

## DRAFT OUTLINE COMMENTS

Facility:         CW        

First Exam Date:                     3/18/2013                    

Written Exam Outline (1-11-2013)		
Comment		Resolution
1	None	
2		
3		
4		
5		

Administrative JPM Outline (1-11-2013)		
Comment		Resolution
1	See comments attached.	
2		
3		
4		
5		

Control Room / In-Plant System JPM Outline (1-11-2013)		
Comment		Resolution
1	See comments attached.	
2		
3		
4		
5		

Simulator Scenario Outline Comments (1-11-2013)		
Comment		Resolution
1	All discrepancies discussed telephonically with licensee.	
2		
3		
4		

Facility: Callaway

Examination Level: RO

Date of Examination: 3/18/2013

Operating Test Number:

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
(A1) Conduct of Operations	R, N	Calculate a Shutdown Margin 2.1.37 (4.3) Knowledge of procedures, guidelines, or limitations associated with reactivity management.
(A2) Conduct of Operations	R, N	Calculate volume of water to transfer between RWST and Spent Fuel Pool within given limits. 2.1.25 (3.9) Ability to interpret reference materials, such as graphs, curves, tables, etc.
(A3) Equipment Control	R, N	Determine amperage limits for 480 VAC safety related busses when cross-connecting for maintenance. 2.2.37 (3.6) Ability to determine operability and/or availability of safety related equipment. RO?
Radiation Control		N/A
(A4) Emergency Procedures/Plan	R, N	Determine correct Functional Restoration Guideline (FRG) procedure implementation following a plant event. 2.4.14 (3.8) Knowledge of general guidelines for EOP usage.

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.

\* Type Codes &amp; Criteria:

(C)ontrol room, (S)imulator, or Class(R)oom

(D)irect from bank ( $\leq 3$  for ROs;  $\leq 4$  for SROs & RO retakes)(N)ew or (M)odified from bank ( $\geq 1$ ) 4(P)revious 2 exams ( $\leq 1$ ; randomly selected)

Blank disk!!  
(That you sent with Outline submittal)

## RO ADMIN JPM SUMMARY

A1 This is a new JPM. The ~~candidate will be assigned the task to~~ calculate an at power Shutdown Margin. The plant computer is not available and the calculation must be manually performed.

A2 This is a new JPM. The ~~candidate will be assigned the task to~~ calculate the amount of water required to test the Spent Fuel Pool (SFP) high level alarm. The water will come from the RWST and the candidate must determine if there is sufficient volume in the RWST to perform the SFP test without affecting the operability of the RWST. RO?

RO? A3 This is a new JPM. The ~~candidate will be assigned the task to~~ review planned maintenance which requires load centers NG01 and NG03 to be cross-connected. The candidate will be required to determine what equipment can be started on the cross-connected load centers. KA = SRO...

like it! A4 This is a new JPM. The ~~candidate will be assigned the task to~~ review the Critical Safety Functions (CSFs) following a plant event. Upon completion of this review, the applicant will report to the CRS that the highest priority CSF that needs to be addressed is Core Cooling and that FR-C.2, Response to Degraded Core Cooling should be implemented.

- ① Applicant - not Candidate
- ② RO vs SRO
- ③ Gender neutral

12-20-12

Rev *ℓ*

ES-301

## Administrative Topics Outline

Form ES-301-1

Facility: Callaway Examination Level: <u>SRO</u>		Date of Examination: 3/18/2013 Operating Test Number:
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
(A5) Conduct of Operations	R, M	Evaluate conditions for restarting of Refueling Preshuffle of Fuel Assemblies in the Spent Fuel Pool. 2.1.35 (3.9) Knowledge of the fuel-handling responsibilities of SROs.
(A6) Conduct of Operations	R, N	Review <sup>shiftly</sup> logs for completeness and correctness. 2.1.18 (3.8) Ability to make accurate, clear, and concise logs, records, status boards, and reports.
(A7) Equipment Control	R, N	Perform a <sup>risk</sup> assessment during <sup>shutdown</sup> conditions. 2.2.18 (3.9) Knowledge of the process for managing maintenance activities during shutdown operations, such as risk assessments, work prioritization, etc.
(A8) Radiation Control	R, D	Determine <sup>estimated dose for job</sup> and <sup>make shielding</sup> recommendation on whether to install shielding to <del>reduce total dose.</del> 2.3.12 (3.7) Knowledge of radiological safety principles pertaining to licensed operator duties, such as containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc.
(A9) Emergency Procedures/Plan	R, D	Initiate RERP implementation to include event classification and initial offsite notification. 2.4.41 (4.6) Knowledge of the emergency action level thresholds and classification.
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria: (C)ontrol room, (S)imulator, or Class(R)oom <i>5</i> (D)irect from bank ( $\leq 3$ for ROs; $\leq 4$ for <u>SROs</u> & RO retakes) <i>2</i> (N)ew or (M)odified from bank ( $\geq 1$ ) <i>2 N, 1 M</i> (P)revious 2 exams ( $\leq 1$ ; randomly selected)		

need  
orig JIM

## SRO ADMIN JPM SUMMARY

- A5 This is a bank JPM from the 2011 Turkey Point Exam. The candidate will be given a set of plant conditions and OOS equipment associated with recommending shuffling of irradiated fuel assemblies in the Spent Fuel Pool. The candidate will ~~be required to~~ evaluate ~~each item to assess~~ whether irradiated fuel can be moved based on the given condition. Of the 10 items provided to the candidate, 4 of them would prevent the movement of irradiated fuel assemblies.

? evaluate set of plant conditions?

*How is this modified?*

*Don't tell applicant!*

- A6 This is a new JPM. The candidate will be given 13 pages of a set of manual Control Room logs that have been taken due to the unavailability of Auto Tour. The candidate will ~~be required to~~ review the logs and ~~to~~ inform the RO of any changes or plant issues that need to be addressed based on this review. There are ten (10) issues to be identified on the logs; the candidate must identify at least 8 of the 10 issues to successfully complete this JPM.

11

- A7 This is a new JPM. The candidate will ~~be required to~~ perform a Shutdown Safety Assessment for Power Availability IAW EDP-ZZ-01129 based on a set of given conditions. After this review, the candidate will have determined that there are 5 credit points available for Power Availability and the Risk Assessment condition color is Green.

- A8 This is a bank JPM from the 2012 Ft. Calhoun Exam. The candidate will ~~be directed to~~ calculate the total dose for a maintenance job in the Auxiliary Building, with and without temporary shielding installed. The candidate will ~~have to~~ make a recommendation of whether to request temporary shielding for the job or to perform the job without temporary shielding installed. The addition of shielding reduces the total dose for the job; therefore the candidate should recommend that temporary shielding be installed.

- A9 This is a Callaway Bank JPM [SRO-RER-02-A140J (TC)]. The candidate will be given a set of plant conditions and will ~~be required to~~ implement the Radiological Emergency Response Plan (RERP) to classify the event within 15 minutes (Time Critical) and then make the initial notifications to offsite agencies (Time Critical).

*2 part JPM?*

*① Gender neutral*

12.20.12

Rev *[Signature]*

ES-301

Control Room/In-Plant Systems Outline

Form ES-301-2

Facility: Callaway		Date of Examination: 3/18/2013	
Exam Level: RO (only) / SRO-I / SRO-U		Operating Test No.: _____	
Control Room Systems® (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)			
System / JPM Title	Type Code*	Safety Function	
S1 <b>004 Chemical and Volume Control System</b> <b>Borate the Reactor Coolant System for <del>A</del> power change</b>	<u>N</u> , <u>S</u> , <u>A</u> , <u>E</u>	1	
S2    010 Reactor Coolant System (BB) Perform System Surveillance – BBHV8000A Stroke Test	<u>D</u> , <u>S</u> , <u>A</u>	3	
S3 <b>013 Engineered Safety Features Actuation System (ESFAS)</b> <b>Perform Attachment A of E-0</b> <i>not in any scenario?</i>	<u>M</u> , <u>S</u> , <u>A</u> , <u>E</u> , <u>EN</u> , <u>L</u>	2 <i>orig</i>	
S4    007 Pressurizer Relief Tank (PRTS) <i>Drain PRT to the Containment Normal Sump</i> <del>X</del> <i>RO only?</i>	<u>N</u> , <u>S</u>	5	
S5    059 Main Feedwater System Transfer 'A' MFP Speed Control / Pump Trip	<u>D</u> , <u>S</u> , <u>A</u>	4S	
S6    062 A.C. Electrical Distribution Perform Operational Testing of the <del>X</del> Alternate Emergency Power Source	<u>N</u> , <u>S</u>	6	
S7    005 Residual Heat Removal System <i>RHR</i> Place in SI Standby Lineup for <del>Power</del> Ascension <i>Plant Heatup</i>	<u>D</u> , <u>S</u> , <u>L</u>	4P	
S8    029 Containment Purge System <del>X</del> Remove the Containment Mini-Purge System From Service	<u>N</u> , <u>S</u>	8	
In-Plant Systems® (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)			
P1 <b>062 A.C. Electrical Distribution</b> <b>Shift Instrument Bus to Backup Power Supply</b>	<u>D</u>	<i>Modified? see description</i> 6	
P2 <b>059 Main Feedwater (MFW) System</b> <b>Locally Operate 'C' Main Feedwater Regulating Valve</b>	<u>D</u>	4S	
P3 <b>033 Spent Fuel Pool Cooling System</b> <b>Place RWST in Recirculation</b>	<u>M</u> , <u>A</u> , <u>R</u>	8 <i>orig</i>	

*Discrim?*

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 <del>(5)</del> / 4-6 <del>(5)</del> / 2-3 (3)✓
(C)ontrol room	<del>(0)</del> / <del>(0)</del> / <del>(0)</del>
(D)irect from bank	≤ 9 <del>(5)</del> ≤ 8 <del>(5)</del> / ≤ 4 <del>(2)</del>
(E)mergency or abnormal in-plant	≥ 1 <del>(2)</del> / ≥ 1 <del>(2)</del> / ≥ 1 <del>(2)</del>
(EN)gineered safety feature	- <del>(1)</del> / - <del>(1)</del> / ≥ 1 <del>(1)</del> (control room system)
(L)ow-Power / Shutdown	≥ 1 <del>(2)</del> / ≥ 1 <del>(2)</del> / ≥ 1 <del>(1)</del>
(N)ew or (M)odified from bank including 1(A)	≥ 2 <del>(6)</del> / ≥ 2 <del>(5)</del> / ≥ 1 <del>(3)</del>
(P)revious 2 exams	≤ 3 <del>(0)</del> / ≤ 3 <del>(0)</del> / ≤ 2 <del>(0)</del> (randomly selected)
(R)CA	≥ 1 <del>(1)</del> / ≥ 1 <del>(1)</del> / ≥ 1 <del>(1)</del>
(S)imulator	✓(8) ✓(7) ✓(2)

## JPM Summary

- applicat*
- S1 This is a NEW JPM. The operator will be assigned the task of borating the RCS for a plant shutdown due to a S/G tube leak IAW OTO-MA-00008, Rapid Load Reduction. Both normal boration to the VCT and emergency boration will not be successful due to equipment malfunctions. The operator will have to use the RNO option of borating from the RWST, which will be successful (ALTERNATE PATH). *from BANT?*
- Not AP*  
*App. C 50 criteria*
- S2 This is a BANK JPM [URO-SBB05C77J (A)]. The operator will be directed to perform the stroke time test for BBHV8000A, Reactor Coolant System Pressurizer PORV Block Valve, per OSP-BB-V00001, RCS Valve Inservice Test. When the valve is stroked its closing and opening times exceed the allowable times thus becoming an ALTERNATE PATH JPM in that the acceptance criteria is not met and the valve fails its surveillance with notification provided to the CRS.
- S3 This JPM is MODIFIED from BANK JPM URO-AEO01C184J (A). The operator will be assigned Attachment A of E-0, Reactor Trip or Safety Injection. When verifying equipment status the operator will find multiple failures of equipment that failed to properly actuate on the SI signal. This JPM was modified from the bank JPM in that it includes different equipment that must be manually started (ALTERNATE PATH). *wide range of failures*
- RO only*
- S4 This is a NEW JPM. The Pressurizer Relief Tank (PRT) has a high level due to valve testing with its associated high level alarm activated. The operator will be required to drain the PRT to the containment normal sump sufficiently to clear the tank high level alarm. *clear Task Std that defines success (failure) criteria*
- S5 This is a BANK JPM repeated from the 2007 License Exam. The operator will be directed to transfer MFP control from Auto to Manual on the GE Controller. During the process of completing the transfer the pump will develop bearing problems resulting in high thrust bearing oil temperature. ALTERNATE PATH action will be required by the operator to trip the pump IAW OTA-RK-00026 annunciator response. *make near trip setpt (temp just above)*
- Possible AP*
- S6 This is a NEW JPM. The operator will be assigned the task of performing an online test of Alternate Emergency Power Source Diesel Generator #4 from the Control Room. The diesel will be started, readings taken and then secured from the Control Room.
- S7 This is a BANK JPM (URO-SEJ2C49J). The simulator will be set up in a Low Mode (Mode 4). The operator will be directed to place the Residual Heat Removal (RHR) System, Train A, into the SI Standby Lineup in preparation for plant heatup.



S8 This is a NEW JPM. The containment mini-purge system is in service. The operator will be directed to remove the containment mini-purge system from service IAW OTN-GT-00001, Containment Purge System.

P1 This is a BANK JPM (EOS-SNN30011J). In the <sup>applicant</sup> ~~Plant~~, the ~~operator~~ will simulate how to transfer instrument 120 VAC bus NN03 to its backup power supply, transformer XNN05. This JPM was modified to require a transfer from a different instrument 120 VAC bus to a different backup power supply.

P2 This is a BANK JPM (URO-SAE02P055J). In the ~~Plant~~, the operator will simulate taking local control of 'C' Main Feedwater Regulating Valve.

P3 This JPM is MODIFIED from BANK JPM URO-SEC01053J. In the ~~Plant~~, the operator will simulate placing the Refueling Water Storage Tank (RWST) in recirculation for Chemistry. This will be an ALTERNATE PATH JPM in that several valves will not be in their required position for recirculation and will have to be repositioned by the operator. The bank JPM was not alternate path and did not required any valves to be realigned to complete the task.

*weak AP*

*procedurally driven?*

*Discrim?*