



---

**WELCOME TO**

**U.S. NUCLEAR REGULATORY  
COMMISSION  
REGION III**

---

**OPERATOR LICENSING WORKSHOP**  
**October 13 - 14, 1999**

Holiday Inn  
Bolingbrook Hotel & Suites  
205 Remington Blvd.  
Bolingbrook, Illinois

# **REGION III NUREG-1021 REVISION 8 CONFERENCE AGENDA**

Holiday Inn - Bolingbrook, IL

## **Wednesday, October 13, 1999**

8:00 - 8:30 a.m.	Registration Sign In	M. Bies
8:30 - 9:00 a.m.	Introduction	J. Dyer D. Hills
9:00 - 9:30 a.m.	Summary of NUREG 1021 Changes (Conference Ground Rules)	D. Hills
9:30 - 9:45 a.m.	Break	
9:45 - 10:45 a.m.	ES-100 Series (Purpose and Format) ES-200 Series (Exam Process)	D. Hills
10:45 - 11:45 a.m.	ES-500 Series (Post-Exam Process)	M. Bielby
11:45 a.m. - 1:00 p.m.	Lunch	
1:00 - 2:30 p.m.	ES-300 Series (Operating Test)	H. Peterson
2:30 - 2:45 p.m.	Break	
2:45 - 4:00 p.m.	ES-400 Series (Written Exam)	D. McNeil
4:00 - 4:15 p.m.	Break	
4:15 - 5:15 p.m.	Open Discussion on Revision 8 Initial Examination Changes	D. Hills Examiners
5:15 - 5:30 p.m.	First Day Wrap Up	D. Hills

# **REGION III NUREG-1021 REVISION 8 CONFERENCE AGENDA**

Holiday Inn - Bolingbrook, IL

## **Thursday, October 14, 1999**

8:00 - 8:15 a.m.	Day 2 Opening Remarks	D. Hills
8:15 - 9:15 a.m.	ES-600 Series (Requal Program) ES-700 Series (Limited SRO Program)	D. Muller
9:15 - 10:15 a.m.	Break Out Session (Suggestions for Future Exam Writing and Lessons Learned Workshop)	D. Hills; Examiners
10:15 - 10:30 a.m.	Break	
10:30 - 11:30 a.m.	Review Suggestions for Future Workshop Topics - Breakout Groups Present Suggestions (5 to 10 minutes each)	D. Hills: Examiners
11:30 a.m. - 12:00 p.m.	Closing Remarks	S. Reynolds D. Hills

---

## OPERATOR LICENSING WORKSHOP

---

NUREG-1021 REVISION 8  
CHANGES & CLARIFICATIONS



REGION III - October 13 - 14, 1999

---

## OPERATOR LICENSING WORKSHOP

---



James E. Dyer - Regional Administrator  
David E. Hills - Operations Branch Chief

---

## OPERATOR LICENSING WORKSHOP

---

### INTRODUCTION

- 
- Welcome!
  - Operator Licensing Is a Partnership Between Us
  - RIII Has a Strong Open-Door Policy - We Want You To Use It!
  - Workshop Focus: Revision 8 Changes and Clarifications
  - Please Be an Active Participant
  - Last In a Series of Regional Workshops.
  - Questions and Answers To Be Collected for Publication
  - National Workshop Likely Early In 2000
  - Revision 8 Required Effective Date Is 10/20/99
  - Agenda
-

## NUREG REVISION 8 CONFERENCE AGENDA

### AGENDA - DAY ONE

- |              |   |
|--------------|---|
| ▸ 8:00 a.m.  | Registration Sign In                                      |
| ▸ 8:30 a.m.  | Introduction  |
| ▸ 9:00 a.m.  | Summary of NUREG 1021 Changes                             |
| ▸ 9:30 a.m.  | Break   |
| ▸ 9:45 p.m.  | ES-100/200 Series   |
| ▸ 10:45 p.m. | ES-500 Series   |
| ▸ 11:45 p.m. | Lunch   |
| ▸ 1:00 p.m.  | ES-300 Series   |
| ▸ 2:30 p.m.  | Break   |
| ▸ 2:45 p.m.  | ES-400 Series   |
| ▸ 4:00 p.m.  | Break   |
| ▸ 4:15 p.m.  | Open Discussion on Revision 8 Initial Examination Changes |
| ▸ 5:15 p.m.  | First Day Wrap Up   |

## NUREG REVISION 8 CONFERENCE AGENDA

### AGENDA - DAY TWO

- |              |   |
|--------------|---|
| ▸ 8:00 a.m.  | Opening Remarks   |
| ▸ 8:15 a.m.  | ES-600/700 Series   |
| ▸ 9:15 a.m.  | Break Out Session   |
| ▸ 10:15 a.m. | Break   |
| ▸ 10:30 a.m. | Review Suggestions for Future Workshop Topics/Breakout Groups |
|              | Present Suggestions   |
| ▸ 11:30 a.m. | Closing Remarks   |

## SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS

David Hills



## **SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS**

### **■ Changes to 10 CFR Part 55**

- New 10 CFR 55.40
  - Exams Prepared Using NUREG-1021
  - Licensees May Prepare, Proctor and Grade Written Exam
  - Licensees May Prepare Operating Test
  - Licensees Shall Establish Procedures to Control Exam Security and Integrity When Preparing Examinations
  - Authorized Representative Shall Approve Exams Before Submittal to NRC
  - Licensees Must Receive NRC Approval of Exam
  - NRC Shall Prepare, Proctor and Grade Examinations Upon Licensee's Written Request

## **SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS**

### **■ Changes to 10 CFR 55**

- 10 CFR 55.49
  - Was Revised to Clarify Compromise and Security Expectations

### **■ Changes to NUREG 1021**

- ES 200 Series: Examination Process
  - Due dates for Exam Outline and Draft Exam Advanced
  - Personnel Restrictions Are Like Requal
  - The Region May Approve Separating the Written Exam and Operating Test By Up to 30 Days

## **SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS**

### **■ Changes to NUREG 1021**

- ES 300 Series: Operating Tests
  - Prescribed JPM Questions Deleted
    - Can use follow-up questions for Cause
    - Alternate path JPMs Increased to 40%
  - No Reuse of Material on Subsequent Days
  - STA Use OK per Licensee Practice

## SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS

### ■ Changes to NUREG 1021

- ▶ ES 400 Series: Written Examination
  - Systematic Sampling Required for Outline Construction
  - Learning Objectives Not Required
  - Higher Cognitive Questions 50 - 60% of Exam
  - New and Updated Forms
  - 30 Question Sampling Review
  - Exam Time Raised to 5 Hours
  - Clean Copy of Answer Sheet Required

## SUMMARY OF SIGNIFICANT CHANGES OR CLARIFICATIONS

### ■ Changes to NUREG 1021

- ▶ ES 500 Series: Post Examination
  - Hold License changed from 80-82% to 80-81% Passes
  - Administrative Review Process Streamlined, Licensee May Be Requested to Provide Reference Material and Technical Information
- ▶ ES 600 Series: Requalification
  - Test Item Duplication Expectations Clarified
  - Licensed Operators Detailed Off-site Clarified
  - Proficiency Watch Expectations Clarified
- ▶ ES 700 Series: Limited SRO
  - 50 Question Written Examination

## SUMMARY OF SIGNIFICANT CHANGE OR CLARIFICATIONS

### ■ Changes to NUREG 1021

#### Appendices

- Guidance for Developing Multiple Choice Questions in Appendix B
- Appendix E - Clarified Making Assumptions
- Appendix F - Defined:
  - Responsible Power Plant Experience
  - Technical Specifications as a Reference

## OPERATOR LICENSING WORKSHOP

### ES-102, REGULATIONS AND PUBLICATIONS APPLICABLE TO OPERATOR LICENSING

- D.4. We endorse a new revision to RG 1.134 and ANS/ANSI 3.4-1996 (v. 1983) for medical issues. The prior version is usable.
- D.5. RG 1.149 will allow use of ANS/ANSI 3.5-1998 for simulator certification. A matching rule change is in process. The 1985 version remains usable.

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- B. Facility developed examinations are required to satisfy NUREG-1021 or an agency approved alternate.

Agency resources may limit the number of examinations that may be administered in a period. NRC developed examinations will require additional scheduling flexibility. Shared development is acceptable!

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- C.1.a Facilities are expected to keep the NRC Regional Office apprised of changes in examination needs.
- C.1.b The agency enforcement policy applies to examination compromise.
- C.1.c Facilities developing an examination are required to have put in place formal procedures to control examination security.



## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- C.1.f-h Supervisory review and authorized facility representative approval required at submittal.
- C.1.j Facility comments on NRC developed examinations must justify all noneditorial comments and should include any difficulty concerns.
- C.2.c Submittal dates have been expanded to 75 and 45 days (for outline and exam). Dates are negotiable depending on circumstances. Facilities have an option to provide an early review sample of material.

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- C.2.h The written and operating test portions may be split up to 30 days either way without program office approval.
- C.2.i Branch Chief will sign the QA sheets when he is satisfied that the examinations are ready for administration.
- C.3.f. NRC may reject an exam as inadequate based on review of a 30 question sample.

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- C.3.j If SRO upgrades are in both panel positions, they may be observed by one examiner.

If as an efficiency measure, the facility licensee prepared the written or operating test in conjunction with another facility, then the two exams must be administered at the same time.

The written examination and operating test may be decoupled up to 30 days.

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- D.2.a Facilities developing an examination should restrict access to individuals on the security agreement to just those areas they need to see.
- D.2.b Gives examples of "prohibited activities" for individuals on the Security Agreement. Supervisors and managers on the Security Agreement may continue their general oversight of the training program including review of examinations and remedial training. They may not provide individual applicant feedback.

## OPERATOR LICENSING WORKSHOP

### ES-201, INITIAL OPERATOR LICENSING EXAMINATION PROCESS

- Att 1 In general, facility licensees are responsible for the integrity, security, and quality of examinations prepared for them by contractor personnel.
- Att 2 When we ask for Technical Specifications, this includes technical requirements documents and interpretations.
- Form - The outline must be systematically prepared.  
201-2 - No scenario repetition is allowed between audit and exam.
  - 40% of the system JPMs must use an alternate path.

## OPERATOR LICENSING WORKSHOP

### ES-202, PREPARING AND REVIEWING OPERATOR LICENSING APPLICATIONS

- C.1.a For previous withdrawals, retakes, or delayed results, medicals over 6 months are acceptable if facility certifies individual continues to meet requirements.
- C.1.f To withdraw an applicant after signed applications received, we expect a written request, but not necessary before examinations.
- C.2.b For ROs applying for an SRO license, certification that the operator has successfully operated the controls of the facility as a licensed operator shall be acceptable as evidence of having completed the required manipulations.

## OPERATOR LICENSING WORKSHOP

### ES-202, PREPARING AND REVIEWING OPERATOR LICENSING APPLICATIONS

- D Training and experience are two different categories. In general, history counts in one or the other, but not both.
- D.1.b(5) Reactivity manipulation item deleted - covered in C.2.b.
- D.2.a(1) Six months of responsible power plant experience must be at the facility.
- D.2.b(1) Reference to D.2.a(4) is incorrect. It should be a(3).
- D.2.b(2) Reference to D.1.b(5) is incorrect. Item was deleted.
- D.3 Eligibility criteria for limited Senior Reactor Operators moved from ES-701.

## OPERATOR LICENSING WORKSHOP

### ES-204, PROCESSING WAIVERS REQUESTED BY REACTOR OPERATOR AND SENIOR REACTOR OPERATOR APPLICANTS

- D.1.a A retake examination must take place within one year of the date on which the denial of the original application became final.
- D.1.c A medical examination is valid for 24 months with facility certification that applicant condition continues to meet requirements.
- D.1.g The region may waive the requirements for an examination if the applicant was previously licensed at the same facility. Must have terminated participation in request less than two years ago.
- D.1.h Cold or refueling licenses are available if the plant status does not support performing reactivity manipulations due to extended shutdown.

## OPERATOR LICENSING WORKSHOP

### ES-205, PROCEDURE FOR ADMINISTERING THE GENERIC FUNDAMENTAL EXAMINATION PROGRAM

- For this fiscal year (2000), third GFES will occur. [October '99, April, July '00]
- Fiscal year (2001) - Feb, June, October

## APPENDIX F - GLOSSARY

- Responsible power plant experience is defined (was left out in interim Rev 8)
- When NRC requests Technical Specifications, this includes supporting documents if available at the facility, such as Technical Requirements Document or interpretations

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

## OPERATOR LICENSING WORKSHOP



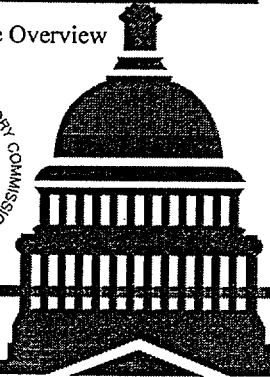
## CHANGES & CLARIFICATIONS TO ES-300 SERIES

PRESENTED  
BY  
HIRONORI PETERSON

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

## ES-301 Preparing Initial Operating Tests

## Final Rev 8 Change Overview



**By: Hironori Peterson**

*[Faint handwritten notes at the top of the page]*

*[Faint handwritten notes in the middle of the page]*



## Background "B"

- The operating test will require the applicant to demonstrate an understanding of, and the ability to perform, the actions necessary to accomplish a representative sampling from the 13 items identified in 10 CFR 55.45(a)
- All 13 items do not need to be sampled on every operating test.

[illegible]



### Category "B"

Control Room Systems and Facility Walk-through (B.2)

- JPM Prescribed Questions Are Deleted.
- The applicant's knowledge and abilities relative to each system are evaluated by administering JPMs and, when necessary, specific follow-up questions based on the applicant's performance of each JPM.



### Category "C"

Integrated Plant Operations (B.3)

- Each applicant must demonstrate proficiency on every competency applicable to his or her license level. The only exception is that SRO Competency Number 5, "Control Board Operations," is optional for SRO-upgrade applicants
- *SRO-upgrade applicants do not have to fill a position that requires control board operations; however, if they do rotate into such a position, they will be graded on this competency even though they may not be individually observed by an NRC examiner, as discussed in ES-302.*



### INSTRUCTIONS

General Guidelines (D.1a)

- To minimize predictability and maintain test integrity, varied subjects, systems, and operations shall be evaluated with applicants that are not being examined at the same time, unless measures are taken to preclude interaction among the applicants.
- The same JPMs and simulator scenarios shall not be repeated on successive days.
- Operating tests written by the facility licensee may not duplicate test items (*simulator scenarios or JPMs*) from the applicants' audit test (*or tests if the applicant is retaking the examination*) given at or near the end of the license training class.



## INSTRUCTIONS

General Guidelines (D-1a)

- Simulator events and *JPMs* that are similar to those that were tested on the audit examination are permitted provided the actions required to mitigate the transient or complete the task (e.g., using an alternate path as discussed in Appendix C) are significantly different from those required during the audit examination.
- *The facility licensee shall identify for the NRC chief examiner those simulator events and JPMs that are similar to those that were tested on the audit examination.*



## INSTRUCTIONS

General Guidelines (D-1a)

- When selecting and developing materials (JPMs, scenarios, and questions) for the operating test, ensure that the materials contribute to the test's overall capacity to differentiate between those applicants who are competent to safely operate the plant and those who are not.
- Additionally, all of the test items should include the three facets of test validity discussed in Appendix A.
  1. Content Validity
  2. Operational Validity
  3. Discrimination Validity



## INSTRUCTIONS

General Guidelines (D-1a)

- Any test items that, when missed, would raise questions regarding adequate justification for denying the applicant's license should not be included on the operating test.



- Examiners must be prepared to ask whatever performance-based follow-up questions might be *necessary* to determine if the applicant is competent in those areas.
- If the applicant correctly performs a JPM (including both critical and noncritical steps) and demonstrates familiarity with the equipment and procedures, it is *not necessary* to ask any follow-up questions.

HOWEVER...



- ... if the applicant fails to accomplish the task standard for the JPM or demonstrates a lack of understanding regarding the equipment and procedures such as having difficulty locating information, control board indications, or controls, the examiner must be prepared to ask performance-based follow-up questions, *as necessary*, to clarify or confirm the applicant's understanding of the system as it relates to the task that was performed.



- For Topic A.4, ***ONLY*** those K/As related to the emergency plan and implementing procedures are applicable to this category of the operating test.
- Not the Emergency Operating Procedures (EOPs).





## INSTRUCTIONS

Category B: Control Room Systems (D.3.1) through (D.3.5)

- The 10 systems and evolutions selected for RO and SRO-I applicants should evaluate at least 7 different safety functions. All of the systems and evolutions in each subcategory of the test should be selected from different safety function lists, and the same system or evolution should not be used to evaluate more than one safety function in each subcategory.
- *For PWR operating tests, the primary and secondary systems listed under Safety Function 4, "Heat Removal From Reactor Core," in Section 1.9 of NUREG-1122 may be treated as separate safety functions; i.e., two systems, one primary and one secondary, may be selected from Safety Function 4 (4P & 4S).*



## INSTRUCTIONS

Category B (D.3.b)

- Avoid those JPM tasks that have already been selected for evaluation on the dynamic simulator test.
- 40 % of JPMs on Part B shall require the applicant to execute *alternate paths* within the facility's operating procedures.  
(4/10 for ROs and instant SROs, and 2/5 for upgrade SROs)



## INSTRUCTIONS

Category C: Integrated Plant Operation (D.4.1)

- Any normal evolution, component failure, or abnormal event (other than a reactor trip or other automatic power reduction) that requires the operator to perform a *controlled* power or reactivity change will satisfy the requirement for a reactivity manipulation.
- Examples: emergency boration, dropped rod recovery, significant rod bank realignment, or a manual reactor power reduction in response to a secondary system upset.



## INSTRUCTIONS

### Category C Integrated Plant Operations (D-1d)

- If the facility licensee normally operates with and is required by its technical specifications to have more than two ROs in the control room, the chief examiner may authorize the use of additional surrogates to fill out the crews.
- In such cases, take care in planning the scenarios to ensure that the additional operators do not reduce the examiners' ability to evaluate each applicant on the required number of events and on every competency and rating factor (i.e., does NOT reduce the test scope for each applicant.)



## QUALITY REVIEWS

### Facility Management Review (E-1)

- If the operating test was prepared by the facility licensee, the preliminary outline and the proposed test shall be independently reviewed by a **supervisor or manager** before they are submitted to the NRC regional office for review and approval in accordance with ES-201.

- initial conditions
- initiating cues
- references and tests, 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
  - system response and other test results
  - statements describing important observations to be made by the applicant
  - criteria for successful completion of the test
  - identification of critical steps and time constraints
  - restrictions on the sequence of steps or responses

**SUPERVISOR OR MANAGER  
SIGNATURE AS THE  
FACILITY REVIEWER ON  
FORMS 201-2 AND 301-3.**

- b. The prescribed questions in Category C are predominantly open-ended and must be checked in Attachment 1 of ES-301.
- c. Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and does not compromise test integrity.
- d. At least 20 percent of the JPMs on each test are new or significantly modified.

#### 3. SIMULATOR (CATEGORY D) CRITERIA

- e. The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.

Printed Name / Signature \_\_\_\_\_ Date \_\_\_\_\_

a. Author \_\_\_\_\_

b. Facility Reviewer (\*) \_\_\_\_\_

c. NRC Chief Examiner (\*) \_\_\_\_\_

d. NRC Supervisor (\*) \_\_\_\_\_

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



## ATTACHMENT I

### Open-Reference Question Guideline

1. Most appropriate format is the short-answer question.
2. Provide clear, explicit directions/guidelines for answering the question so that the applicant understands what constitutes a fully correct response.
3. Make sure that the expected response matches the requirements posed in the question.
4. Avoid giving away part or all of the answer by the way the question is worded.
5. Avoid what could be considered "trick" questions in which the expected answer does not precisely match the question.
6. Do not use direct look-up questions that only require the applicant to recall where to find the answer to the question.
7. Questions should also adhere to the generic item construction principles and guidelines in Appendix B.



## ES FORMS

- Form 301-2: For clarity, control room and plant portions have been separated.
- Form 301-4: Scenario objectives are not required.

### ES-301 Simulator Scenario Quality Checklist Form ES-301-4

Facility	Date of Exam	Scenario Number	Opening Test No.
<b>QUALITATIVE ATTRIBUTES</b>			
1	The scenarios are clearly stated in the opening test, and the scenario is clearly stated in the opening test.		
2	The scenarios consist mostly of related events.		
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 that will be visible to the crew, the expected operator actions (by shift position), and the event termination point (if applicable).		
4	No more than one non-mechanical failure (e.g., page break) is incorporated into the scenario without a credible preceding incident such as a laborer event.		
5	The events are stated with regard to objects and time/sequence.		
6	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.		
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.		
8	The simulator margins are not ignored.		
9	The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional safety is maintained while running the planned scenarios.		
10	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been offered in accordance with Section D of ES-301.		
11	An individual operator's competence can be evaluated as verified using Form ES-301-B (submitted along with the simulator scenarios).		



## ES FORMS

- Form 301-6: At least one event must be recorded for each competency.

ES-301

Competencies Checklist

Form ES-301.6

Competencies	Applicant #1 RO/SRO, LSRO-U				Applicant #2 RO/SRO, LSRO-U				Applicant #3 RO/SRO, LSRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
Understand and Interpret Announcements and Alarms												
Diagnose Events and Conditions												
Understand Plant and System Response												
Comply With and Use Procedures (1)												
Operator Control Panels (2)												
Communicate and Interact With the Crew												
Demonstrate Supervisory Ability (3)												
Comply With and Use Tools, Signs, (4)												
Notes:												
(1) Includes Technical Specification compliance for an RO												
(2) Optional for an SRO-U.												

### Instructions:

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

Author:

Chief Examiner:

Enter one or more event numbers



United States  
Nuclear Regulatory Commission

## Administering Operating Tests To Initial License Applicants

ES-302

Final Rev 8 Change Overview

Hironori Peterson

### Responsibilities "C" Facility Licensee (C.1.b)

- *Safeguard the integrity and security of the operating tests in accordance with facility procedures established pursuant to 10 CFR 55.40(b)(2) and the guidelines discussed in Attachment 1 of ES-201.*

### Responsibilities "C" NRC Regional Office (C.2.a)

- *Work with the facility contact to coordinate the operating test administration schedule in a manner that maximizes efficiency and maintains security.*



## **Responsibilities "C" NRC Regional Office (C.2.a)**

- *Normally, the operating tests should be administered within 30 days before or after the written examinations. The region shall obtain concurrence from the NRR operator licensing program office if the examination dates diverge by more than 30 days.*

---

---

---

---

---

---

---

---

---

---

---

---

## **Test Administration Instructions and Policies (D)**

General (D.1.d)

- *All dynamic simulator scenarios for an applicant will be observed by the same examiner (except for certain situations involving SRO upgrade applicants filling panel positions).*

---

---

---

---

---

---

---

---

---

---

---

---

## **Test Administration Instructions and Policies (D.1.j)**

- *Chief examiner may permit other members of the facility training or operations staff (e.g., a shift technical advisor (STA)) to augment the operating shift team if necessary.*
- *Consultations with an STA shall be conducted in accordance with the facility licensee's normal control room practice; e.g., an STA shall not be stationed in the simulator if they are on-call at the site.*
- *If technical specifications requires more than two ROs in the control room, the chief examiner may authorize the use of additional surrogates to fill out the crews.*

---

---

---

---

---

---

---

---

---

---

---

---

### Walk-Through Categories A and B (D.2.b)

- *If the examiner observes a discrepancy between the simulator setup and the conditions specified in a JPM, then the examiner shall stop the JPM and correct the situation, as necessary.*
- *If the task can be completed with different values (e.g., wind direction when determining a protective action recommendation during an emergency), then the examiner shall document the differences and coordinate with the facility contact and the NRC chief examiner to validate the applicant's response under the actual conditions.*

### Walk-Through Categories A and B (D.2.f)

- *If the applicant correctly performs a JPM (including both critical and noncritical steps) and demonstrates familiarity with the equipment and procedures, the examiner should infer that the applicant's understanding of the system/task is adequate and refrain from asking follow-up questions.*

### Walk-Through Categories A and B (D.2.f)

- *However, if the applicant fails to accomplish the task standard for the JPM, exhibits behavior that demonstrates a lack of familiarity with the equipment and procedures, or is unable to locate information, control board indications, or controls, the examiner should ask performance-based follow-up questions as necessary to clarify or confirm the applicant's understanding of the system as it relates to the task that was performed.*

## Walk-Through Categories A and B (D.2.f), cont.

- *If an applicant volunteers additional or corrected information after having completed a task or question, the examiner shall offer the applicant the opportunity to take whatever actions would be required in a similar situation in the plant.*
- *The examiner will record any revisions to previously performed tasks or answers for consideration when grading the operating test per ES-303.*

## Walk-Through Categories A and B (D.3.o)

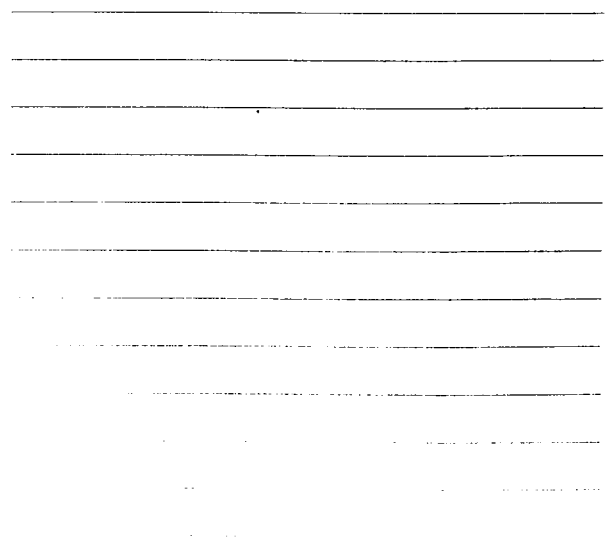
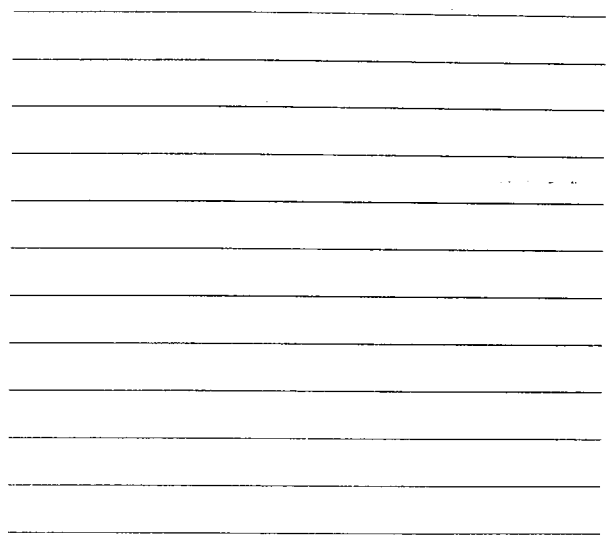
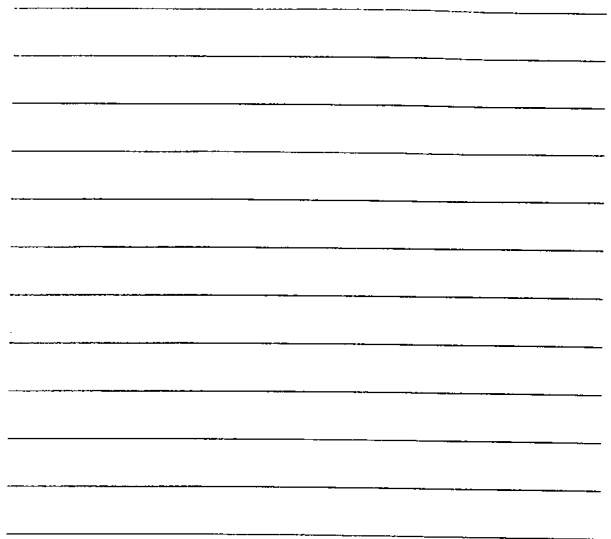
- *The simulator may be considered inoperable and the exams delayed or rescheduled for the following conditions:*
  - *Erratic or inexplicable panel indications*
  - *Unplanned or unexplained events that change the course of the scenario*
  - *Unplanned freeze*
  - *Software fault affecting the machine's response or indication.*

## Changes & Clarifications in Appendix E

Policies and Guidelines for Taking NRC Examinations

- **Part D.8 - Walk-Through Test**
  - *During parts A and B of the operating test, verbalize your observations and actions.*
- **Part E.12 - Simulator Test**
  - *SRO upgrade applicants taking a panel position during the dynamic simulator test will be evaluated in that position.*







✓ If the applicant initially missed a critical step, but later performed it correctly and accomplished the task standard without degrading the condition of the system or the plant, the applicant's performance on that JPM should be graded as satisfactory.

[illegible]

If follow-up questions reveal that the applicant's understanding of the system/JPM is seriously deficient, the examiner may recommend an unsatisfactory grade for the system even though the applicant successfully completed the task standard for the JPM. The basis for the recommendation shall be thoroughly justified and documented in accordance with Section D.3.



Conversely, if the applicant did not accomplish the task standard and follow-up questioning revealed that the failure was caused by a deficiency in the procedure or some other factor beyond the applicant's control, the examiner may still recommend a satisfactory grade for the system/JPM.

[illegible][illegible]



## Grading and Documentation Instructions "D"

Evaluate the Applicant's Performance  
Form ES-303-1, Category B and C (D.2.b, D.2.c)

- Examiners are now required to document and justify every operating test deficiency. (Deficiencies that contributes to a failure must be justified.)
- Deficiencies that do not contribute to an operating test Category failure shall also be documented.

---

---

---

---

---

---

---

---

---

---

---

---



## Grading and Documentation Instructions "D"

Finalize the Documentation (D.3.b)

- Retain rough documentation until the chief examiner and NRC regional office management have reviewed the examiner's recommendations and concurred in the results (refer to ES-501).
- Examiners shall retain all applicable notes and documentation associated with proposed denials until the denials become final.

---

---

---

---

---

---

---

---

---

---

---

---



## Grading and Documentation Instructions "D"

Finalize the Documentation (D.3.b) cont

- Examiners are advised that such notes would be subject to disclosure if requested under the Freedom of Information Act.

---

---

---

---

---

---

---

---

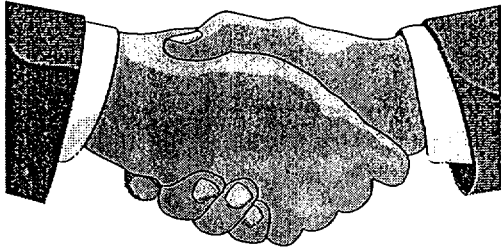
---

---

---

---

## IT'S A COOPERATIVE EFFORT!

[illegible]

## ES-501

### INITIAL POST-EXAMINATION ACTIVITIES



MIKE BIELBY  
October 13-14, 1999

## ES-501

### SUMMARY OF SIGNIFICANT CHANGES

- Supervisor or manager shall confirm grading quality and sign QA sheet (D.1).
- CE independent regrade for 78~82% (D.2.c).
- Potentially hold exam passes changed from 82 to 81% (D.3.c).
- New letter for delayed results (D.3.c).
- Exam report content more clearly defined (E.3).
- PDR records defined (E.4.d).

## ES-501

### RESPONSIBILITIES

- C.1.a Pre-graded (clean) copy of applicant's written exam answer sheet required.
- C.2.c Criteria for determining written exam validity following post-exam comments:
  - ▶ 5% changes or deletions → facility explanation.
  - ▶ 10% deletions → evaluate adequate sample.

## ES-501

### D.1 FACILITY MANAGEMENT WE REVIEWS

- Supervisor or manager shall confirm grading quality and sign QA sheet. Used to be "authorized facility representative."
- Signed QA form represents facility management concurrence with ***individual and collective*** exam results.

---

---

---

---

---

---

---

---

---

---

## ES-501

### D.2 CHIEF EXAMINER REVIEWS

- D.2.b No post-exam change will be accepted without a valid plant reference.
- D.2.c CE must ensure template accurately parallels the approved answer key.
  - CE must independently re-grade WE 78-82%

---

---

---

---

---

---

---

---

---

---

## ES-501

### D.3 NRC MANAGEMENT REVIEW

- D.3.c Pass letters for applicants who passed exam but licenses are being withheld:
  - If WE failures, will delay (hold) licenses with WE scores of 80-81% (changed from 80-82%) until assured pass/fail decision not affected.
  - If > 3 months pass, advise licensee to properly activate license per 10 CFR 55.53(f). D.3.c Pass letters for applicants who passed exam but licenses are being withheld.

---

---

---

---

---

---

---

---

---

---

## ES-501

### D.3 NRC MANAGEMENT REVIEW (CONTINUED)

- ▶ Before issue delayed license: ensure medically fit within last 24 months, not developed permanent physical/mental condition, current in requal.
- ▶ When issued, delayed licenses will not be back dated.

---

---

---

---

---

---

---

---

---

---

## ES-501

### E.3 & E.4 EXAM REPORT PREPARATION/DOCUMENTATION

- E.3 Exam report won't be delayed for delayed exam results, may be subsequently amended.
- E.3.a NOTE: Revision 8 spells out specific types of issues to be included:
  - ▶ Factual description of test item changes including type and number of psychometric enhancements made.

---

---

---

---

---

---

---

---

---

---

## ES-501

### E.3 & E.4 EXAM REPORT PREPARATION/DOCUMENTATION (CONTINUED)

- ▶ Conclusions regarding adequacy of facility proposed exams are not required and should only be considered if there is a programmatic issue.
- ▶ Any delay in administering the exam and the reason, and any extensions of the WE time beyond 5 hours.
- ▶ Any exam security issues/incidents.

---

---

---

---

---

---

---

---

---

---

## ES-501

### E.3 & E.4 EXAM REPORT PREPARATION/DOCUMENTATION (CONTINUED)

- Report shall include the following as applicable:
  - ▶ All simulator deficiencies during prep or exam will be documented on the Simulator Facility Report.
  - ▶ Licensee generic comments regarding the exam/process. No regional response or resolution required.

## ES-501

### E.3 & E.4 EXAM REPORT PREPARATION/DOCUMENTATION (CONTINUED)

- E.4.c NRC will retain all documentation until denials are final.
- E.4.d Gives list of PDR records. Intermediate working copies not sent to PDR unless provided to licensee to facilitate communication.



## ES-502

### PROCESSING REQUESTS FOR ADMINISTRATIVE REVIEWS AND HEARINGS AFTER INITIAL LICENSE DENIAL



MIKE BIELBY  
October 13-14, 1999

## ES-502

### SUMMARY OF SIGNIFICANT CHANGES

- Reorganized to remove detailed sample letters and administrative review procedures.
- New section noting expectation of facility licensee support during appeals (C.2).
- New section to better define NRC responsibilities (C.3).
- Administrative review process streamlined (D.2).

## ES-502

### C. RESPONSIBILITIES

- C.1.a Applicant does not meet training or experience requirements (no changes).
- Has 20 days to act on proposed denial.
  - ▶ Has 3 options:
    - 1. Do nothing.
    - 2. Request reconsideration.
    - 3. Request a hearing.
  - ▶ If application denied because of training or experience, can reapply when corrected.

## ES-502

### C. RESPONSIBILITIES

- C.1.b Applicant receives license denial.
- Has 20 days to act.
  - Has 3 options:
    - 1. Do nothing.
    - 2. Request NRC administrative review (D.2).
    - 3. Request a hearing.

## ES-502

### C. RESPONSIBILITIES

- C.2 Facility licensee responsibilities for proposed license denial (new section).
  - Facility provide reference materials and technical support for NRC to evaluate and resolve concerns.

## ES-502

### C. RESPONSIBILITIES

- C.3 NRC responsibilities (new section, not new responsibilities). Splits out our responsibilities from mechanics of the review process:
  - Application denials will be processed per D.1.
  - Admin reviews will be processed per D.2.
  - Hearings will be conducted per 10 CFR 2(L).

## ES-502

### NRC ADMIN REVIEW OF DENIALS

#### ■D.1 Application proposed denial:

- ▶ HQ generally will complete the review within 60 days (note: draft applications are due 30 days before exam).

---

---

---

---

---

---

---

---

---

---

---

---

## ES-502

### NRC ADMIN REVIEW OF DENIALS

#### ■D.2 Exam failure (minor changes):

- ▶ Detailed administrative review procedures and sample letters have been removed and incorporated into separate internal NRC documents.
- ▶ Added option to review the appeal internally at HQ.
- ▶ HQ chooses how to process the appeal.
  - 1. Can review internally
  - 2. Can refer to affected region
  - 3. Can convene an appeal panel

---

---

---

---

---

---

---

---

---

---

---

---

# NUCLEAR REGULATORY COMMISSION

## OPERATOR LICENSING WORKSHOP



Dell McNeil

### PREPARING INITIAL SITE- SPECIFIC WRITTEN EXAMS

#### Changes & Clarifications to ES-401, Part D.1

- D.1.b The outline must be systematically selected. Do not use a site specific K/A catalog.  
The Plant Wide Generic (PWG) Tier 3 should NOT include system generic tasks.  
The topics for Tier 1 & 2 system generics and the four K/A categories for Tier 3 shall be selected from section 2, Generic Knowledge and Abilities from the K/A catalog.
- D.1.c 10 site-specific K/As may replace 10 systematic sample items, for details or issues, with basis and Chief Examiner approval.
- D.1.d Ensure outline samples every K/A area at least twice and the SRO samples topics required by 10 CFR 55.43(b).

ES-401 BWR SRO Examination Outline Form ES-401-1

Facility:	Date of Exam	Exam Level:												
Tier	Group	K/A Category Points												Point Total
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *		
1. Emergency & Abnormal Plant Evolutions	1													26
	2													17
	Tier Totals													43
2. Plant Systems	1													23
	2													13
	3													4
	Tier Totals													40
3. Generic Knowledge and Abilities				Cat 1		Cat 2		Cat 3		Cat 4		17		

Note: 1. Ensure that at least two topics from every K/A category are sampled within

[illegible][illegible]

- D.2.a Use existing, modified or new questions. If deviation from submitted sample is necessary discuss with the Chief. Be able to discuss why the change was necessary. Document those reasons.
- D.2.c The written examination **MUST** be 50-60% higher cognitive order items. (NO more NO less)
- D.2.d The SRO only questions on an exam must be at the SRO level, not just additional questions at the RO level. These should be distributed between the 3 tiers. 10CFR55.41 can be used if you have separate SRO objectives for the task item. 10CFR5543(b):

---

## 10CFR55.43(b)

---

### SRO Written Items

- (1) Conditions and limitations in the facility license.
- (2) Facility operating limitations in the technical specifications and their bases.
- (3) Facility licensee procedures required to obtain authority for design and operating changes in the facility.
- (4) Radiation hazards that may arise during normal and abnormal situations, including maintenance activities and various contamination conditions.

---

## 10CFR55.43(b)

---

### SRO Written Items

- (5) Assessment of facility conditions and selection of appropriate procedures during normal, abnormal, and emergency situations.
- (6) Procedures and limitations involved in initial core loading, alterations in core configuration, control rod programming, and determination of various internal and external effects on core reactivity.
- (7) Fuel handling facilities and procedures.

---

## PREPARING INITIAL SITE-SPECIFIC WRITTEN EXAMS

---

### Changes & Clarifications to ES-401, Part D.2.f-g

- D.2.f No overlap between an NRC examination and the audit exams unless independently developed. Then only 5 questions allowed.
  - Repeat of ONLY 25 questions from last 2 NRC examinations and items used in training.
- D.2.g Facility learning objective references are encouraged but not required.

If learning objectives are not available, this does not invalidate the question provided it has appropriate K/A and technical references.

## PREPARING INITIAL SITE-SPECIFIC WRITTEN EXAMS

### Changes & Clarifications to ES-401, Part D.3 - E.2

- D.3.b The draft examination must be received at least 45 days before the examination.
- E.2.a The NRC will review and get a supervisory review before discussing exam comments with licensee.

## PREPARING INITIAL SITE-SPECIFIC WRITTEN EXAMS

### Changes & Clarifications to ES-401, Part E.2.c

- E.2.c The NRC WILL perform a 30 question sample review, will review all new plus modified, questions, if required. The sample will include 10 new and 20 modified questions. (All 125 questions will undergo a review.)
- E.2.c If the the sample shows less than 6 items are unacceptable, detailed review of the rest of the examination will continue. If 6 or more items are found unacceptable, NRC MAY return the examination or we may complete its review. Review will use ES-401-9. Questions previously reviewed and approved by the NRC for that facility will have limited review.

## PREPARING INITIAL SITE-SPECIFIC WRITTEN EXAMS

### Changes & Clarifications to ES-401, Part E.2.d - E.3

- E.2.d If the examination is returned, we expect that the licensee correct the identified flaws and those like kind flaws that were not specifically identified to the rest of the questions.
- E.3.a The NRC supervisor MUST review and approve all unacceptable item comments.
- E.3.b The NRC supervisor WILL review and approve each comment that would require the licensee to rework an NRC-validated question. (Previously used test items.)

## Changes & Clarifications to ES-401, Part E.4/Forms

- |              |   |
|--------------|---|
| ● E.4        | Final validation of examination after incorporating changes is recommended but <u>NOT</u> required.   |
| ● Att. 1     | Describes an acceptable sampling methodology for systematic selection for the written outline.  |
| ● Form 401-7 | Modified version of this form provides blanks to record test item count for reuse from the last 2 examinations, the source of the questions, and the cognitive level for the questions. |
| ● Form 401-9 | Written Examination Review Worksheet. Used to keep track of sampled questions.  |

ES-401		Written Examination Quality Checklist		Form ES-401-7		
Facility:		Date of Exam:		Exam Level: RO/SRO		
Item Description		Initial				
		a	b*	c*		
1.	Questions and answers technically accurate and applicable to facility					
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available					
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401					
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		
5.	[No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]					
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		
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			
8.	References/handouts provided do not give away answers					

[illegible]



## ADMINISTERING INITIAL WRITTEN EXAMINATIONS

### Changes & Clarifications to ES-402, Part C.1, C.2

- C.1.a The licensee has to maintain security of the examinations.
- C.1.e The licensee may use machine-gradable sheets but not required.
- C.2.a The licensee is allowed to administer an NRC developed examination.
- C.2.b During a licensee administered written exam, the NRC **MUST** be on site or available by phone.

After NRC approval, the written exam may be administered any time within 30 days of the operating test.

## ADMINISTERING INITIAL WRITTEN EXAMINATIONS

### Changes & Clarifications to ES-402, Part D.4, E.4

- D.4.d New time limit for the written is 5 hours. It can be extended by 30 minute increments, with **PRIOR** NRC approval. The new time limit should not change the development process.
- E.4 Licensee should submit formal comments within 5 working days after the written examination is administered.

## GRADING INITIAL SITE-SPECIFIC WRITTEN EXAMS

### Changes & Clarifications to ES-403, Part C., D.

- C.1.b If NRC developed, licensee has responsibility to submit comments concerning changes to the examination.
- C.2.b NRC may allow the licensee to machine grade an NRC developed written examination.
- D.1.a Do **NOT** delete any question or change an answer without a valid reference. Unreasonable or unstated assumptions do not justify a change.
- D.2.a Copy each applicant's answer sheet, and set aside. Do **NOT** mark on the original. Make comments on a working copy.
- D.2.d If you decide to share **PRELIMINARY** grades, do so with caution. The NRC may not accept all the licensee's changes.

## WRITTEN EXAMINATION GUIDELINES

### Changes and Clarifications To Appendix B, Part C.1

- C.1.a K/A references are required but Learning Objectives are desired. This is a check and balance on the facility's training program.
- C.1.b Make sure the question matches the intent of the K/A.
- C.1.c Discrimination validity is defined. "...the key purpose of any test item is to assess important K/As at a level that distinguishes between safe and unsafe applicants."
- Implementation requires subjective judgement in constructing the stem and distractors.

## WRITTEN EXAMINATION GUIDELINES

### Changes and Clarifications To Appendix B, Part C.2

- C.2.a Multiple Choice questions which require the "MOST CORRECT" answer are NOT allowed. Use a procedural reference!
- C.2.f All the information in the stem should be relevant. (Don't play find the rock.) Don't add secondary pieces of information in the stem that are not relevant, in order to make the question look more difficult.
- C.2.n Use of generically correct answers is allowed, but the stem needs to be written such that the stem makes them clearly incorrect.

## Administering Written Exams

### Appendix E

- B.2 To pass, you must achieve a grade of 80.00 percent or greater.
- B.3 The time limit for completing the examination is 5 hours.
- B.4 Use black ink; dark pencil should be used only if necessary to facilitate machine grading.
- B.5 When answering a question, do *not* make assumptions regarding conditions that are not specified in the question unless they occur as a consequence of other conditions that are stated in the question. For example, you should not assume that any alarm has activated unless the question so states or the alarm is expected to activate as a result of the conditions that are stated in the question.

THANK YOU

For your time, attention, and participation

• ANY QUESTIONS?

Dell McNeil

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

## OPERATOR LICENSING WORKSHOP

---

NRC REQUAL EXAMS AND LIMITED SROs



David S. Muller

## OPERATOR LICENSING WORKSHOP

---

ES-600 Series

Generally, only licensed operator requalification inspections are performed, per IP 71001. However, we will consider performing an NRC requal exam if:

- (1) requal inspection results indicate an ineffective requal training program, or
- (2) operator errors at the facility are significant, or
- (3) allegations have been raised regarding requal training.

## OPERATOR LICENSING WORKSHOP

---

ES-600 Series

There are few Final Revision 8 changes to the 600 series for NRC conducted requal exams.

- The format of the exam is unchanged: an open reference written exam, an open reference static exam, 5 JPMs, and simulator dynamics. The exam materials are prepared by the facility and approved by the NRC.
- The exams would continue to be administered by the facility, with oversight and parallel operating test grading by the NRC.
- The criteria for a satisfactory requal program are unchanged:  $\geq 75\%$  overall individual pass rate,  $\geq 66\%$  crew pass rate on simulator scenarios.

## OPERATOR LICENSING WORKSHOP

### CHANGES & CLARIFICATIONS TO ES-600s

- 601 E.3.b(6) Licensed operator test item reuse may not be so high as to impair validity.
- 605 C.1.b Operators detailed off site while their license expires may retain it under timely renewal provisions.
- 605 C.2 Proficiency watch expectations clarified to accept any combination of complete watches (8 or 12 hours) totaling at least 56 hours in the quarter.

## OPERATOR LICENSING WORKSHOP

### CHANGES & CLARIFICATIONS TO ES-700s

- 701 D.1 The LSRO exam will be 50 points.
- 701 E.2 If a specific system is not available for an LSRO examination, it is acceptable to sample 2 K/As with prescribed questions.

Nuclear Regulatory Commission - Region III  
Operator Licensing Program Workshop

Name: \_\_\_\_\_

Facility: \_\_\_\_\_

Phone Number: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

In the space below, please provide us with your questions or comments regarding the changes to NUREG-1021, Revision 8.

ES-Section

Question or Comment


REGION III WORKSHOP QUESTIONS

1. When has a written question been changed enough to be qualified as a NEW question on the written initial exam?
2. Need a number (upper limit) on requal test question reuse. Subjective limits lead to variability in standards and enforcement. Suggest 20-25% limit.
3. What is the expectation or threshold on reuse of exam materials? During the Region I Conference the NRC stated that internal policy is <50% duplication of items between exams. We all agree we want to protect the validity of the exams. However, without clear expectations from the NRC, and subjective application by an evaluator, it will be difficult to predict acceptability.
4. Is it required that each SRO be evaluated during the Emergency Operating Procedures? Does their documentation for the evaluation need to be done in accordance with the requirements of conducting annual exams? If so, what is the basis for this requirement?
5. Can I take credit for questions other than multiple choice questions in the LOR exam bank, including maintenance of the bank?
6. When verifying entry level prerequisites for a candidate, do I have to validate them to the requirements stated in ES 202? If not, to which standard must the candidate be validated against? If I have a SAT based program, why is the NRC concerned about entry level verification? This renewed interest appears to contradict the information in NUREG 1262.
7. Why discriminate against taping initial operating tests when there is no similar requirement in ES-600 series?
8. Is there a format for the utility to provide the NRC with feedback on how the exam went? Sort of a reverse exam report? I would think the NRC would be open to feedback so you can also improve the exam process from your end. (I mean a formal feedback process - not casual.)
9. Responsible Power Plant experience acceptance needs to be explicit. For example, why does an NRC Resident or Water Treatment power plant engineer receive one for one credit while a licensed simulator instructor or plant equipment operator receives no credit?
10. NUREG 1262 contains information that conflicts with NUREG 1021, Revision 8. Is there any intent to make NUREG 1262 current?
11. Providing individual applicant feedback is a prohibited activity for individuals on the security agreement. How does this apply to Manager/Supervisor situations such as sitting on a performance review committee or coaching/counseling associated with a non-technical situation (e.g. classroom behavior)?
12. What is meant by a "representative sample" of the 13 items identified in 10CFR55.45(a)?

13. To what extent do "similar events" between the audit and NRC exam need to be identified? For example, if the audit examination contained a faulted SG in one scenario (safety valve stuck open) and the NRC examination contained a faulted SG (pipe rupture in containment), would these situations be considered "similar?"
14. When does the NRC expect to endorse ANSI 3.1-1993, and revise RG 1.8?
15. What is the basis for the statement, "Under NO circumstances will another operator be allowed to witness an operating test?" There are instances where the crew being examined may want another operator to observe. (e.g., We had an initial license exam during the annual operating test. When the initial license candidate completed his exam and was assigned to a crew, the crew's shift manager requested that the new crew member be able to observe their operating test from the simulator instructor's booth.)
16. Why is video taping the operating test prohibited?
17. Does ES-601 E.3.b(6) allow for subjective interpretation from examination to examination based on what the specific examiner "feels" is appropriate; can we not identify this internally and have the examiner base his decision on plant specific requirements?
18. If INPO develops/maintains a national exam bank, what will be the limitations associated with this bank? i.e., will exams still be subject to the 50/40/10 criteria? If so, can 50% of the questions come from the bank? Current NUREG guidance allows NRC review for "obvious flaws" for exam questions used on NRC exams since October 1995, "at that facility." How will this affect NRC review of exam questions that are part of the national exam bank used at other facilities? What type of security restrictions will be placed on the bank?
19. While verifying initial license written examination construction: how far back in the training program do you have to review when searching for the 25 questions used on the last 2 NRC exams or other training exams?
20. What is acceptable for reactivity manipulations? (any real life examples of problems or rejected applications)
21. Can the NRC provide examples of "significantly modified," and "psychometric flaw," questions in an attachment to NUREG 1021?
22. Can a formerly licensed or certified person be used as a surrogate on an initial examination?
23. ES-303 needs more specific documentation for final results (i.e., some way for very specific feedback to candidate).
24. Interpretation of "prior approval" for 1/2 hr. extensions of 5 hrs. for initial written examination.



25. A question has come up on the issue of using the same utility examiners to write the initial exam and the audit exam. What are the requirements for this?
26. Can self-study hours be counted on the application as part of the required 500 training hours?
27. Who would be interested in putting together a utility sponsored exam question writing seminar?
28. Is there a current effort to share "opened and published" exam banks between utilities? If not, who would be interested in this?
29. Can the NRC expectation for exam comments be delayed until exam completion for utility - administered examinations?
30. How is the cognitive level determined if essay and short answer are used? (applies to operator requal exams)
31. During a recent inspection, the validation of a scenario did not match crew response. The utility's examiner response was to remove the scenario from the exam. What and where are the standards for this?
32. Can we get a copy of the two year NRC examining schedule?
33. Low power scenarios are defined as criticality to 5% reactor power. Is this the expectation to receive credit for a low power scenario?
34. If candidates score in the 80-81% range, are licenses held? If so, how long? (No failures)
35. If the chief examiner conducts a regrade (78-82%), what is the focus of the regrade? (Regrade per the key?) (Validity of the questions?)
36. Notification of administrative suspension of licenses due to medical reasons. (Details)
37. Can a 1 hour reactivity change be counted towards the needed on-shift time? Can a four hour evolution be counted if the applicant attends all prerequisites and post-activities?
38. Suggest national NUREG 1021 workshop twice a year with focus on facilities with upcoming exams (within 6-12 months).
39. Install a bulletin board on the NRC webpage for lessons learned as discussed in the workshop.
40. Will you "endorse" the Sonalyst Workshop?
41. Comments contained in reports should remain specific to deviations from 10CFR or NUREG. (State the facts, refrain from the use of "several" or "many.")

42. Guidelines shouldn't be open for individual examiner interpretation if it could show up as a weakness in the exam report. Example: Amount of question/operating test overlap on the requal exam from week to week.
43. What is the process for determining the level of difficulty for a question?
44. If an applicant shows system knowledge weaknesses during administration of a JPM, how far can the examiner go with the non-prescribed questions? Can the examiner ask questions about another system or another function of the same system covered in the JPM?
45. We believe an applicant meets the eligibility requirements, but ask the NRC to evaluate this to make sure - is this a waiver request?
46. Clarify what you mean by "random selection." Does the random selection have to go all the way down to the specific K/A number?
47. If you have a common group develop examinations for two different plants, do you have to worry about overlap between these exams? What is the criteria?
48. If you use the independent groups to develop an audit examination and an NRC examination, do you have to worry about overlap? Why?
49. What is the difference between a faulted JPM and an Alternate Path JPM?
50. Why can't we add a Shift Manager to the NRC examined crew to handle communications, etc?
51. Is there a limit on how many admin JPMs can be replaced by two open reference questions?
52. Learning objectives are not required for the NRC examination, but our SAT based program still requires them. Do we no longer follow our SAT-based program?