

| | |
|---|---|
| Facility: VC SUMMER | Date of Examination: 8/19/2013 |
| Examination Level (circle one): RO / SRO | Operating Test Number: NRC ILO-11-01 |

| Administrative Topic (see Note) | Type Code* | Describe activity to be performed |
|------------------------------------|---------------|---|
| Conduct of Operations (A1-a) | D,P | Calculate Head Venting Time in accordance with EOP-18.2, Response to Voids in Reactor Vessel, Attachment 2. K/A: 2.1.25 (RO:3.9, SRO:4.2) |
| Conduct of Operations (A1-b) | D | Manually calculate QPTR with a dropped control rod in accordance with STP-108.001. K/A: 2.1.37 (RO:4.3, SRO:4.6) |
| Equipment Control (A2) | N | Perform a boric acid flowpath operability verification in accordance with STP-104.003. K/A: 2.2.12 (RO: 3.7, SRO:4.1) |
| Radiation Control (A3) | M | RO/SRO Common Calculate stay times for various workers in accordance with HPP-0153 and determine who can do the work. K/A: 2.3.4 (RO:3.2, SRO:3.7) |
| Emergency Plan (A4) | | Not selected for RO. |

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.

*Type Codes & Criteria:

(C)ontrol room, (S)imulator, or Class(R)oom

(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)

(N)ew or (M)odified from bank (≥ 1)

(P)revious 2 exams (< 1 ; randomly selected)

| | |
|---|---|
| Facility: VC SUMMER | Date of Examination: 8/19/2013 |
| Examination Level (circle one): RO / SRO | Operating Test Number: NRC ILO-11-01 |

| Administrative Topic (see Note) | Type Code* | Describe activity to be performed |
|------------------------------------|---------------|---|
| Conduct of Operations (A1-a) | M | Review NIS Power Range Heat Balance in accordance with STP-102.002. K/A: 2.1.45: (RO:4.3, SRO:4.3) |
| Conduct of Operations (A1-b) | M | Manually calculate QPTR with a dropped control rod in accordance with STP-108.001. K/A: 2.1.37 (RO:4.3, SRO:4.6) |
| Equipment Control (A2) | N | Review an "A" train Control room Emergency Air Cleanup System Operability Test in accordance with STP-124.001. K/A: 2.2.12 (RO: 3.7, SRO:4.1) |
| Radiation Control (A3) | M | RO/SRO Common Calculate stay times for various workers in accordance with HPP-0153 and determine who can do the work. K/A: 2.3.4 (RO:3.2, SRO:3.7) |
| Emergency Plan (A4) | D | Declare an Alert in accordance with EPP-001. K/A: 2.4.41 (RO:2.9, SRO: 4.6) |

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.

*Type Codes & Criteria:

(C)ontrol room, (S)imulator, or Class(R)oom

(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)

(N)ew or (M)odified from bank (≥ 1)

(P)revious 2 exams (≤ 1 ; randomly selected)

| Facility: VC Summer | | Date of Examination: 8/19/2013 | |
|---|------------|--|--|
| Exam Level (circle one): RO / SRO(I) / SRO(U) | | Operating Test No.: NRC ILO-11-01 | |
| Control Room Systems (8 for RO; 7 for SRO-I 2 or 3 for SRO-U) | | | |
| System / JPM Title | Type Code* | Safety Function | |
| a. Generic Abnormal Plant Evolution 001 [NJPSF-141A] Continuous Rod Withdrawal (AOP-403.3, EOP-1.0, E-0) | A,L,M,S | 1 | |
| b. System 022 [NJPSF-159] Swap running RBCU's (SOP-114) | A,EN,N,S | 5 | |
| c. System 004 [NJPS-034A] Increase Letdown Flow to a Maximum to Improve Chemistry (SOP-102) | D,S | 2 | |
| d. Generic Emergency Plant Evolution 038 [NJPSF-059B] Alternate Isolation of Ruptured S/G (MSIV fails to close) (EOP-4.0/E-3) | A,D,S | 3 | |
| e. System 005 [NJPS-151] Shift RHR Loops with RHR in service (SOP-115) | D,L,S | 4P | |
| f. System 059 [NJPSF-161] Respond to a feed regulating valve closure (AOP-210.1) | A,N,S | 4S | |
| g. System 062 [NJPS-162] Start and Load the Main Generator (SOP-301) | N,S | 6 | |
| h. System 103 [NJPS-152] Respond to high reactor building pressure (SOP-114) | D,S | 8 | |
| In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U) | | | |
| i. Generic Abnormal Plant Evolution 068 [JPPF-013A/B] Start and load the diesel generator during control room evacuation (AOP-600.1) | A,E,N | 8 | |
| j. Generic Abnormal Plant Evolution 040 [JPP-107A] Locally Close and De-Energize MS Loop "B" and "C" to the Turbine Driven Emergency Feedwater Pump (EOP-3.0, E-2) | M,E | 4S | |
| k. Generic Emergency Plant Evolution 055 [JPPF-066A] Locally Isolate RCP Seals During a Total Loss of ESF Power (EOP-6.0, ECA-0.0) | E,M,R | 6 | |

@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

| * Type Codes | Criteria for: | RO / SRO-I / SRO-U |
|--|----------------------------|--------------------|
| (A)lternate path | 4-6 / 4-6 / 2-3 | 5 |
| (C)ontrol room | | |
| (D)irect from bank | $\leq 9 / \leq 8 / \leq 4$ | 4 |
| (E)mergency or abnormal in-plant | $\geq 1 / \geq 1 / \geq 1$ | 3 |
| (EN)gineered safety feature | NA / NA / ≥ 1 | |
| (L)ow-Power / Shutdown | $\geq 1 / \geq 1 / \geq 1$ | 2 |
| (N)ew or (M)odified from bank including 1(A) | $\geq 2 / \geq 2 / \geq 1$ | 7 |
| (P)revious 2 exams | $\leq 3 / \leq 3 / \leq 2$ | 0 |
| (R)CA | $\geq 1 / \geq 1 / \geq 1$ | 1 |
| (S)imulator | | |

| | | | |
|---|--|--|-----------------|
| Facility: VC Summer | | Date of Examination: 8/19/2013 | |
| Exam Level (circle one): RO SRO(I) SRO(U) | | Operating Test No.: NRC ILO-11-01 | |
| | | | |
| Control Room Systems (8 for RO; 7 for SRO-I 2 or 3 for SRO-U) | | | |
| System / JPM Title | | Type Code* | Safety Function |
| a. | Generic Abnormal Plant Evolution 001 [NJPSF-141A] Continuous Rod Withdrawal (AOP-403.3, EOP-1.0, E-0) | A,L,M,S | 1 |
| b. | System 022 [NJPSF-159] Swap running RBCU's (SOP-114) | A,EN,N,S | 5 |
| c. | System 004 [NJPS-034A] Increase Letdown Flow to a Maximum to Improve Chemistry (SOP-102) | D,S | 2 |
| d. | Generic Emergency Plant Evolution 038 [NJPSF-059B] Alternate Isolation of Ruptured S/G (MSIV fails to close) (EOP-4.0/E-3) | A,D,S | 3 |
| e. | System 005 [NJPS-151] Shift RHR Loops with RHR in service (SOP-115) | D,L,S | 4P |
| f. | System 059 [NJPSF-161] Respond to a feed regulating valve closure (AOP-210.1) | A,N,S | 4S |
| g. | System 062 [NJPS-162] Start and Load the Main Generator (SOP-301) | N,S | 6 |
| h. | Not selected for the SRO-I | | |
| In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U) | | | |
| i. | Generic Abnormal Plant Evolution 068 [JPPF-013A/B] Start and load the diesel generator during control room evacuation (AOP-600.1) | A,E,N | 8 |
| j. | Generic Abnormal Plant Evolution 040 [JPP-107A] Locally Close and De-Energize MS Loop "B" and "C" to the Turbine Driven Emergency Feedwater Pump (EOP-3.0, E-2) | M,E | 4S |
| k. | Generic Emergency Plant Evolution 055 [JPPF-066A] Locally Isolate RCP Seals During a Total Loss of ESF Power (EOP-6.0, ECA-0.0) | E,M,R | 6 |

| @ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room. | | |
|--|----------------------------|-----------------------|
| * Type Codes | Criteria for: | RO <u>SRO-I</u> SRO-U |
| (A)lternate path | 4-6 / 4-6 / 2-3 | 5 |
| (C)ontrol room | | |
| (D)irect from bank | $\leq 9 / \leq 8 / \leq 4$ | 3 |
| (E)mergency or abnormal in-plant | $\geq 1 / \geq 1 / \geq 1$ | 3 |
| (EN)gineered safety feature | NA / NA / ≥ 1 | |
| (L)ow-Power / Shutdown | $\geq 1 / \geq 1 / \geq 1$ | 2 |
| (N)ew or (M)odified from bank including 1(A) | $\geq 2 / \geq 2 / \geq 1$ | 7 |
| (P)revious 2 exams | $\leq 3 / \leq 3 / \leq 2$ | 0 |
| (R)CA | $\geq 1 / \geq 1 / \geq 1$ | 1 |
| (S)imulator | | |

| Facility: | VC Summer | Date of Examination: | 8/19/2013 |
|---|-----------------------------|----------------------|----------------------|
| Exam Level (circle one): | RO / SRO(I) / SRO(U) | Operating Test No.: | NRC ILO-11-01 |
| Control Room Systems (8 for RO; 7 for SRO-I 2 or 3 for SRO-U) | | | |
| System / JPM Title | Type Code* | Safety Function | |
| a. Generic Abnormal Plant Evolution 001 [NJPSF-141A] Continuous Rod Withdrawal (AOP-403.3, EOP-1.0, E-0) | A,L,M,S | 1 | |
| b. System 022 [NJPSF-159] Swap running RBCU's (SOP-114) | A,EN,N,S | 5 | |
| c. Not selected for the SRO-U | | | |
| d. Not selected for the SRO-U | | | |
| e. Not selected for the SRO-U | | | |
| f. Not selected for the SRO-U | | | |
| g. Not selected for the SRO-U | | | |
| h. Not selected for the SRO-U | | | |
| In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U) | | | |
| i. Generic Abnormal Plant Evolution 068 [JPPF-013A/B] Start and load the diesel generator during control room evacuation (AOP-600.1) | A,E,N | 8 | |
| j. Generic Abnormal Plant Evolution 040 [JPP-107A] Locally Close and De-Energize MS Loop "B" and "C" to the Turbine Driven Emergency Feedwater Pump (EOP-3.0, E-2) | M,E | 4S | |
| k. Generic Emergency Plant Evolution 055 [JPPF-066A] Locally Isolate RCP Seals During a Total Loss of ESF Power (EOP-6.0, ECA-0.0) | E,M,R | 6 | |

| @ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room. | | |
|--|--|--------------------|
| * Type Codes | Criteria for: | RO / SRO-I / SRO-U |
| (A)lternate path | 4-6 / 4-6 / 2-3 | 3 |
| (C)ontrol room | | |
| (D)irect from bank | $\leq 9 / \leq 8 / \leq 4$ | 0 |
| (E)mergency or abnormal in-plant | $\geq 1 / \geq 1 / \geq 1$ | 3 |
| (EN)gineered safety feature | NA / NA / ≥ 1 (control room system) | 1 |
| (L)ow-Power / Shutdown | $\geq 1 / \geq 1 / \geq 1$ | 1 |
| (N)ew or (M)odified from bank including 1(A) | $\geq 2 / \geq 2 / \geq 1$ | 5 |
| (P)revious 2 exams | $\leq 3 / \leq 3 / \leq 2$ (randomly selected) | 0 |
| (R)CA | $\geq 1 / \geq 1 / \geq 1$ | 1 |
| (S)imulator | | |

| Facility: V.C. SUMMER | | Date of Exam: AUGUST 2013 | | | | | | | | | | | | | | | | |
|---|-------------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----------------|----|-------|---|---|
| Tier | Group | RO K/A Category Points | | | | | | | | | | | | SRO-Only Points | | | | |
| | | K 1 | K 2 | K 3 | K 4 | K 5 | K 6 | A 1 | A 2 | A 3 | A 4 | G * | Total | A2 | G* | Total | | |
| 1. Emergency & Abnormal Plant Evolutions | 1 | 3 | 3 | 3 | | | | 3 | 3 | | | 3 | 18 | 3 | 3 | 6 | | |
| | 2 | 2 | 1 | 2 | | | | 1 | 2 | | | 1 | 9 | 2 | 2 | 4 | | |
| | Tier Totals | 5 | 4 | 5 | | | | 4 | 5 | | | 4 | 27 | 5 | 5 | 10 | | |
| 2. Plant Systems | 1 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 28 | 3 | 2 | 5 | | |
| | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 10 | 0 | 2 | 3 | | |
| | Tier Totals | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 38 | 5 | 3 | 8 | | |
| 3. Generic Knowledge and Abilities Categories | | | | 1 | | 2 | | 3 | | 4 | | 10 | | 1 | 2 | 3 | 4 | 7 |
| | | | | 3 | | 2 | | 2 | | 3 | | | | 2 | 2 | 1 | 2 | |

Note:

1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ± 1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems/evolutions that are not included on the outline should be added. Refer to Section D.1.b of ES-401 for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
- 7.* The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. Refer to Section D.1.b of ES-401 for the applicable K/As.
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note #1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|-------------|--|-----|-----|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|---|
| | | RO | SRO | | | | | | | | | | | |
| 007EK1.02 | Reactor Trip - Stabilization - Recovery / 1 | 3.4 | 3.8 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Shutdown margin |
| 008AK2.03 | Pressurizer Vapor Space Accident / 3 | 2.5 | 2.4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Controllers and positioners |
| 009EK1.02 | Small Break LOCA / 3 | 3.5 | 4.2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use of steam tables |
| 011EG2.2.44 | Large Break LOCA / 3 | 4.2 | 4.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions |
| 015AG2.1.28 | RCP Malfunctions / 4 | 4.1 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the purpose and function of major system components and controls. |
| 022AK3.07 | Loss of Rx Coolant Makeup / 2 | 3 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Isolating charging |
| 025AK2.05 | Loss of RHR System / 4 | 2.6 | 2.6 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Reactor building sump |
| 026AA1.06 | Loss of Component Cooling Water / 8 | 2.9 | 2.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Control of flow rates to components cooled by the CCWS |
| 029EA1.04 | ATWS / 1 | 3.9 | 3.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | BIT inlet valve switches |
| 040AA2.02 | Steam Line Rupture - Excessive Heat Transfer / 4 | 4.6 | 4.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Conditions requiring a reactor trip |
| 054AK1.01 | Loss of Main Feedwater / 4 | 4.1 | 4.3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | MFV line break depressurizes the S/G (similar to a steam line break) |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|------------|--|-----|-----|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | RO | SRO | | | | | | | | | | | |
| 056AG2.4.1 | Loss of Off-site Power / 6 | 4.6 | 4.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of EOP entry conditions and immediate action steps. |
| 062AA2.01 | Loss of Nuclear Svc Water / 4 | 2.9 | 3.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location of a leak in the SWS |
| 065AK3.08 | Loss of Instrument Air / 8 | 3.7 | 3.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Actions contained in EOP for loss of instrument air |
| 077AA1.03 | Generator Voltage and Electric Grid Disturbances / 6 | 3.8 | 3.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Voltage regulator controls |
| WE04EA2.2 | LOCA Outside Containment / 3 | 3.6 | 4.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments. |
| WE05EK2.2 | Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4 | 3.9 | 4.2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems and relations between the proper operation of these systems to the operation of the facility. |
| WE11EK3.4 | Loss of Emergency Coolant Recirc. / 4 | 3.6 | 3.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RO or SRO function within the control room team as appropriate to the assigned position, in such a way that procedures are adhered to and the limitations in the facilities license and amendments are not violated. |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|-------------|---|-----|-----|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|
| RO SRO | | | | | | | | | | | | | | |
| 036AA1.04 | Fuel Handling Accident / 8 | 3.1 | 3.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Fuel handling equipment during an incident |
| 037AA2.08 | Steam Generator Tube Leak / 3 | 2.8 | 3.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Failure of Condensate air ejector exhaust monitor |
| 059AK1.05 | Accidental Liquid RadWaste Rel. / 9 | 2.6 | 3.6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The calculation of offsite doses due to a release from the power plant |
| 069AK2.03 | Loss of CTMT Integrity / 5 | 2.8 | 2.9 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Personnel access hatch and emergency access hatch |
| 074EG2.1.19 | Inad. Core Cooling / 4 | 3.9 | 3.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to use plant computer to evaluate system or component status. |
| WE01EA2.1 | Radiagnosis / 3 | 3.2 | 4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Facility conditions and selection of appropriate procedures during abnormal and emergency operations. |
| WE03EK3.4 | LOCA Cooledown - Depress. / 4 | 3.5 | 3.9 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RO or SRO function within the control room team as appropriate to the assigned position, in such a way that procedures are adhered to and the limitations in the facilities license and amendments are not violated. |
| WE07EK1.2 | Saturated Core Cooling Core Cooling / 4 | 3.1 | 3.6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Normal, abnormal and emergency operating procedures associated with (Pressurized Thermal Shock). |
| WE16EK3.4 | High Containment Radiation / 9 | 3.0 | 3.2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RO or SRO function within the control room team as appropriate to the assigned position, in such a way that procedures are adhered to and the limitations in the facilities license and amendments are not violated. |

| KA | NAME / SAFETY FUNCTION: | TOPIC: | | | | | | | | | | | | | | | |
|------------|--------------------------------|--------|-----|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | | | | |
| | | RO | | SRO | | | | | | | | | | | | | |
| 003K2.02 | Reactor Coolant Pump | 2.5 | 2.6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CCW pumps |
| 004K5.02 | Chemical and Volume Control | 3.5 | 3.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Explosion hazard associated with hydrogen containing systems |
| 005K5.05 | Residual Heat Removal | 2.7 | 3.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Plant response during "solid plant": pressure change due to the relative incompressibility of water |
| 006A3.08 | Emergency Core Cooling | 4.2 | 4.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Automatic transfer of ECCS flowpaths |
| 006K2.02 | Emergency Core Cooling | 2.5 | 2.9 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Valve operators for accumulators |
| 007K4.01 | Pressurizer Relief/Quench Tank | 2.6 | 2.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Quench tank cooling |
| 008G2.4.34 | Component Cooling Water | 4.2 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of RO tasks performed outside the main control room during an emergency and the resultant operational effects |
| 008K3.03 | Component Cooling Water | 4.1 | 4.2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RCP |
| 010K2.01 | Pressurizer Pressure Control | 3.0 | 3.4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PZR heaters |
| 012A1.01 | Reactor Protection | 2.9 | 3.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Trip setpoint adjustment |
| 012K6.10 | Reactor Protection | 3.3 | 3.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Permissive circuits |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|------------|--------------------------------------|-----|-----|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|---|
| | | RO | SRO | | | | | | | | | | | |
| 013A3.02 | Engineered Safety Features Actuation | 4.1 | 4.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Operation of actuated equipment |
| 013K6.01 | Engineered Safety Features Actuation | 2.7 | 3.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Sensors and detectors |
| 022A1.03 | Containment Cooling | 3.1 | 3.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Containment humidity |
| 026A4.01 | Containment Spray | 4.5 | 4.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CSS controls |
| 039A1.10 | Main and Reheat Steam | 2.9 | 3.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Air ejector PRM |
| 039A2.01 | Main and Reheat Steam | 3.1 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Flow paths of steam during a LOCA |
| 059G2.4.31 | Main Feedwater | 4.2 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of annunciators alarms, indications or response procedures |
| 061K6.02 | Auxiliary/Emergency Feedwater | 2.6 | 2.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pumps |
| 062K1.02 | AC Electrical Distribution | 4.1 | 4.4 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ED/G |
| 062K4.06 | AC Electrical Distribution | 2.9 | 3.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | One-line diagram of 6.9kV distribution, including sources of normal and alternative power |
| 063K1.03 | DC Electrical Distribution | 2.9 | 3.5 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Battery charger and battery |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|----------|------------------------------|-----|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|---|
| | | RO | SRO | | | | | | | | | | | |
| 064A4.03 | Emergency Diesel Generator | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Synchroscope |
| 073A2.01 | Process Radiation Monitoring | 2.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Erratic or failed power supply |
| 076K3.07 | Service Water | 3.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ESF loads |
| 078K4.02 | Instrument Air | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Cross-over to other air systems |
| 103K1.02 | Containment | 3.9 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Containment isolation/containment integrity |
| 103K3.01 | Containment | 3.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Loss of containment integrity under shutdown conditions |

| KA | NAME / SAFETY FUNCTION: | TOPIC: | | | | | | | | | | | | | | | |
|------------|-----------------------------|--------|-----|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--|
| | | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | | | | |
| | | RO | | SRO | | | | | | | | | | | | | |
| 002A2.02 | Reactor Coolant | 4.2 | 4.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Loss of coolant pressure |
| 014G2.4.20 | Rod Position Indication | 3.8 | 4.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of operational implications of EOP warnings, cautions and notes. |
| 016K1.12 | Non-nuclear Instrumentation | 3.5 | 3.5 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | S/G |
| 027K2.01 | Containment Iodine Removal | 3.1 | 3.4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Fans |
| 033K3.02 | Spent Fuel Pool Cooling | 2.8 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Area and ventilation radiation monitoring systems |
| 034K6.02 | Fuel Handling Equipment | 2.6 | 3.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Radiation monitoring systems |
| 035K5.03 | Steam Generator | 2.8 | 3.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Shrink and swell concept |
| 071A3.01 | Waste Gas Disposal | 2.6 | 2.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | HRPS |
| 079K4.01 | Station Air | 2.9 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Cross-connect with IAS |
| 086A1.02 | Fire Protection | 3.0 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Fire water storage tank level |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|---------|----------------------------|-----|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--|
| RO SRO | | | | | | | | | | | | | | |
| G2.1.15 | Conduct of operations | 2.7 | 3.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of administrative requirements for temporary management directives such as standing orders, night orders, Operations memos, etc. |
| G2.1.17 | Conduct of operations | 3.9 | 4.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to make accurate, clear and concise verbal reports. |
| G2.1.7 | Conduct of operations | 4.4 | 4.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior and instrument interpretation. |
| G2.2.39 | Equipment Control | 3.9 | 4.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of less than one hour technical specification action statements for systems. |
| G2.2.40 | Equipment Control | 3.4 | 4.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to apply technical specifications for a system. |
| G2.3.11 | Radiation Control | 3.8 | 4.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to control radiation releases. |
| G2.3.12 | Radiation Control | 3.2 | 3.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of radiological safety principles pertaining to licensed operator duties |
| G2.4.32 | Emergency Procedures/Plans | 3.6 | 4.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of operator response to loss of all annunciators. |
| G2.4.37 | Emergency Procedures/Plans | 3.0 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the lines of authority during implementation of an emergency plan. |
| G2.4.9 | Emergency Procedures/Plans | 3.8 | 4.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of low power / shutdown implications in accident (e.g. LOCA or loss of RHR) mitigation strategies. |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|-------------|---|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|---|
| 007EA2.02 | Reactor Trip - Stabilization - Recovery / 1 | 4.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Proper actions to be taken if the automatic safety functions have not taken place |
| 011EA2.10 | Large Break LOCA / 3 | 4.5 | 4.7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Verification of adequate core cooling |
| 025AA2.05 | Loss of RHR System / 4 | 3.1 | 3.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Limitations on LPI flow and temperature rates of change |
| 026AG2.2.44 | Loss of Component Cooling Water / 8 | 4.2 | 4.4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to interpret control room indications to verify the status and operation of a system, and understand how operator actions and directives affect plant and system conditions |
| 055EG2.4.21 | Station Blackout / 6 | 4.0 | 4.6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the parameters and logic used to assess the status of safety functions |
| 062AG2.4.30 | Loss of Nuclear Svc Water / 4 | 2.7 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of events related to system operations/status that must be reported to internal organizations or outside agencies. |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|-------------|-----------------------------------|-----|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | RO | SRO | | | | | | | | | | | |
| 003AA2.02 | Dropped Control Rod / 1 | 2.7 | 2.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Signal inputs to rod control system |
| 028AA2.14 | Pressurizer Level Malfunction / 2 | 2.6 | 2.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | The effect on indicated PZR levels, given a change in ambient pressure and temperature of reflux boiling |
| 036AG2.4.41 | Fuel Handling Accident / 8 | 2.9 | 4.6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the emergency action level thresholds and classifications. |
| 068AG2.4.8 | Control Room Evac. / 8 | 3.8 | 4.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of how abnormal operating procedures are used in conjunction with EOPs. |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|------------|--------------------------------|-----|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | RO | SRO | | | | | | | | | | | |
| 003G2.2.25 | Reactor Coolant Pump | 3.2 | 4.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits. |
| 007A2.02 | Pressurizer Relief/Quench Tank | 2.6 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Abnormal pressure in the PRT |
| 022G2.4.50 | Containment Cooling | 4.2 | 4.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to verify system alarm setpoints and operate controls identified in the alarm response manual. |
| 064A2.03 | Emergency Diesel Generator | 3.1 | 3.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Parallel operation of ED/Gs |
| 073A2.02 | Process Radiation Monitoring | 2.7 | 3.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Detector failure |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|------------|---------------------------|-----|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | RO | SRO | | | | | | | | | | | |
| 011A2.12 | Pressurizer Level Control | 3.3 | 3.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Operation of auxiliary spray |
| 072G2.4.18 | Area Radiation Monitoring | 3.3 | 4.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the specific bases for EOPs. |
| 086A2.04 | Fire Protection | 3.3 | 3.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Failure to actuate the FPS when required, resulting in fire damage |

| KA | NAME / SAFETY FUNCTION: | IR | K1 | K2 | K3 | K4 | K5 | K6 | A1 | A2 | A3 | A4 | G | TOPIC: |
|---------|----------------------------|-----|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | RO | SRO | | | | | | | | | | | |
| G2.1.32 | Conduct of operations | 3.8 | 4.0 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to explain and apply all system limits and precautions. |
| G2.1.5 | Conduct of operations | 2.9 | 3.9 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to locate and use procedures related to shift staffing, such as minimum crew complement, overtime limitations, etc. |
| G2.2.17 | Equipment Control | 2.6 | 3.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the process for managing maintenance activities during power operations. |
| G2.2.21 | Equipment Control | 2.9 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of pre- and post-maintenance operability requirements. |
| G2.3.6 | Radiation Control | 2.0 | 3.8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Ability to approve release permits |
| G2.4.28 | Emergency Procedures/Plans | 3.2 | 4.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of procedures relating to emergency response to sabotage. |
| G2.4.40 | Emergency Procedures/Plans | 2.7 | 4.5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Knowledge of the SRO's responsibilities in emergency plan implementation. |