

Facility: DRESDEN – NRC Prepared Operating Test (Onsite Validation Comments Tracking ONLY) Exam Date: 4/19/21

Admin JPMs	1 ADMIN Topic and K/A	2 LOD (1-5)	3 Attributes							4 Job Content		5 U/E/S	6 Explanation
			I/C Focus	Cues	Critical Steps	Scope (N/B)	Overlap	Perf. Std.	Key	Minutia	Job Link		
SRO-A1.1 A-N-1-S	Conduct of Ops 2.1.2												<p><u>NRC:</u></p> <p>(1) Added procedure DOP 9950-17 and Procedure Index as procedures verified available in the reference cart for the applicant before JPM administration.</p> <p>(2) Changed validation time to 25 minutes on JPM summary sheet.</p> <p>Done</p> <p><u>Response:</u> JPM is SAT.</p>
SRO-A1.2 A-N-2-S	Conduct of Ops 2.1.5												<p><u>NRC:</u></p> <p>(1) Changed initial condition 14. on both blue and grey sheets to state "Steve" was on a 14-day vacation.</p> <p>(2) In Step 2 Standard added description for waiver work activity and circumstances that require exceeding limits.</p> <p>(3) Added a cue after step 2 to state no waivers have been provided in last 6 weeks if asked</p> <p>(4) Changed validation time to 20 minutes on JPM summary sheet</p> <p>Done</p> <p><u>Response:</u> JPM is SAT.</p>
SRO-A2 A-N-3-S	Equip. Control 2.2.12												<p><u>NRC:</u></p> <p>(1) For Step 4 standard, included notification that performance of DOS 6600-08 should be completed to determine DGCW pump operability.</p> <p>(2) Verified the current 12-minute validation time on JPM summary sheet.</p> <p>Done</p> <p><u>Response:</u> JPM is SAT.</p>
SRO-A3 A-N-4-S	Rad Control 2.3.4												<p><u>NRC:</u></p> <p>(1) For initial condition 3 on both blue and grey sheets changed "Sarah's" DDE received from 10 mrem to 5 mrem and "Anyas" DDE received from 10 mrem to 5 mrem.</p> <p>(2) Verified the current 10-minute validation time on JPM summary sheet.</p> <p>(3) On KEY sheet changed first sentence to: "EVALUATOR: The candidate must determine that dose for the task will be 55 mrem..."</p> <p>(4) On KEY sheet changed Sarah's projected dose on RWP to (5+55=) 60 mrem and "Anyas" projected dose on RWP to (5+55=) 60 mrem.</p>

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													Done Response: JPM is SAT .
SRO-A4 A-N-5-S	E-Plan 2.4.38												<p>NRC:</p> <p>(1) Added a NOTE before Step 1 indicating what forms the evaluator should provide the applicant when the JPM begins. The NARS form should not be provided initially.</p> <p>(2) Added a NOTE before Step 2 to provide NARS form once classification of event has been completed and communicated by applicant</p> <p>(3) Added a Cue after Step 1 to acknowledge event classification before NARS form is completed.</p> <p>(4) Verified the current 15-minute validation time on JPM summary sheet.</p> <p>Done – A cue was provided for when to provide NARS and met data sheet. This, in combination with divider sheets, fulfilled the intent of comments (1) - (3) above.</p> <p>Response: JPM is SAT.</p>
RO-A1.1 A-N-1-R	Conduct of Ops. 2.1.31												<p>NRC:</p> <p>(1) For Initial Condition 3, add "... following a failed surveillance. It is currently 12:10pm."</p> <p>(2) For Step 4 Standard, include, "(Verify both lights lit)."</p> <p>(3) Verified the current 10-minute validation time on JPM summary sheet.</p> <p>Done.</p> <p>Response: JPM is SAT.</p>
RO-A1.2 A-N-2-R	Equip. Control 2.2.14												<p>NRC: JPM was revised during the onsite validation week to contain an additional mispositioned component (as a critical step) and to include in Step 9 Standard that the applicant would document the discrepancy with the "EST." An ACPS was also included with the revised JPM.</p> <p>For the revised JPM:</p> <p>(1) Verified the current 15-minute validation time on JPM summary sheet</p> <p>Done</p> <p>Response: JPM is SAT.</p>
RO-A2 A-N-3-R	Rad Control 2.3.11												<p>NRC:</p> <p>(1) Verified the current 15-minute validation time on JPM summary sheet.</p> <p>(2) For Step 1 Standard, 1.0 x 10⁻⁷ µCi/ml should be</p>

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													replaced with 1.5 x 10 ⁻⁶ µCi/ml (3) The applicant cue sheet, Initial Condition #4, should read: "All Service Water Pumps are operating." (4) Plus/minus ranges were added to the KEY to address potential rounding errors. Done Response: JPM is SAT .
RO-A3 A-N-4-R	E-Plan 2.4.27												NRC: The JPM was revised during the onsite validation week to include additional initial conditions and an extra non-critical step. For the revised JPM: (1) Added, "Unit 2 and U3 are at 100%" to Initial Condition 1. (2) Changed Initial Condition 2 to, "You are an Aux NSO." (3) Changed Initial Condition 7 from Unit Supervisor to Shift Manager. (4) Changed Initiating Cue to, "The Shift Manager has directed you to complete Attachment A of DOA 0010-10, FIRE-EXPLOSION for a fire inside the protected area..." (5) Ensured changes to Initial Conditions and Cue sheet were incorporate in both the blue and grey sheets (6) Removed (<i>previous</i>) Steps 1 and 2 of the JPM since the initiating cue was changed (7) Corrected valve numbers in Step 3 and Cue after Step 4 from MOV 2-0020-1 to MOV 2-0220-1 (8) Corrected valve number in Step 5 and Cue after Step 5 from MOV 3-0020-1 to MOV 3-0220-1 (9) Verified the current 15-minute validation time on JPM summary sheet. Done Response: JPM is SAT .

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S1 S-N-a	3 241000 A4.06												<p><u>NRC:</u> Bank JPM written for manual Reactor cooldown instead of normally used automatic cooldown. Decision was made to re-write using automatic cooldown per DGP 02-03 Attachment F.</p> <p>In revised JPM:</p> <ul style="list-style-type: none"> (1) Step 3 Standard, specified the "OFF" Button turns orange (2) Step 5 Standard changed "Temperature Box" to "Setpoint" (3) Step 6 Standard, removed word "Rate" (4) Step 8 Standard, specified the "ON" Button turns orange (5) Step 8 Standard, included reference to pop-up confirmation box (6) Step 9 Standard, specified setpoint will be raised $\geq 50\#$ above Rx pressure (7) Step 10 Standard, added word "Setpoint" after BPV Jack position (8) Added 10-minute validation time to JPM summary sheet. <p>Done Response: JPM is SAT.</p>
S2 S-N-b	2 204000 A4.06												<p><u>NRC:</u></p> <ul style="list-style-type: none"> (1) Add "...with the Hard Card" to Task Standard. (2) Removed (<i>previous</i>) Step 1 since Hard Card is directed. (3) Added to note for Step 1 stating annunciators 902-4 A-10 and B-12 will come in eventually (4) Step 9 changed "Red light ON" to "Green Closed light ON" (5) Verified the current 10-minute validation time on JPM summary sheet <p>Done Response: JPM is SAT.</p>
S3 S-N-c	4 700000 AA1.01												<p><u>NRC:</u></p> <ul style="list-style-type: none"> (1) Added 18-minute validation time to JPM summary sheet. (2) During validation, applicant directed EO to perform procedure Step #s vs actions. Added the procedure step numbers for Steps 8 and 10. <p>Done Response: JPM is SAT.</p>
S4 S-N-d	5 223001												<p><u>NRC:</u></p> <ul style="list-style-type: none"> (1) Changed initial condition on both blue and gray sheet from "unit is in Mode 4" to "Unit is Shutdown"

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	A1.08												(2) Changed initiating cue on both blue and gray sheet to "... -2.0" to -3.5..." (3) Removed asterisk from step 2 since it's not a Critical Step (4) Change step 6 standard to be consistent with initiating cue to -2.0" to -3.5 (5) Verified the current 10-minute validation time on JPM summary sheet. (6) Verified water transfer rate was accelerated properly. Done Response: JPM is SAT .
S5 S-N-e	6 700000 AA2.05												NRC: (1) Removed Initial Condition 4, "Fuel moves are NOT in progress" from both the blue and gray sheets. (2) Removed Cue after step 3 that "Another NSO will handle DGA-12." (3) Added note for examiner to provide DAN F-7 and H-10, or other procedures <u>only</u> when requested by examinee. (4) Changed referenced K/A from "2.4.45" to "700000.AA2.05 3.2 / 3.8" on JPM SUMMARY. (5) Added 10-minute validation time to JPM SUMMARY. Done Response: JPM is SAT .
S6 S-N-f	7 215003 A4.06												NRC: (1) Added procedure DOA 0700-02 to list of procedures verified on the VALIDATION CHECKLIST. (2) Added procedure DOA 0700-2 as a procedure that is provided upon request (JPM SUMMARY). (3) Added step 10 to deselect the DRIVE IN pushbutton. (4) Added a Note after step 13 to provide DOA 0700-02 if applicant enters it. (5) Added a 12-minute validation time to the JPM SUMMARY. Done Response: JPM is SAT .
S7 S-N-g	8 295018 AA2.05												NRC: (1) Changed the last sentence of Task Standard at the start of the JPM and the JPM SUMMARY to: "Examinee will restore Service Water System Pressure to normal operating pressure by starting an available Service Water Pump." (2) Included an asterisk for Step 9 since it's a critical step. (3) Changed Note after Step 9 from "70#" to "80#." (4) Included in Note before Step 10 that Annunciator 923-1

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													F-3 will also alarm. (5) Steps 12 and 13, changed pressure value from "75 psig" to "80 psig" (6) Added 10-minute validation time to the JPM SUMMARY. Done Response: JPM is SAT.
S8 S-N-h	9 271000 A4.09												NRC: (1) Added "Green light off" to Standards of Step 3-6, and 12-13 (2) After Step 9, added actions for DAN 902-54 D-6 which may be taken as non-critical steps if guidance in D-6 is used. (3) For Step 9 Standard, added TR-2-5440-16, etc. may also be looked at by applicant. (4) Added a cue if called as IMD to acknowledge. (5) Included Initial Condition 3 on the grey sheet to be handed to applicant. (6) Changed validation time to 15 minutes on JPM summary sheet Done Response: JPM is SAT.
P1 S-N-i	1 202001 K4.04												NRC: (1) For Steps 2-6, added a Cue after each step to say, "As you described" (2) Verified the current 15-minute validation time on the JPM SUMMARY. Done Response: JPM is SAT.
P2 S-N-j	5 295028 A1.03												NRC: (1) For Note after Step 1, included, "Examinee should locate the proper Equipment Box in the cabinet <u>in the Unit 3 drawer.</u> " (2) In Note before Step 3, kept the reminder that if applicant breaks the plane - alert them to not break the plane. Removed discussion of JPM failure from Note. (3) Verified the current 15-minute validation time on the JPM SUMMARY. Done Response: JPM is SAT.
P3 S-N-k	6 264000 A4.04												NRC: (1) Removed Initial Condition 4 and had the Initiating Cue state Unit Supervisor has directed immediate use of DSSP 200-T3 and remove any 50.54(x) discussion.

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													(2) For steps 8-10, collapsed into one step and provided appropriate cues that another EO is stationed at Bus 23-1 and 33-1 ready to implement steps as necessary. (3) Added Alternate Path Banner after step 10 (4) In Note before Step 11, keep reminder that if applicant breaks the plane, to alert them to not break it. However, remove discussion of JPM failure from Note. (5) In CUE after Step 13, added that applicant may verify DGCW cooling water flow @ FI 2/3-3941-882A. (6) Added to CUE after Step 13 that if applicant verifies DGCW flow, that gauge indicates ~900gpm (7) In Step 13, included in the Standard that the red light is ON from MCC 28-3. (8) Added K/A 295003.AA1.02 to JPM summary sheet. (9) Changed the validation time to 20 minutes on the JPM SUMMARY. Done Response: JPM is SAT .

Scenario: 2									
1	2	3	4	5	6	7	8	9	10
Event	Realism/ Cred.	Required Actions	Verifiable actions	LOD	TS	CTs	Scenario Overlap	U/E/S	Explanation
N/A									Critical Tasks were described as follows: 1. If the RPV level trend is not reversible with an RPV injection source lined up with a pump running, initiate emergency depressurization by opening 5 ADSVs with RPV water level between the Top-of-Active Fuel and the Minimum Steam Cooling RPV Water Level or within 2 ½ minutes after TAF is reached, whichever is later. 2. Per DEOP 100, RPV Control, with automatic ADS timer initiated, inhibit ADS before an automatic actuation occurs. Done
2									Changed the Normal event was to be completed by the BOP, not the ATC. Ensured the entire outline and guide were changed to incorporate that. Done
2									Added steps which may be taken to place the 2C RFP and 2A C/CB pumps in Standby after they are secured. Done
2									Provided a cue for the 902-18 Panel (Bailey) for expected F20 Alarm related to the FWLC System Done
3									Changed cues from HPCI steam leak in the torus catwalk area to the HPCI room Done
3									Added actions for taking HPCI Out of Service Done
3									For TS 3.6.1.3, added Condition A.2 as a required action. Done
4									Added annunciator 902-5 F-2 to alarms that are received Done
4									Changed CRD pump that needs to be started from 2B to 2A and pump which needs to be placed in PTL from 2A to 2B Done
5									Changed EO cue to include, "Water is spraying onto the 2B Core Spray motor from the <u>flange</u> of relieve valve RV 2-1402-28B." Done
5									Added 2B CS pump suction valve number (MO 2-1402-3B) Done
5									Fixed simulator computer point C241 and ensured it tracks w/ associated gauge Done – Verified with licensee

7									Added annunciator 902-4 B-15 to alarms that are received Done
8									Fixed CAEP file to ensure 2A CS pump fails to auto-stat, and "tripped-auto-tripped" indication is not received. Done – Verified with licensee.
9									Added action to place Iso Condenser (IC) in-service at max flow before ED. Done
9									Added scenario termination criteria to state when RPV Water Level has been restored above TAF (-170"/143"). Done
9									Added a note and spaces for recording the times TAF was reached <u>and</u> ED (DEOP 400-2) was entered. Done
9									Updated the critical tasks in the event as described above. Done

Scenario: 3									
1	2	3	4	5	6	7	8	9	10
Event	Realism/ Cred.	Required Actions	Verifiable actions	LOD	TS	CTs	Scenario Overlap	U/E/S	Explanation
N/A									Critical Tasks were described as follows: 1. With a reactor scram required and the reactor not shutdown, act per DEOP 400-5, Failure to Scram, to reduce power by inserting negative reactivity with control rods and/or boron injection before torus temperature reaches 110°F. 2. Once DEOP 400-5, Failure to Scram, is entered -AND- reactor power is > 6% -AND- reactor level is > Top-of-Active-Fuel -AND- (drywell pressure is > 2 psig -OR- an ERV is open) -AND- torus temperature is > 110°F -AND- terminate and prevent injection (with exception of SBLC and CRD) into the RPV prior to exceeding HCTL limits. Done
Initial Cond.									Changed initial power level from 78% to 72% Done
1									Added bullet that CMO will be contacted to perform thermography Done
2									For ATC action, changed to a closed bullet Done
3									Added to cue that a "cell is bypassed" for ASD failure Done
3									Referenced TS 3.4.1 Condition B.1 (added the 1) Done
4									Added 923-5 A-6, B-6, and C-4 to alarms expected. Done
4									Ensured simulator appropriately brings in 923-5 C-1 alarm. Done – verified with licensee - when RB D/P drops below -.25"
4									Referenced TS 3.6.4.1 Condition A.1 (added the 1) Done – Only needed IF RB D/P drops below -.25" (when 923-5 C-1 alarm comes in).
4									Added BOP actions for placing the DW and Torus Purge Fans in PTL Done
6									Updated critical tasks in the event as described above Done

7									Ensured terminate and prevent actions reflected DOA 0600-01 Attachment A Hard Card, Terminate and Prevent Injection, actions for HPCI, CS, LPCI and Feedwater Done
7									Updated critical tasks in the event as described above. Done

Scenario: 4 (Low Power)									
1	2	3	4	5	6	7	8	9	10
Event	Realism/ Cred.	Required Actions	Verifiable actions	LOD	TS	CTs	Scenario Overlap	U/E/S	Explanation
									Critical Tasks were described as follows: 1. When RPV water level cannot be determined by multiple direct or indirect indications as defined by DEOP 0010-00, exit DEOP 100-0 and enter DEOP 400-1, RPV Flooding before DW radiation levels exceed 100 R/hr. 2. When conditions are met per DEOP 400-1, RPV Flooding, the minimum number (2 ADSVs) of available ADSVs for RPV depressurization are opened before DW radiation levels exceed 100 R/hr to allow for RPV injection with high capacity, low pressure sources (Condensate/Feedwater, LPCI and/or CS). 3. Following RPV depressurization during non-ATWS RPV Flooding, and before DW radiation levels exceed 100 R/hr, maximize injection with high capacity, low pressure sources (Condensate/Feedwater, LPCI and/or CS) and do not divert available RPV injection flow paths until the RPV is flooded to the Main Steam Lines. Done
1									Changed designator for Drain Flow Controller to 2-1290-14 Done
2									Added guidance for continuous rod movement (rod out notch override + rod movement control). Done
3									Changed ATC action to Run OD-20 Done
3									Added TS 3.5.1 Condition H.1 Done
3									Revised TS 3.3.6.3 to Condition A.1, Function 2 is referred to. Done
3									Added torus cooling actions for BOP Done
4									Ensure that the simulator appropriately reflects the TBCCW Pump Discharge Pressure. Done – verified with licensee.
5									Added 902-5 B-11, C-3, and A-5 to expected alarms. Done

5									For TS 3.3.1.1 and Conditions A.1 OR A.2 are entered. Done
5									Removed TS 3.3.1.1 Condition B and C.1 since they are not entered. Done – only TS 3.3.1.1 Condition A1 OR A2 apply.
5									Added an open bullet to TRM 3.3.a - it may be referred to only. Done
6									Ensured simulator appropriately reflects RB Rad High conditions. Done – verified with licensee.
7									RWCU did not isolate during the validation, therefore event will be changed to an electrical ATWS so that ARI injection will be successful. Done
8									Updated critical tasks in the event as described above. Done - Opening at least 2 ADSVs fulfills the Critical Task although direction is to open all 5.
8									Added note that defeating RFP trips if the RFP trips haven't tripped. Done