Facility: Duane Arnold Energy Center			**Exam Date: April 8, 2019**										
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		
RO1: Operator License Status Verification	Conduct of Ops K/A: 2.1.4	2										~~E~~ S	1) The task standard is written as a partial list of the critical steps rather than what is expected to be performed. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) HANDOUT was provided with the JPM material – on the last page. ***No action required.***
RO2: Perform RHR Control Panel Lineup	Conduct of Ops K/A: 2.1.31	2										~~E~~ S	**Last 2 exams** 1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.***
RO3: Perform Daily Jet Pump Op. Test	Equipment Control K/A: 2.2.12	3						X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Step 7.2.6b must have bounding limits on the sum and average of jet pump dPs. ***Developed and added bounding limits on the sum and average of jet pump dPs*** 3) Step 7.2.6d must have bounding limits on jet pump dP deviations (i.e. 87.17±0.1, for example) ***Developed and added bounding limits on the sum and average of jet pump dP deviations.***
RO4: Respond to a Fire in HPCI Room	Emergency Plan K/A: 2.4.25	2		X				X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) The AOP 913 handout is incomplete. ***Updated JPM to have in the setup a full copy of AOP 913 to provide the Operator.*** Also, the Note has typo - "not to be a fire…" ***This statement is provided directly from the AOP 913 NOTE.***

													3) ARP 1C40 C-2, Step 3.2, is the applicant not expected to verify HPCI status? This step is missing from the JPM. Applicable to Immediate Actions? ***JPM branching Step 3.1 requires the notification to activate the fire brigade and make the plant page announcement. The evaluation of HPCI status would be determined after the immediate action of mustering the Fire Brigade.*** 4) ARP 1C40 C-2, Steps 3.1 has an evaluator cue for performing AOP 913, yet the standard does not address AOP 913 (this should be a separate step (see comment 2 above). Applicable to Immediate Actions? ***Updated the Standard that the announcement will be made in accordance with AOP 913.*** 5) Consider redacting specific JPM details from ADAMS due to Fire Brigade activation email address provided. ***Fire Brigade activation email address has been covered using the black highlighter function of WORD.***
SRO1: Operator License Status Verification	Conduct of Ops K/A: 2.1.4	2										~~E~~ S	1) Initial conditions state that the given information is for the 2nd quarter, yet dates are all Jan-March (1st quarter). ***Corrected typographical error and incorporated a Task Standard statement to clarify, the condition, action, and standard.***
SRO2: Determine Reportability	Conduct of Ops K/A: 2.1.18	2										~~E~~ S	1) JPM is minimally discriminating. Based on the initial conditions, this may be a direct lookup JPM. ***Revised JPM Initial Conditions (per discussion during onsite validation) for candidate to make determination that a condition exists which requires a plant shutdown directed by technical specifications. Incorporated a Task Standard statement to clarify, the condition, action, and standard.***
SRO3: Review a Work Order for Closure	Equipment Control K/A: 2.2.19	2			X			X				~~E~~ S	**Last 2 exams** 1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Why isn't the STT and the C/S return to normal both signed off by Ops on the work plan? Shouldn't this be a critical step? ***This was discussed during onsite validation and no further actions were required.***

SRO4: Determine the Extent of Core Damage	Radiation Control K/A: 2.3.5	2										~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) JPM is borderline LOD=1. Applicant is taking given information and plotting it on the Figure, to determine a 5-25% band. Applicant could significantly misapply the Figure and still get the correct answer. Would recommend adjusting initial conditions to have applicant also apply Attachment 2 as well. ***This JPM was reviewed during onsite validation and no further actions were required due to the level of difficulty was sufficient during review.***
SRO5: EAL Declaration and Form Completion	Emergency Plan K/A: 2.4.41	3		X								~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Initiating cue seems contradicting – applicant is to complete NOTE-05, but the STA will fill out **NOTE-01** (What is NOTE-01 – not provided)? ***Demonstrated NOTE-01 during onsite validation and it was determined that there was no issue with the initiating cue as written.*** 3) NOTE-05 should be given to the applicant, along with any Shift Emergency Director checklist/binder at the beginning of the JPM, since we are directing them to complete NOTE-05 and make the notifications. ***The necessary references to complete the NOTE-05 transmittal are available in the SM office for the Operator to use. This will be where the Operator obtains the NOTE-05 to fill out.*** 4) Are they required to look a specific screen/indications to determine wind speed/direction (i.e. are there multiple elevations to choose from? If so, they should be provided those indications and have to determine which to use). ***The wind speed and direction are provided in the Initial Conditions.*** 5) Initial conditions should have the applicant as the SM/SED role, with no peer checker available. ***Deleted the statement in the Evaluator Cue that they will act as the OSM for the peer check.***
Simulator/In-Plant	1												

JPMs	Safety Function and K/A												
JPM A: Perform Rapid Start for EOP Use	SF: 2 K/A: 217000 A2.02	3						X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Extra spacing in step 6 (performance step and standard) on MO-2404 (i.e. MO- 2404) ***Corrected typographical error – extra space removed.*** 3) Should have step to verify automatic action MO-2405 closes rapidly on the turbine trip (1C04C A-5 Section 2.0) ***Added JPM step to include the verification of MO-2405.*** 4) JPM guide should delineate where the JPM becomes Alt Path ***Added bracketed statement to provide information for the Alternate Path*** 5) JPM differs than that on the 301-2 outline – EXPLAIN! ***After review of onsite procedures, the use of the test pot is not appropriate for the plant conditions. Another method to test the operation of RCIC was developed. Onsite validation comments were incorporated for this JPM.***
JPM B: Rapidly Depressurize the RPV via the Main Turbine Bypass Valves	SF: 3 K/A: 241000 A3.02	2										~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) JPM guide should delineate where the JPM becomes Alt Path (GENERIC). ***Added bracketed statement to provide information for the Alternate Path***
JPM C: Perform Manual Initiation of Core Spray	SF: 4 K/A: 209001 A4.05	3		X								~~E~~ S	**Last 2 exams** 1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Why in steps 18 & 25, are the cues that the supervisor will address the alarms and not another RO?

													Revised Evaluator Cue to state that another Operator will address the alarms. 3) JPM guide should delineate where the JPM becomes Alt Path ***Added bracketed statement to provide information for the Alternate Path***
JPM D: Defeat the Reactor Building HVAC Interlock	SF: 5 K/A: 290001 A4.10	2										~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.***
JPM E: Transfer Essential Bus From Standby to Startup Transformer	SF: 6 K/A: 262001 A4.04	3						X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Evaluator NOTE in Sec 7.4 NOTE (p.12/16) is irrelevant to this step. ***These notes were added to enhance the implementation of the JPM. During onsite validation, no further discussion was had to remove these notes.***
JPM F: Verify a TIP System Response to a Group 2 Isol.	SF: 7 K/A: 215001 A2.07	2										~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.***
JPM G: Alternate RBCCW Pumps	SF: 8 K/A: 400000 A4.01	**1**										~~U~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) JPM is NOT discriminating - a simple pump swap. Can this be made alt-path to improve? ***The original JPM has been revised to include a control switch fault which does not allow the Operator to reduce the system alignment to be in compliance with the CAUTION provided in the section for swapping RBCCW pumps. This revision was demonstrated during the Onsite Validation and comments incorporated from the Onsite Validation. Additionally, with the revision completed, this JPM has been determined to be an Alternate Path.***
JPM H: Perform Downscale /	SF: 9 K/A: 272000	3			X			X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.***

Upscale Trip Setpoint Check													2) Step 6, typo in evaluator cue – "activated", not "activate" ***Corrected typographical error, Evaluator Cue now states, "… annunciator is ACTIVE."*** 3) Step 9, typo in evaluator cue – "activated", not "activate" ***Corrected typographical error, Evaluator Cue now states, "… annunciator is ACTIVE."*** 4) Step 13 should be a critical step. If the trip check adjust knob is not restored to an intermediate (non-trip) position, the ARM would not be able to be reset. What would be the impact upon taking the mode select switch back to operate? ***It was determined that this is not a critical step due to Operator action to place the MODE Selector Switch to the Operator position. This will remove the trip check adjust circuitry input from the ARM measuring circuitry.***
JPM I: Switch CRD Pump Discharge Filters	SF: 1 K/A: 201001 A2.02	3										~~E~~ S	**Last 2 exams** 1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Step 2, typo in "discharge" ***Typographical error has been corrected.***
JPM J: Assist with Diesel Generator Operability Test	SF: 3 K/A: 264000	3		X				X				~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) JPM guide should delineate where the JPM becomes Alt Path ***Added bracketed statement to provide information for the Alternate Path*** 3) Performance standard for ARP 1C93 Step 3.4 is incorrect. At this step, the standard is the operator will perform OI 324 Section 8.7, however, this is the step they identified they have to do this action and the evaluator cues them and provides the handout. Standard should reflect that action. ***The Performance Standard was reworded to state that they determine that to complete this action they will need to proceed to OI 324. Evaluator Cue updated to provide OI 324 once this has been identified.*** 4) OI 324 Sect 8.7 Step 2 – it would be more operationally valid if the applicant were to validate

													tank level without being told the tank is full – in other words, have THEM determine this! Can they validate this quickly? ***The performance of this step would require the Operator to remove the diesel tank cap and introduce the potential for foreign material to enter into the diesel tank during inspection. An evaluator note was added into the JPM to document the concern about manipulating plant equipment.***
JPM K: Startup An RPS MG Set	SF: 7 K/A: 212000 K2.01	3		X								~~E~~ S	1) Task standard is written as a listing of the critical steps rather than a description of what is to be accomplished. Please clarify! ***Incorporated a Task Standard statement to clarify, the condition, action, and standard.*** 2) Step 7 - Should have a cue to provide current indication upon breaker closure (step 4 has a note that no current indication will be present until output breaker closed, but the current indication is not provided in the rest of the JPM. What is normal current?) ***Reworded that the current indication to state that it would be negligible due to no RPS load on the MG Set. Load will be applied to the MG Set when control room actions are performed at 1C15 [1C17], which is after the termination CUE for this JPM.***

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: Duane Arnold Energy Center				**Scenario: 1**				**Exam Date: April 8, 2019**	
1 Event	2 Realism /Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scenario. Overlap	9 U/E/S	10 Explanation
1 – Alternate EHC Pumps								S	2017 ILE (Scenario Alt)
2 – Raise power with rods								S	Event can be considered unnecessary due to reactivity manipulations in Event 6 and 7.
3 - CRD N2 leak					X			S	
4 – DB Earthquake								E	The D-2 should clearly define that the DBE directly causes Events 5 and 6. The DBE alone has no verifiable actions. ***The BOP has the action to verify the RWS system integrity***
5 – H2 Main SOP trips								S	
6 – B Recirc MG Set Trip					X			S	Event 2 is not necessary with the required rod insertion to avoid operation in the MELLA region
7 – Condenser Tube Leak, Manual Rx Scram								S	Event 2 is not necessary with the required drop in recirc flow prior to Rx scram.
8 – Hydraulic ATWS						XXX		E	2017 ILE (Scenario Alt) CT (3) – all 3 CTs lack bounding conditions (i.e. Lockout ADS. State “Lockout ADS prior to ADS actuation,” for example). ***CT – for ADS updated with wording … prior to ADS actuation*** ***CT – for implementing the RIPS updated with wording …until the reactor is shutdown under all conditions*** ***CT – for Power/Level Control is bounded by maintaining RPV level > -25 inches***
9 – Torus leak requiring ED						X		S	
									1) Each event needs criteria to transition to the next event (i.e. After the crew has increased reactor power to 80%, or at the direction of the lead examiner, proceed to Event 3) 2) CTs associated with Event 8 must have bounding conditions.

Facility: Duane Arnold Energy Center			**Scenario: 2**				**Exam Date:: April 8, 2019**		
1 Event	2 Realism /Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scenario. Overlap	9 U/E/S	10 Explanation
1 Swap stator water cooling Pps								S	
2 Reduce Rx Power to 95%								S	
3 A CS pump auto start					X			S	
4 SBLC Tank leak			X		X			S	
5 Lightning strike (B GSW Pp trip, C RBCCW Pp trip)		X						E	Scenario guide needs to adequately delineate that the standby RBCCW pump (Is it "A"?) does not start and must be manually started. Guide states that normally 2 pumps are running and then to confirm that all 3 pumps are running. Then it states, "If any pump fails to start, attempt to start the pump… (A)." ***Scenario Guide identifies that the Operator will start RBCCW Pump 1P-81A (which is identified as the pump which failed to start***
6 RWCU Hx leak (manual Rx scram)		X	X			X		E	The OATC is to determine that MO 2700 failed to close and send an operator to reset the TOL on the breaker. In the meantime, the OATC is to determine MO 2701 failed to close and attempt to close it (it loses power during the closed stroke). The booth will reset TOL on MO 2700, but the guide does not have the operator attempt to close MO 2700 after that. What is the purpose of successfully resetting the TOL? ***The field Operator does not have any local indications that the TOL is successful or not successful, they can only report that they have depressed the TOL. Updated the scenario guide to state that they have only depressed the TOL.*** Verifiable action for OATC (Component failure credit) is questionable as the OATC only attempts to close MO 2701 and the valve loses power. No other verifiable actions exist for the OATC. ***Reviewed during onsite validation. No issues noted.***
Ion is7 Electrical ATWS						X		E	2017 ILE (scenario 2) Why is locking out ADS not a CT in this scenario? ***Updated scenario guide to identify ADS as a Critical Step***
8 1A4 lockout								S	
9 TIP room temp > MS, ED req'd						X		E	CT must have bounding conditions. ***Added the Max Normal Operating Limit value and the Max Safe Operating Limit value to an Evaluator Note in the scenario guide.***

									1) Each event needs criteria to transition to the next event (i.e. After the crew has increased reactor power to 80%, or at the direction of the lead examiner, proceed to Event 3) 2) CTs associated with Event 9 must have bounding conditions.

Facility: Duane Arnold Energy Center			**Scenario: 3**					**Exam Date:: April 8, 2019**	
1 Event	2 Realism /Cred.	3 Required Actions	4 Verifiable actions	5 LOD	6 TS	7 CTs	8 Scenario. Overlap	9 U/E/S	10 Explanation
1 Secure A RHRSW and A ESW								S	
2 Raise power w/Recirc to 55-60%								S	
3 1A312 breaker failure (A RWS loss)					X			S	
4 Lightning Strike			X					S	Initiating event – verifiable actions under the events (4 & 5) caused by this initiator. With a severe thunderstorm & the associate AOP entry, are the applicants required to determine that any High Risk Evolutions (HREs) are toggled in the risk profile?
5 A Well Pp trip		X						E	SEG does not have separate EVENT identifier (p. 15) for Event 5 – 'A' Well Pump Trip (goes from event 4 to event 6). The only step to address the tripped well pump is "Start the "C" Well Water Pump." This step needs more – procedure #, any other required actions, critical parameters, notifications, etc. ***Updated the scenario guide with EVENT identifiers. On the start of the "C" Well Water pump, the BOP will go to 1C23 and verify/adjust as necessary Well Water flows.***
6 RWCU Pp trip			X		X			E	ARP 1C04A provided with this SEG, not 1C04B. Is cracking open MO 2723 the only verifiable action required by the OATC to address the RWCU pump trip? Verifiable action is questionable. ***This was reviewed by the onsite validation team. No issues were discussed.***
7 LOCA – Manual Rx Scram								S	2017 ILE (scenario 1)
8 B CS Pp trip & A CS Pp failure to auto start						XX		S	2017 ILE (scenario 1) CT associated with starting the A CS pump is not listed as a critical task on p.23 of the SEG. ***CT which requires crew action that must be taken to restore and maintain RPV level for adequate core cooling includes the action to start all available ECCS systems (A Core Spray and LPCI)*** Why is locking out ADS not a critical task?

									This SEG does not have an ATWS condition. Locking out ADS not identified as Critical.
9 HPCI AOP failure								S	2017 ILE (scenario 1)
10 SU xformer lockout (loss of CD and FW)						X		S	
11 ED using SRVs						X		S	2017 ILE (scenario 1)
									1) Guide Event # do not match D-1 event #s 2) Each event needs criteria to transition to the next event (i.e. After the crew has increased reactor power to 60%, or at the direction of the lead examiner, proceed to Event 3) 3) Starting the A CS pump is marked as critical on p. 19 of the SEG, but is not listed as a critical task on p. 23.

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: Duane Arnold Energy Center								Exam Date: : April 8, 2019	
Scenario	1 Event Totals	2 Events Unsat.	3 TS Total	4 TS Unsat.	5 CT Total	6 CT Unsat.	7 % Unsat. Scenario Elements	8 U/E/S	9 Explanation
1	9	0	2	0	4	3*		S	*CTs must have bounding conditions.
2	9	0	2	0	3	1*		S	*CT must have bounding conditions.
3	11	0	2	0	4	0		S	
									No low power scenario.

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.