Ginna 2020 Initial License Exam Outline Review Comments

Simulator Scenario Outline Comments

- **Scenario #1**

  - **NRC:** Scenario 1, Event 4, *"Trip of Offsite Transmission Circuit 908 Requiring Rapid Load Reduction,"* qualifies as a "Reactivity" Event Type because the component failure requires performance of a manually controlled power change (reference NUREG 1021, ES-301, Section D.5.d). The load reduction is performed in accordance with Abnormal Procedure AP-TURB.5, *"Rapid Load Reduction."* The BOP and SRO positions have been credited with Normal Evolutions for actions that clearly are only associated with an "abnormal" event response. The SRO position should be credited with a "reactivity manipulation" and the BOP position more appropriately credited with a "component failure." The BOP's actions to reduce turbine load are in response to the failure of the Offsite Transmission Circuit and are directed from an abnormal operating procedure.

    While Normal Evolutions do include "reactivity manipulations," use of the "Normal" Event Type classification is not intended for unplanned (emphasis added) "power or reactivity changes" required to place the plant in a stable condition due to instrument/component failures. Form ES-301-5, "Transient and Event Checklist," Instruction #2, states that Normal Evolutions may be replaced with additional I/C malfunctions on a one-for-one basis. Although the identified changes would leave Scenario #1 without a Normal Evolution, this is acceptable because sufficient malfunctions exist within the submitted ES-D-1 to meet the intent of ES-301-5, Instruction #2.

    GINNA: NUREG-1021, Section D.5.a states "*SRO-U applicants are given credit for their previous RO license evaluation and experience and are normally not required to manipulate the controls unless they are put in the ATC or BOP position to prevent the need for a surrogate to complete the crew.*" The standard seems to imply that the Applicant levels requiring Reactivity Manipulations are credited when the individual is serving in the at-the-controls (ATC) position.

    NUREG-1021, Section D.5.d states "*Any normal evolution, component failure, or abnormal event (other than a reactor trip or other automatic power reduction) that requires the operator to perform a controlled power or reactivity change will qualify as a reactivity manipulation.*" Crediting this event as a Reactivity Manipulation for the SRO credits the individual for directing, rather than performing, the Reactivity Manipulation.

    Crediting both the SRO and BOP with the Component Failure will ensure that all Applicants are credited for the event and that when crediting Reactivity Manipulations, only the position(s) that perform the Reactivity Manipulation will be credited.

    Recommendation:
    Change the "Event Type" for Event 4 to credit the SRO and the BOP with a Component Failure (C), and update NRC Scenario #1 ES-D-1 and ES-301-5 accordingly.

06/01/2020:
Chief Examiner agrees that the SRO and BOP will be credited for a Component Failure (C) for Scenario #1, Event 4.

- **NRC:** Scenario 1, Event 5, and CERT Exam Scenario 5, Event 5, both have a failure of the 'B' Feed Reg Valve, requiring the crew to respond in accordance with AR-G-5, "S/G B LEVEL DEVIATION ±7%," and control B S/G level manually. Controlling the 'B' S/G in manual has been identified as a Critical Task in both the NRC and CERT Exams. The Critical Task statement reads: *"Manually control the 'B' S/G level during failure of the 'B' FRV Controller before the Reactor automatically trips due to low S/G level or Feedwater Isolates due to high S/G level."* ***(duplication/overlap concern with CERT Exam)***

  NUREG 1021, ES-301, Section D.1.a, states *"Operating tests may not duplicate test items (simulator scenarios or JPMs) from the applicant's audit test given at or near the end of the license training class. Simulator events and JPMs that are similar to those that were tested on the audit examination are permitted provided that the actions required to mitigate the transient or complete the task are significantly different from those required during the audit examination."*

GINNA: Agree with the Chief Examiner that there is potential overlap between these two Events. Review of CERT Exam Scenario #5 revealed that removing this Event from CERT Scenario #5 will leave four credited Component Failures for the BOP in the scenario and eliminate one of three predefined Critical Tasks. The remaining malfunctions and Critical Tasks will still meet the requirements of TQ-AA-151, ILT Certification and NRC Examination Development and Administration, for Scenario development.

Recommendation:
Delete Event #5 and Critical Task #1 from CERT Scenario #5 to eliminate the overlap concern. Update ES-301-5 accordingly with the above changes.

06/01/2020:
Chief Examiner agrees that Event #5 and Critical Task #1 should be deleted from CERT Scenario #5 to eliminate the overlap concern.

- **NRC:** Scenario 1, Event 9, *"Trip of 'B' RHR Pump,"* is coded as "N/A" in the Event Type column of the ES-D-1. Appears that this event should be classified a "component failure," given that loss of the second RHR Pump requires the transition from E-1, *"Loss of Reactor or Secondary Coolant,"* to ECA-1.1 *"Loss of Emergency Coolant Recirculation,"* and performance of steps contained therein (e.g., .actions to minimize inventory loss from the RWST, initiation of RCS cooldown, SI reset, and establishing one train of SI flow).

GINNA: Agree with the Chief Examiner that the Event should be reclassified to allow credit to be given to the SRO and BOP positions.

Recommendation:
Change the "Event Type" for Event 9 to credit the SRO and the BOP with a Component Failure (C), and update NRC Scenario #1 ES-D-1 accordingly. Update ES-301-5 accordingly with the above changes.

06/01/2020:
Chief Examiner agrees that the SRO and BOP will be credited for a Component Failure (C) for Scenario #1, Event 9.

- **NRC:** Bounding condition/criteria for Critical Task #3 (CT-3), *"Establish flow from at least two SI Pumps before indicating to the US that ATT-27.0 is complete,"* appears to be insufficient. NUREG 1021, Appendix D, Section D.1.c, *"Measurable Performance Standard,"* states that the performance standard for a CT includes two parts: (1) expected action(s), and (2) safety-significant boundary conditions that clearly identify at what point a CT must be accomplished.

  The action to establish flow with both SI Pumps *"prior to"* informing the US of the completion of ATT-27.0 does not constitute an "objective" performance standard for when this safety-significant task must be accomplished. ATT-27.0 of E-0 is used to perform the automatic action verifications for SI (e.g., ensuring that the SI Pumps are running). The CT narrative provided in the outline states that acceptable results obtained in the FSAR analysis of a small-break LOCA are predicated on the assumption of minimum ECCS pumped injection (i.e. Two SI Pumps). Limits for when the CT mitigative action needs to be accomplished have not been provided. NUREG 1021, Appendix D, Section D.1.c, states that the NRC and Facility Licensee should agree in writing that the limits for each CT are acceptable before the examination begins. "Objective" criteria for failure need to be determined to ensure that the task is critical.

  GINNA: Reviewed the procedure flowpath for the Scenario and ATT-27.0 contains the procedure steps which direct the Operator to manually start failed SI Pumps. The Critical Task should be revised to be more descriptive and clearly state the Boundary Criteria for satisfactory accomplishment of the Critical Task to be in alignment with the Westinghouse Owner's Group Critical Task Guide.

  Recommendation:
  Revise Critical Task #3 description as follows:

  Establish flow from at least two SI pumps before transition to E-1, Loss of Reactor or Secondary Coolant (EOP-Based)

  Safety Significance: Failure to manually start at least two SI pumps under the postulated conditions constitutes "mis-operation or incorrect crew performance which leads to degraded ECCS capacity." In this case, at least two SI pumps can be manually started from the control room. Therefore, failure to manually start SI pumps also represents a "demonstrated inability by the crew to:
  - Recognize a failure/incorrect auto actuation of an ESF system or component
  - Effectively direct/manipulate ESF controls"

The acceptable results obtained in the FSAR analysis of a small-break LOCA are predicated on the assumption of minimum ECCS pumped injection. The analysis assumes that a minimum pumped ECCS flow rate, which varies with RCS pressure, is injected into the core. The flow-rate values assumed for minimum pumped injection are based on operation of one each of the following ECCS pumps: Two SI pumps and one RHR pump. Operation of this minimum required complement of ECCS injection pumps is consistent with the FSAR assumption that only minimum safeguards are actuated.

Because compliance with the assumption of the FSAR is part of the facility license condition, failure to perform the critical task (under the postulated plant conditions) constitutes a violation of the license condition.

06/01/2020:
Chief Examiner is good with the transition to E-1 as the bounding criteria for Scenario 1, Critical Task #3. Ginna has to accept that the Applicant will fail the Critical Task if not completed prior to transition to E-1.

06/05/2020 Recommendation:
Facility Representative agrees that if the Critical Task is NOT completed prior to transition to E-1, the Applicant will fail the Critical task.

06/08/2020:
Chief Examiner agrees with revised Critical Task description and bounding criteria.

Ginna 2020 Initial License Exam Outline Review Comments

- **Scenario #2**

  - **NRC:** Scenario 2, Event 5, *"Control Rod Fails to Move in Auto/Stuck Rod,"* during performance of an emergent downpower necessitated by a trip of the 'B' MFP from 70% power in previous Event 4, credits the BOP position with a Normal Evolution for the turbine load reduction. The action to reduce turbine load is taken in response to the Event 4 "component failure," along with the start of available AFW Pumps, and is driven from AP-FW.1, *"Abnormal MFW Pump Flow or NPSH,"* Step 1.b RNO. ES-301, Section D.5.d, states *"With the exception of the SRO TS evaluations, each evolution, failure, or transient should only be counted once per applicant; …"* Accordingly, the actions to start AFW Pumps and reduce turbine load, "together," constitute the BOP's response to the Event 4 "component failure." A Normal Evolution is not performed by the BOP in response to the Event 5 Stuck Control Rod.

    While Normal Evolutions do include "reactivity manipulations," use of the "Normal" Event Type classification is not intended for unplanned (emphasis added) "power or reactivity changes" required to place the plant in a stable condition due to instrument/component failures. Form ES-301-5, "Transient and Event Checklist," Instruction #2, states that Normal Evolutions may be replaced with additional I/C malfunctions on a one-for-one basis. Although the identified changes would leave Scenario #2 without a Normal Evolution, this is acceptable because sufficient malfunctions exist within the submitted ES-D-1 to meet the intent of ES-301-5, Instruction #2.

    GINNA: Agree with the Chief Examiner that the actions taken by the BOP for Events 4 and 5 are both related to the turbine load reduction. The BOP should not receive additional credit for Event 5.

    Recommendation:
    Change the "Event Type" for Event 5 to remove the credit for a Normal Evolution (N) for the BOP, and update NRC Scenario #2 ES-D-1 and ES-301-5 accordingly.

    06/01/2020:
    Chief Examiner agrees that BOP credit for a Normal Evolution (N) will be removed for Scenario #2, Event 5.

  - **NRC:** Scenario 2, Event 7, *"Simultaneous Loss of Bus 14 and Trip of 'A' MFW Pump,"* is coded as "N/A" in the Event Type column of the ES-D-1. These two malfunctions, in concert with the Condensate Header Break in previous Event 6, constitute the Major Transient Event. Accordingly, these three events should be grouped together under Event 6 and the individual events re-numbered to accommodate the change.

    GINNA: Agree with the Chief Examiner that Events 6 and 7 together constitute the Major Transient Event and should be grouped together on the ES-D-1.

Recommendation:
Combine Events 6 and 7 and make the following changes to NRC Scenario #2 ES-D-1:

- **Event 6 "Malf No" Block will read: "MAL CND08, EDS04A, and FDW02A"**
- **Event 6 "Event Description" Block will read: "Condensate Header Break / Loss of Bus 14 / 'A' Main Feedwater Pump Trip"**
- **Event 8 will be re-numbered as Event 7, Event 9 will be re-numbered to Event 8.**

Update ES-301-5 accordingly with the above changes.

06/01/2020:
Chief Examiner agrees Scenario #2, Events 6 and 7 get combined and Events 8 and 9 get renumbered to Events 7 and 8, respectively.

- **NRC:** Scenario 2, Event 9, *"TDAFW Pump Trips on Overspeed,"* is coded as "N/A" in the Event Type column of the ES-D-1. Appears that this event should be classified a "component failure," given that loss of the TDAFW Pump requires the transition from ES-0.1,*"Reactor Trip Response,"* to FR-H.1, *"Response to Loss of Secondary Heat Sink"* (due to Red condition on the Heat Sink CSF), and performance of steps contained therein to restore AFW flow to the S/Gs using the Standby Auxiliary Feedwater System.

  GINNA: Agree with the Chief Examiner that Event 9 (re-numbered Event 8) should more appropriately be credited as a Component Failure.

  Recommendation:
  Modify NRC Scenario #2 ES-D-1 to change the "Event Type" for the re-numbered Event 8 (from Event 9) to credit the SRO and the BOP with a Component Failure (C).
  Update ES-301-5 accordingly with the above changes.

  06/01/2020:
  Chief Examiner agrees that the SRO and BOP will be credited for a Component Failure (C) for Scenario #2, Event 8 (renumbered Event 9).

- **NRC:** Bounding condition/criteria for Critical Task #3 (CT-3), "*Establish feedwater flow into at least one Steam Generator before RCS Bleed and Feed is required"* should be enhanced to identify the plant conditions specified in FR-H.1 for which Bleed and Feed should be immediately initiated; i.e., "*Wide Range Level in both S/Gs lowers to less than 50 inches [100 inches Adverse Containment] OR Pressurizer Pressure rises to greater than 2335 psig due to loss of heat sink."*

  GINNA: FR-H.1, Step 2 states "*Check If Bleed And Feed Is Required: Both S/G level wide range levels LESS than 120 inches [160 inches adverse CNMT]*". IF both S/G wide range levels are less than 120 inches [160 inches adverse CNMT]; THEN the Operator "*Stops Both RCPs and Goes to Step 15*" which establishes the plant in a Bleed and Feed configuration.

Ginna 2020 Initial License Exam Outline Review Comments

The Critical Task should be revised to be more descriptive and clearly state the Boundary Criteria for satisfactory accomplishment of the Critical Task to be in alignment with the Westinghouse Owner's Group Critical Task Guide.

Recommendation:
Revise Critical Task #3 description as follows:

> **Establish feedwater flow into at least one Steam Generator before both Steam Generator Wide Range Levels lower to less than 120 inches [160 inches adverse CNMT]**
>
> Safety Significance: Failure to establish feedwater flow to any Steam Generator results in the crew's having to rely upon the lower-priority action of establishing RCS bleed and feed to minimize core uncovery. This constitutes incorrect performance that "leads to degradation of any barrier to fission product release."
>
> Establishing feedwater flow into the SGs offers the most effective recovery action to restore the heat sink. The introduction of feedwater flow immediately restores SG inventory and re-establishes primary-to-secondary heat transfer, decreasing RCS pressure and cooling the core. The RCS pressure decrease then precludes the opening of the PORVs and degradation of the RCS barrier. If no form of feedwater flow is made available to the SGs, the crew must establish RCS bleed and feed on or before SG dryout.
>
> When the crew fails to simply establish available feedwater flow (as it could, given the postulated conditions) before SG dryout occurs, it "necessitates the crew taking compensating action which complicates the event mitigation strategy."

06/01/2020:
Chief Examiner agrees that the bounding criteria for Scenario 2, Critical Task #3 is 120 inches [160 inches adverse CNMT].

06/08/2020:
Chief Examiner agrees with revised Critical Task description and bounding criteria.

- **Scenario #3**

  - **NRC:** Scenario 3, Event 1, requires the SRO applicant to address operability of the Refueling Water Storage Tank (RWST) with respect to boron concentration (TS LCO 3.5.4). The event narrative states that Chemistry will call the Main Control Room (MCR) and report that RWST boron concentration is 3063 ppm. As an option, requiring the applicant to review and evaluate the results of samples formally documented on a Chemistry form delivered to the MCR (Chem Tech role play), rather than calling in a specific value for boron concentration, would (a) minimize the potential to inadvertently cue the applicant, and (b) provide examiners with additional insight into the ability of the applicant to correctly interpret information and ensure compliance with Tech Specs.

    GINNA: CH-120, Primary System Analysis Schedule and Limits, Step 4.3.A states the Chemistry Shift Technician is responsible for "*Advising Shift manager and Chemistry Supervision of any confirmed abnormal chemistry conditions.*"

    NRC Scenario #3 ES-D-2 contains the following SIM DRIVER instructions (CUE): "*Once the Load Ascension is in progress, as CHEMISTRY call the Control Room and report that during a periodic sample the RWST boron concentration was determined to be 3063 ppm.*" It would not be normal for a Chemistry Technician to bring Chemistry sample paperwork into the Control Room for review, prior to the Shift Chemistry Technician calling the Shift Manager or Unit Supervisor with the abnormal result. Doing so might introduce an unrealistic event into the scenario and affect operational validity.

    NUREG-1021, Appendix D, Section C.1.a states "*Introducing unrealistic or incredible events into a scenario can affect the validity of the scenario and provide negative training.*" The Shift Chemistry Technician would be expected to contact the Control Room, via phone or radio, to inform the Shift Manager or Unit Supervisor that RWST boron concentration was out-of-specification following a sample. Having the SIM Driver call into the Control Room simulates the expected action that the Shift Chemistry Technician would perform (Operational Validity). The Simulator Driver is NOT cuing the SRO Applicant since the Simulator Driver is only providing the parameter and value.

    Recommendation:
    Maintain the Scenario SIM DRIVER CUE as scripted for this Event. Do not add additional Chemistry Technician phone calls to the Control Room for other Scenarios unless scripted as an Event since this would not be the expectation for the Shift Chemistry Technician if there were no abnormal sample results obtained.

    06/01/2020:
    Chief Examiner is still concerned with cuing for the SRO and would like to have a minimum of three different values, with one of them being the out-of-specification called in from the Simulator Booth. Could also provide daily Chemistry sheet from CH-120 for review with at least three parameters. Ginna to discuss further resolution and recommendation. Could also potentially

substitute another component failure in place of the Chemistry call for a Technical Specification call for the SRO.

06/05/2020 Recommendation:
Due to operational validity concerns with the proposed Chemistry event, substituted a MRPI failure that requires no verifiable actions to be taken by the ATC or BOP, only a Technical Specification LCO 3.1.7, Condition A entry by the SRO. This event will be scripted into the ES-D-1 and ES-D-2 in place of the Simulator Driver phone call to the Control Room for RWST Boron concentration out-of-specification. The Ginna Exam Team has verified that there is no overlap with this Exam or the previous two NRC Exams for the proposed new failure.

06/08/2020:
Chief Examiner agrees with new Event in place of RWST Boron concentration out-of-specification. Technical Specification Event will be part of Scenario 3, Event 1.

- **NRC:** Scenario 3, Event 5, *"Loss of Offsite Circuit 767 / Selected Service Water Pumps Fail to Start in Auto / Restore 4160 Bus 12B,"* and Scenario 3, Event 8, *"Selected Service Water Pumps Fail to Start,"* both require operator action to manually start a Service Water Pump following auto start failure upon restoration of associated Bus Electrical Power. ***(duplication/overlap concern within the same scenario)***

  GINNA: Agree with the Chief Examiner. Following a review of NRC Exam Scenario #3 there is a potential overlap concern between Events 5 and 8. "Selected Service Water Pumps Fail to Start in AUTO" can be removed from Event 5 without any effect on the credit given for each position.

  Recommendation:
  Remove "Selected Service Water Pumps fail to start in Auto" from Event 5 (maintain as Event 8 only).

  06/01/2020:
  Chief Examiner inquired whether there is another component that can be failed to start automatically that could be substituted for the SW Pumps. (requiring just a quick manual start) Ginna to discuss further resolution and recommendation for the NRC. Also, concerned that this Electric Plant shift may overlap with JPM G.

  06/05/2020 Recommendation:
  The only other pumps that start automatically in this Event would be the CCW Pumps, failure of this automatic start feature would introduce an overlap concern with another Scenario. Therefore, there will be NO pump start failures associated with this Event. The ATC will receive credit for a Component Failure (C) since this position will be restarting CNMT Recirc Fans, PRZR Heaters, and Charging Pumps. There would be no change in position credits for this Event.

In Scenario 3, Event 5 a loss of Offsite Power Circuit 767 occurs, resulting in the loss of 4160V Bus 12B. When the loss of power occurs, an undervoltage condition will occur on Buses 16 and 17. Buses 16 and 17 will separate from Bus 12B, B D/G will start and re-energize Buses 16 and 17; Bus 12B will remain de-energized. The crew will respond in accordance with AP-ELEC.1, Loss of 12A and/or 12B Busses, and restore power to Bus 12B in accordance with ER-ELEC.1, Restoration of Offsite Power, using Circuit 7T. The procedure will require that the CO: (1) OPEN/Reset Breaker 52/12BX, (2) Turn the Synchroscope for Breaker 52/12AX to ON, (3) CLOSE Breaker 52/12AX and (4) Turn the Synchroscope for Breaker 52/12AX to OFF. This completes restoring power to the de-energized Bus 12B.

JPM G has the plant operating at 100% power with the Electric Plant in a 50/50 NORMAL lineup, and RG&E ECC requesting that the electric plant be placed in a 0/100 lineup on Circuit 7T. The operator will use a normal operating procedure, O-6.9.2, Establishing And/Or Transferring Offsite Power to Bus 12A / Bus 12B, Section 6.4, and take the same 4 steps (in a different order) and perform an additional step (Open Circuit 767 Breaker 76702) to complete the live Bus transfer.

While the task involves performing some related actions to achieve the outcome (Circuit 7T powering Bus 12B), the following differences should be considered:

- **Two different procedures (ER-ELEC.1 vs. O-6.9.2), with two different conditions of Bus 12B (12B de-energized vs. energized)**
- **The two breakers common are operated in a different order**
- **A third breaker not included in the Scenario must be operated to successfully complete the JPM**
- **Operation of the breakers in the order that is performed during the Scenario will result in failure of the JPM**

The combination of these differences is sufficient to consider these exam items unique and not overlap.

As an alternative, JPM G could be rewritten to have RG&E ECC requesting that the plant be placed in a 100/0 lineup on Circuit 767 to gain further separation between Scenario 3, Event 5 and JPM G.

06/08/2020:
Chief Examiner recommends revising JPM G to have RG&E ECC requesting that the plant be placed in a 100/0 lineup on Circuit 767. Ginna Exam Team has rewritten JPM G as requested.

- **NRC:** Bounding conditions have not been specified for Critical Task #2 (CT-2), "*Manually start a Service Water Pump such that the EDG does not fail because of damage caused by engine overheating."* NUREG 1021, Appendix D, Section D.1.c, *"Measurable Performance Standard,"* states that the performance standard for a CT includes two parts: (1) expected action(s), and (2) safety-significant boundary conditions that clearly identify at what point a CT must be accomplished.

The CT narrative states that: (a) failure to manually start a Service Water Pump will result in the only AC Power Source running loaded without cooling water, (b) running the EDG loaded without cooling water will lead to a condition that can lead to engine failure due to overheating, and (c) failure to perform this task results in mis-operation that leads to degraded emergency power capacity and leads to further challenges to the RCP seals. Limits for when the CT mitigative actions (restoration of Service Water cooling to a running and loaded EDG) need to be accomplished have not been provided. NUREG 1021, Appendix D, Section D.1.c, states that the NRC and Facility Licensee should agree in writing that the limits for each CT are acceptable before the examination begins. "Objective" criteria for failure need to be determined to ensure that the task is critical.

GINNA: The Critical Task should be revised to be more descriptive and clearly state the Boundary Criteria for satisfactory accomplishment of the Critical Task to be in alignment with the Westinghouse Owner's Group Critical Task Guide, Vendor Engineering Information, and Simulator operation.

The GE/ALCO Engineering analysis states that the maximum allowable temperature for the engine will be reached in approximately 4 minutes and 23 seconds for "initial standby to a full load condition (1950kW)". Simulator testing under the postulated plant conditions for the Scenario showed that the EDG trips in approximately 5 minutes and 30 seconds.

Recommendation:
Revise Critical Task #2 description as follows:

Manually start a Service Water Pump prior to the running Emergency Diesel Generator trips due to damage caused by engine overheating

Safety Significance: Failure to manually start the SW Pump under the postulated plant conditions means that the DG is running without ESW cooling (will result in the ONLY AC Power Source running loaded without cooling water). Running the DG loaded without SW cooling leads to a high-temperature condition that can result in DG failure due to damage caused by engine overheating. Under the postulated plant conditions, the running DG is the only operable DG. Thus, failure to perform the critical task constitutes "mis-operation or incorrect crew performance that leads to degraded emergency power capacity."

Even if the crew does not start the SW pump until receipt of high-temperature alarm(s), the critical task is performed satisfactorily, provided that the DG does not fail because of damage caused by engine overheating.

For Ginna no automatic trip occurs from high D/G temperature.

If the crew fails to establish cooling water flow after receipt of engine high-temperature alarms, there is no further automatic action to protect the EDG from overheating.

06/01/2020:
Chief Examiner agrees with the proposed bounding criteria for Scenario 3, Critical Task #2.

06/08/2020:
Chief Examiner agrees with revised Critical Task description and bounding criteria.

06/10/2020:
Chief Examiner inquired as to how long it will take, following the EDG start (with NO SW Pumps restarted), for the EDG temperature alarms to actuate.

Ginna Exam Team conducted Simulator verification of time to receive EDG temperature alarms for the given plant conditions if the Operator fails to manually start a SW Pump following EDG start. Following are the results:

- **EDG Lube Oil high temperature alarm: 2 minutes**
- **Jacket Water high temperature alarm: 2 minutes and 20 seconds**
- **EDG trip: 5 minutes and 30 seconds**

There are NO indications/alarms received in the Control Room for the high temperature alarms since the common MCB Annunciator (J-24) for the EDG is locked in due to the EDG being started.

- **NRC:** Critical Task #3 (CT-3) should be enhanced to more clearly state the Boundary Criteria for satisfactory accomplishment so that it aligns with the Westinghouse Owner's Group Critical Task Guide.

GINNA: The Critical Task will be revised to more clearly state the Boundary Criteria for satisfactory accomplishment of the Critical Task so that it aligns with the Westinghouse Owner's Group Critical Task Guide.

Recommendation:
Revise Critical Task #3 description as follows:

Isolate RCP Seal Injection Before a Charging Pump is Started AND Isolate CCW to the Thermal Barrier Before a CCW Pump Starts or is Started

Safety Significance: Failure to isolate RCP seal injection before starting a charging pump or Thermal Barrier before starting a CCW Pump, under the postulated plant conditions, can result in unnecessary and avoidable degradation of the RCS fission-product barrier, specifically at the point of the RCP seals; especially if RCPs are subsequently started. Additionally, failure to perform the critical task results in "significant degradation in the mitigative capability of the plant" in that the RCPs are not available for subsequent event recovery actions (except for a red-path condition on the core cooling CSF that persists despite secondary depressurization).

Following restoration of ac power, it is desirable to restore RCP seal cooling as soon as practical in order to reduce seal temperatures and mitigate potential continued degradation of the RCP seals. However, field experience has shown that the restoration of seal cooling must be performed in a controlled manner in order to avoid thermal shock and related damage to pump parts. Proper restoration of RCP seal cooling is important since it (1) maximizes the availability of the RCPs if required for subsequent event recovery actions and (2) minimizes

the possibility of seal damage that could limit subsequent plant operation due to down time to effect RCP repairs.

06/01/2020:
Chief Examiner agrees with Scenario 3, Critical Task #3. Chief Examiner would like to know whether Ginna's Simulator is modelled for this so that if the Critical task is performed incorrectly that indications of seal failure will be apparent. Also, remove the Thermal Barrier discussion from the Critical Task description.

06/05/2020 Recommendation:
The Ginna Simulator is modeled to provide indications of RCP seal failure if this Critical Task is not performed correctly. The Critical Task will be rewritten to remove the discussion regarding the Thermal Barrier.

06/08/2020:
Chief Examiner agrees with revised Critical Task description regarding starting the Charging Pump and bounding criteria. The description regarding the Thermal Barrier and CCW Pumps should be deleted as this does NOT relate to Ginna for the given plant conditions.

Revise Critical Task #3 description as follows:

Isolate RCP Seal Injection Before a Charging Pump is Started

Safety Significance: Failure to isolate RCP seal injection before starting a charging pump, under the postulated plant conditions, can result in unnecessary and avoidable degradation of the RCS fission-product barrier, specifically at the point of the RCP seals; especially if RCPs are subsequently started. Additionally, failure to perform the critical task results in "significant degradation in the mitigative capability of the plant" in that the RCPs are not available for subsequent event recovery actions (except for a red-path condition on the core cooling CSF that persists despite secondary depressurization).

Following restoration of ac power, it is desirable to restore RCP seal cooling as soon as practical in order to reduce seal temperatures and mitigate potential continued degradation of the RCP seals. However, field experience has shown that the restoration of seal cooling must be performed in a controlled manner in order to avoid thermal shock and related damage to pump parts. Proper restoration of RCP seal cooling is important since it (1) maximizes the availability of the RCPs if required for subsequent event recovery actions and (2) minimizes the possibility of seal damage that could limit subsequent plant operation due to down time to effect RCP repairs.

- **Scenario #4** ***(Designated Spare Scenario– Information Redacted)***
  - **NRC:** [redacted]

    [redacted]

    GINNA: [redacted]

    [redacted]

    [redacted]

    [redacted]

    [redacted]

Ginna 2020 Initial License Exam Outline Review Comments

[redacted]

- **NRC:** [redacted]

GINNA: [redacted]

Ginna 2020 Initial License Exam Outline Review Comments

[redacted]

Ginna 2020 Initial License Exam Outline Review Comments

Ginna 2020 Initial License Exam Outline Review Comments

Ginna 2020 Initial License Exam Outline Review Comments

- **Scenario #5**

  - **NRC:** Scenario 5, Event 1, requires the SRO applicant to address Secondary Specific Activity (TS LCO 3.5.4). The event narrative states that Chemistry will call the Main Control Room (MCR) and report that 'B' Steam Generator Secondary Specific Activity is 0.12µc/gm. As an option, requiring the applicant to review and evaluate the results of samples formally documented on a Chemistry form delivered to the MCR (Chem Tech role play), rather than calling in a specific value for the Secondary Specific Activity, would (a) minimize the potential to inadvertently cue the applicant, and (b) provide examiners with additional insight into the ability of the applicant to correctly interpret information and ensure compliance with Tech Specs.

    GINNA: CH-120, Primary System Analysis Schedule and Limits, Step 4.3.A states the Chemistry Shift Technician is responsible for "*Advising Shift manager and Chemistry Supervision of any confirmed abnormal chemistry conditions.*"

    NRC Scenario #5 ES-D-2 contains the following SIM DRIVER instructions (CUE): "*Once the Load Ascension is in progress, as CHEMISTRY call the Control Room and report that during a periodic sample the Secondary Specific Activity on the B Steam Generator was determined to be 0.12 µC/gm Dose Equivalent Iodine.*" It would not be normal for a Chemistry Technician to bring Chemistry sample paperwork into the Control Room for review, prior to the Shift Chemistry Technician calling the Shift Manager or Unit Supervisor with the abnormal result. Doing so might introduce an unrealistic event into the scenario and affect operational validity.

    NUREG-1021, Appendix D, Section C.1.a states "*Introducing unrealistic or incredible events into a scenario can affect the validity of the scenario and provide negative training.*" The Shift Chemistry Technician would be expected to contact the Control Room, via phone or radio, to inform the Shift Manager or Unit Supervisor that Steam Generator Specific Activity was out-of-specification following a sample. Having the SIM Driver call into the Control Room simulates the expected action that the Shift Chemistry Technician would perform (Operational Validity). The Simulator Driver is NOT cuing the SRO Applicant since the Simulator Driver is only providing the parameter and value.

    Recommendation:
    Maintain the Scenario SIM DRIVER CUE as scripted for this Event. Do not add additional Chemistry Technician phone calls to the Control Room for other Scenarios unless scripted as an Event since this would not be the expectation for the Shift Chemistry Technician if there were no abnormal sample results obtained.

    06/01/2020:
    Chief Examiner is still concerned with cuing for the SRO and would like to have a minimum of three different values, with one of them being the out-of-specification called in from the Simulator Booth. Could also provide daily Chemistry sheet from CH-120 for review with at least three parameters. Ginna to discuss further resolution and recommendation. Could also potentially

substitute another component failure in place of the Chemistry call for a Technical Specification call for the SRO.

06/05/2020 Recommendation:
Due to operational validity concerns with the proposed Chemistry event, substituted a failure of a Bus 18 Undervoltage Relay that requires no verifiable actions to be taken by the ATC or BOP, only a Technical Specification LCO 3.3.4, Condition A entry by the SRO. This event will be scripted into the ES-D-1 and ES-D-2 in place of the Simulator Driver phone call to the Control Room for S/G Secondary Specific Activity out-of-specification. The Ginna Exam Team has verified that there is no overlap with this Exam or the previous two NRC Exams for the proposed new failure.

06/08/2020:
Chief Examiner agrees with new Event in place of S/G Secondary Specific Activity out-of-specification. Technical Specification Event will be part of Scenario 5, Event 1.

- **NRC:** Scenario 5, Event 6, and CERT Exam Scenario 5, Event 7, both use a *"Failure of the Reactor to Trip from the Control Room/ATWS" as post-EOP Entry malfunctions.* This event has been identified as a Critical Task (CT) on both the NRC and CERT Exams, the expected actions of which are identical, i.e., *"Upon diagnosing an ATWS, manually insert the control rods within 1 minute, and continue insertion until the reactor is tripped or the rods are on the bottom."*
  (duplication/overlap concern with CERT Exam)

  NUREG 1021, ES-301, Section D.1.a, states *"Operating tests may not duplicate test items (simulator scenarios or JPMs) from the applicant's audit test given at or near the end of the license training class. Simulator events and JPMs that are similar to those that were tested on the audit examination are permitted provided that the actions required to mitigate the transient or complete the task are significantly different from those required during the audit examination."*

  GINNA: Based on the NUREG-1021, ES-301, Section D.1.a discussion, the use of the ATWS event in CERT Scenario #5 is substantially different from its use in NRC Scenario #5 in that the event occurs in the middle of a directed sequence of actions that must be interrupted.

  In the CERT Scenario, the Operator has been directed to trip the Reactor, trip the RCP when all E-0 Immediate Actions are complete, and then 4 minutes later close the RCP Seal Discharge Valve. The Operator enters the sequence expecting that these three steps will be done in that order; however, the Immediate Actions of E-0 are interrupted by the need to perform FR-S.1. Following completion of FR-S.1 Immediate Actions, the operating crew returns to AP-RCP.1 to secure the RCP with the failed seal and then transitions to either ES-0.1 or ES-1.1, dependent upon SI actuation

  While the FR-S.1 actions are the same in both Exams, the use of the ATWS with the Seal Failure action sequence renders the Event response

substantially different. The events prior to the Major Event are all different as well.

Recommendation:
Maintain both the CERT Scenario #5 and NRC Scenario #5 Events as written.

06/01/2020:
Chief Examiner agrees that there is not an overlap concern and that NO changes to either Scenario are warranted.

- **NRC:** Narrative summary for Critical Task #2 (CT-2) states that if the expected action to control AFW flowrate to 50 gpm per SG is not taken, an unnecessary Orange Path could develop on the RCS Integrity Critical Safety Function (CSF), requiring a substantial change in the mitigation strategy. Has the Orange Path bounding condition for CT-2 been verified for the plant conditions postulated in Scenario #5?

  GINNA: YES, during initial Simulator set-up for this scenario, the operating crew did not reduce AFW flow until required to by the applicable EOP. This showed that successful completion of the critical task can be accomplished if the operating crew does not reduce AFW flow until prompted by the associated EOP vice taking pre-emptive actions as allowed by A-503.1, Emergency and Abnormal Operating Procedures Users Guide, Section 5.3.B.1.d.(5):

  > Throttling AFW to both S/Gs to 50 gpm each S/G when both S/Gs are faulted to mitigate an uncontrolled cooldown of the RCS which is resulting from faulted S/Gs.
  > (a) Excessive cooldown can adversely affect both the Integrity and Subcriticality CSF. Timely action to control AFW flow to control the extent of the cooldown helps to mitigate these challenges.
  > (b) Throttling AFW flow impacts the Heatsink CSF. Consideration must be given to total AFW flow and S/G levels when throttling AFW to faulted S/Gs.
  > (c) Isolating AFW to a S/G and allowing the S/G to dry out, and sub-sequentially reinitiating AFW to the generator could create significant thermal stress conditions on S/G components.

  This action is allowed to be taken by the operating crew following completion of E-0 Immediate Actions.

  Simulator testing under the postulated plant conditions for the Scenario showed that at ECA-2.1, Step 3 AFW flow remained 200 gpm and was not throttled to 50 gpm per S/G as required by ECA-2.1. T_{COLD}s were 413°F and the RCS was cooling down at 8°F/minute.

  Recommendation:
  Maintain NRC Scenario #5, Critical Task #2 as written.

  06/01/2020:
  Chief Examiner agrees with Scenario 5, Critical Task #2 as proposed based on discussion of Simulator results from Exam Team set-up.

Ginna 2020 Initial License Exam Outline Review Comments

JPM Outline Comments

- **Admin JPMs**

  - **NRC:** Outline summary description for the SRO Admin E-Plan JPM indicates that the proposed JPM may not be an appropriate match for the selected K/A; G2.4.37, *"Knowledge of the lines of authority during implementation of the emergency plan."* The JPM, as described, requires the applicant to determine, given a set of emergency conditions: (a) whether Emergency Exposure Limits need to be approved and the distribution of Thyroid Blocking Agents recommended for rescue individuals, and (b) what the limits and dosage values should be. Knowledge of Emergency Exposure Limits would be evaluated under Radiation Control *K/A 2.3.4, "Knowledge of radiation exposure limits under normal or emergency conditions,"* while distribution of KI tablets would most likely be evaluated under Emergency Procedures/Plan *K/A 2.4.44, "Knowledge of emergency plan protective action recommendations."* Note that *K/A 2.4.44* is being used on the CERT Exam for the SRO Admin E-Plan JPM and that implementation of the KI plan was a knowledge item evaluated in part on the 2019 NRC Retake SRO Admin E-Plan JPM.

    GINNA: This JPM requires the SRO to determine Protective Actions for on-site personnel. The two tasks that the JPM focuses on are tasks identified to be continually checked on EP-AA-112-100-F-01, Shift Emergency Director Checklist.

    Review of NUREG-1122, Section 2.4, "Emergency Procedures / Plan", determined that the following K/As would support this JPM:

    - **2.4.38 (4.4), "*Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required.*"**
    - **2.4.40 (4.5), "*Knowledge of SRO responsibilities in emergency plan implementation.*"**

    K/A 2.4.44 does not support this JPM since relates to Protective Action Recommendations, which are off-site recommendations to State and County agencies.

    2019 NRC Retake SRO Admin JPM A5 did not evaluate the Applicant's knowledge of the KI plan. Step 9 of the JPM has the Applicant complete EP-CE-114-100-F-07, Block 6 which for PARs has "implement the KI plan for the following ERPAs" in the text, but no determination by the Applicant is performed other than whether a PAR is required and then either to EVACUATE or SHELTER the affected ERPAs.

    Recommendation:
    Revise SRO ES-301-1 and JPM documentation to change SRO ADMIN JPM A4 K/A to 2.4.38 (4.4), "*Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required.*".

    06/01/2020:
    Chief Examiner agrees with K/A 2.4.38 for SRO ADMIN JPM A4. Ginna to re-verify that this K/A is not used elsewhere in either Exam.

06/05/2020 Recommendation:
Ginna Exam Team has verified that no other instance of K/A 2.4.38 exists on either the CERT or NRC Written Exams and Operating Tests.

- **Control Room Systems JPMs**
  - **NRC:** Control Room Systems JPM 'G,' *"Establish 0/100 Electric Line-up on CKT 7T,"* and CERT Scenario 4, Event 1, *"Shift Electric Plant,"* appear to be similar in task. JPM 'G' requires the applicant to shift the Electric Plant from a 50/50 Normal Line-up to a 0/100 Line-up, whereas CERT Scenario 4, Event 1, requires the applicant to shift the Electric Plant from 0/100 Line-up to 50/50 Normal Line-up. Both activities are performed in accordance with O-6.9.2, *"Establishing and/or Transferring Offsite Power to Bus 12A/12B."* ***(duplication/overlap concern with CERT Exam)***

    NUREG 1021, ES-301, Section D.1.a, states *"Operating tests may not duplicate test items (simulator scenarios or JPMs) from the applicant's audit test given at or near the end of the license training class. Simulator events and JPMs that are similar to those that were tested on the audit examination are permitted provided that the actions required to mitigate the transient or complete the task are significantly different from those required during the audit examination."*

    GINNA: Agree with the Chief Examiner that there could be a potential overlap concern. Reviewed NRC JPM G and CERT Scenario #4, Event 1, and agree that the evolutions are similar in that both are performed in accordance with O-6.9.2, but different Sections.

    Recommendation:
    Replace CERT Scenario #4, Event 1 with "Swap EHC System Pumps in accordance with P-17, Attachment 12". Update crew turnover sheet as necessary to explain why EHC System Pump swap is necessary.

    06/01/2020:
    Chief Examiner is concerned that JPM G potentially overlaps Scenario 3, Event 5. Ginna to discuss and determine changes to be proposed to either JPM G or Scenario 3, Event 5.

    06/05/2020 Recommendation:
    In Scenario 3, Event 5 a loss of Offsite Power Circuit 767 occurs, resulting in the loss of 4160V Bus 12B. When the loss of power occurs, an undervoltage condition will occur on Buses 16 and 17. Buses 16 and 17 will separate from Bus 12B, B D/G will start and re-energize Buses 16 and 17; Bus 12B will remain de-energized. The crew will respond in accordance with AP-ELEC.1, Loss of 12A and/or 12B Busses, and restore power to Bus 12B in accordance with ER-ELEC.1, Restoration of Offsite Power, using Circuit 7T. The procedure will require that the CO: (1) OPEN/Reset Breaker 52/12BX, (2) Turn the Synchroscope for Breaker 52/12AX to ON, (3) CLOSE Breaker 52/12AX and (4) Turn the Synchroscope for Breaker 52/12AX to OFF. This completes restoring power to the de-energized Bus 12B.

JPM G has the plant operating at 100% power with the Electric Plant in a 50/50 NORMAL lineup, and RG&E ECC requesting that the electric plant be placed in a 0/100 lineup on Circuit 7T. The operator will use a normal operating procedure, O-6.9.2, Establishing And/Or Transferring Offsite Power to Bus 12A / Bus 12B, Section 6.4, and take the same 4 steps (in a different order) and perform an additional step (Open Circuit 767 Breaker 76702) to complete the live Bus transfer.

While the task involves performing some related actions to achieve the outcome (Circuit 7T powering Bus 12B), the following differences should be considered:

- **Two different procedures (ER-ELEC.1 vs. O-6.9.2), with two different conditions of Bus 12B (12B de-energized vs. energized)**
- **The two breakers common are operated in a different order**
- **A third breaker not included in the Scenario must be operated to successfully complete the JPM**
- **Operation of the breakers in the order that is performed during the Scenario will result in failure of the JPM**

The combination of these differences is sufficient to consider these exam items unique and not overlap.

As an alternative, JPM G could be rewritten to have RG&E ECC requesting that the plant be placed in a 100/0 lineup on Circuit 767 to gain further separation between Scenario 3, Event 5 and JPM G.

06/08/2020:

- **Chief Examiner recommends revising JPM G to have RG&E ECC requesting that the plant be placed in a 100/0 lineup on Circuit 767. Ginna Exam Team has rewritten JPM G as requested.**

06/10/2020:
Ginna Exam Team has revised JPM G and ES-301-2.

Ginna 2020 Initial License Exam Outline Review Comments

NRC Written Exam Outline/Audit Exam Outline

- **NRC:** ES-401.C.1.g states *"Facility licensees that prepare the examination shall implement appropriate controls to keep the comprehensive audit or screening examination that is given at or near the end of the license class from compromising the integrity of the licensing examination."* The following potential duplication/overlap items were noted during review of the Audit Written Exam Outline. Comparison between NRC and Audit Written Exam Questions will be required in order to confirm no duplication/overlap.

  - 000008 K1.01 (NRC Exam Q2, Audit Exam Q2)
  - 007 K4.01 (NRC Exam Q33, Audit Exam Q32)
  - 008 A1.01 (NRC Exam Q34, Audit Exam Q34)
  - NRC Exam Q80 (000065; G2.4.31) and Audit Exam Q80 (000065; G2.4.4)
  - NRC Exam Q26 (WE10; EA2.01) and Audit Exam Q85 (WE09; EA2.01)
  - Tier 3 Generic 2.1.37 (NRC Exam Q94, Audit Exam Q67)
  - Tier 3 Generic 2.3.13 (NRC Exam Q98, Audit Exam Q72)
  - Tier 3 Generic 2.4.40 (NRC Exam Q100, Audit Exam Q75)

  GINNA: Performed review of the following questions for overlap: (Recommendations provided following question discussions)

  - 000008 K1.01 (NRC Exam Q2, Audit Exam Q2)
    These questions are very similar. Both require the Applicant to perform interpolation on a Mollier diagram for an isenthalpic accident to determine the end state of the fluid with different starting and ending pressures for the fluid. The main difference is that the NRC Question #2 answer is superheated steam; whereas, the CERT Question #2 answer is a saturated steam-water mixture. Both questions involve the same mental processes to be performed.
  - 007 K4.01 (NRC Exam Q33, Audit Exam Q32)
    NRC Question #33 asks the Applicant the maximum allowed temperature of the PRT and how the cooling water enters the PRT; whereas CERT Question #32 asks the Applicant to determine the method for depressurizing the PRT following a load rejection and which system is used to supply cooling water to the PRT. Sufficient separation exists to prevent an overlap concern.
  - 008 A1.01 (NRC Exam Q34, Audit Exam Q34)
    NRC Question #34 asks the Applicant the minimum CCW flow allowed and what is the component of concern; whereas CERT Question #34 asks the Applicant the maximum value of CCW flow for 2 pump operation and the reason for the maximum flow limit. Sufficient separation exists to prevent an overlap concern.
  - NRC Exam Q80 (000065; G2.4.31) and Audit Exam Q80 (000065; G2.4.4)
    NRC Question #80 asks the Applicant to determine the procedure to mitigate the given plant conditions (AP-IA.1) and what initial actions need to be taken; whereas CERT Question #80 asks the Applicant to determine the procedure to mitigate the given plant conditions (AP-IA.1) and the reactor trip value for S/G water level in AP-

IA.1. Questions are similar in that both require the Applicant to analyze the given plant conditions (which are very similar) and determine the procedure entered to mitigate the event, which is AP-IA.1 for both questions.

- NRC Exam Q26 (WE10; EA2.01) and Audit Exam Q85 (WE09; EA2.01)
  NRC Question #26 asks the Applicant to determine procedure entered for the event (ES-0.3) and the cooldown rate limits provided in the procedure. CERT Question #85 asks the Applicant to determine procedure transition based on plant conditions (ES-0.2). Sufficient separation exists to prevent an overlap concern.
- Tier 3 Generic 2.1.37 (NRC Exam Q94, Audit Exam Q67)
  NRC Question #94 asks the Applicant about Reactivity Management SRO responsibilities in accordance with OP-AA-101-111; whereas CERT Question #67 asks the Applicant the requirements concerning reactivity briefs in accordance with S-3.1. Sufficient separation exists to prevent an overlap concern.
- Tier 3 Generic 2.3.13 (NRC Exam Q98, Audit Exam Q72)
  NRC Question #98 asks the Applicant to determine type of radiation area in accordance with Technical Specifications (Locked HRA) and the approvals required for entry. CERT Question #72 asks the Applicant to determine type of radiation area in accordance with Technical Specifications (HRA) and how the HRA boundary is controlled. The first part of the questions is similar; however, sufficient separation exists to prevent an overlap concern.
- Tier 3 Generic 2.4.40 (NRC Exam Q100, Audit Exam Q75)
  NRC Question #100 asks the Applicant the time requirements for accountability during a Site Area Emergency and whether PAR determination is delegable. CERT Question #75 asks the Applicant the position responsibilities of the Emergency Director. Sufficient separation exists to prevent an overlap concern.

Recommendation:
Replaced CERT Written Exam Questions:

- **#2 to have the Applicant determine the indications of a PORV that is stuck partially open (no Mollier diagram use) with same K/A number**
- **#80 to require the Applicant to determine why a reactor trip is necessary and whether the AP-IA.1 actions can be performed concurrently with the E-0 actions for temperature control. K/A replaced with G2.1.20**

06/01/2020:

1. **Chief Examiner agrees with the recommendation for Q2.**
2. **Chief Examiner is concerned whether NRC Q80 is at the SRO level – will review and determine during 75-day submittal.**
3. **Chief Examiner is concerned whether NRC Q98 is at the SRO level – will review and determine during 75-day submittal.**

06/01/2020:
Separate concern regarding the ES-301-6 is correctly filled in and completed for each Applicant Type (not position) similar to the ES-301-5.

Ginna 2020 Initial License Exam Outline Review Comments

06/05/2020 Recommendation:
Separate document containing CERT Exam questions 2, 72, and 80; and NRC Exam questions 2, 80, and 98 submitted to Chief Examiner for review.

Ginna will ensure that the ES-301-6 Forms are filled out as requested by the Chief Examiner and provide for review prior to the 75-day Submittal date (07/22/2020).

06/08/2020:
Chief Examiner agrees that there is no overlap concern on NRC Question #2.

Chief Examiner agrees that there is no overlap concern on NRC Question #80.

Chief Examiner agrees that there is no overlap concern on NRC Question #98. However, there is some concern regarding the plausibility statements for the distractors and the answer explanation (which did not match the stated correct answer). The second part of the explanations (regarding approval requirements) needs to be clarified (is confusing as written).

06/11/2020:
Ginna Exam Team has revised NRC Written Question #98.

08/12/2020:
- **Chief Examiner review confirms that all overlap concerns between the Audit and NRC Written Examinations have been sufficiently addressed.**
- **Chief Examiner determined NRC Q80 to be SAT at the 75-day submittal.**
- **Chief Examiner determined NRC Q98 to be SAT at the 75-day submittal.**