Point Beach 2017 ILE Operating Exam Review Comments

- **Simulator Scenarios**
  - **General Scenario Comments:**
    - No comments.
  - **Scenario NRC-1**:
    - **NRC:** During Event 7, would the facility consider performance to be deficient if the crew chooses not to transition to CSP-P.1 despite the presence of a red critical safety function? The guide is unclear in this regard. It appears logical that CSP-P.1 would be entered, and then exited based upon the step 1 RNO.
      - **Facility Response:** the crew would be expected to make the transition, unless they are already in EOP-1.3.
    - **NRC:** Events 7 and 8 (malfunctions for the BOP) have the potential to be performed by the ATC instead if the failures are noted by the ATC first following completion of immediate actions. It appears that the 301-5 distributions for the affected operators would remain above their minimum I/C malfunction totals, however.
  - **Scenario NRC-2**:
    - **NRC:** Event 8 (malfunction for the BOP) has the potential to be performed by the ATC instead if the failure is noted by the ATC first following completion of immediate actions. It appears that the 301-5 distributions for the affected operators would remain above their minimum I/C malfunction totals, however.
    - **NRC:** In Event 4 (first stage pressure transmitter failure) it will need to be determined during on-site validation whether sufficient verifiable action exists (it appears that this channel failing will only arm the steam dumps).
      - **Facility Response:** believe that validation will show that sufficient verifiable action exists.
        - **NRC:** determined to be sufficient when observed during validation.
    - **NRC:** For events 5 and 7 (RCP seal failure and ATWS), it will be necessary to observe during the on-site validation whether sufficient verifiable action exists during to allow for I/C malfunction credit for the ATC operator during the scenario. For event 7, a two minute time delay is specified for field actions to open RTBs locally; it may be necessary to lengthen this delay in order to see actions such as emergency boration occur (although the scenario guide appears to indicate that this is a BOP action).
      - **Facility Response:** Event 5 verifiable action occurs later in scenario (RCP trip and seal leak-off valve closure); actions are delayed by ATWS but will be accomplished. Time delay in event 7 can be extended if necessary.
        - **NRC:** determined to be sufficient when observed during validation.
  - **Scenario NRC-3**:

- **NRC:** In Event 2, list in the 'Expected Student Response' section that the applicant in the BOP position will be expected to manually close MS-2083.
  - Facility Response: comment incorporated.
- **NRC:** Event 3 (steam generator tube leak) is listed as being a TS call opportunity for the applicant in the SRO position on the D-1 form. There are no actions scripted on the D-2 form for the OS making this TS call. Add details to the D-2 for the expected TS entry to be made based upon the SGTL.
  - **Facility Response:** comment incorporated.
- **NRC:** Event 7 (SGTL turns into SGTR) is listed on the D-1 form as being a component malfunction credit event for the ATC operator; however, the ATC operator is already receiving component malfunction credit for the failure of pressurizer spray valves during EOP-3. The ATC should not individually be receiving separate component malfunction credit simply for the crew being in EOP-3. NUREG-1021 ES-301 C.5.d states "The required instrument and component failures are normally complete before starting the major transient; those that are initiated after the major transient should be carefully reviewed because they may require little applicant action and provide little insight regarding their performance. For some plant types it may be necessary to have instrument and/or component failures after the major transient. This may be acceptable IF they can be properly evaluated." Update form D-1 to make Event 7 a 'C-ALL' type of event, without any individual operator receiving malfunction credit for it. It appears that the 301-5 distributions for the affected operators would remain above their minimum I/C malfunction totals.
  - **Facility Response:** modified D-1 to reflect that event is a 'M-ALL' type of event and updated 301-5s as needed.

- **Scenario NRC-4**:
  - **NRC:** Typo on page 16, in step 5.1.6; the word 'boron' is misspelled.
    - **Facility Response:** comment incorporated.
  - **NRC:** Event 3 needs to include the steps that will be taken to remove N-43 from service. If rods are in manual at the time this event begins (as the information of the D-2 implies could be the case), then removing N-43 from service would appear to be the only verifiable action that would be taken for this event. Additionally is the ATC operator the one who would be expected to remove N-43 from service?
    - **Facility Response:** will look at revising order of events to ensure that rods will be in auto at the beginning of the event.
      - **NRC:** validation indicated that event should work as scripted without additional changes.
  - **NRC:** In Event 5, add detail in the 'Expected Student Response' column for the operator in the ATC position to trip the reactor by pressing the first trip button, recognizing the failure to trip, and then depressing the second trip pushbutton.

- **Facility Response:** comment incorporated.

- **NRC:** Event 7 (loss of feedwater) is credited as a component malfunction for the applicant in the BOP position, however, it appears that the successful actions needed to restore feed occur through the direction of field actions. An applicant should only be given credit for those events that require the applicant to perform verifiable actions that provide insight to the applicant's competence. Specifically, the criteria for verifiable action is that the applicant must actually operate equipment controls *and* control the system response. Furthermore, when the applicant is on the phone directing an operator to take some action in the field while the applicant is observing control room indications, this is <u>not</u> performing a verifiable action, this is directing (refer to NUREG-1021 ES-301 C.5.d and ES-301 Attachment 2). <u>Not counting this component malfunction for the applicant in the BOP position results in applicant 'RO-3' not meeting the minimum I/C malfunction count on form 301-5</u>. A modification to the event that allows the BOP to take some action from the board to restore feed may need to be considered.
  - **Facility Response:** Unit 2 AFW controls are sufficiently modeled to allow performance of actions versus direction; event is designed so that BOP will actually operate controls to restore AFW.
    - **NRC:** During validation, it was observed that flow controller operation was sufficient verifiable action, regardless of pump control operation.

- **Quantitative Attribute Differences in Scenario Reviews**:
  - Scenario 1
    - **NRC:** The quantitative attributes section lists the CST level transmittal failure as an 'abnormal event'. Per Appendix D, section C.2.d, events categorized in this manner may "include alarm response procedures if significant and verifiable actions are required." This event requires neither and should not be categorized as such. The remaining number of abnormal events falls within the quantitative criteria of ES-301-4.
  - Scenario 2
    - **NRC:** ES-301-4 lists Scenario 2 as containing <u>two</u> 'EOPs entered/requiring substantive actions'. During this scenario, the EOPs entered consist of EOP-0 and EOP-1. Appendix D, section C.2.f, states that the primary scram response procedure that serves as the entry point for the EOPs is not counted. Based upon this, EOP-0 should not be counted towards this total and the value listed on ES-301-4 should be <u>one</u> instead.
      - **Facility response:** EOP-0 wasn't counted as an EOP; ECA's are double counted as contingencies and as EOPs, hence the tally.
  - Scenario 3

        - No comments.
    - Scenario 4
        - No comments.
- **Control Room JPMs**
    - **JPM a** (Perform Rod Exercise Test):
        - No comments.
    - **JPM b** (Manually Makeup to the VCT):
        - **NRC:** For Blend operations, it appears that the first step, "Determine desired blender output concentration," could be considered to be a critical step. An incorrect blender concentration could affect reactivity.
            - **Facility Response:** not included as critical based upon understanding of critical task definition.
    - **JPM c** (Fill the Accumulators):
        - **NRC:** What would be the potential for giving the applicant this JPM with a marked up procedure that is in progress (with the actions of performance steps 1-12 already completed) and an initiating cue to finish the in-progress procedure? This is a one of the longer JPMs, however it has a significant number of non-critical steps that proceed any critical steps during the task.
            - **Facility Response:** Comment incorporated; JPM shortened and modified as requested.
    - **JPM d** (Establish Feed Flow From Condensate System):
        - **NRC:** Why isn't step 13 critical (feedwater heater bypass flowpath valve operation)?
            - **Facility Response:** valve repositioning not required.
        - **NRC:** The procedure step numbers in the JPM do not appear to correlate with those in CSP H.1; the JPM begins with step '13.d', however this appears to correspond to step '7.d' in the procedure.
            - **Facility Response:** comment incorporated.
        - **NRC:** Once the RNO transition occurs due to a failure of the steam dumps to operate, the JPM has become an alternate path JPM. Why is the subsequent additional failure of the atmospheric steam dump necessary? The JPM appears to be sufficiently discriminating without this additional failure and its associated actions.
            - **Facility Response:** current format was arrived at in order to make this JPM a 'new' JPM; requested modification could affect that. Number of new JPMs on the outline is at minimum currently.
                - **NRC:** Leave JPM as-is.
    - **JPM e** (Secure Containment Spray):
        - No comments.
    - **JPM f** (Secure the Diesel Generator):
        - No comments.

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- **JPM g** (Test High Flux at Shutdown Alarm):
  - No comments.
- **JPM h** (Respond to Circulating Water Malfunction):
  - No comments.

- **In-Plant JPMs**
  - **General Comments:**
    - **NRC:** If feasible, it is requested that in-plant JPMs (and their supplied handouts) be modified to allow for performance on either unit. This is desirable because it adds the flexibility to have a second examiner assist in the administration of the in-plant JPMs should the examiner who is station-keeping the admin JPMs finish early. To this end, it is also desired that the schedule pair in-plant JPMs with the performance of admin JPMs which are capable of being completed in a group setting.
      - **Facility Response:** JPM 'I' is suitable for this and has been modified accordingly.
  - **JPM i** (Locally Operate a Charging Pump):
    - **NRC:** This JPM appears to be alternate path but is not labeled as such. While there are only 5 alternate path JPMs total (not counting this one) and 4-6 alternate path JPMs are specified for ROs and ISROs per ES-301-2, this JPM being alternate path would cause the USRO applicants to <u>exceed</u> the criteria of 2-3 alternate path JPMs per ES-301-2.
      - **Facility Response:** determination was made not to call this JPM an 'alt-path' JPM because of a lack of feedback for the operator.
  - **JPM j** (Fuel Oil Transfer Between Storage Tanks):
    - No comments.
  - **JPM k** (Start an Air Compressor to a Depressurized Receiver):
    - No comments.

- **Admin JPMs**
  - **RO CO1** (Perform RCS Leak Rate Determination):
    - Is the initial condition that 'AOP-1A is in effect' necessary? This seems like a possible cue that the RCS leak calculation is supposed to come out in excess of a limit.
      - **Facility Response:** Would prefer to leave for plausibility of scenario.
        - **NRC:** Leave JPM as-in.
  - **RO CO2** (Perform TS-32 Miscellaneous Equipment Checks, Monthly Unit 1):
    - **NRC:** There are no errors on this JPM. Low discrimination value if the applicant does not know when a parameter is incorrect and what to do with an incorrect value. This JPM should be modified to review ALL thermocouple outputs with one in error, or be replaced.
      - **Facility Response:** will look at adding an error.
        - **NRC:** Determination made to leave JPM as-is during validation.

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- **NRC:** Can this JPM be modified to use handouts with photos of indications instead of requiring performance in the simulator? This would be desirable from a standpoint of flexibility, would preclude possible delays in resetting the simulator since a simulator JPM will be performed concurrently, and would permit the JPM to be done in a classroom setting thereby allowing for administration to applicants in groups for efficiency (JPM validation time is 20 minutes).
    - **Facility Response:** appears that this change to a tabletop format could be made, however, cueing will likely be necessary and thus performance in a group setting may not be practical.
        - **NRC:** Determination made to leave JPM as-is during validation.

- **RO EC** (Perform Atmospheric Steam Dump Valve Train B Unit 1):
    - **NRC:** This is appears to be more like a simulator JPM than an admin JPM, (control panel manipulations with no calculations). There are also no errors in this JPM for the applicant to identify. Replace this JPM.
        - **Facility Response:** facility disagrees and feels that this is a suitable admin JPM. Additionally, this is a new JPM and the number of new JPMs on the outline is at the minimum already.
            - **NRC:** Based upon subject matter of JPM (surveillance) and observations made during validation, determination was made to retain this JPM as-is.
    - **NRC:** It is requested that the replacement be a JPM that can be done entirely in a classroom setting and is conducive to being administered to multiple applicants simultaneously (i.e. minimal cueing required during performance).
        - **NRC:** comment no longer applicable as JPM was kept as-is.
- **RO EP** (Activate ERDS):
    - No comments.
- **SRO CO1** (Review a RCS Leak Rate Determination):
    - **NRC:** Is the initial condition that 'AOP-1A is in effect' necessary? This seems like a possible cue that the RCS leak calculation is supposed to come out in excess of a limit.
        - **Facility Response:** would prefer to leave for plausibility of scenario.
- **SRO CO2** (Complete a Calculation Review of TS 32):
    - No comment.
- **SRO EC** (Review IT 90 TRAIN B, Atmospheric Steam Dump Valve Train B Unit 1):
    - **NRC:** If time to SHUT, identified in step 7 is not critical, but references critical step 11, step 11 must therefore reflect that time to SHUT was out of specification.
        - **Facility Response:** comment incorporated.
    - **NRC:** Step 11; Evaluator cue to applicant is that CO has written AR. Critical attribute for this step is to generate an AR. Evaluator cannot cue a critical step.

May need to specify that cue to write AR is given after applicant makes statement that AR needs to be generated.

- **Facility Response:** comment incorporated.

- **SRO RC** (Review a Discharge Calculation, OI 140B):
  - No comment.
- **SRO EP** (Perform Required Notifications):
  - **NRC:** It appears that:
    - performance step 2 (initial notification) should not be a critical task;
    - performance step 4 (affected station) should be a critical task (unless it is already checked by default); and
    - performance step 5 (onsite classification) should be a critical task.
    - Per NEI 99-02, the following criteria is used when assessing the accuracy of a notification:
      - Class of emergency
      - EAL number
      - Description of emergency
      - Wind direction and speed
      - Whether offsite protective measures are necessary
      - Potentially affected population and areas
      - Whether a release is taking place
      - Date and time of declaration of emergency
      - Whether the event is a drill or actual event
      - Plant and/or unit as applicable
    - **Facility Response:** will look into whether initial notification should be critical, however believe that at site this would be needed for a DEP and thus should be. Other two items are prefilled on the form based upon site procedure format and so weren't marked as critical.
      - **NRC:** comment for performance step 2 incorporated. Comments for performance steps 4 and 5 not applicable based upon format of the notification form used.