| **Facility: Point Beach Nuclear Plant, Unit 1 and 2** | | | | | | | | | | | | **Exam Date: July 15 – July 22, 2019** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Admin JPMs | 1<br>ADMIN Topic and K/A | 2<br>LOD (1-5) | 3<br>Attributes<br>I/C Focus | Cues | Critical Steps | Scope (N/B) | Overlap | Perf. Std. | Key | 4<br>Job Content<br>Minutia | Job Link | 5<br>U/E/S | 6<br>Explanation |
| RO1 – Respond to QTPR in Excess of TS | Conduct of Ops K/A: 015 K5.12 | 3 | | | | | | | | | | S | **Requires Simulator** |
| RO2 – Perform PZR Htr Group Input Test Calc. | Conduct of Ops K/A: 2.1.25 | 3 | | | | | | | | | | S | |
| RO3 – Perform AFW Lineup | Equip Control K/A: 2.2.15 | 2 | | | | | | | | | | S | **Requires Simulator** |
| RO4 – Determine Stay time for HRA | Radiation Control K/A: 2.3.7 | 2 | | | | | | | | | | S | **2015 ILE RO Admin 4** |
| SRO1 – Review QPTR Calc. | Conduct of Ops K/A: 2.1.37 | 3 | X | | | | | | | | | ~~E~~ S | Since critical steps exist to determine RTP needs to be reduced based on the actual QPTR, the initiating cue should require the applicant to determine any required actions in addition to performing an independent review.<br><br>Response: Make Step #9 Critical and update Initiating Cue. JPM is now SAT. |
| SRO2 – Review PZR Htr Group Input Test Calc | Conduct of Ops K/A: 2.1.7 | 3 | X | | | | | | | | | ~~E~~ S | Since critical steps exist to the D heater group is INOP, the initiating cue should require the applicant to determine any required actions in addition to performing an independent review.<br><br>Response: Combine Steps # 5&6. Make Step #7 Not Critical and update Initiating Cue. JPM is now SAT. |
| SRO3 – Approve a Clearance Order | Equip Control K/A: 2.2.13 | 2 | | | | | | | | | | S | |
| SRO4 – Remove an RMS Channel from Service | Radiation Control K/A: 2.3.13 | 3 | | | X | | | | | | | ~~E~~ S | Comp actions for RE-135 in Step 7 should be critical, as this is required to meet the task standard.<br><br>Response: Since required alternate indication is in service, Step is not critical. JPM is now SAT. |
| SRO5 – Formulate PARs | Emergency Plan K/A: 2.4.44 | 2 | X | | | | | | | | | ~~E~~ S | **Withhold from public disclosure**<br>**Time Critical**<br>The applicants would normally obtain wind speed and direction from the Rad/Met Status Board, they should |

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| | | | | | | | | | | | | | either do that or determine said data from a PPC handout, rather than being given the data in the I/C.<br><br>Response: Modified I/Cs and provided info sheets. JPM is now SAT. |
| Simulator/In-Plant JPMs | 1<br>Safety Function and K/A | | | | | | | | | | | | |
| A – Excess L/D to VCT | SF1<br>K/A: 004<br>A4.06 | 3 | | | | | | X | | | | ~~E~~<br>S | **Requires booth involvement**<br>For consistency, steps 25 and 26 should either be required to be performed or eliminated from the JPM. Since these steps are non-critical and provide little benefit to the task standard, recommend removing these steps.<br><br>Response: Removed steps # 24, 25, & 26.<br>JPM is now SAT. |
| B – Transfer to Sump Recirc. | SF2<br>K/A: 006<br>A4.05 | 2 | | | | | | | | | | S | **Time critical** |
| C – 1SI-852A STT | SF4P<br>K/A: 005<br>A1.07 | 3 | | | | | | X | | | | ~~E~~<br>S | 1) Step 2 – Is the time duration from the time the switch is taken to the open position to the time the closed light extinguishes and only the open light is lit? Evaluator Note needs clarification.<br>2) Will the procedure given to the applicant be placekept such that the applicant will perform the critical step 5.6.8 since that step is part of the 1SI-856A STT section and not part of a separate restoration section? The candidate may ask for restoration guidance since not specifically procedurally driven.<br><br>Response: Yes: added clarification on Evaluator Note. Procedure is adequate for ending the JPM.<br>JPM is now SAT. |
| D – Raise SG Level using AFW | SF4S<br>K/A: 061<br>A2.05 | 3 | | | | | | | | | | S | It appears that Trigger 1 in JPM step 6 an auto trigger inserted upon I/C setup and does not require booth activation, correct? |
| E – Secure Cnmt Spray | SF5<br>K/A: 026<br>A2.08 | 3 | | X | | | | | | | | ~~E~~<br>S | **2017 ILE – Sim E**<br>JPM steps to read indications or manipulate equipment (steps 2-7) should not have evaluator cues, the applicant should obtain these indications as read in the Sim.<br><br>Response: Changed the Cues to Notes.<br>JPM is now SAT. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F – Synch generator to Grid w/Output at Min Load | SF6<br>K/A: 062<br>A4.01 | 3 | | | | | | | | | | S | In step 5.5.18, is the VR balance meter nulled (at 0) in this I/C without any operator action? If it's not, that action should be critical. |
| G – Place RPS Channel in Trip | SF7<br>K/A: 012<br>A3.01 | 3 | | | | | | | | | | S | |
| H – Respond to a Loss of CCW | SF8<br>K/A: 008<br>A1.04 | 2 | | | | | | | | | | S | Overlap with Scenario 1, Event 1.<br><br>Response: Validate onsite. Sufficiently different response required for the JPM. JPM is SAT as written.. |
| I – Refill RWST | SF3<br>K/A: 006<br>A2.03 | 3 | | | | | | | | | | S | For steps A.5.f and g, can the applicant open 2SI-826B and 1SI-826C and establish a flowpath (i.e. does both B valves or both C valves need to be open or does it not matter)? |
| J – Fast Start EDG | SF6<br>K/A: 064<br>A4.01 | 3 | | | | | | | | | | S | Applicant should need to verbalize how to obtain the key required, rather than being provided in the cue.<br><br>Response: Procedure directs providing the key to the operator along with procedure.. JPM is SAT as written. |
| K – Start Stby S/G Feed Pp | SF8<br>K/A: 068<br>AA1.02 | 3 | | X | | | | | | | | ~~E~~<br>S | For Step 3 and 4 of the JPM, should B S/G level be consistent with A S/G and be on the low end of the control band (i.e. 300 inches rather than 320 inches). From step 3 to step 4, A S/G level dropped 10 inches while B remained stable; why aren't these tracking together?<br><br>Response: Changed B S/G level. JPM is now SAT. |
| | | | | | | | | | | | | | |

**Instructions for Completing This Table:**

Check or mark any item(s) requiring a comment and explain the issue in the space provided using the guide below.

1. Check each JPM for appropriate administrative topic requirements (COO, EC, Rad, and EP) or safety function requirements and corresponding K/A. Mark in column 1. (ES-301, D.3 and D.4)

2. Determine the level of difficulty (LOD) using an established 1–5 rating scale. Levels 1 and 5 represent an inappropriate (low or high) discriminatory level for the license that is being tested. Mark in column 2 (Appendix D, C.1.f)

3. In column 3, "Attributes," check the appropriate box when an attribute is **not met**:
   - ☐ The initial conditions and/or initiating cue is clear to ensure the operator understands the task and how to begin. (Appendix C, B.4)
   - ☐ The JPM contains appropriate cues that clearly indicate when they should be provided to the examinee. Cues are objective and not leading. (Appendix C, D.1)
   - ☐ All critical steps (elements) are properly identified.
   - ☐ The scope of the task is not too narrow (N) or too broad (B).
   - ☐ Excessive overlap does not occur with other parts of the operating test or written examination. (ES-301, D.1.a, and ES-301, D.2.a)
   - ☐ The task performance standard clearly describes the expected outcome (i.e., end state). Each performance step identifies a standard for successful completion of the step.
   - ☐ A valid marked up key was provided (e.g., graph interpretation, initialed steps for handouts).
4. For column 4, "Job Content," check the appropriate box if the job content flaw **does not meet** the following elements:
   - ☐ Topics are linked to the job content (e.g., not a disguised task, task required in real job).
   - ☐ The JPM has meaningful performance requirements that will provide a legitimate basis for evaluating the applicant's understanding and ability to safely operate the plant. (ES-301, D.2.c)

5. Based on the reviewer's judgment, is the JPM as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 5.

6. In column 6, provide a brief description of any (U)nacceptable or (E)nhancement rating from column 5.

Save initial review comments and detail subsequent comment resolution so that each exam-bound JPM is marked by a (S)atisfactory resolution on this form.

| Facility: Point Beach | | | | | Scenario: 1 | | | Exam Date: 7/15/2019 | |
|---|---|---|---|---|---|---|---|---|---|
| 1<br>Event | 2<br>Realism/Cred. | 3<br>Required Actions | 4<br>Verifiable actions | 5<br>LOD | 6<br>TS | 7<br>CTs | 8<br>Scen. Overlap | 9<br>U/E/S | 10<br>Explanation |
| 1<br>A CCW pump seal leak (swap pumps) | | | | | X | | | S | 1) 2017 ILE – Scenario 3, Event 4<br>2) Overlaps with JPM Sim H. In the JPM, there is no success path and the applicant must take the CCW pumps to PTL and then trip the Rx and trip RCPs (AOP-9B step 3). In this event, the crew is successful in isolating the leak, however, the procedure steps 1 and 2 (noncritical JPM steps) are the same.<br><br>Response: Validate onsite. Sufficiently different from JPM. Event now SAT. |
| 2<br>Down power | | | | | | | | S | |
| 3<br>1PT-485 $P_{imp}$ fails high during down power | | | | | X | | | ~~E~~<br>S | 1) The crew must have rod control in auto for the Impulse pressure channel failure in order for the ATC to get a verifiable action. Will the crews not have rod control in manual to maintain AFD during the down power? How can this be done during the down power in that case?<br>2) SEG should include specific actions to remove the channel from service per the SOP.<br><br>Response: Add Shift Manager cues for rod control and trip paperwork. Event now SAT. |
| 4<br>1HC-428A charging pump controller oscillates in auto during down power | | | | | | | X | ~~E~~<br>S | 1) 2017 ILE – Scenario 1, Event 5<br>2) With Event 3 occurring during the down power, it's unlikely the crews will continue ramping with a failed impulse pressure channel and unlikely they would resume ramping without direction. Does this event need to occur during the down power?<br><br>Response: Removed the I/C from the D-1 for this event. Event now SAT. |
| 5<br>1HX-1B, steam leak in cnmt, Rx trip | | | | | | | | S | |
| 6<br>Safety fails open on 1HX-1A, S/G on the trip | | | | | | X | | S | |
| 7<br>Both MSIVs fail to auto close, with a failed 'B' non-return valve | | | | | | X | | S | |
| 8<br>Train 'A' ESF sequencer fails to actuate | | | | | | | | S | |

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| | | | | | | | | | CT-33: Can an orange path on integrity occur within a reasonable scenario timeframe (i.e. if AF is left untouched, how long will it take)? |

**Facility: Point Beach** **Scenario: 2** **Exam Date: 7/15/2019**

| 1<br>Event | 2<br>Realism/Cred. | 3<br>Required Actions | 4<br>Verifiable actions | 5<br>LOD | 6<br>TS | 7<br>CTs | 8<br>Scen. Overlap | 9<br>U/E/S | 10<br>Explanation |
|---|---|---|---|---|---|---|---|---|---|
| 1<br>Cnmt Accident fan high vibes | | | | | X | | | S | |
| 2<br>15 gpm A SG tube leak (rapid down power) | | | | | X | | | S | 1) 2017 ILE – Scenario 3, Event 3 |
| 3<br>BA flow controller fails in auto during ramp | | | | | | | | S | 1) With the controller failure, does the BA flowrate rise to a maximum output (it appears to be the case as the SEG say "identifies changing BA flow during downpower") or does the boration fail to stop after the specified amount of BA has been added?<br>2)<br>Response: Flow decreases as controller fails closed. |
| 4<br>L/D backpressure controller oscillates in auto | | | | | | | | S | 1) 2015 ILE – Scenario 1, Event 3 |
| 5<br>A CW Pp bearing failure | | | | | | | | ~~E~~<br>S | 1) Steps to swap CW pumps per the OI should be detailed in the SEG.<br>Response: Add steps done in the Control Room. Event now SAT. |
| 6<br>SGTR, Rx trip, SI | | | | | | X | | S | 1) Is it expected the crew will take any action to isolate letdown or maximize charging prior to Rx trip & SI? What is the size of this SGTR?<br>Response: Added note for expected actions and size of TR. |
| 7<br>Motor AFW pump fails to start | | | | | | | | S | 1) 2015 ILE – Scenario 2, Event 7 |
| 8<br>PZR spray valves fail (use PORVs to depressurize) | | | | | | X | | S | 1) 2017 ILE – Scenario 3, Event 8 |
| | | | | | | | | | |

| Facility: Point Beach | | | | | Scenario: 3 | | | | Exam Date: 7/15/2019 |
|---|---|---|---|---|---|---|---|---|---|
| 1<br>Event | 2<br>Realism/Cred. | 3<br>Required Actions | 4<br>Verifiable actions | 5<br>LOD | 6<br>TS | 7<br>CTs | 8<br>Scen. Overlap | 9<br>U/E/S | 10<br>Explanation |
| 1<br>B SW pp oil leak, swap pumps | | | | | X | | | ~~E~~<br>S | 1) 2015 ILE – Scenario 1, Event 1<br>2) Steps to swap pumps per the SOP should be detailed in the SEG.<br><br>Response: Add steps done in the Control Room. Event now SAT. |
| 2<br>Raise power | | | | | | | | S | |
| 3<br>Dropped rod | | | | | X | | | S | |
| 4<br>1LT-112 VCT level x-mitter fails high | | | | | | | | S | |
| 5<br>A IA compressor trips, B IA fails to start | | | | | | | | S | |
| 6<br>Multiple dropped rods due to seismic event, SBLOCA | | | | | | | | S | |
| 7<br>Rx fails to trip, ATWS | | | | | | X | | S | 1) SEG should clarify that rod insertion is to be completed at > 36 spm in either auto or manual. |
| 8<br>A SI pp trips and B SI pp fails to start | | | | | | X | | S | 1) 2017 ILE – Scenario 2, Event 8<br>2) In the SEG, under Event 6, it appears the B SI pump is started by pressing the SI actuation pushbuttons, rather than manually starting the pump as described in Event 8. Will either method work in this scenario setup? |
| | | | | | | | | | |

**Instructions for Completing This Table:**

Use this table for each scenario for evaluation.

2 Check this box if the events are not related (e.g., seismic event followed by a pipe rupture) **OR** if the events do not obey the laws of physics and thermodynamics.

3, 4 In columns 3 and 4, check the box if there is **no** verifiable or required action, as applicable. Examples of required actions are as follows: (ES-301, D.5f)

- opening, closing, and throttling valves
- starting and stopping equipment
- raising and lowering level, flow, and pressure
- making decisions and giving directions
- acknowledging or verifying key alarms and automatic actions (Uncomplicated events that require no operator action beyond this should **not** be included on the operating test unless they are necessary to set the stage for subsequent events. (Appendix D, B.3).)

5 Check this box if the level of difficulty is **not** appropriate.

6 Check this box if the event has a TS.

7 Check this box if the event has a critical task (CT). If the same CT covers more than one event, check the event where the CT started **only.**

8 Check this box if the event overlaps with another event on any of the last two NRC examinations. (Appendix D, C.1.f)

9 Based on the reviewer's judgment, is the event as written (U)nacceptable (requiring repair or replacement), in need of (E)nhancement, or (S)atisfactory? Mark the answer in column 9.

10 Record any explanations of the events here.

In the shaded boxes, sum the number of check marks in each column.

- In column 1, sum the number of events.
- In columns 2–4, record the total number of check marks for each column.
- In column 5, based on the reviewer's judgement, place a checkmark only if the scenario's LOD is not appropriate.
- In column 6, TS are required to be ≥ 2 for each scenario. (ES-301, D.5.d)
- In column 7, preidentified CTs should be ≥ 2 for each scenario. (Appendix D; ES-301, D.5.d; ES-301-4)
- In column 8, record the number of events not used on the two previous NRC initial licensing exams. A scenario is considered unsatisfactory if there is < 2 new events. (ES-301, D.5.b; Appendix D, C.1.f)
- In column 9, record whether the scenario as written (U)nacceptable, in need of (E)nhancement, or (S)atisfactory from column 11 of the simulator scenario table.

| Facility: | | | | | | | Exam Date: | | |
|---|---|---|---|---|---|---|---|---|---|
| Scenario | 1<br>Event Totals | 2<br>Events Unsat. | 3<br>TS Total | 4<br>TS Unsat. | 5<br>CT Total | 6<br>CT Unsat. | 7<br>% Unsat. Scenario Elements | 8<br>U/E/S | 11<br>Explanation |
| 1 | 8 | 0 | 2 | 0 | 2 | 0 | 0% | S | N/A |
| 2 | 8 | 0 | 2 | 0 | 2 | 0 | 0% | S | N/A |
| 3 | 8 | 0 | 2 | 0 | 2 | 0 | 0% | S | N/A |
| | | | | | | | | | |
| | | | | | | | | | |

**Instructions for Completing This Table:**

Check or mark any item(s) requiring comment and explain the issue in the space provided.

1, 3, 5 For each simulator scenario, enter the **total** number of events (column 1), TS entries/actions (column 3), and CTs (column 5). This number should match the respective scenario from the event-based scenario tables (the sum from columns 1, 6, and 7, respectively).

2, 4, 6 For each simulator scenario, evaluate each event, TS, and CT as (S)atisfactory, (E)nhance, or (U)nsatisfactory based on the following criteria:

a. Events. Each event is described on a Form ES-D-2, including all switch manipulations, pertinent alarms, and verifiable actions. Event actions are balanced between at-the-controls and balance-of-plant applicants during the scenario. All event-related attributes on Form ES-301-4 are met. Enter the total number of unsatisfactory events in column 2.

b. TS. A scenario includes at least two TS entries/actions across at least two different events. TS entries and actions are detailed on Form ES-D-2. Enter the total number of unsatisfactory TS entries/actions in column 4. (ES-301, D.5d)

c. CT. Check that a scenario includes at least two preidentified CTs. This criterion is a target quantitative attribute, not an absolute minimum requirement. Check that each CT is explicitly bounded on Form ES-D-2 with measurable performance standards (see Appendix D). Enter the total number of unsatisfactory CTs in column 6.

7 In column 7, calculate the percentage of unsatisfactory scenario elements: $\left(\frac{2+4+6}{1+3+5}\right)100\%$

8 If the value in column 7 is > 20%, mark the scenario as (U)nsatisfactory in column 8. If column 7 is ≤ 20%, annotate with (E)nhancement or (S)atisfactory.

9 In column 9, explain each unsatisfactory event, TS, and CT. Editorial comments can also be added here.

Save initial review comments and detail subsequent comment resolution so that each exam-bound scenario is marked by a (S)atisfactory resolution on this form.

**Site name:** **Exam Date:**

**OPERATING TEST TOTALS**

| | Total | Total Unsat. | Total Edits | Total Sat. | % Unsat. | Explanation |
|---|---|---|---|---|---|---|
| Admin. JPMs | 9 | 0 | 4 | 9 | 0 | Enhancements will be verified during OV. |
| Sim./In-Plant JPMs | 11 | 0 | 4 | 11 | 0 | Enhancements will be verified during OV. |
| Scenarios | 3 | 0 | 4 | 3 | 0 | Enhancements will be verified during OV. |
| **Op. Test Totals:** | 23 | 0 | 12 | 23 | 0% | Enhancements will be verified during OV. |

**Instructions for Completing This Table:**

Update data for this table from quality reviews and totals in the previous tables and then calculate the percentage of total items that are unsatisfactory and give an explanation in the space provided.

1. Enter the total number of items submitted for the operating test in the “Total” column. For example, if nine administrative JPMs were submitted, enter “9” in the “Total” items column for administrative JPMs. For scenarios, enter the total number of simulator scenarios.

2. Enter the total number of (U)nsatisfactory JPMs and scenarios from the two JPMs column 5 and simulator scenarios column 8 in the previous tables. Provide an explanation in the space provided.

3. Enter totals for (E)nhancements needed and (S)atisfactory JPMs and scenarios from the previous tables. This task is for tracking only.

4. Total each column and enter the amounts in the “Op. Test Totals” row.

5. Calculate the percentage of the operating test that is (U)nsatisfactory (Op. Test Total Unsat.)/(Op. Test Total) and place this value in the bolded “% Unsat.” cell.

   Refer to ES-501, E.3.a, to rate the overall operating test as follows:
   - satisfactory, if the “Op. Test Total” “% Unsat.” is ≤ 20%
   - unsatisfactory, if “Op. Test Total” “% Unsat.” is > 20%

6. Update this table and the tables above with post-exam changes if the “as-administered” operating test required content changes, including the following:
   - The JPM performance standards were incorrect.
   - The administrative JPM tasks/keys were incorrect.
   - CTs were incorrect in the scenarios (not including postscenario critical tasks defined in Appendix D).
   - The EOP strategy was incorrect in a scenario(s).
   - TS entries/actions were determined to be incorrect in a scenario(s).