

Dresden Operating Test Outline Comments:

Scenario 1:

In reactivity **event 2**, what is the action of the BOP? FW heating issues are typically in field issues caused by level control system issues in the feedwater heaters. The BOP, other reporting alarms and reviewing annunciator response procedures will not have a verifiable action. This event will be a reactivity event for the ATC. In addition, I know that Appendix D includes license conditions in the safety significance section of what meets a critical task, but lowering power below 100% is generally not considered a CT.

Each CT must include the following elements:

a) Safety Significance

In reviewing each proposed CT, assess the task to ensure that it is essential to safety. A task is essential to safety if its improper performance or omission by an operator will result in direct adverse consequences or significant degradation in the mitigative capability of the plant.

If an automatically actuated plant system would have been required to mitigate the consequences of an individual's incorrect performance or if the performance necessitates the crew taking compensatory action that would complicate the event mitigation strategy, the task is safety significant.

b) Initiating Cue

Each CT in a scenario must have an initiating cue. An initiating cue is an expected signal or notice (indication, alarm, communication, or procedure step) that designates when a CT should be performed. The cue need not indicate that the action is a CT.

c. Measurable Performance Standard

The measurable performance standard for a CT consists of observable actions taken by at least one member of the crew. These standards ensure that the exam team can objectively determine when the CT has or has not been accomplished. Consequently, the performance standard for a CT includes two parts:

(1) expected action(s)

(2) safety-significant boundary conditions that clearly identify at what point a CT must be accomplished (limits of analysis or failure of one of the tree barriers)

d. Performance Feedback (PI&R, ability to detect)

During the time span of a CT, performance feedback must be available to at least one member of the crew. This feedback provides the crew member with information about

the effect of the crew's actions or inaction on the CT. The crew must be able to oversee that its action had an impact or that its inaction is causing plant conditions to degrade. This requirement must be met for all CTs.

First FW heater transients even HP feedwater transients are not going to considerably raise power above the license level. By procedure they should take action to lower power, it will not be a very significant change in power but will count as a reactivity maneuver. Regarding a CT, I do not believe this would be justified as the power would not have exceeded their license limit until some AVERAGED power did.

In component **failure 4**, the ATC is credited for a verifiable action. What is it? In a 2020 similar event, the failure of a Medium Range level instrument resulted in a partial half scram. The verifiable action is inserting a half scram for the RPS channel which had the partial half scram. In this case it is necessary to identify what kind of level instrument failure would require a verifiable action on the part of the ATC.

This scenario in its entirety only possesses 1 event associated with a component/instrument failure for the ATC. I recommend at least 2 events as a C/I for the ATC to ensure that SRO-I candidates serving in this role will ensure that they meet the requirements of ES-301-5, Note 1. This is not needed if you can ensure that the SRO-I candidates standing ATC will stand watch as a BOP during a different scenario.

CT-2 will need a recommended boundary conditions for grading purposes. I recommend giving a reasonable time like 10 minutes and then work with the licensee to determine if some design basis time exists to reenergize a safety bus.

Events 7 and 8 will be component failures most likely tied to the BOP, but the ERV actions could be accomplished by the ATC.

The action to supplement ERVs not opening should be considered a CT. The action to shift to RPV Blowdown being a CT (CT-3), must mean that if you need to take supplemental actions to perform the blowdown it is also a CT. So, this should also be a CT.

Scenario 2:

I recommend a normal event be added before the reactivity event. This is not required as long as the applicants have an extra component/instrumentation during the extent of all of the scenarios they participate.

For event 3, actions taken to prevent a scram from occurring are typically not considered pre-identified critical tasks. Admittedly, this is an issue that is trying to be resolved in Rev 12, but this could be considered a CT if the applicants do nothing and a scram occurs, but we usually do not count this as pre-identified CT. I also recommend that you have the expected bean tied to the ATC to get 2 C/I failures for the ATC.

In the Major event, CT-2 does not address a particular challenge to a fission product barrier or mitigating condition. In this instance you have some kind of seal failure LOCA, that is going to have an adverse effect on RCS conditions and containment conditions. Therefore, if a CT exists it would be associated with taking an action to address this condition like blowdown to restore level above TAF or address a containment curve like PSP, HCTL, or PCTPL. You would need to work with the licensee to address how a seal LOCA impacts containment and the RCS especially with feedwater and HPCI available and the RR seals designed to limit failure leakage values.

Scenario 3:

In event 1, why are we transferring load from the UAT to the SAT at 78% power? The initial conditions should indicate an operationally valid reason for doing this. Not saying one does not exist, but this is not a normal action. Might need to ask licensee their opinion.

Event 2 is a reactivity event for the ATC. The event description column incorrectly describes this a normal event.

Addressing an RR mismatch is NOT considered a critical task.

Identifying SBGT did not start on a failed rad monitor is NOT a critical task. If SBGT not starting resulted in a loss of containment this could be argued to be critical, but CTs depend on the circumstances of the scenario. In this case, SBGT not running on an automatic start signal affects the plant, TS etc. but does not result in a loss of FP barrier in this circumstance.

CT-3 is not explained. What does take actions to address ATWS mean? BWR CTs associated with ATWS generally are associated with initiating SBLC before torus temperature exceeds 110F (HCTL and applicable in this case as MSIVs are closed and SRVs will have lifted and will be used for pressure control); inhibiting ADS to prevent the transient during an ATWS where level will be intentionally lowered to lower power; and lowering reactor water level below -60 but above TAF until APRMs are downscale. These are three actual CTs that should be considered for a hydraulic ATWS event.

Post major HPCI spurious start may be difficult to perform as the licensee's ATWS EOP under the level leg will have operators prevent injection, with the exception of SBLC (boron) and CRD, as they are establishing < -50 inches. If HPCI is prevented with the aux oil pump it will not be able to spuriously start as the AOP provides the initial hydraulic pressure to open the steam admission valves for the HPCI turbine.

Scenario 4:

Be specific about what PAM instrument and what verifiable actions would be expected as a result. This may be a TS entry, but most PAM instruments will not require operators to take physical actions.

Identify a specific instrument failure in event before the major event.

In the major event, a reference leg leak occurs. It appears that the contingency that could be naturally entered under this condition would be RPV Flooding which occurs when a loss of all level indication occurs. Steam cooling means you have level below TAF and no injection sources available. In this scenario, I do not see any way that no injection sources would be available. There are no component failures that lead you there, no initial conditions that establish the conditions to get there, and the major event does not get you there. Entering steam cooling is difficult so you will really need to set up conditions to get there.

Scenario 5:

Event 3, APRM downscale will be bypassed by the ATC at the 901-5 panel. This event should be linked to the ATC. In an event a single APRM failing is not an entry into a TS. There would have to be a second APRM inoperable associated with that RPS channel in order to enter the TS. 2 out of 3 APRMs are required per channel so one being inoperable on a channel is not a TS entry.

In event 4, a CRD pump trip is not a TS call. If the CRD pump not running is not corrected and the check valve a particular HCU leaks by, then you could eventually get to a low pressure on a CRD HCU which would be a TS entry of 3.1.5. A pump trip of CRD in and of itself is not a TS entry.

RB Vent rads would be high if the SDV leaked as your second major indicates. DW rads would not increase but Reactor Building radiation levels would as the SDV is in the reactor building.

What is the purpose of the Group 1 isolation?