>past 5 hours?<br>ve you consumed any alcoholic beverages that<br>y affect your ability to perform assigned duties?<br>ou taken any medications or drugs that may affect<br>pility to perform assigned duties?                                |
|           | Cue: Ansi            | ver to all three                                                         | e questions is "No"                                                                                                                                                                                                                                                                                                                                                                          |
| Comments: | FFDM 3.7 Call-       | n for Unsche                                                             | duled Work                                                                                                                                                                                                                                                                                                                                                                                   |
| Comments: | After this step i    | s completed                                                              | , the JPM is considered complete.                                                                                                                                                                                                                                                                                                                                                            |
| STOP TIME |                      |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                              |

# VERIFICATION OF JPM COMPLETION

| Job Performance Measure No.                                                                       | JPM-A03                                                                | Rev.                       | <u>0</u>                        |
|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------|---------------------------------|
| Date Performed:                                                                                   |                                                                        |                            |                                 |
| Operator:                                                                                         |                                                                        |                            |                                 |
| Evaluator(s):                                                                                     |                                                                        |                            |                                 |
| For examinee to achieve a satis correctly. If task is Time Critical achieve a satisfactory grade. | factory grade, <u>ALL</u> critical<br>, it <u>MUST</u> be completed wi | steps must<br>thin the spe | be completed<br>ecified time to |
|                                                                                                   |                                                                        |                            |                                 |
| Time Critical Task? Yes                                                                           | No <u>X</u>                                                            |                            |                                 |
| Validated Time (minutes):                                                                         | 10                                                                     |                            |                                 |
| Actual Time to Complete (minutes                                                                  | »):<br>                                                                |                            |                                 |
| Result of JPM: (Denote                                                                            | e by an <u>S</u> for satisfactory or a                                 | <u>U</u> for unsati        | sfactory)                       |
| Areas for Improvement:                                                                            |                                                                        |                            |                                 |

#### EXAMINEE HANDOUT

JPM ID Number: A03

Initiating Cues:
 You are the shift manager. An RO on your shift becomes ill and is unable to perform licensed duties. Arrangements have already been successfully implemented to transport him to a medical facility. You are to carry out required actions to ensure staffing requirements are met.

Initial Conditions:

- Mode 1 operation.
- Your crew began its 12 hour shift at 7:00 pm
- Current time is 10:30 pm

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# Unit 2 Operations Department Personnel Roster June 7, 2000

| SHIFT           |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| A               | В                                                                                                                                                                                     | D                                                                                                                                                                                                                                                                             | <u>k</u>                                                                                                                                                                                                                                                                                                                                                                                                                 | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
| Truesdale, Ken  | Myers, Steve                                                                                                                                                                          | Myers, Tom                                                                                                                                                                                                                                                                    | Williamson H                                                                                                                                                                                                                                                                                                                                                                                                             | Kunno Tim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |
| Weiso, Mike     | Chapin, Cliff                                                                                                                                                                         | Claire, John                                                                                                                                                                                                                                                                  | Fillion John                                                                                                                                                                                                                                                                                                                                                                                                             | Armour Diel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |
| Rossi, Anthony  | Zorn, Carl                                                                                                                                                                            | Doboe, Sandra                                                                                                                                                                                                                                                                 | Hoagland, Jim                                                                                                                                                                                                                                                                                                                                                                                                            | Duffy Howard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |
| D T             |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                          | Ewers, Martin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| Brown, Jason    | Muldoon, Mike                                                                                                                                                                         | Hall, Tim                                                                                                                                                                                                                                                                     | Howes, Scott                                                                                                                                                                                                                                                                                                                                                                                                             | Daskam. Jon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |
| Seamer Ed       | Sikorski, Pat                                                                                                                                                                         | Sanders, Cathy                                                                                                                                                                                                                                                                | Jorinscay, Jim                                                                                                                                                                                                                                                                                                                                                                                                           | Gaynier, Brian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
| Harris Andy     | Cox, Richard                                                                                                                                                                          | Ferguson, Bruce                                                                                                                                                                                                                                                               | Lettrich, Matt                                                                                                                                                                                                                                                                                                                                                                                                           | Mausteller, L.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
| Griffin Chin    | Preper, Pat                                                                                                                                                                           | Furiosi, Michael                                                                                                                                                                                                                                                              | Chaude, Gene                                                                                                                                                                                                                                                                                                                                                                                                             | Hambly, Pat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |
| Gonva, Bill     | Fokenada P                                                                                                                                                                            | Baker, Gerry                                                                                                                                                                                                                                                                  | Swadley, Larry                                                                                                                                                                                                                                                                                                                                                                                                           | Zummo, Jamie                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |  |
| Carter, Colette | Orf Buston                                                                                                                                                                            | Aument, Scott                                                                                                                                                                                                                                                                 | Pucel, Marc                                                                                                                                                                                                                                                                                                                                                                                                              | Stilphen, Jim                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| Hoxie, Greg     | Hobbs Keyin                                                                                                                                                                           | MaDath Down                                                                                                                                                                                                                                                                   | 0.1.5                                                                                                                                                                                                                                                                                                                                                                                                                    | Garza, Marcos                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
|                 | 1100003, 110 4111                                                                                                                                                                     | McBeth, Roger                                                                                                                                                                                                                                                                 | Searle, Herb                                                                                                                                                                                                                                                                                                                                                                                                             | Chatfield, Dave                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |  |  |
|                 |                                                                                                                                                                                       |                                                                                                                                                                                                                                                                               | Goldsmith, Dick                                                                                                                                                                                                                                                                                                                                                                                                          | Riley, John                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |
|                 | A<br>Truesdale, Ken<br>Weiso, Mike<br>Rossi, Anthony<br>Brown, Jason<br>Perkins, Todd<br>Seacor, Ed<br>Harris, Andy<br>Griffin, Chip<br>Gonya, Bill<br>Carter, Colette<br>Hoxie, Greg | ABTruesdale, KenMyers, SteveWeiso, MikeChapin, CliffRossi, AnthonyZorn, CarlBrown, JasonMuldoon, MikePerkins, ToddSikorski, PatSeacor, EdCox, RichardHarris, AndyPieper, PatGriffin, ChipBowen, RussGonya, BillEckenrode, B.Carter, ColetteOrf, BusterHoxie, GregHobbs, Kevin | ABDTruesdale, KenMyers, SteveMyers, TomWeiso, MikeChapin, CliffClaire, JohnRossi, AnthonyZorn, CarlDoboe, SandraBrown, JasonMuldoon, MikeHall, TimPerkins, ToddSikorski, PatSanders, CathySeacor, EdCox, RichardFerguson, BruceHarris, AndyPieper, PatFuriosi, MichaelGriffin, ChipBowen, RussBaker, GerryGonya, BillEckenrode, B.Aument, ScottCarter, ColetteOrf, BusterHoxie, GregHoxie, GregHobbs, KevinMcBeth, Roger | ABDETruesdale, KenMyers, SteveMyers, TomWilliamson, H.Weise, MikeChapin, CliffClaire, JohnFillion, JohnRossi, AnthonyZorn, CarlDoboe, SandraHoagland, JimBrown, JasonMuldoon, MikeHall, TimHowes, ScottPerkins, ToddSikorski, PatSanders, CathyJorinscay, JimSeacor, EdCox, RichardFerguson, BruceLettrich, MattHarris, AndyPieper, PatFuriosi, MichaelChaude, GeneGriffin, ChipBowen, RussBaker, GerrySwadley, LarryGonya, BillEckenrode, B.Aument, ScottPucel, MarcCarter, ColetteOrf, BusterHoxie, GregHobbs, KevinMcBeth, RogerHoxie, GregHobbs, KevinMcBeth, RogerSearle, HerbGoldsmith, DickStath, DickStath, Dick |  |  |  |

| WC-SRO   | Dubay, Ted                                      | Nelson, Larry                                    |                               |                           |                               |
|----------|-------------------------------------------------|--------------------------------------------------|-------------------------------|---------------------------|-------------------------------|
| Ops Asst | Moriarty, Tom                                   | Rein, John                                       |                               |                           |                               |
| SM Quals | Parrette, Randil                                |                                                  |                               |                           |                               |
| WC-PEO   | Dukctte, Henry                                  | Kostopoulas, N                                   | Carroll Rich                  |                           |                               |
| FIN Team | Smith, Tony                                     | Wilkens, Bryce                                   | ourong facil                  |                           |                               |
| LOUT     | Haff, Zack                                      | Seacor, Ed                                       | Fermison Bruco                |                           |                               |
|          | Strickland, Pete<br>Jacobs, Dave<br>Miles, Bill | Chesnutt, Will<br>Spakowski, Tina<br>Beebe, Jeff | Dingle, Kevin<br>Samson, Andy | Funk, Doug<br>Donch, Eric | Wasylik, John<br>Snyder, Pete |

|                                                      |                                            | DA                                            | Y STAFF                                             |                                                                   |
|------------------------------------------------------|--------------------------------------------|-----------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------|
| Ops Manager                                          | Hagan, Dan<br>(SRO)                        |                                               |                                                     |                                                                   |
| Assistant Ops<br>Manager                             | Baker, Steve<br>(SRO)                      |                                               |                                                     |                                                                   |
| Dps Tech.                                            | Cassidy, Pat                               |                                               |                                                     |                                                                   |
| Coordinator                                          | Mullin, Mike<br>(SRO)                      |                                               |                                                     |                                                                   |
| Admin. Staff                                         | Lafaille, Joan                             | Swanson,<br>Shaupon                           | O'Ncill, Diane                                      |                                                                   |
| IOTES:<br>. For changes in<br>. Distribution: .<br>S | n status, plcase c<br>D. Hagan<br>J. Baker | ontact Shannon S<br>P. Cassidy<br>J. Lafaille | Swanson x4483 (or e<br>Control Room<br>Work Control | mail: swanssr)<br>Training (T. Grilley)<br>Security (FAX to 5558) |

Post/H Fax Note 87673 6 In Griller Faxt From ( Shannon Plipher dillo

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|          | 11-Jun                                | 12-Jun                                | 13.60         | 14.100       | 1 45 100     | 10 1.5       | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------|---------------------------------------|---------------------------------------|---------------|--------------|--------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rev 2    | SUN                                   | MON                                   | TUE           | WED          |              | 10-000       | IV-JUN<br>DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| .09-Jun  |                                       | W                                     | OBK CONTROL   |              |              |              | 0A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| WC-SRO   |                                       | T Dubay                               | T Dubay       | T Dubay      | TDubay       | TDubou       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-SRO   |                                       | L Nelson                              | i Nelson      | I Nelson     | 1 Nolcon     | / Dubay      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-SRO   |                                       |                                       | SMuors        | SMuere       | S Myore      | C Muson      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-SRO   |                                       |                                       | C Chanin      | C Chanin     | C Chapin     | C Chaple     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-SRO   | · · · · · · · · · · · · · · · · · · · | -                                     | CZorn         | C Zorn       | C Zom        | C Zorp       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ops Asst | · · · · · · · · · · · · · · · · · · · | A Guelbart                            | A Guelbart    | A Guelbart   | A Guelhart   | A Guelbart   | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Ops Asst |                                       |                                       | -             | JBein        | J Bein       | J Rain       | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-US/UI |                                       |                                       |               | GHoxie       |              | U / IOIII    | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-CO    |                                       | ZHaff                                 | Z Haff        | ZHaff        | Z Haff       | Zirlaff      | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-CO    |                                       | B Ferguson                            | 8 Ferguson    | BFerguson    | BEarguson    | B Fergison   | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-CO    |                                       |                                       | M Muldoon     | M Muldaon    | M Muldeon    | M Muldoon    | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-CO    |                                       |                                       | P Sikorski    | P Sikorski   | P Sikorski   | P Sikorski   | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-CO    |                                       | · ·                                   | R Cox         | R Cox        | BCcx         | B Cox        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-PEO   |                                       |                                       | P Pieper      | P Pieper     | P Piener     | P Pieper     | ł                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-PEO   |                                       | -                                     | R Bowen       | R Bower      | B Bowen      | R Bowen      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-PEO   |                                       | -                                     | B Eckenrode   | B Eckenrode  | BEckenrode   | B Eckenrode  | <u>†</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| WC-PEO   |                                       | -                                     | B Orl         | BOrt         | BOrt         | BOrf         | ł                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-PEO   |                                       | -                                     | K Hobbs       | K Hobbs      | K Hobbs      | KHobbs       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| WC-TAG   |                                       | Kostopoulos                           | Kostopoulos   |              | -            | Kestepoulos  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| WC-TAG   |                                       | -                                     | -             | R Carroll    | R Carroll    | R Carroll    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| RAD-PEO  |                                       | H Duketle                             | H Dukette     | H Dukette    | H Duke'lo    | HDukette     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| EIN Team |                                       | T Smith                               | ···· T:\$mith | T-Smith      | TSmith       | - T.Smith .: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| FIN Team |                                       | B Wilkens                             | B Wilkens     | B Wilkens    | B:Wilkens    | B Wilkens    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|          |                                       |                                       | PILOT WEE     | KTRAINING    |              |              | <b>Anishing the second se</b> |
|          |                                       |                                       | Personnel n   | ot Available |              |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| SM       | •                                     | +                                     | -             | H Williamson | H Williamson | H Williamson | H Williamson                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| US       | M Ewers                               | M Ewers                               | M Ewers       | M Ewers      | MEwors       | M Ewers      | M Ewers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| co       | B Gaynier                             | B Gaynler                             | B Gaynier     | B Gaynier    | B Gaynier    | B Gaynier    | B Gaynier                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CO       | E Seacor                              | E Seacor                              | E Seacor      | E Seacor     | E Seacor     | E Seacor     | E Seacor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CO       | •                                     | SHowes                                | SHowes        | -            | -            | P.           | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CO       | -                                     | · · · · · · · · · · · · · · · · · · · | 4             | M Lettrich   | M Lettrich   | M Lottrich   | M Lettrich                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 00       | -                                     | -                                     | -             | TPerkins     | -            | -            | •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CO       |                                       |                                       | -             |              | •            | -            | L Maustollor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| PEO      | •                                     | +                                     | -             |              | •            | J Stilphen   | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| PEO      | -                                     | -                                     |               | L Swadley    | L Swadley    | L Swadloy    | L Swadley                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|          |                                       |                                       |               | Approved:    | K MII        | 110          | <u>L</u> for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|-------------------|-------------|--------------|--------------|-----------------|--------------|---------------------------------------|-------------|
| 2010              |             | +2-Jun       | 13-Jun       | 14-Jun          | 15-Jun       | 16-Jun                                | 17-Jyn      |
| ney 2             | - SUN       | MUN          | TUE          | WED             | THU          | FRI                                   | SAT         |
| . เมษามนก         | L           |              | DAY          | SHIFT (0700 -   | 1900)        |                                       |             |
| SM                | HWilliamson | H Williamson | H Williamson | J Kunze         | J Kunze      | J Kunze                               | TMvers      |
| STA               | M Strollo   | M Strollo    | M Strollo    | T Arnett        | T Ameit      | TAmett                                | JHuff       |
| US                | J Hoagland  | J Hoagland   | J Hoagland   | R Armour        | R Armour     | R Armour                              | I Ciaire    |
| WC-SRO            | J Fillion   | J Fillion    | J Fillion    | H Duffy         | H Dully      | H Du(fy                               | S Drboe     |
| 00                | S Howas     | •            | +            |                 |              |                                       | 0.0000      |
| co                | J Jorinscay | J Jorinscay  | J Jorinscay  | J Daskam        | J Daskam     | JDaskam                               | -<br>Т ЦаШ  |
| co                | M Lettrich  | M Lettrich   | M Lettrich   | L Mausteller    | L Mausteller | 1 Mausteller                          | C Sandara   |
| PEO               | G Chaude    | G Chaude     | G Chaude     | JZummo          | JZummo       | 170000                                | G Rakar     |
| PEO               | -           | -            | ÷            | M Garza         | M Garza      | MGarra                                | G Darui     |
| PEO               | L Swadley   | L Swadloy    | L Swadley    | P Hamply        | 2 Hambly     | P Hambiy                              | C Aumoni    |
| PEO               | M Pucel     | M Pucei      | M Pucel      | J Stilnhen      | JStilphen    | с танылу                              | 5 Aumeni    |
| PEO U/I           | H Soarle    | H Searle     | H Searle     | D Chatfield     | D Chatfield  | Dehatilald                            | M Puriosi   |
|                   |             |              | NIGH         | 1 SHIFT (1900 - |              | U Chauleiù                            | H MCDein    |
| SM                | T Myers     | T Myers      | Thhrans      | K Triordala     | (Crow)       | · · · · · · · · · · · · · · · · · · · |             |
| STA               | J Hull      | JHuff        | HUI          | MCicoppa        | K Truesdale  | K Truesciale                          | K Truesdale |
| US                | J Clairo    | .I Clairo    | L Clairo     | M Mining        | Ni Ulccona   | M Ciccone                             | M Ciccona   |
| WC-SRO            | S Dobce     | S Dohoe      | S Dobote     |                 | M WCISO      | M Woiso                               | M Woise     |
| co                | T Hall      | T Hall       | THell        | 1 Pentun        | A Hossi      | A Rossi                               | A Rossi     |
| co                | C Sandors   | C.Sandors    | C Stadora    |                 |              | J Brown                               | J Brown     |
| PEO               | GRaker      | G Bakor      | C Delvor     | O Sanders       | I Perkins    | T Porkins                             | T Perkins   |
| PEO               | SAument     | Q Aumont     | G Daker      | GGrinin         | G Grittin    | G Griffin                             | G Griffin   |
| PEO               | M Furiosi   | - SAUMONI    | S Aument     | A Harris        | A Harris     | A Harris                              | A Harris    |
| 039               |             | METHOSI      | W PURIOS!    | W Gonya         | W Gonya      | W Gonya                               | W Gonya     |
| PEOU              |             |              |              | C Carler        | C Carter     | C Carter                              | C Carter    |
| FEV OIL           |             | H McBain     | R McBelh     | -               | -            |                                       | -           |

# Millstone Unit 2 Operations Shift Schedule

ot osges 2 Po **4**9 Fax Note Ťο CKIE Faxa From nor Phone# 4483

June 14, 2000

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To: Shift Managers

From: Operations Manager

Subject: Active License List

For the purpose of this JPM the Unit 2 Operations Department Roster dated June 7 show who have active licenses as follows:

- All personnel shown in the SM and US positions have active SRO licenses.
- All persons shown in the CO positions on the have active RO licenses.

Exempt Personnel Overtime List

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For purpose of this JPM, all personnel have equal amounts of overtime.

# JOB PERFORMANCE MEASURE APPROVAL SHEET

JPM Title: SRO Review and Authorize Safety Tagging

ID Number:

JPM-A04

Revision: 0

Initiated: 11.

Ι.

Fred Nygard Developer

6/13/2000 Date

III. Reviewed:

tobell Technical Reviewer

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IV. Approved:

User Department Supervisor

Nuclear Training Supervisor

Date

20/00

#### JOB PERFORMANCE MEASURE WORKSHEET

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| Facility: <u>MP-2</u>                                                          | Examinee:                                                                                                                                                                |                 |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| JPM Number: J                                                                  | PM- A04                                                                                                                                                                  | Rev0            |
| Task Title: Authorize                                                          | hanging and clearing of tags on pl                                                                                                                                       | ant equipment   |
| System: Administrative                                                         |                                                                                                                                                                          |                 |
| Time Critical Task: Yes                                                        | NoX                                                                                                                                                                      |                 |
| Validated Time (minutes):                                                      | 10                                                                                                                                                                       |                 |
| Task No.(s): <u>119-02-02</u>                                                  | 3                                                                                                                                                                        |                 |
| Applicable To: SRC                                                             | <b>X</b> RO PEO                                                                                                                                                          |                 |
| K/A No.: 2.2.13                                                                | K/A Rating: 3.6/3.8                                                                                                                                                      |                 |
| <u>Method of Testing:</u><br>Simulated Performance:<br><u>Location:</u>        | X Actual Performance:                                                                                                                                                    | :               |
| Classroom: X                                                                   | Simulator: X                                                                                                                                                             | In-Plant: X     |
| <u>Task Standards:</u><br><u>Required Materials</u><br>(procedures,equipment): | <ul> <li>At the completion of this JPM,</li> <li>WC2 "Tagging"</li> <li>A training only clearance 2-1154</li> <li>P&amp;ID 25203 26011 Sh 1</li> <li>OP 2388J</li> </ul> | 4-00 (attached) |
| General References:                                                            | WC-2, Section 1.5 (Rev.4, Ch.2)                                                                                                                                          |                 |

### \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

#### JOB PERFORMANCE MEASURE WORKSHEET

| JPM Number:                   | JPM-A04                                                                                                                                                              | Rev                                  | 0                                                               |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|
| Initiating Cues:              | • As the Tagging authority, you need Clearance 2-1154-00.                                                                                                            | to Review                            | and Approve                                                     |
| Initial Conditions:           | <ul> <li>Plant is in Mode 1</li> <li>FLS requests clearance to prevent a</li> <li>The attached clearance is for an AV and possible replacement of the 'A'</li> </ul> | any possil<br>VO that pr<br>AFW purr | ble rotation of pump.<br>rovides for inspection<br>ap coupling. |
| <u>Simulator Requirements</u> | N/A                                                                                                                                                                  |                                      |                                                                 |

## \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

| JPM ID NU | MBER:      | <u>JPM- A04</u> | TITLE:                                  | SRO Review and Authorize Safety Tagging                                                                                                                                                                                                                                                        |
|-----------|------------|-----------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIM | E:         |                 |                                         |                                                                                                                                                                                                                                                                                                |
| STEP 1    | <u>X</u> F | Performance Ste | eps: Re<br>a.<br>b.                     | view the clearance for approval as follows:<br>VERIFY clearance provides personnel and<br>equipment safety for the tasks and hazards<br>involved.<br>Refer To Attachment 4 and VERIFY all energy                                                                                               |
|           | X          |                 | C.                                      | sources and isolation points have been considered<br>VERIFY clearance does <i>not</i> compromise the<br>operability of other required equipment                                                                                                                                                |
|           |            |                 | d.<br>e.                                | IF clearance is a blue tag clearance, ENSURE all<br>work is assigned to a single Contact Person.<br>REVIEW effects of clearance on indications.                                                                                                                                                |
|           |            |                 | f.                                      | instruments or controls and need for compensator<br>actions.<br>VERIFY completeness and sequencing of steps.                                                                                                                                                                                   |
|           |            |                 | g.                                      | VERIFY correct tag selection for all work                                                                                                                                                                                                                                                      |
|           | —          |                 | h.                                      | Unless required by procedure, ENSURE blue tags<br>are <i>not</i> hung on redundant trains of operable safe<br>related equipment.                                                                                                                                                               |
|           |            |                 | i.                                      | NOTE<br>This step applies when tagging alters the operatio<br>of the system or component.<br>Prior to hanging tags, a 10CFR50.59 Safety<br>Evaluation Screening is required if equipment or<br>portions of systems meet the following conditions:<br>• Considered operable or available<br>AND |
|           |            |                 | j.                                      | • Operated in a manner not in accordance with applicable procedures DOCUMENT the 10CFR50.59 Safety Evaluation Screening or Safety Evaluation in the clearance by adding a note to the "NOTES" section of the                                                                                   |
|           |            |                 | k.                                      | clearance OR a text step in the clearance.<br>IF tagging is performed as part of a Temp Mod,<br>ASSIGN an SM/US to the clearance and<br>DOCUMENT the Temp Mod as the reason                                                                                                                    |
| GRADE     | _          | Standards:      | Examin<br>a. Ver<br>equ<br>by c<br>list | tee:<br>ifies clearance provides satisfactory personnel and<br>ipment safety for the tasks and hazards involved<br>comparing clearance against the P&ID and load<br>. Load list is provided by OP 2388.1                                                                                       |
|           |            |                 | b. Ver                                  | ifies all energy sources and isolation points have<br>on considered (as described in Attachment 4)                                                                                                                                                                                             |

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| $\bigcirc$ | JPM ID NUMBER: | <u>JPM- A04</u>               | TITL                           | E: SRO Review and Authorize Safety Tagging                                                                                                                                                                   |
|------------|----------------|-------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | <u></u>        |                               | c. L<br>c<br>t                 | Determines that clearance compromises the operability of other required equipment by recognizing that step number 2 of the clearance will result in both AFW pumps being tagged out of service.              |
|            |                |                               | a.n<br>v<br>F                  | Clearance is a blue tag clearance, ENSURE all vork is assigned to a single Contact Person. Recognize that this is not a blue tag clearance.                                                                  |
|            | _              |                               | e.F<br>ii<br>a                 | REVIEW effects of clearance on indications,<br>nstruments or controls and need for compensatory<br>actions.                                                                                                  |
|            |                |                               | f. V                           | /ERIFY completeness and sequencing of steps.                                                                                                                                                                 |
|            |                |                               | g.V<br>h.L<br>n                | /ERIFY correct tag selection for all work package(s).<br>Inless required by procedure, ENSURE blue tags are<br>not hung on redundant trains of operable safety<br>elated equipment.                          |
|            |                |                               |                                | NOTE                                                                                                                                                                                                         |
| $\smile$   |                |                               | T<br>ti                        | This step applies when tagging alters the operation of the system or component.                                                                                                                              |
|            | _              |                               | і. н<br>Е<br>р                 | Prior to hanging tags, a 10CFR50.59 Safety<br>Evaluation Screening is required if equipment or<br>Portions of systems meet the following conditions:<br>Considered operable or available<br>AND              |
|            |                |                               | j. E<br>S                      | Operated in a manner not in accordance with<br>applicable procedures<br>OOCUMENT the 10CFR50.59 Safety Evaluation<br>Screening or Safety Evaluation in the clearance by                                      |
|            |                |                               | a<br>C<br>IF ta<br>an S<br>Mod | dding a note to the "NOTES" section of the clearance<br>DR a text step in theclearance.<br>agging is performed as part of a Temp Mod, ASSIGN<br>M/US to the clearance and DOCUMENT the Temp<br>as the reason |
|            | Cu             | ue: If examine<br>that taggir | ee doe<br>ng dat               | es not use load list, ask why. Acceptable response is a base used to print clearance automatically prints                                                                                                    |
|            |                | correct bre                   | eaker.                         |                                                                                                                                                                                                              |

Comments: WC-2 is an information level of use procedure.

| JPM ID NUN | ABER: | <u>JPM- A04</u>                           | TITLE:                               | SRO Review and Authorize Safety Tagging                                                                                                                                                        |
|------------|-------|-------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STEP 2     | X     | Performance S                             | iteps: IF<br>foll<br>a.<br>b.        | review indicates a deficiency, PERFORM one of the<br>owing:<br>NOTIFY a Tag Control Coordinator and RESOLVE<br>the problem.<br>RETURN clearance to a Tag Control Coordinator<br>for resolution |
| GRADE      | X     | Standards:                                | Examin<br>Control                    | nee notifies and/or returns the clearance to the Tag<br>Coordinator for problem resolution.                                                                                                    |
|            | C     | Cue: As the T<br>notification<br>does not | ag Contro<br>on. If exar<br>state wh | I coordinator, accept the returned clearance or<br>ninee states that problem must be resolved, but<br>o, ask who resolves the problem.                                                         |
| Comments:  | After | this step is co                           | ompleted                             | , the JPM is considered complete.                                                                                                                                                              |

STOP TIME:

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## VERIFICATION OF JPM COMPLETION

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| Job Performance Measure No.                                                                            | JPM- A04                                                    | Rev.                                     | <u>0</u>                          |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------|-----------------------------------|
| Date Performed:                                                                                        |                                                             |                                          |                                   |
| Operator:                                                                                              |                                                             |                                          |                                   |
| Evaluator(s):                                                                                          | ,                                                           |                                          |                                   |
|                                                                                                        |                                                             |                                          |                                   |
| For examinee to achieve a satis<br>correctly. If task is Time Critica<br>achieve a satisfactory grade. | sfactory grade, <u>ALL</u> o<br>l, it <u>MUST</u> be comple | critical steps mus<br>eted within the sp | t be completed<br>ecified time to |
|                                                                                                        |                                                             |                                          |                                   |
| Time Critical Task? Yes                                                                                | No <u>X</u>                                                 |                                          |                                   |
| Validated Time (minutes):                                                                              | 10                                                          |                                          |                                   |
| Actual Time to Complete (minutes                                                                       | s):                                                         |                                          |                                   |
| Result of JPM: (Denote                                                                                 | e by an <u>S</u> for satisfacto                             | ory or a <u>U</u> for unsat              | isfactory)                        |
| Areas for Improvement:                                                                                 |                                                             |                                          |                                   |
|                                                                                                        |                                                             |                                          |                                   |

## **EXAMINEE HANDOUT**

JPM ID Number: A04

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- Initiating Cues: As the Tagging authority, you need to Review and Approve Clearance 2-1154-00.
- Initial Conditions:
- The attached clearance is for an AWO that provides for inspection and possible replacement of the 'A' AFW pump coupling.

# CLEARANCE UNDER SHEET

|           | ()   |     |
|-----------|------|-----|
| • •       | PAGÊ | NO  |
| Additiona | l_Pa | ges |
| 06/01/00  | 04:  | 05  |

| 1. Cl        | earance Number                                 | 2. Date                                                           | 3. AWO Number (or "N                                   | Multiple")   | 4. Contact Pe                         | rson (or "Multiple") |       |                               |                       |          |                |           |
|--------------|------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------|--------------|---------------------------------------|----------------------|-------|-------------------------------|-----------------------|----------|----------------|-----------|
| 2 -          | 1154-00                                        | 06/01/00                                                          | M2-00-1234                                             | 56           | SHIFT                                 | MANAGER/UNI1         | SUPER |                               |                       |          |                |           |
| 5. Eq<br>P   | uipment<br>9A, "A" Al                          | UXILIARY FEED                                                     | WATER PUMP AS                                          | SEMBLY       | (MTR HTR                              | BKR LH51-6)          |       | 8. Tag Lift Sheet             | Attached              | Clear    | — <sup>)</sup> | (es       |
| 6. RE.<br>'A | ASON TAGGED                                    | TAGE (FEG 232)                                                    | 2X11)                                                  |              |                                       |                      |       | 10. Partial Restor            | ation                 | s cleara | - <sup>1</sup> | es<br>(es |
| 7. SP        | ECIAL INSTRUCTIO                               | DNS/CAUTION                                                       |                                                        |              |                                       |                      |       | 11. Prepared By<br>KENNETH G. | TRUESD                | ALE      | <u> </u>       |           |
| 12a.<br>Step | (Note 1)                                       |                                                                   |                                                        |              |                                       |                      |       |                               | 12c. Tag<br>Action Co | Placed,  | Verifica       | tion      |
| No.          | 12b. Equipment                                 | Identification And No                                             | menclature And Locat:                                  | ion          |                                       |                      |       |                               | Date                  | Init     | Date           | Ini       |
| 1            | RACK DOWN,<br>4.16KV BREAKER<br>LOC: TB 31'6   | RACKED DOWN, ar<br>- p9a auxiliary feedw<br>" lower switchgear,   | d RED TAG, <u>A307</u><br>TATER PUMP 24C3-2<br>BUS 24C | <u>7</u> ,   |                                       |                      |       |                               |                       |          |                |           |
| 2            | CLOSE, CLOS<br>"B" AUX FEED PU<br>LOC: TB 4'6" | SED, and RED TAG<br>UMP DISCHARGE STOP VAL<br>, "B" AUX FEED PUME | , <u>2-FW-9B</u> ,<br>ve                               |              |                                       |                      |       |                               |                       |          |                |           |
| 3            | CLOSE, CLOS<br>"A" AUX FEED PU<br>LOC: TB 1'6" | SED, and RED TAG<br>UMP RECIRCULATION STOP<br>TURBINE, ABOVE "A"  | , <u>2-FW-52B</u> ,<br>valve<br>afp                    |              |                                       |                      |       |                               |                       |          |                |           |
| 4            | CLOSE, CLOS<br>"A" AUX FEED PU<br>LOC: TB 1'6" | SED, and RED TAG<br>UMP SUCTION ISOLATION<br>AUX FEED PUMP ROOM,  | , <u>2-CN-29A</u> ,                                    |              |                                       |                      |       |                               |                       |          |                |           |
| 5            | CLOSE, CLOS<br>"A" AUX FEED PU<br>LOC: TB 1'6" | SED, and RED TAG<br>UMP EMERGENCY FIRE WAT<br>, "A" AUX FEED PUMP | , <u>2-FIRE-94A</u> ,<br>er supply valve               |              | · · · · · · · · · · · · · · · · · · · |                      |       |                               |                       |          |                |           |
| 6            | N/A, N/A, &<br>Handswitch for<br>LOC: CB 36'6' | and YELLOW TAG,<br>"A" AUXILARY FEEDWATE<br>" CONTROL ROOM, COS   | <u>P9A-HS,</u><br>r pump, p9a                          |              |                                       |                      |       |                               |                       |          |                |           |
|              | CAUTION:                                       | BREAKER IS RE                                                     | D TAGGED                                               |              |                                       |                      |       |                               | L <u></u>             | <u> </u> |                | J         |
|              |                                                |                                                                   |                                                        |              |                                       |                      |       |                               |                       |          |                |           |
| 13a. C<br>S  | Clearance correct<br>SM/US notified for        | t and equipment may be<br>or power block. Bound<br>Authorized     | isolated<br>ary Approved By:<br>To Be Hung By:         | WILL<br>WILL |                                       | D.<br>D.             |       |                               | 13b. Date<br>06,      | /01/0    | 0              |           |

Note 1 Initial position for Blue Tags. N/A if position not required

TRAINING AND EXAM USE ONLY - -NOT FOR OPERATION

# JOB PERFORMANCE MEASURE APPROVAL SHEET

JPM Title: SRO Approve a Radioactive Liquid Waste Release Permit

ID Number:

JPM-A05

Revision: 0

II. Initiated:

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Fred Nygard Developer

6/15/2000 Date

III. Reviewed:

Technical Revie

IV. Approved:

User Department Supervisor

Date

60

## JOB PERFORMANCE MEASURE WORKSHEET

| Facility: MP-2                                                          | Examinee:                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JPM Number:                                                             | JPM-A05 Rev. 0                                                                                                                                                                                                                   |
| Task Title: Determine                                                   | e plant conditions required to perform surveillances                                                                                                                                                                             |
| System:                                                                 |                                                                                                                                                                                                                                  |
| Time Critical Task: Yes                                                 | NoX                                                                                                                                                                                                                              |
| Validated Time (minutes):                                               | 10                                                                                                                                                                                                                               |
| Task No.(s): <u>NUTIMS</u> #                                            | ± 119-02-026                                                                                                                                                                                                                     |
| Applicable To: SRC                                                      | D X RO PEO                                                                                                                                                                                                                       |
| K/A No.:2.3.6                                                           | K/A Rating:2.1/3.1                                                                                                                                                                                                               |
| <u>Method of Testing:</u><br>Simulated Performance:<br><u>Location:</u> | X Actual Performance:                                                                                                                                                                                                            |
| Classroom: X                                                            | Simulator: X In-Plant: X                                                                                                                                                                                                         |
| <u>Task Standards:</u>                                                  | At the completion of this JPM, the examinee will have discovered a<br>plant operating condition that will prevent discharging a radioactive<br>liquid waste discharge permit that will prevent the discharge from<br>commencing. |
| Required Materials<br>(procedures,equipment):                           | <ul> <li>SP 2617A "Aerated and Clean Radiactive Liquid Waste<br/>Discharges</li> <li>Chem Form 2864-1 "Millstone Unit 2 Liquid Discharge Permit<br/>Number</li> </ul>                                                            |
| General References:                                                     | SP 2617A, Section 4.3.7 and 4.3.8 (Rev. 26, Ch. 4)                                                                                                                                                                               |

## \*\*\*\* READ TO THE EXAMINEE \*\*\*\*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE WORKSHEET

| JPM Number:         | JPM-A05                                                                       | Rev                                                | 0                                 |
|---------------------|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|
| Initiating Cues:    | <ul> <li>You are the SM and<br/>discharged. Take ad<br/>discharge.</li> </ul> | you have directed that to one to continue prepara  | the "A" CWMT be<br>itions for the |
| Initial Conditions: | <ul> <li>Your shift is perform<br/>Discharging CWMTs</li> </ul>               | ing SP 2617A section 4<br>s"                       | .3 "Recirculating and             |
|                     | The Rad waste PEC<br>through 4.3.6 in prep                                    | ) has completed SP 261<br>paration for discharging | 7A steps 4.3.1<br>the "A" CWMT.   |
|                     |                                                                               | NINER, WIT-TOA IS NOT                              |                                   |
|                     |                                                                               |                                                    |                                   |

Simulator Requirements: N/A

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\*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".
- 3. If necessary, question examinee for details of simulated actions / observations (i.e. "What are you looking at?" or "What are you observing?").
- 4. Under <u>NO</u> circumstances must the examinee be allowed to manipulate any devices during the performance of this JPM (in-plant only).

## **PERFORMANCE INFORMATION**

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| JPM ID NUMB | ER: <u>JPM-A05</u>                                               | TITLE: <u>SRO Approve a Radioactive Liquid Waste</u><br><u>Release Permit</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIME: |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| STEP 1      | Performance S                                                    | Steps: When Chem. Form 2864-1 (Discharge Permit) is<br>obtained from Chemistry Department, SM Review and<br>Authorize Chem. Form 2864-1 "Millstone Unit #2 Liquid<br>Discharge Permit No. XXXX," for discharge.                                                                                                                                                                                                                                                                                                                                                        |
| GRADE       | Standards:                                                       | SM should review and initial Form 2864-1 as shown in the<br>attached Key. If examinee asks for plant conditions before<br>he initials the permit and becomes aware that the<br>discharge should not be made, he may elect not to initial<br>the permit.                                                                                                                                                                                                                                                                                                                |
|             | Cue: Provide                                                     | Chem. Form 2864-1 to the examinee.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Comments:   |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|             | ~~~~~~~                                                          | ~~~~~~                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| STEP 2      | X Performance S                                                  | <ul> <li>When Chem. Form 2864-1(Discharge Permit) is authorized, SM or US Refer to OPS Form 2617A-1 and Perform the following: <ul> <li>Review plant conditions and Authorize discharge.</li> <li>Ensure no other radioactive discharges are in progress (other than SG blowdown) and initial.</li> <li>If discharge is to be performed with radiation monitor not Operable, Ensure 2 independent samples have been analyzed for CWMT, as specified on Chem Form 2852-1, "Unit 2 Liquid Radwaste Effluent Rad Monitor Inoperative" and Initial.</li> </ul> </li> </ul> |
| GRADE       | <u>X</u> Standards:                                              | Examinee reviews plant conditions and determines that<br>the discharge is not authorized or states that the<br>discharge and back wash operation can not be perfomed<br>concurrently.                                                                                                                                                                                                                                                                                                                                                                                  |
|             | Cue: Provide a                                                   | attached description of plant condition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Comments:   | Not authorized beca<br>Nater Box is ready<br>discharge permit ca | ause plant conditions indicate that a backwash of the 'B'<br>to commence . OP2325D step 4.1.2 is not met because the<br>Iculation was done for 3 circulation water pumps.                                                                                                                                                                                                                                                                                                                                                                                              |

## **PERFORMANCE INFORMATION**

JPM ID NUMBER: <u>JPM-A05</u> TITLE: <u>SRO Approve a Radioactive Liquid Waste</u> <u>Release Permit</u>

Comments: After this step is completed, the JPM is considered complete.

STOP TIME:

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# VERIFICATION OF JPM COMPLETION

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| Job Performance Measure No.                                       | <u>JPM-</u> A05                        | Rev.                | <u>0</u>        |
|-------------------------------------------------------------------|----------------------------------------|---------------------|-----------------|
| Date Performed:                                                   |                                        |                     |                 |
| Operator:                                                         |                                        |                     |                 |
| Evaluator(s):                                                     |                                        |                     |                 |
| For examinee to achieve a satis                                   | sfactory grade, <u>ALL</u> critical    | steps must          | t be completed  |
| correctly. If task is Time Critical achieve a satisfactory grade. | l, it <u>MUST</u> be completed w       | ithin the spe       | ecified time to |
|                                                                   |                                        |                     |                 |
| Time Critical Task? Yes                                           | No <u>X</u>                            |                     |                 |
| Validated Time (minutes):                                         | 10                                     |                     |                 |
| Actual Time to Complete (minutes                                  | s):                                    |                     |                 |
|                                                                   |                                        |                     |                 |
| Result of JPM: (Denote                                            | e by an <u>S</u> for satisfactory or a | <u>U</u> for unsati | isfactory)      |
| Areas for Improvement:                                            |                                        |                     |                 |

## Plant Conditions

100% power, equilibrium steady state conditions Normal Operating Temperature and Pressure SG blowdown is 49 GPM on #1 SG and 51 GPM on #2 SG No other discharges radioactive discharges are in progress Procedures in Use

- SP 2617A section 4.3; Steps 4.3.1-4.3.6 have been completed for the 'A' CWMT.
  - Filtered recirculation is not being used
  - Chemistry Sample Results are acceptable
  - RM-9049 is operable

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- OP 2325D 'Mussel Cooking and Backwashing Operations' section 4.5, steps 4.5.1 4.5.6 have been completed.
- SP13E-1 'Diesel Fuel Oil Sample Analysis'

| CO. BS                                                                                                 | //<br>Ignature on fil                                                                                      | E                                                                                                | 5-28-98                                                                                  | 6                                                | -11-98                   |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------|
|                                                                                                        | Approved                                                                                                   |                                                                                                  | Approval Dat                                                                             | te Effe                                          | ctive Date               |
| MILLST                                                                                                 | ONE UNIT #2                                                                                                | LIQUID DISCHAI                                                                                   | RGE PERMIT NO. 2                                                                         | 2049                                             | (SP30977)                |
| Tank<br>Sampled by<br>TSS (ppm).: O<br>Boric acid co<br>pH= <u>5.3</u> (>2 a                           | : A CWMT<br>: <u>(1)</u><br>nc= <u>6835</u><br>nd <12.5)                                                   | Date<br>Date<br>Lt = 45 ppm; CWI<br>(ppm) Eff. Mon:                                              | e/time sampled.<br>e/time on recirc<br>MT limit = 22.5<br>itor Bkg= <u>3, E+</u>         | : 8-JUN-<br>c.: 8-JUN-<br>ppm)<br><u>4</u> (cpm) | 2000 21:00<br>2000 11:35 |
|                                                                                                        |                                                                                                            |                                                                                                  |                                                                                          |                                                  | Ng Hy 50.35ppm           |
| Isotope                                                                                                | Activity<br>(uCi/ml)                                                                                       | MPC<br>(uCi/ml)                                                                                  | Activity/MPC                                                                             | Ľ                                                | TAS6.5PPD                |
| CR-51                                                                                                  | 7 178E-05                                                                                                  | 2 0005-03                                                                                        | 3 5898-02                                                                                |                                                  |                          |
| CO-58                                                                                                  | 3.601E-05                                                                                                  | 2.000E-05<br>9 000F-05                                                                           | 3.309E-V2<br>4 001E-01                                                                   |                                                  |                          |
| CO-60                                                                                                  | 4 501E-06                                                                                                  | 3.000E-05                                                                                        | 4.001E-01<br>1 500E-01                                                                   |                                                  |                          |
| NB-95                                                                                                  | 3.431E-07                                                                                                  | 1.000E-04                                                                                        | 3 431E-03                                                                                |                                                  |                          |
| AG-110M                                                                                                | 6.492E-07                                                                                                  | 3.000E-05                                                                                        | 2 164E-02                                                                                |                                                  |                          |
| XE-133                                                                                                 | 2.794E-06                                                                                                  | 0.00012 000                                                                                      | <b>D.101</b> 02                                                                          |                                                  |                          |
| CS-137                                                                                                 | 9.919E-07                                                                                                  | 2.000E-05                                                                                        | 4.960E-02                                                                                |                                                  |                          |
| CE-141                                                                                                 | 9.163E-07                                                                                                  | 9.000E-05                                                                                        | 1.018E-02                                                                                |                                                  |                          |
| H-3                                                                                                    | 1.080E-02                                                                                                  | 3.000E-03                                                                                        | 3.600E+00                                                                                |                                                  |                          |
| Totals                                                                                                 | 1.152E-04 (@)                                                                                              |                                                                                                  | 4.271E+00                                                                                |                                                  |                          |
| ∑-ćirculatin<br>During Unit<br>the discharg<br>Diluted gas c                                           | g water pumps m<br>2 shutdown a mi<br>e rate limited<br>oncentration (u                                    | nust be in opera<br>n. dilution flo<br>to 30.5 gpm.<br>nCi/ml) = 3.175                           | ation during a c<br>ow of 20,000 gpm<br>SE-09                                            | discharge<br>n is allow                          | able with<br>INIT        |
| Minimum recire<br>Administrative<br>Total activity<br>Estimated volu<br>Estimated act<br>Est total act | c time is: 2<br>e quarterly rel<br>y released this<br>ume this discha<br>ivity this disc<br>ivity released | a.0 hr w/mixer;<br>ease limit (Ci)<br>quarter (Ci)<br>rge (gal)<br>harge (Ci)<br>this quarter (C | 7.7 hr w/pump<br>: 5.000E-02<br>: 1.380E-02<br>: 25000.<br>: 1.090E-02<br>Ci): 2.470E-02 |                                                  |                          |
| (1) Reduction                                                                                          | factor                                                                                                     | •••••                                                                                            | : 2.341E-01                                                                              | S                                                | .M. init                 |
| (2) Required<br>3 circ was                                                                             | dilution flow r<br>ter, 2 servi                                                                            | ate                                                                                              | : 308000.                                                                                | (gpm) _                                          |                          |
| <ul><li>(3) Normal ra</li><li>(5) Liquid eff</li></ul>                                                 | te limit (flow<br>fluent monitor                                                                           | rate=#1*#2*0.1)<br>alarm setting                                                                 | : 350.                                                                                   | (gpm)                                            | <u></u>                  |
| 1                                                                                                      |                                                                                                            | (ALARM                                                                                           | 1).: <u>7.77E+4</u>                                                                      | (cpm)                                            |                          |
| Maximum appro<br>(Authorizatio:                                                                        | ved rate<br>n required to e                                                                                | exceed normal ra                                                                                 | : <u>350</u><br>ate limit.                                                               | (gpm)                                            |                          |
| Srce_check ]                                                                                           | performed                                                                                                  |                                                                                                  | · · · ·                                                                                  |                                                  |                          |
| DISCHARGE                                                                                              |                                                                                                            |                                                                                                  |                                                                                          |                                                  |                          |
| DA                                                                                                     | TE/TIME                                                                                                    | DILUTION<br>FLOW RATE                                                                            | INTEGRATOR<br>READING                                                                    | DISCHARGE                                        | OPERATOR                 |

| Start                                   | (gpm)                  | (4*DIFF=gal)   | RATE (gpm)           |               |
|-----------------------------------------|------------------------|----------------|----------------------|---------------|
| Ind<br>Liquid eff monitor rea           | ding 15 min after star | t of discharge | 2                    | (cpm)         |
| Liquid eff monitor Bkg<br>Shift Manager | reading after flush    | gal) * 3785    |                      | (ml)<br>(cpm) |
|                                         | Date                   | 1<br>          | ודפ<br>ו Form 2864-1 | •             |

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Rev. 1 Page 1 of 1

## **EXAMINEE HANDOUT**

JPM ID Number: A05

<u>Initiating Cues</u>: • You are the SM and you have directed that the "A" CWMT be discharged. Take action to continue preparations for the discharge.

Initial Conditions:

- Your shift is performing SP 2617A section 4.3 "Recirculating and Discharging CWMTs"
  - The Rad waste PEO has completed SP 2617A steps 4.3.1 through 4.3.6 in preparation for discharging the "A" CWMT.

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• "A' CWMT, CWM TK MIXER, MT-15A is not available

# JOB PERFORMANCE MEASURE APPROVAL SHEET

1. JPM Title: LOCA with Loss of Containment Barrier Classification

ID Number:

JPM-006

Revision: 6

II. Initiated:

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M. Cote Developer

10/19/99 Date

III. Reviewed:

R. J. Ashey 🖌 Technical Reviewer

10/19/99

IV. Approved:

**Department Supervisor** 

10 81 99 Date

11/3/99 Date

Nuclear Training Supervisor

| <u>JOE</u>                                    |                                                                     | UKKSHLLI                                                           |
|-----------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------|
| Facility: MP-2                                | Examinee:                                                           |                                                                    |
| JPM Number:                                   | JPM-006                                                             | Rev. 6                                                             |
| Task Title: LOCA wit                          | h Loss of Containment Barrier (                                     | Classification                                                     |
| System: _Emergency Pl                         | an                                                                  |                                                                    |
| Time Critical Task: Yes                       | NoX                                                                 |                                                                    |
| Validated Time (minutes):                     | 15                                                                  |                                                                    |
| Task No.(s): <u>NUTIMS</u> #                  | 4000-05-205                                                         |                                                                    |
| Applicable To: SRC                            | D <u>X</u> RO PEO                                                   |                                                                    |
| K/A No.: 194001-A                             | 1.16 K/A Rating: 4.4                                                |                                                                    |
| Method of Testing:                            |                                                                     |                                                                    |
| Simulated Performance:                        | Actual Performar                                                    | nce: <u>X</u>                                                      |
| Location:                                     |                                                                     |                                                                    |
| Classroom:                                    | Simulator:                                                          | In-Plant:                                                          |
| Task Standards:                               | At the completion of this JPM, th<br>event as a Site Area Emergency | e examinee has classified the<br>, state posture code Charlie-Two. |
| Required Materials<br>(procedures,equipment): | EPIP 4400<br>EPIP Form 4400-2                                       |                                                                    |
| General References:                           | EPIP Form 4400-2 (Rev. 4)                                           |                                                                    |
|                                               |                                                                     | · · · · · · · · · · · · · · · · · · ·                              |

DEODMANCE MEACUDE MODIZEUEET

## \* \* \* \* <u>READ TO THE EXAMINEE</u> \* \* \* \*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied. You may use any approved reference materials normally available in the Control Room, including logs. Make all written reports, oral reports, alarm acknowledgments, and log entries as if the evolution was actually being performed.

## JOB PERFORMANCE MEASURE WORKSHEET

#### Initiating Cues:

- You are the on-duty SM.
- Your task is to determine the NRC and state posture code classification of the following event.

## Initial Conditions:

The plant is at 100% power, normal operation,

## Time line:

- 0 The board operators have identified the following parameter responses:
  - Letdown flow lowering
  - Containment narrow range pressure rising
  - Containment sump level rising
  - Containment particulate and gaseous radiation monitor readings going up
- 1 min. The US has directed the PPO to monitor letdown and run an RCS leak rate calculation to quantify RCS leakage.

To help confirm the estimate, the US has also directed the SPO to pump the Containment sump down to 10% level, stop the pumps, and monitor the sump fill rate.

- 2 min. The SPO starts both Containment sump pumps.
- 4 min. Sump level is 50% and lowering when suddenly Pressurizer level and pressure start dropping rapidly. RCS temperatures are stable.
- 5 min. The US orders a manual reactor trip based on exceeding CVCS capability and enters EOP 2525, "Standard Post Trip Actions."
- 7 min. SIAS occurs and the PPO trips "A" and "C" RCPs and then starts to verify SIAS, CIAS, and EBFAS on C-01X. They report all actuations verified with the following exceptions:
  - 2-SSP-16.1 under CIAS Channel 1 and 2-SSP-16.2 under CIAS Channel 2 do not have either the blue or white lights lit.
- 9 min The SPO checks C-06 and reports both Containment sump pumps off but both 2-SSP-16.1 and 2-SSP-16.2 have dual indication (both red and green lights lit).
- 14 min. A PEO is sent to visually check 2-SSP-16.2 and reports back that the valve appears to be 25% open.
- 17 min. EOP 2525 is completed with the following conditions:
  - RCS pressure at 1250 psia and lowering
  - Pressurizer level < 0% .
  - Subcooling at 24°F and lowering
  - Containment pressure at 2.1# and going up

  - Containment temperature at 118°F and going up
    Containment refuel platform area RM in alarm Containment particulate and gaseous have gone up
  - Vessel level indicates 80%

Simulator Requirements: N/A

# \*\*\*\* NOTES TO EXAMINER \*\*\*\*

- 1. Critical steps for this JPM are indicated with an "X". For the examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly.
- 2. When examinee states what his/her simulated action/observation would be, read the appropriate "Cue".

# PERFORMANCE INFORMATION

| JPM ID NU | ABER: JPM-006 TITLE: LOCA with Loss of Containment Barrier<br>Classification                                                                                                                              |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| START TIM | E:                                                                                                                                                                                                        |
| STEP 1    | X Performance Steps:: Classify the event.                                                                                                                                                                 |
| GRADE     | X Standards: Classifies the event as a Site Area Emergency, state posture code Charlie-Two.                                                                                                               |
|           | Cue:                                                                                                                                                                                                      |
| Comments: | <ul> <li>Based on Loss of <u>Two</u> Barriers:</li> <li>RCB2, "RCS Subcooling &lt; 30<sup>o</sup>F"</li> <li>CNB3, "Failure of BOTH Isolation Valves AND a Pathway to the Environment Exists."</li> </ul> |
|           | After this step is completed, the JPM is considered complete.                                                                                                                                             |
|           |                                                                                                                                                                                                           |

STOP TIME:

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1

## VERIFICATION OF JPM COMPLETION

| Rev. | <u>6</u> |
|------|----------|
|      |          |
|      |          |
|      |          |
|      |          |
|      |          |
|      | Rev.     |

For examinee to achieve a satisfactory grade, <u>ALL</u> critical steps must be completed correctly. If task is Time Critical, it <u>MUST</u> be completed within the specified time to achieve a satisfactory grade.

Time Critical Task? Yes No X

Evaluator(s):

Validated Time (minutes): \_\_\_\_\_15

Actual Time to Complete (minutes):

Result of JPM: \_\_\_\_\_ (Denote by an <u>S</u> for satisfactory or a <u>U</u> for unsatisfactory)

Areas for Improvement:

#### **EXAMINEE HANDOUT**

JPM ID Number: 006

Initiating Cues:

- You are the on-duty SM.
- Your task is to determine the NRC and state posture code classification of the following event.

#### Initial Conditions:

• The plant is at 100% power, normal operation.

#### Time line:

- 0 The board operators have identified the following parameter responses:
  - Letdown flow lowering
  - Containment narrow range pressure rising
  - Containment sump level rising
  - Containment particulate and gaseous radiation monitor readings going up
- 1 min. The US has directed the PPO to monitor letdown and run an RCS leak rate calculation to quantify RCS leakage.

To help confirm the estimate, the US has also directed the SPO to pump the Containment sump down to 10% level, stop the pumps, and monitor the sump fill rate.

- 2 min. The SPO starts both Containment sump pumps.
- 4 min. Sump level is 50% and lowering when suddenly Pressurizer level and pressure start dropping rapidly. RCS temperatures are stable.
- 5 min. The US orders a manual reactor trip based on exceeding CVCS capability and enters EOP 2525, "Standard Post Trip Actions."
- 7 min. SIAS occurs and the PPO trips "A" and "C" RCPs and then starts to verify SIAS, CIAS, and EBFAS on C-01X. They report all actuations verified with the following exceptions:
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  - Pressurizer level < 0%
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  - Containment pressure at 2.1# and going up
  - Containment temperature at 118°F and going up
  - Containment refuel platform area RM in alarm Containment particulate and gaseous have gone up
  - Vessel level indicates 80%