

| Facility: <u>SALEM 1 & 2</u> | | Date of Examination: <u>1/10/00 - 1/21/00</u> |
|--|---|---|
| Examinations Developed by: <u>(Facility)</u> / NRC (circle one) | | |
| Target Date* | Task Description / Reference | Chief Examiner's Initials |
| -180 | 1. Examination administration date confirmed (C.1.a; C.2.a & b) | JFB |
| -120 | 2. NRC examiners and facility contact assigned (C.1.d; C.2.e) | 8/25/99 JFB |
| -120 | 3. Facility contact briefed on security & other requirements (C.2.c) | 8/25/99 JFB |
| -120 | 4. Corporate notification letter sent (C.2.d) | 8/25/99 JFB |
| [-90] | [5. Reference material due (C.1.e; C.3.c)] | NA JFB |
| -75 | 6. Integrated examination outline(s) due (C.1.e & f; C.3.d) | 10/25/99 JFB |
| -70 | 7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e) | 11/4/99 JFB |
| -45 | 8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d) | 11/25/99 JFB |
| -30 | 9. Preliminary license applications due (C.1.i; C.2.g; ES-202) | 12/16/99 JFB |
| -14 | 10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202) | 12/23/99 JFB 1/4/00 JFB |
| -14 | 11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f) | 12/9/99 JFB |
| -14 | 12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g) | 12/15/99 JFB |
| -7 | 13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h) | 1/4/00 JFB |
| -7 | 14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204) | 1/4/00 JFB |
| -7 | 15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k) | 12/15/99 JFB |
| -7 | 16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i) | 1/4/00 JFB |
| <p>* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.</p> <p>[] Applies only to examinations prepared by the NRC.</p> | | |

| Facility: SALEM | | Date of Examination: 1/10/00 | | |
|---------------------------------------|--|------------------------------|----|------|
| Item | Task Description | Initials | | |
| | | a | b* | c |
| 1. W R I T T E N | a. Verify that the outline(s) fit(s) the appropriate model per ES-401. | JCL | QJ | 74B |
| | b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled. | JCL | QJ | 74B |
| | c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics. | JCL | QJ | 74B |
| | d. Assess whether the repetition from previous examination outlines is excessive. | JCL | QJ | 74B |
| 2. S I M | a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients. | JCL | QJ | 74B |
| | b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity; ensure each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants= audit test(s)*, and scenarios will not be repeated over successive days. | JCL | QJ | 74B |
| | c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D. | JCL | QJ | 74B |
| 3. W / T | a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, ✓ (2) no more than 30% of the test material is repeated from the last NRC examination, ✓ (3) no tasks are duplicated from the applicants= audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee=s exam banks. ✓ | JCL | QJ | 74B |
| | b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, ✓ (2) one task is conducted in a low-power or shutdown condition, ✓ (3) 40% of the tasks require the applicant to implement an alternate path procedure, ✓ (4) one in-plant task tests the applicant=s response to an emergency or abnormal condition, and ✓ (5) the in-plant walk-through requires the applicant to enter the RCA. ✓ | JCL | QJ | 74B |
| | c. Verify that the required administrative topics are covered, with emphasis on performance-based activities. | JCL | QJ | 74B |
| | d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days. | JCL | QJ | 74B |
| | e. Verify that the required administrative topics are covered, with emphasis on performance-based activities. | JCL | QJ | 74B |
| 4. G E N E R A L | a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section. | JCL | QJ | 74B |
| | b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate. | JCL | QJ | 74B |
| | c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5. | JCL | QJ | 74B |
| | d. Check for duplication and overlap among exam sections. | JCL | QJ | 74B |
| | e. Check the entire exam for balance of coverage. | JCL | QJ | 74B |
| | f. Assess whether the exam fits the appropriate job level (RO or SRO). | JCL | QJ | 74B* |
| Printed Name / Signature | | Date | | |
| a. Author | J K Lloyd / J K Lloyd | 10/20/99 | | |
| b. Facility Reviewer(*) | W. Gallagher / E. Gallagher | 10/20/99 | | |
| c. Chief Examiner | Larry E. Briggs / LARRY E. BRIGGS | 12/3/99 | | |
| d. NRC Supervisor | Richard J. Conkle / RJC | 12/3/99 | | |

(*) Not applicable for NRC-developed examinations. ** Audit Examination not yet available. This will be checked as soon as it is available.

* Some SRO level written questions are system questions (at RO level). These will be discussed & covered appropriately. 12/3/99
Questions covered at SRO level. 1/3/00

JCL Lloyd 10/19/99
NUREG-1021, Revision 8

| | | | | | |
|-----------------------------|--|------------------------------|--|------------------------|--|
| Facility: Salem Units 1 & 2 | | Date of Examination: 1/10/00 | | Operating Test Number: | |
|-----------------------------|--|------------------------------|--|------------------------|--|

| 1. GENERAL CRITERIA | | Initials | | |
|---|---|----------|----|------------|
| | | a | b | c |
| a. | The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution). | JLH | QJ | 24B |
| b. | There is no day-to-day repetition between this and other operating tests to be administered during this examination. | JLH | QJ | 24B |
| c. | The operating test shall not duplicate items from the applicants= audit test(s)(see Section D.1.a). | JLH | QJ | 24B 1/3/00 |
| d. | Overlap with the written examination and between operating test categories is within acceptable limits. | JLH | QJ | 24B |
| e. | It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level. | JLH | QJ | 24B |
| 2. WALK-THROUGH (CATEGORY A & B) CRITERIA | | - | - | - |
| a. | Each JPM includes the following, as applicable: ≡ initial conditions ≡ initiating cues ≡ references and tools, including associated procedures ≡ validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee ≡ specific performance criteria that include: - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable | JLH | QJ | 24B |
| b. | The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301. | JLH | QJ | 24B |
| c. | Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity. None | JLH | QJ | 24B |
| d. | At least 20 percent of the JPMs on each test are new or significantly modified. | JLH | QJ | 24B |
| 3. SIMULATOR (CATEGORY C) CRITERIA | | - | - | - |
| a. | The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached. | JLH | QJ | 24B |

| | | |
|---------------------------|-------------------------------------|----------|
| | Printed Name / Signature | Date |
| a. Author | J K Lloyd / J K Lloyd | 11/23/99 |
| b. Facility Reviewer (*) | Ed Gallagher / Ed Gallagher | 11-23-99 |
| c. NRC Chief Examiner (*) | LARRY E. BRIGGS / Larry E. Briggs | 12/9/99 |
| d. NRC Supervisor (*) | Richard J. Conte / Richard J. Conte | 02/04/00 |

(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.

* Audit Examination not currently available. To be reviewed as soon as available.

| | | | | |
|-----------------------------|--|-----------------------|-----------------------------|-------------------------|
| Facility: Salem Units 1 & 2 | | Date of Exam: 1/10/00 | Scenario Numbers: 1 / 2 / 3 | Operating Test No.: A11 |
|-----------------------------|--|-----------------------|-----------------------------|-------------------------|

| QUALITATIVE ATTRIBUTES | | Initials | | | |
|---|---|-------------------|-----|-----|-----|
| | | a | b | c | |
| 1. | The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events. | JLH | QJ | JLB | |
| 2. | The scenarios consist mostly of related events. | JLH | QJ | JLB | |
| 3. | Each event description consists of the point in the scenario when it is to be initiated the malfunction(s) that are entered to initiate the event the symptoms/cues that will be visible to the crew the expected operator actions (by shift position) the event termination point (if applicable) | JLH | QJ | JLB | |
| 4. | No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event. | JLH | QJ | JLB | |
| 5. | The events are valid with regard to physics and thermodynamics. | JLH | QJ | JLB | |
| 6. | Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives. | JLH | QJ | JLB | |
| 7. | If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given. | JLH | QJ | JLB | |
| 8. | The simulator modeling is not altered. | JLH | QJ | JLB | |
| 9. | The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios. | JLH | QJ | JLB | |
| 10. | Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.4 of ES-301. | JLH | QJ | JLB | |
| 11. | All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios). | JLH | QJ | JLB | |
| 12. | Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios). | JLH | QJ | JLB | |
| 13. | The level of difficulty is appropriate to support licensing decisions for each crew position. | JLH | QJ | JLB | |
| TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D) | | Actual Attributes | - | - | |
| 1. | Total malfunctions (5-8) | 7/7/8/6/7 | JLH | QJ | JLB |
| 2. | Malfunctions after EOP entry (1-2) | 2/2/2/3/2 | JLH | QJ | JLB |
| 3. | Abnormal events (2-4) | 4/4/4/3/4 | JLH | QJ | JLB |
| 4. | Major transients (1-2) | 1/1/2/2/1 | JLH | QJ | JLB |
| 5. | EOPs entered/requiring substantive actions (1-2) | 2/3/1/1/3 | JLH | QJ | JLB |
| 6. | EOP contingencies requiring substantive actions (0-2) | 0/2/2/1/0 | JLH | QJ | JLB |
| 7. | Critical tasks (2-3) | 3/4/4/3/3 | JLH | QJ | JLB |

OPERATING TEST NO.: **CREW A (2 SRO-I, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|--|----------------|----------------|-----------------|----------|---|----------|
| | | | 1 | 2 | 3 | 4 |
| RO1 RO/PO | Reactivity | 1 | 1/ | | | |
| | Normal | 1 | | /1 | | /1 |
| | Instrument | 2 | 2,4/ | | | |
| | Component | 2 | 5/ | /7 | | /3,4,6,7 |
| | Major | 1 | 6/ | /6 | | /5 |
| SRO1/SRO2 As RO or PO SRO-I As SRO | Reactivity | 1 | | 1/ | | /1 |
| | Normal | 0 | /1 | | | |
| | Instrument | 1 | | 2,3/ | | /2,8 |
| | Component | 1 | /3,7 | 4,5,7,8/ | | /4,7 |
| | Major | 1 | /6 | 6/ | | /5 |
| | Reactivity | 0 | | | | |
| | Normal | 1 | 1/ | /1 | | 1/ |
| | Instrument | 1 | 2,4,8/ | /2,3 | | 2,8/ |
| | Component | 1 | 3,5,7/ | /4,5,7,8 | | 3,4,6,7/ |
| | Major | 1 | 6/ | /6 | | 5/ |
| SRO-U | Reactivity | 0 | | | | |
| | Normal | 1 | | | | |
| | Instrument | 1 | | | | |
| | Component | 1 | | | | |
| | Major | 1 | | | | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

| CREW A Competencies | RO1 RO/SRO-I/SRO-U | | | | SRO1 RO/SRO-I/SRO-U | | | | SRO2 RO/SRO-I/SRO-U | | | |
|--|-----------------------|---------|---|-----------|------------------------|---------------|---|-------------|------------------------|---------------|---|-------------|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 RO | 2 PO | 3 | 4 PO | 1 SR | 2 RO | 3 | 4 SR | 1 PO | 2 SR | 3 | 4 RO |
| Understand and Interpret Annunciators and Alarms | 2,4,5,6 | 6,7 | | 3,4,5,6,7 | 2,4,5,6,8 | 2,3,4,5,6,8 | | 2,3,4,5,7,8 | 3,6,7,8 | 2,3,4,5,6,8 | | 2,5,8 |
| Diagnose Events and Conditions | 2,4,5,6 | 6,7 | | 3,4,5,6,7 | 2,4,5,6 | 2,3,4,5,6,8 | | 2,3,4,5,7,8 | 2,3,6,7,8 | 2,3,4,5,6,7,8 | | 2,5,8 |
| Understand Plant and System Response | 1,2,4,5,6 | 1,6,7 | | 3,4,5,6,7 | 1,2,4,5,6,8 | ALL | | 2,3,4,5,7,8 | 2,3,6,7,8 | ALL | | 1,2,5,7,8 |
| Comply With and Use Procedures (1) | 1,2,4,5,6 | 1,4,6,7 | | 1,3,4,5,7 | ALL | ALL | | ALL | 2,6,7,8 | ALL | | 1,2,4,5,7,8 |
| Operate Control Boards (2) | 1,2,4,5,6 | 1,4,6,7 | | 1,3,5,6,7 | | 1,2,3,4,5,6,8 | | | 1,2,3,6,7,8 | | | 1,2,4,5,8 |
| Communicate and Interact With the Crew | ALL | ALL | | ALL | ALL | ALL | | ALL | ALL | ALL | | ALL |
| Demonstrate Supervisory Ability (3) | | | | | 1,2,3,4,5,6,8 | | | 1,2,3,5,7,8 | | 1,2,3,4,5,6,8 | | |
| Comply With and Use Tech. Specs. (3) | | | | | 2,4,6 | | | 2 | | 3,4 | | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

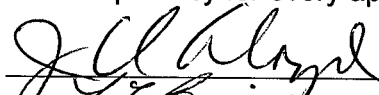
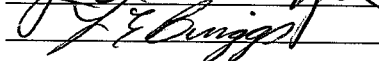
(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:


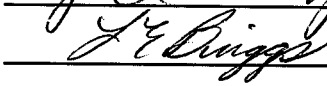
OPERATING TEST NO.: **CREW B (2 SRO-I, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|--|----------------|----------------|-----------------|----------|---|----------|
| | | | 1 | 2 | 3 | 4 |
| RO2 RO/PO | Reactivity | 1 | 1/ | | | |
| | Normal | 1 | | /1 | | /1 |
| | Instrument | 2 | 2,4/ | | | |
| | Component | 2 | 5/ | /7 | | /3,4,6,7 |
| | Major | 1 | 6/ | /6 | | /5 |
| SRO3/SRO4 As RO or PO SRO-I As SRO | Reactivity | 1 | | 1/ | | /1 |
| | Normal | 0 | /1 | | | |
| | Instrument | 1 | | 2,3/ | | /2,8 |
| | Component | 1 | /3,7 | 4,5,7,8/ | | /4,7 |
| | Major | 1 | /6 | 6/ | | /5 |
| | Reactivity | 0 | | | | |
| | Normal | 1 | 1/ | /1 | | 1/ |
| | Instrument | 1 | 2,4,8/ | /2,3 | | 2,8/ |
| | Component | 1 | 3,5,7/ | /4,5,7,8 | | 3,4,6,7/ |
| | Major | 1 | 6/ | /6 | | 5/ |
| SRO-U | Reactivity | 0 | | | | |
| | Normal | 1 | | | | |
| | Instrument | 1 | | | | |
| | Component | 1 | | | | |
| | Major | 1 | | | | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

| CREW B Competencies | RO2 RO/SRO-I/SRO-U | | | | SRO3 RO/SRO-I/SRO-U | | | | SRO4 RO/SRO-I/SRO-U | | | |
|--|-----------------------|---------|---|-----------|------------------------|---------------|---|-------------|------------------------|---------------|---|-------------|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 RO | 2 PO | 3 | 4 PO | 1 SR | 2 RO | 3 | 4 SR | 1 PO | 2 SR | 3 | 4 RO |
| Understand and Interpret Annunciators and Alarms | 2,4,5,6 | 6,7 | | 3,4,5,6,7 | 2,4,5,6,8 | 2,3,4,5,6,8 | | 2,3,4,5,7,8 | 3,6,7,8 | 2,3,4,5,6,8 | | 2,5,8 |
| Diagnose Events and Conditions | 2,4,5,6 | 6,7 | | 3,4,5,6,7 | 2,4,5,6 | 2,3,4,5,6,8 | | 2,3,4,5,7,8 | 2,3,6,7,8 | 2,3,4,5,6,7,8 | | 2,5,8 |
| Understand Plant and System Response | 1,2,4,5,6 | 1,6,7 | | 3,4,5,6,7 | 1,2,4,5,6,8 | ALL | | 2,3,4,5,7,8 | 2,3,6,7,8 | ALL | | 1,2,5,7,8 |
| Comply With and Use Procedures (1) | 1,2,4,5,6 | 1,4,6,7 | | 1,3,4,5,7 | ALL | ALL | | ALL | 2,6,7,8 | ALL | | 1,2,4,5,7,8 |
| Operate Control Boards (2) | 1,2,4,5,6 | 1,4,6,7 | | 1,3,5,6,7 | | 1,2,3,4,5,6,8 | | | 1,2,3,6,7,8 | | | 1,2,4,5,8 |
| Communicate and Interact With the Crew | ALL | ALL | | ALL | ALL | ALL | | ALL | ALL | ALL | | ALL |
| Demonstrate Supervisory Ability (3) | | | | | 1,2,3,4,5,6,8 | | | 1,2,3,5,7,8 | | 1,2,3,4,5,6,8 | | |
| Comply With and Use Tech. Specs. (3) | | | | | 2,4,6 | | | 2 | | 3,4 | | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:

J. L. Lloyd
Tony E. Briggs

OPERATING TEST NO.: **CREW C (2 SRO-I, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|--|----------------|----------------|-----------------|---|--------|----------|
| | | | 1 | 2 | 3 | 4 |
| RO3 RO/PO | Reactivity | 1 | 1/ | | | |
| | Normal | 1 | | | /1 | /1 |
| | Instrument | 2 | 2,4/ | | | |
| | Component | 2 | 5/ | | /5 | /3,4,6,7 |
| | Major | 1 | 6/ | | /6,8 | /5 |
| SRO5/SRO6 As RO or PO SRO-I As SRO | Reactivity | 1 | | | 1/ | /1 |
| | Normal | 0 | /1 | | | |
| | Instrument | 1 | | | 2,4/ | /2,8 |
| | Component | 1 | /3,7 | | 3,7/ | /4,7 |
| | Major | 1 | /6 | | 6,8/ | /5 |
| | Reactivity | 0 | | | | |
| | Normal | 1 | 1/ | | /1 | 1/ |
| | Instrument | 1 | 2,4,8/ | | /2,4 | 2,8/ |
| | Component | 1 | 3,5,7/ | | /3,5,7 | 3,4,6,7/ |
| | Major | 1 | 6/ | | /6,8 | 5/ |
| SRO-U | Reactivity | 0 | | | | |
| | Normal | 1 | | | | |
| | Instrument | 1 | | | | |
| | Component | 1 | | | | |
| | Major | 1 | | | | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:




| CREW C Competencies | RO3 RO/SRO-I/SRO-U | | | | SRO5 RO/SRO-I/SRO-U | | | | SRO6 RO/SRO-I/SRO-U | | | |
|--|-----------------------|---|---------------|---------------|------------------------|---|---------------------|---------------------|------------------------|---|---------------------|---------------------|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 RO | 2 | 3 PO | 4 PO | 1 SR | 2 | 3 RO | 4 SR | 1 PO | 2 | 3 SR | 4 RO |
| | | | | | | | | | | | | |
| Understand and Interpret Annunciators and Alarms | 2,4,5 ,6 | | 5,6,8 | 3,4,5 ,6,7 | 2,4,5 ,6,8 | | 2,3,4 ,6,7, 8 | 2,3,4 ,5,7, 8 | 3,6,7 ,8 | | 2,3,4 ,5,6, 8 | 2,5,8 |
| Diagnose Events and Conditions | 2,4,5 ,6 | | 5,6,8 | 3,4,5 ,6,7 | 2,4,5 ,6 | | 2,3,4 ,6,7, 8 | 2,3,4 ,5,7, 8 | 2,3,6 ,7,8 | | 2,3,4 ,5,6, 8 | 2,5,8 |
| Understand Plant and System Response | 1,2,4 ,5,6 | | 1,5,6 ,8 | 3,4,5 ,6,7 | 1,2,4 ,5,6, 8 | | ALL | 2,3,4 ,5,7, 8 | 2,3,6 ,7,8 | | ALL | 1,2,5 ,7,8 |
| Comply With and Use Procedures (1) | 1,2,4 ,5,6 | | 1,4,5 ,6,8 | 1,3,4 ,5,7 | ALL | | ALL | ALL | 2,6,7 ,8 | | ALL | 1,2,4 ,5,7, 8 |
| Operate Control Boards (2) | 1,2,4 ,5,6 | | 1,4,5 ,6,8 | 1,3,5 ,6,7 | | | ALL | | 1,2,3 ,6,7, 8 | | | 1,2,4 ,5,8 |
| Communicate and Interact With the Crew | ALL | | ALL | ALL | ALL | | ALL | ALL | ALL | | ALL | ALL |
| Demonstrate Supervisory Ability (3) | | | | | 1,2,3 ,4,5, 6,8 | | | 1,2,3 ,5,7, 8 | | | ALL | |
| Comply With and Use Tech. Specs. (3) | | | | | 2,4,6 | | | 2 | | | 2,3,4 | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:

J. L. Alonzo
Gary E. Briggs


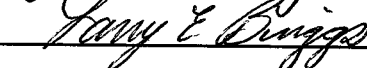
OPERATING TEST NO.: **CREW D (2 SRO-I, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|--|----------------|----------------|-----------------|---|--------|----------|
| | | | 1 | 2 | 3 | 4 |
| RO4 RO/PO | Reactivity | 1 | 1/ | | | |
| | Normal | 1 | | | /1 | /1 |
| | Instrument | 2 | 2,4/ | | | |
| | Component | 2 | 5/ | | /5 | /3,4,6,7 |
| | Major | 1 | 6/ | | /6,8 | /5 |
| SRO7/SRO8 As RO or PO SRO-I As SRO | Reactivity | 1 | | | 1/ | /1 |
| | Normal | 0 | /1 | | | |
| | Instrument | 1 | | | 2,4/ | /2,8 |
| | Component | 1 | /3,7 | | 3,7/ | /4,7 |
| | Major | 1 | /6 | | 6,8/ | /5 |
| | Reactivity | 0 | | | | |
| | Normal | 1 | 1/ | | /1 | 1/ |
| | Instrument | 1 | 2,4,8/ | | /2,4 | 2,8/ |
| | Component | 1 | 3,5,7/ | | /3,5,7 | 3,4,6,7/ |
| | Major | 1 | 6/ | | /6,8 | 5/ |
| SRO-U | Reactivity | 0 | | | | |
| | Normal | 1 | | | | |
| | Instrument | 1 | | | | |
| | Component | 1 | | | | |
| | Major | 1 | | | | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
 (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

| CREW D Competencies | RO4 RO/SRO-I/SRO-U | | | | SRO7 RO/SRO-I/SRO-U | | | | SRO8 RO/SRO-I/SRO-U | | | |
|--|-----------------------|---|---------------|---------------|------------------------|---|---------------------|---------------------|------------------------|---|---------------------|---------------------|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 RO | 2 | 3 PO | 4 PO | 1 SR | 2 | 3 RO | 4 SR | 1 PO | 2 | 3 SR | 4 RO |
| Understand and Interpret Annunciators and Alarms | 2,4,5 ,6 | | 5,6,8 | 3,4,5 ,6,7 | 2,4,5 ,6,8 | | 2,3,4 ,6,7, 8 | 2,3,4 ,5,7, 8 | 3,6,7 ,8 | | 2,3,4 ,5,6, 8 | 2,5,8 |
| Diagnose Events and Conditions | 2,4,5 ,6 | | 5,6,8 | 3,4,5 ,6,7 | 2,4,5 ,6 | | 2,3,4 ,6,7, 8 | 2,3,4 ,5,7, 8 | 2,3,6 ,7,8 | | 2,3,4 ,5,6, 8 | 2,5,8 |
| Understand Plant and System Response | 1,2,4 ,5,6 | | 1,5,6 ,8 | 3,4,5 ,6,7 | 1,2,4 ,5,6, 8 | | ALL | 2,3,4 ,5,7, 8 | 2,3,6 ,7,8 | | ALL | 1,2,5 ,7,8 |
| Comply With and Use Procedures (1) | 1,2,4 ,5,6 | | 1,4,5 ,6,8 | 1,3,4 ,5,7 | ALL | | ALL | ALL | 2,6,7 ,8 | | ALL | 1,2,4 ,5,7, 8 |
| Operate Control Boards (2) | 1,2,4 ,5,6 | | 1,4,5 ,6,8 | 1,3,5 ,6,7 | | | ALL | | 1,2,3 ,6,7, 8 | | | 1,2,4 ,5,8 |
| Communicate and Interact With the Crew | ALL | | ALL | ALL | ALL | | ALL | ALL | ALL | | ALL | ALL |
| Demonstrate Supervisory Ability (3) | | | | | 1,2,3 ,4,5, 6,8 | | | 1,2,3 ,5,7, 8 | | | ALL | |
| Comply With and Use Tech. Specs. (3) | | | | | 2,4,6 | | | 2 | | | 2,3,4 | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:

J. C. Lloyd
Amy E. Briggs

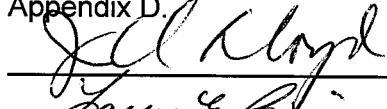
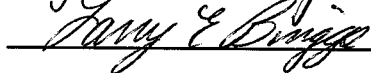
OPERATING TEST NO.: **CREW E (1 SRO-I, 1 SRO-U, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|---|----------------|----------------|-----------------|----------|--------|---|
| | | | 1 | 2 | 3 | 4 |
| RO5 RO | Reactivity | 1 | | 1/ | | |
| | Normal | 1 | | | /1 | |
| | Instrument | 2 | | 2,3/ | | |
| | Component | 2 | | 4,5,7,8/ | /5 | |
| | Major | 1 | | 6/ | /6,8 | |
| SRO9 As RO or PO SRO-I As SRO | Reactivity | 1 | | | 1 | |
| | Normal | 0 | | | | |
| | Instrument | 1 | | | 2,4 | |
| | Component | 1 | | | 3,7 | |
| | Major | 1 | | | 6,8 | |
| | Reactivity | 0 | | | | |
| | Normal | 1 | | 1 | | |
| | Instrument | 1 | | 2,3 | | |
| | Component | 1 | | 4,5,7,8 | | |
| | Major | 1 | | 6 | | |
| SRO10 SRO-U PO/SRO | Reactivity | 0 | | | | |
| | Normal | 1 | | 1/ | /1 | |
| | Instrument | 1 | | | /2,4 | |
| | Component | 1 | | 7/ | /3,5,7 | |
| | Major | 1 | | 6/ | /6,8 | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

| CREW E Competencies | RO5 RO/SRO-I/SRO-U | | | | SRO9 RO/SRO-I/SRO-U | | | | SRO10 RO/SRO-I/SRO-U | | | |
|--|-----------------------|-----------------------|---------------|---|------------------------|-----------------------|---------------------|---|-------------------------|-------------|---------------------|---|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 | 2 RO | 3 PO | 4 | 1 | 2 SR | 3 RO | 4 | 1 | 2 PO | 3 SR | 4 |
| Understand and Interpret Annunciators and Alarms | | 2,3,4 ,5,6, 8 | 5,6,8 | | | 2,3,4 ,5,6, 8 | 2,3,4 ,6,7, 8 | | | 6,7 | 2,3,4 ,5,6, 8 | |
| Diagnose Events and Conditions | | 2,3,4 ,5,6, 8 | 5,6,8 | | | 2,3,4 ,5,6, 7,8 | 2,3,4 ,6,7, 8 | | | 6,7 | 2,3,4 ,5,6, 8 | |
| Understand Plant and System Response | | ALL | 1,5,6 ,8 | | | ALL | ALL | | | 1,6,7 | ALL | |
| Comply With and Use Procedures (1) | | ALL | 1,4,5 ,6,8 | | | ALL | ALL | | | 1,4,6 ,7 | ALL | |
| Operate Control Boards (2) | | 1,2,3 ,4,5, 6,8 | 1,4,5 ,6,8 | | | | ALL | | | 1,4,6 ,7 | | |
| Communicate and Interact With the Crew | | ALL | ALL | | | ALL | ALL | | | ALL | ALL | |
| Demonstrate Supervisory Ability (3) | | | | | | 1,2,3 ,4,5, 6,8 | | | | | ALL | |
| Comply With and Use Tech. Specs. (3) | | | | | | 3,4 | | | | | 2,3,4 | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:

J. L. Lloyd
Tony E. Briggs

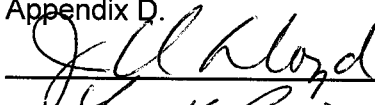
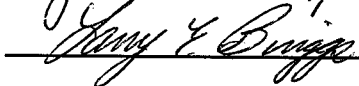
OPERATING TEST NO.: **CREW F (1 SRO-I, 1 SRO-U, 1 RO)**

| Applicant Type | Evolution Type | Minimum Number | Scenario Number | | | |
|--|----------------|----------------|-----------------|-----------|--------|---|
| | | | 1 | 2 | 3 | 4 |
| RO6 RO | Reactivity | 1 | | 1/ | | |
| | Normal | 1 | | | /1 | |
| | Instrument | 2 | | 2,3/ | | |
| | Component | 2 | | 4,5,7, 8/ | /5 | |
| | Major | 1 | | 6/ | /6,8 | |
| SRO11 As RO or PO SRO-I As SRO | Reactivity | 1 | | | 1 | |
| | Normal | 0 | | | | |
| | Instrument | 1 | | | 2,4 | |
| | Component | 1 | | | 3,7 | |
| | Major | 1 | | | 6,8 | |
| | Reactivity | 0 | | | | |
| | Normal | 1 | | 1 | | |
| | Instrument | 1 | | 2,3 | | |
| | Component | 1 | | 4,5,7, 8 | | |
| | Major | 1 | | 6 | | |
| SRO12 SRO-U PO/SRO | Reactivity | 0 | | | | |
| | Normal | 1 | | 1/ | /1 | |
| | Instrument | 1 | | | /2,4 | |
| | Component | 1 | | 7/ | /3,5,7 | |
| | Major | 1 | | 6/ | /6,8 | |

- Instructions: (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

| CREW F Competencies | RO6 RO/SRO-I/SRO-U | | | | SRO11 RO/SRO-I/SRO-U | | | | SRO12 RO/SRO-I/SRO-U | | | |
|--|-----------------------|-----------------------|---------------|---|-------------------------|-----------------------|---------------------|---|-------------------------|-------------|---------------------|---|
| | SCENARIO | | | | SCENARIO | | | | SCENARIO | | | |
| | 1 | 2 RO | 3 PO | 4 | 1 | 2 SR | 3 RO | 4 | 1 | 2 PO | 3 SR | 4 |
| Understand and Interpret Annunciators and Alarms | | 2,3,4 ,5,6, 8 | 5,6,8 | | | 2,3,4 ,5,6, 8 | 2,3,4 ,6,7, 8 | | | 6,7 | 2,3,4 ,5,6, 8 | |
| Diagnose Events and Conditions | | 2,3,4 ,5,6, 8 | 5,6,8 | | | 2,3,4 ,5,6, 7,8 | 2,3,4 ,6,7, 8 | | | 6,7 | 2,3,4 ,5,6, 8 | |
| Understand Plant and System Response | | ALL | 1,5,6 ,8 | | | ALL | ALL | | | 1,6,7 | ALL | |
| Comply With and Use Procedures (1) | | ALL | 1,4,5 ,6,8 | | | ALL | ALL | | | 1,4,6 ,7 | ALL | |
| Operate Control Boards (2) | | 1,2,3 ,4,5, 6,8 | 1,4,5 ,6,8 | | | | ALL | | | 1,4,6 ,7 | | |
| Communicate and Interact With the Crew | | ALL | ALL | | | ALL | ALL | | | ALL | ALL | |
| Demonstrate Supervisory Ability (3) | | | | | | 1,2,3 ,4,5, 6,8 | | | | | ALL | |
| Comply With and Use Tech. Specs. (3) | | | | | | 3,4 | | | | | 2,3,4 | |

Notes:

(1) Includes Technical Specification compliance for an RO.

(2) Optional for an SRO-U.

(3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author:

Chief Examiner:

J. C. Alford
Jerry E. Briggs

| Facility: <u>Salem</u> | | Date of Exam: <u>1/10/00</u> | | Exam Level: <u>RO/SRO</u> | | | | | | | | | | | | | | | | | |
|---|--|------------------------------|-----------|---------------------------|------------|------------|--|--------------------------|------|-----------|-------------------------|-----------------|-------------------------|-----------|-----------------|--------------------------|--|---------------|-------------------------------|--|---------------|
| Item Description | | | | Initial | | | | | | | | | | | | | | | | | |
| | | | | a | b* | c* | | | | | | | | | | | | | | | |
| 1. | Questions and answers technically accurate and applicable to facility | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 2. | a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 3. | RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401 | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 4. | No more than 25 questions are duplicated from [practice exams, quizzes, and] the last two NRC licensing exams; enter the actual number of duplicated questions at right | NRC | Other | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| | | <u>4</u> | <u>8</u> | | | | | | | | | | | | | | | | | | |
| 5. | [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)] | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 6. | Bank use meets limits (no more than 50 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right | Bank | Modified | New | <u>JCH</u> | <u>QJ</u> | | | | | | | | | | | | | | | |
| | | <u>8</u> | <u>6</u> | <u>86</u> | | | | | | | | | | | | | | | | | |
| 7. | Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right | Memory | C/A | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| | | <u>46</u> | <u>54</u> | | | | | | | | | | | | | | | | | | |
| 8. | References/handouts provided do not give away answers | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 9. | Question distribution meets previously approved examination outline; deviations are justified <u>** See SRO PWG Sample Plan</u> | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 10. | Question psychometric quality and format meet ES, Appendix B, guidelines | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| 11. | The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet | | | <u>JCH</u> | <u>QJ</u> | <u>YLB</u> | | | | | | | | | | | | | | | |
| <table border="0"> <tr> <td></td> <td>Printed Name / Signature</td> <td>Date</td> </tr> <tr> <td>a. Author</td> <td><u>J. K. Loyd / JCH</u></td> <td><u>11/23/99</u></td> </tr> <tr> <td>b. Facility Reviewer(*)</td> <td><u>QJ</u></td> <td><u>11-23-99</u></td> </tr> <tr> <td>c. NRC Chief Examiner(*)</td> <td><u>LARRY E. BRIGGS / Larry E. Briggs</u></td> <td><u>1/3/00</u></td> </tr> <tr> <td>d. NRC Regional Supervisor(*)</td> <td><u>Richard J. Carter / Richard J. Carter</u></td> <td><u>1/4/00</u></td> </tr> </table> | | | | | | | | Printed Name / Signature | Date | a. Author | <u>J. K. Loyd / JCH</u> | <u>11/23/99</u> | b. Facility Reviewer(*) | <u>QJ</u> | <u>11-23-99</u> | c. NRC Chief Examiner(*) | <u>LARRY E. BRIGGS / Larry E. Briggs</u> | <u>1/3/00</u> | d. NRC Regional Supervisor(*) | <u>Richard J. Carter / Richard J. Carter</u> | <u>1/4/00</u> |
| | Printed Name / Signature | Date | | | | | | | | | | | | | | | | | | | |
| a. Author | <u>J. K. Loyd / JCH</u> | <u>11/23/99</u> | | | | | | | | | | | | | | | | | | | |
| b. Facility Reviewer(*) | <u>QJ</u> | <u>11-23-99</u> | | | | | | | | | | | | | | | | | | | |
| c. NRC Chief Examiner(*) | <u>LARRY E. BRIGGS / Larry E. Briggs</u> | <u>1/3/00</u> | | | | | | | | | | | | | | | | | | | |
| d. NRC Regional Supervisor(*) | <u>Richard J. Carter / Richard J. Carter</u> | <u>1/4/00</u> | | | | | | | | | | | | | | | | | | | |
| <p>Note:</p> <ul style="list-style-type: none"> • The facility reviewer's signature is not applicable for NRC-developed examinations; two independent NRC reviews are required. # See special instructions (Section E.2.c) for Items 1, 4, 5, and 6. [] The items in brackets do not apply to NRC-prepared examinations. | | | | | | | | | | | | | | | | | | | | | |

* Hudit Examination not currently available. To be reviewed as soon as available.

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** See PWG Sample Plan. No K/As changed. Minor change to K/A vs. Question Number.

| Facility: <u>Salem</u> | | Date of Exam: <u>1/10/00</u> | | Exam Level: <u>RO/SRO</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------------------------|-----------|---------------------------|------------|------------|--------------------------|--|--|--|------|--|-----------|----------------------------------|--|--|-----------------|--|-------------------------|------------------------------------|--|--|-----------------|--|--------------------------|--|--|--|----------------|--|-------------------------------|--|--|--|----------------|--|
| Item Description | | | | Initial | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | a | b* | c* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | Questions and answers technically accurate and applicable to facility | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401 | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | No more than 25 questions are duplicated from [practice exams, quizzes, and] the last two NRC licensing exams; enter the actual number of duplicated questions at right | NRC | Other | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <u>3</u> | <u>8</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)] | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | Bank use meets limits (no more than 50 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right | Bank | Modified | New | <u>JLH</u> | <u>QS</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <u>8</u> | <u>6</u> | <u>86</u> | | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. | Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right | Memory | C/A | | <u>JLH</u> | <u>QS</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <u>46</u> | <u>54</u> | | | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | References/handouts provided do not give away answers | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | Question distribution meets previously approved examination outline; deviations are justified <u>** See RO PNG Sample Plan</u> | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | Question psychometric quality and format meet ES, Appendix B, guidelines | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet | | | <u>JLH</u> | <u>QS</u> | <u>YLB</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="0"> <tr> <td colspan="4">Printed Name / Signature</td> <td colspan="2">Date</td> </tr> <tr> <td>a. Author</td> <td colspan="3"><u>J. K. Lloyd / J. K. Lloyd</u></td> <td colspan="2"><u>11/23/99</u></td> </tr> <tr> <td>b. Facility Reviewer(*)</td> <td colspan="3"><u>Ed Gallagher / Ed Gallagher</u></td> <td colspan="2"><u>11-23-99</u></td> </tr> <tr> <td>c. NRC Chief Examiner(*)</td> <td colspan="3"><u>LARRY E. BRIGGS / Larry E. Briggs</u></td> <td colspan="2"><u>11/3/00</u></td> </tr> <tr> <td>d. NRC Regional Supervisor(*)</td> <td colspan="3"><u>Richard J. Conte / Richard J. Conte</u></td> <td colspan="2"><u>11/4/00</u></td> </tr> </table> | | | | | | | Printed Name / Signature | | | | Date | | a. Author | <u>J. K. Lloyd / J. K. Lloyd</u> | | | <u>11/23/99</u> | | b. Facility Reviewer(*) | <u>Ed Gallagher / Ed Gallagher</u> | | | <u>11-23-99</u> | | c. NRC Chief Examiner(*) | <u>LARRY E. BRIGGS / Larry E. Briggs</u> | | | <u>11/3/00</u> | | d. NRC Regional Supervisor(*) | <u>Richard J. Conte / Richard J. Conte</u> | | | <u>11/4/00</u> | |
| Printed Name / Signature | | | | Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| a. Author | <u>J. K. Lloyd / J. K. Lloyd</u> | | | <u>11/23/99</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| b. Facility Reviewer(*) | <u>Ed Gallagher / Ed Gallagher</u> | | | <u>11-23-99</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| c. NRC Chief Examiner(*) | <u>LARRY E. BRIGGS / Larry E. Briggs</u> | | | <u>11/3/00</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| d. NRC Regional Supervisor(*) | <u>Richard J. Conte / Richard J. Conte</u> | | | <u>11/4/00</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Note: * The facility reviewer's signature is not applicable for NRC-developed examinations; two independent NRC reviews are required.</p> <p># See special instructions (Section E.2.c) for Items 1, 4, 5, and 6.</p> <p>[] The items in brackets do not apply to NRC-prepared examinations.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* Audit Examination not currently available. To be reviewed as soon as available.

** After reviewing one question, determined it to be inappropriate for RO. Swapped with one K/A for SRO question.

| Facility: <u>Salem 1 & 2</u> | | Date of Exam: <u>1/17/00</u> | | Exam Level: <u>RO/SRO</u> <i>Both</i> | |
|--|---------------------------------------|------------------------------|--------------------------|---------------------------------------|--|
| Item Description | Initials | | | | |
| | a | b | c | | |
| 1. Answer key changes and question deletions justified and documented | <u>J</u> | <u>JLH</u> | <u>YLB</u> | | |
| 2. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations) | <u>GO</u> | <u>JLH</u> | <u>YLB</u> | | |
| 3. Grading for all borderline cases (80% +/- 2%) reviewed in detail | <u>GO</u> | <u>JLH</u> | <u>YLB</u> | | |
| 4. All other failing examinations checked to ensure that grades are justified | <u>N/A</u> | <u>N/A</u> | <u>YLB</u> <u>N/A</u> | | |
| 5. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants | <u>J</u> | <u>JLH</u> | <u>YLB</u> | | |
| Printed Name / Signature | | Date | | | |
| a. Grader | <u>STEVE GENDYIS / [Signature]</u> | <u>1/31/00</u> | | | |
| b. Facility Reviewer(*) | <u>[Signature]</u> | <u>1/21/00</u> | | | |
| c. NRC Chief Examiner (*) | <u>LARRY B. BRIGGS / [Signature]</u> | <u>1/31/00</u> | | | |
| d. NRC Supervisor (*) | <u>Richard V. Conte / [Signature]</u> | <u>2/2/00</u> | | | |
| (*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required. | | | | | |

RECEIVED
REGION 1

200 FEB 14 AM 11: 14

Larry Briggs
Chief Examiner
Division of Reactor Safety
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA. 19406-1415

Dear Mr. Briggs:

SALEM EXAMINATION SECURITY AGREEMENTS

Attached are the 1/10/00-1/21/00 Salem Examination Security Agreements. Many individuals had signed onto the agreements by the completion date of the examination. However, the majority of those individuals either had no real knowledge about the content of the examination, reviewed parts of the examination, or were only involved in examination administration on a day-by-day basis. Most of those individuals fell into the following broad categories:

- required access to the simulator during validation efforts (6)
- periodic copying administrative work (2)
- observed/ran the simulator examinations (5)
- have regular access to the cabinet where Salem/Hope Creek examination materials are locked (2)
- contracted materials development (2)
- due to manpower and simulator scheduling, three different crews were used for simulator scenarios validation (10)
- review/validate the written examination (4)
- two students signed onto the agreement to facilitate scheduling on specific JPM days (2)

At the date of the examination administration only J. Lloyd, E. Gallagher, M. Gwartz and G. Matera, had specific knowledge about all aspects of the examination content.

If you have any questions, comments, or require additional information, please contact Jim Lloyd, Senior Instructor, at 609-339-3839 or Mike Gwartz, Nuclear Training Supervisor, at 609-339-3863.

J.K. Lloyd
Senior Instructor

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/10/00 & 1/17/00 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/10 - 1/21. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

| PRINTED NAME | JOB TITLE / RESPONSIBILITY | SIGNATURE (1) | DATE | SIGNATURE (2) | DATE |
|------------------------|----------------------------|--------------------|----------|--------------------|--------------------|
| 1. Scott Maylan | RO / Scenario Validation | <i>S. Maylan</i> | 11-18-99 | <i>S. Maylan</i> | 2/1/00 <i>slk</i> |
| 2. Gary Meekins | RO / Scenario Validation | <i>G. Meekins</i> | 11-18-99 | <i>G. Meekins</i> | 1-24-00 |
| 3. Don Jackson | SRO / Written Validation | <i>D. Jackson</i> | 11-19-99 | <i>D. Jackson</i> | 2/2/00 |
| 4. Ann Lloyd | Exec Secretary | <i>A. Lloyd</i> | 11-19-99 | <i>A. Lloyd</i> | 1/24/00 |
| 5. Paul William | SRO / SW / Validation | <i>P. William</i> | 11-22-99 | <i>P. William</i> | 1/24/00 |
| 6. Wayne Moran | SW / SW | <i>W. Moran</i> | 11-22-99 | <i>W. Moran</i> | 1/24/00 |
| 7. BEHROUZ SEDIGHI | Hardware Support | <i>B. Sedighi</i> | 11-22-99 | <i>B. Sedighi</i> | 1-24-00 |
| 8. John Garecht | RO / SW / Validation | <i>J. Garecht</i> | 12-8-99 | <i>J. Garecht</i> | 2/2/00 <i>slk</i> |
| 9. R. Bize | JRN / SRO / Validation | <i>R. Bize</i> | 12-9-99 | <i>R. Bize</i> | 1/27/00 <i>slk</i> |
| 10. Edward S. Berk | RO / Validation | <i>E. Berk</i> | 12-9-99 | <i>E. Berk</i> | 2/1/00 <i>slk</i> |
| 11. Rosemarie P. Peltz | Code Room - ORDMS | <i>R. Peltz</i> | 12-27-99 | <i>R. Peltz</i> | 1-24-00 |
| 12. Archie Faulkner | OPSSUPT HC | <i>A. Faulkner</i> | 1-3-00 | <i>A. Faulkner</i> | 1-24-00 |
| 13. Robert A. Corman | OPS STAFF | <i>R. Corman</i> | 1-6-00 | <i>R. Corman</i> | 2/1/00 <i>slk</i> |
| 14. Bin Chen | Simulator SW | <i>B. Chen</i> | 1/6/00 | <i>B. Chen</i> | 1-24-00 |
| 15. J. R. Egan | INSTRUCTION | <i>J. R. Egan</i> | 1-10-00 | <i>J. R. Egan</i> | 1/26/00 <i>slk</i> |
| 16. J. Oliver | INSTRUCTOR | <i>J. Oliver</i> | 1-10-00 | <i>J. Oliver</i> | 1-26-00 |

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Interim Rev. 8, January 1997

* E Mail or Telecon Confirmation
JLL - J. K. Lloyd

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/10/00 - 1/21/00 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/10 - 1/21/00. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

| PRINTED NAME | JOB TITLE / RESPONSIBILITY | SIGNATURE (1) | DATE | SIGNATURE (2) | DATE |
|-----------------------|-------------------------------|--------------------|----------|--------------------|----------|
| 1. James K Lloyd | Instructor / Developer | J. K. Lloyd | 8/2/99 | J. K. Lloyd | 1/24/00 |
| 2. Mike Hanchurich | DEVELOPER | Mike Hanchurich | 2/16/99 | Mike Hanchurich | 1/27/00 |
| 3. DAVID M. REIN | INSTRUCTOR HOPE CREEK | David M. Rein | 8/3/99 | David M. Rein | 1/27/00 |
| 4. GARY M. MATERA | ADJUST INST. | Gary M. Matera | 8-4-99 | Gary M. Matera | 2-16-00 |
| 5. RICHARD S. PFEFFER | Reviewer | Richard S. Pfeffer | 8-6-99 | Richard S. Pfeffer | 2-16-00 |
| 6. Edward Gallacher | DEVELOPER (SRD) | Edward Gallacher | 8-6-99 | Edward Gallacher | 2-16-00 |
| 7. M. D. Gwartz | Licensed Training Supervisor | M. D. Gwartz | 8-16-99 | M. D. Gwartz | 1-24-00 |
| 8. W. Swartz | Operations Superintendent | W. Swartz | 4-23-99 | W. Swartz | 2-16-00 |
| 9. H. Swartz | Sim Support | H. Swartz | 9/1/99 | H. Swartz | 1/24/00 |
| 10. V. HAN NGUYEN | SIM SUPPORT | V. HAN NGUYEN | 10/22/99 | V. HAN NGUYEN | 01/24/00 |
| 11. J. A. Fitzpatrick | Westinghouse Sim Support | J. A. Fitzpatrick | 10/22/99 | J. A. Fitzpatrick | 10/27/99 |
| 12. Kevin Resdumler | Reviewer RO | Kevin Resdumler | 11/16/99 | Kevin Resdumler | 2-16-00 |
| 13. Chris M. Reddick | Reviewer SRD | Chris M. Reddick | 11/16/99 | Chris M. Reddick | 2-16-00 |
| 14. Marcos Batentaras | Asstt Ops Mgr / Sim Exam Vald | Marcos Batentaras | 11/19/99 | Marcos Batentaras | 2-16-00 |
| 15. LANE OBEREMBT | Instructor SRD | Lane Oberembt | 11/19/99 | Lane Oberembt | 1/24/00 |

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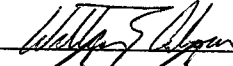

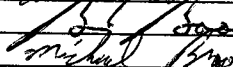
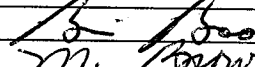
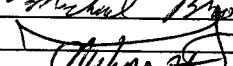
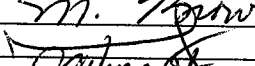
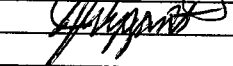
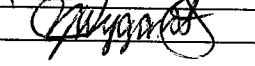
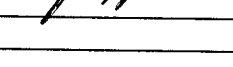
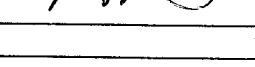
* E Mail or Telecon Confirmation
 M - J. K. Lloyd

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/10/00-1/12/00 of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/10-1/12/00. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

| PRINTED NAME | JOB TITLE / RESPONSIBILITY | SIGNATURE (1) | DATE | SIGNATURE (2) | DATE NOTE |
|-----------------------------|-------------------------------|--|----------|---|---------------------|
| 1. William Arbour | Instructor |  | 01/10/00 |  | 2/3/00 <i>ill*</i> |
| 2. BRIAN BOOS | INSTRUCTOR STUDENT |  | 01/12/00 |  | 1-24-00 |
| 3. Michael Brown | Instructor |  | 1/18/00 |  | 1/27/00 <i>ill*</i> |
| 4. DONALD MCINTIRE | INSTRUCTOR |  | 1/20/00 |  | 1/27/00 |
| 5. TIMOTHY J WIGANT | STUDENT CANDIDATE |  | 1/20/00 |  | 1/27/00 |
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NOTES:

* E Mail or Telecon Confirmation
 ill - J.K. Lloyd

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/10/2000 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/04/17/2000. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

| | PRINTED NAME | JOB TITLE / RESPONSIBILITY | SIGNATURE (1) | DATE | SIGNATURE (2) | DATE | NOTE |
|-----|---------------------------|--|---------------------------|---------------|---------------------------|---------------|------|
| 1. | <u>Stephen P. Johnson</u> | <u>Contractor - WDA Assa/Equiderv.</u> | <u>Stephen P. Johnson</u> | <u>6/1/99</u> | <u>Stephen P. Johnson</u> | <u>1/3/00</u> | |
| 2. | <u>Frank S. Jaggan</u> | <u>Contractor - WDA Assa/Devel.</u> | <u>Frank S. Jaggan</u> | <u>6/1/99</u> | <u>Frank S. Jaggan</u> | <u>1/3/00</u> | |
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