

March 3, 1998

Tennessee Valley Authority
ATTN: Mr. Jack W. Cox
Training Manager
Watts Bar Training Center
P. O. Box 2000
Spring City, TN 37381

SUBJECT: MEETING SUMMARIES - NOVEMBER 1997 NRC REGION II TRAINING MANAGERS' CONFERENCE AND JANUARY 1998 NRC REGION II EXAMINATION WORKSHOP

Dear Mr. Cox:

This letter refers to the Training Managers Conference conducted at the Atlanta Federal Center on November 12 and 13, 1997 and the Examination Workshop conducted at the Richard B. Russell Building on January 27-29, 1998. Representatives from all utilities in Region II participated in both meetings.

The agenda for the Training Managers Conference is Enclosure 1 and the list of attendees is Enclosure 2. We appreciate the participation of you and your staff and believe that the goal of providing an open forum for discussion of operator licensing issues was met. Mr. Gallo, Chief of the Operator Licensing Branch, Office of Nuclear Reactor Regulation (NRR), made a presentation on the present status of operator licensing and his slides are Enclosure 3. During the meeting, it was decided that a workshop on operator licensing examination writing was needed and would be held at the first of the year. Also, we have tentatively set the date for the 1998 Training Manager's Conference as November 4 and 5.

Additionally, I am enclosing our preliminary schedule for FY 1998 and FY 1999, dated February 18, 1998, as Enclosure 4. Please review the schedule and supply comments to my staff or myself.

The Examination Workshop was conducted with participation by everyone. A list of attendees is Enclosure 5. A standard Job Performance Measures (JPM) format was reviewed and comments collected by the Southeast Training Managers (SSNTA), with a final version expected this summer. Concerns on the examination process were collected and is included as Enclosure 6. These concerns were forwarded to NRR for review.

During the workshop, we discussed some of the problems with the initial examination process as it is being implemented by Revision 8 of NUREG-1021. A discussion of those issues is enclosure 7.

It is our opinion that this conference was beneficial and provided an excellent opportunity for open discussion of various concerns about the Operator Licensing process, especially the techniques of writing the licensing examination.

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SOUTHEAST TRAINING MANAGER'S CONFERENCE

U.S. Nuclear Regulatory Commission, Region II
Atlanta, Georgia

Meeting Agenda

November 12-13, 1997
Atlanta Federal Center

Wednesday, 11/12/97

8:00 a.m.	Conference Registration	Conference Center Conference Room C
8:20 a.m.	Introduction	Thomas A. Peebles, Chief, Operator Licensing & Human Performance Branch
8:30 a.m.	Welcome	Johns P. Jaudon, Director Division of Reactor Safety
9:00 a.m.	Welcome	Bruce S. Mallett, Acting Deputy Regional Administrator
9:30 a.m.	Overview of Pilot Exam Process	Thomas A. Peebles, Chief, Operator Licensing & Human Performance Branch
10:00 a.m.	Break	
10:30 a.m.	Examination Communications Exam Development & Coordination	Ron Aiello, RII
11:00 a.m.	Examination Security Issues	Paul Steiner, RII
11:45 a.m.	Lunch	
1:00 p.m.	Resident Review of Training	Paul Harmon, RII
1:30 p.m.	Lessons Learned from Recent Exams	Charlie Payne, RII
2:15 p.m.	Break	
2:30 p.m.	Examination Questions and Answers Examples of questions	George Hopper, RII
4:00 p.m.	Meet with Principal Examiners	All
4:30 p.m.	Adjourn	

ENCLOSURE 1

If you have any questions regarding the content of this letter, please contact me at (404) 562-4638.

Sincerely,



Thomas A. Peebles, Chief
Operator Licensing and Human
Performance Branch
Division of Reactor Safety


Docket Nos.: 50-390 and 50-391
License Nos: NPF-90 and CPPR-92

- Enclosures:
1. Agenda for Training Managers' Conference
 2. List of Attendees for 1997 Training Managers' Conference
 3. Mr. Gallo's Slides
 4. Region II Examination Schedules for FY 97 & 98
 5. List of Attendees for 1998 Examination Workshop
 6. Concerns Expressed during Workshop
 7. Discussion of Workshop Issues

cc w/encls:
Richard T. Purcell, Site Vice President,
Watts Bar Nuclear Plant

Distribution w/encls:

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Thursday, 11/13/97

8:30 a.m.	Recap	Tom Peebles
8:45 a.m.	Reactivity Changes and Other Issues	Robert M. Gallo, Chief Operator Licensing Branch, NRR
9:30 a.m.	Medical Exam Issues - Conditions	Charlie Payne, RII
10:00 a.m.	Break	
10:15 a.m.	Open Session - Other Issues	Training Managers
12:00 p.m.	Adjorn	

ENCLOSURE 1

REGION II TRAINING MANAGERS CONFERENCE
NOVEMBER 12-13, 1998

Timothy L. Norris Onsite Engineering General Manager
Brian Haagensen PSHA

CP&L

Larry Dunlap	BK	Supv. Ops Cont Trng
Rick Garner	HR	Supv Ops Trng
Tom Natale	RB	Supt Ops Trng
William Noll	BK	Ops Trng Supv
Max Herrell	BK	Trng Mgr
Scot Poteet	RB	Exam Team Leader

Crystal River - FPC

Jack Springer	CR	Supv Simulator Trng
Tom Taylor	CR	Dir Nuc Ops Trng

Duke Power

Garmon Clements	CT	Human Perf Mgr
Camden Eflin		OC Ops Trng
Richard P. Bugert	Corp	Ops Trng Spec
Gabriel Washburn	OC	Req Team Leader
Charles Sawyer	Corp	Sr Tech Spec
Ronnie B. White, Jr	MG	Trng Mgr
E.T. Beadle	CT	Init Lic Exam Leader
William H. Miller	CT	Trng Mgr
Al Lindsay	MG	Ops Trng Mgr
Paul Stovall	OC	Mgr Oper Trng
Bentley Jones		OC Trng Mgr
Paul Mabry	OC	Ops Line

FP&L

Maria Lacal	TP	Trng Mgr
Philip G. Finegan	TP	Ops Trng Supv
Dennis L. Fadden	SL	Services Mgr
Jo Magennis	Corp	Trng Assessment Spec
Kris Metzger	SL	Ops Trng Supv

Southern Nuclear (SNC)

J. M. Donem	FA	Sr Inst Ops. Trng
John C. Lewis		HT Trng & EP Mgr
Tom Blindauer	FA	Sr Plt Inst
Joe Powell	FA	Sr Inst Ops Trng
Bill Oldfield	FA	Nuc Ops Trn Supv

Southern Nuclear (SNC) (cont'd page 2)

ENCLOSURE 2

**OPERATOR LICENSING
INITIAL EXAMINATION
RULE CHANGE**

**Region II
Training Managers Conference
November 13, 1997**

**Robert M. Gallo,
Chief, Operator Licensing Branch, NRR**

HISTORY

- **SECY 95-75 (3/95): Proposed change**
- **GL 95-06 (8/95): Solicited volunteers**
- **ROI 95-25 (8/95): Pilot guidance**
- **10/95 - 4/96: Original pilot exams**
- **5/1/96: CRGR briefing**
- **SECY 96-123 (6/96): Pilot results**
- **SECY 96-206 (9/96): Pros and cons**
- **GL 95-06, Sup. 1 (1/97): Voluntary continuation of pilot process**
- **NUREG-1021, Interim Rev. 8 (2/97)**
- **SECY 97-79 (4/97): Proposed rule**
- **62 FR 42426 (8/97): Proposed rule**

THE PROPOSED RULE

3. A new § 55.40 is added to read as follows:

§ 55.40 Implementation.

(a) Power reactor facility licensees shall--

- (1) Prepare the required site-specific written examinations and operating tests;
- (2) Submit the written examinations and operating tests to the Commission for review and approval; and
- (3) Proctor and grade the NRC-approved site-specific written examinations.

THE REST OF THE RULE

(b) In lieu of requiring a specific power reactor facility licensee to prepare the examinations and tests or to proctor and grade the site-specific written examinations, the Commission may elect to perform those tasks.

(c) The Commission will prepare and administer the written examinations and operating tests at non-power reactor facilities.

OTHER CONSIDERATIONS

- The NRC will prepare one exam per Region per [calendar] year
- Facility licensees are expected to use the guidance in NUREG-1021
 - NRC will approve deviations
 - NRC will not compromise statutory responsibilities
- NRC is committed to maintaining quality, level of difficulty, consistency, and security
- NRC intends to use its full enforcement authority against persons who willfully compromise an exam in violation of 55.49

BACKGROUND

- Goal was to improve efficiency while maintaining effectiveness
 - Eliminate reliance on NRC contractors (except GFE)
 - Increase facility involvement
 - Maintain examination quality and difficulty
- Remain consistent with the Act and Part 55
- Changes should be transparent to license applicants
- Initial licensing program was not broken

MILESTONE SCHEDULE

- 10/21/97: Comment period ended
- 4/1/98: Resolve comments; revise rule and NUREG-1021; seek Office concurrence
- 4/98: Brief CRGR and ACRS
- 5/22/98: Obtain Office concurrence and deliver to EDO
- 6/98: Obtain EDO and Commission concurrence
- 7/98: Publish the final rule and Revision 8
- 12/31/98: Implement rule and Revision 8

EXAM RESULTS

Exams	RO Written	RO Operating	RO Total	SRO Written	SRO Operating	SRO Total
FY 1995	94%	98%	92%	95%	95%	92%
Original 22 Pilots	91% 49/54	93% 50/54	83% 45/54	93% 86/92	96% 87/91	90% 83/92
Through CY 1996	93% 77/83	95% 80/84	88% 75/85	94% 136/144	96% 137/143	91% 131/144
Since 1/97	92% 54/59	89% 51/57	83% 49/59	94% 100/106	92% 98/106	89% 95/107
Total	92% 131/142	93% 131/141	86% 124/144	94% 236/250	94% 235/249	90% 226/251

The results of one exam plus one RO and one SRO operating test appeal are pending.

FY99 INITIAL EXAM RESULTS

February 20, 1998

Date	Plant	Chief	RO		SRO-I		SRO-U		TOTAL	
			Pass	#	Pass	#	Pass	#	Pass	0
9/28/98	Sequoyah	MEE					4			
10/5/98	Harris	RFA		4		2	3			
10/19/98	B.Ferry WFS write	DCP		4		4				
11/30/98 12/14/98	Oconee &	MEE		6			6			
11/30/98 12/14/98	St Lucie &	RSB	15							15
1/25/99 2/8/99	McGuire &	DCP		14		1				15
1/25/99 2/8/99	C. River &	RFA	10-12							
3/15/99 3/29/99	Watts Bar &	RSB		7			5			
3/29/99 4/12/99	Surry &	RFA		6		2	4			
5/17/99 5/31/99	Catawba &		15-18							
5/10/99	Farley			2		6				
	Watts Bar ? 6/99			6		4				8
07/ /99	Robinson?			4		1	1			
07/ /99	C. River?									
08/ /99	Turkey Pt?			20						
9/15/99	Summer?			4						
09/ /99	Sequoyah ?									
99										

'?' designates tentative No Initial exams scheduled for: North Anna

- ?10/18/99 Brunswick- 9 candidates
- ?10/ /99 B. Ferry 4r, 4i, 4u
- ?10/25/99 Hatch 8r?
- ?10/ /99 St. Lucie 2 wk
- ?12/13 /99 Vogtle- 5r, 5i, 2u

FY 98 INITIAL EXAM RESULTS

[10/1/97 - 9/30/98]

February 20, 1998

Exam Week	PLANT	CHIEF	RO		SRO - I		SRO - U		TOTAL	
			PASS	#	PASS	#	PASS	#	PASS	#
10/14/97 10/20	St. Lucie &	GTH	6	6	1	1			7	7
11/14/97	Cr. River RETAKE	RFA					1	1	1	1
12/1/97	Summer	JFM	8	8					8	8
12/1/97 12/15	Catawba &	DCP	2	3	4	5	6	6		14
3/2/98	Farley RETAKE	RFA				1				1
2/23/98	Robinson + 1 op retake	RSB		3		1+1		1		6
4/13/98	Vogle (Mellen write)	GTH				4		2		6
5/11/98	Brunswick &	DCP		5		3		3		11
5/25/98 w 6/1/98 op	Sequoyah Retake +	LSM RFA RSB						3		3
6/29/98	Crystal River	MEE				6				6
6/22/98 7/6/98	St. Lucie &	GTH		8		4				8
8/10/98	Turkey Point	DCP		8						8
8/17/98 8/31	North Anna &	RSB		8		1		6		15
9/28/98	Sequoyah	MEE						4		4
				54		28		26		108
	RESULTS TO DATE		16	17	5	6	7	7	28	30

'&' designates examinations that will require two weeks to administer

No exams scheduled for B. Ferry Oconee
 Harris Surry
 Hatch W. Bar
 McGuire

REGION II WORKSHOP - OPERATOR LICENSING EXAMINATIONS

JANUARY 27 - 29, 1998

Exam Workshop Attendees

Charlie Brooks Asst Manager, Ops Trg - INPO
Frank S. Jaggart Examiner - WD Associates

Ken Masker Senior Licensed Instructor Rochester Gas & Electric,
R. E. Ginna NPP

Bob Niedzielski Exam Developer - Baltimore Gas & Electric
James F. Belzer Instructor - CCNPP/BGE
Max Bailey Region III Operator Licensing Examiner

CP&L

Gregg Lualam LOR - Supervisor - Brunswick
William Noll Supt Ops Training - Brunswick
Tony Pearson Initial Training - Brunswick
Richard Edens LOR Instructor - Brunswick

Rick Garner Sup - OTU - Harris
Terry Toler Project Tech Spec - Harris
Wiley Killelte Project Tech Spec - Harris

Scott Poteet Exam Team - Robinson
Bill Nevins Instruct Tech - Robinson

Crystal River - FPC

Alan Kennedy Senior Licensed Instructor
Johnie Smith Training Supervisor
Jack Springer Training Supervisor

Duke Power

Alan Whitener Ops Instructor
Edward A. Shaw Ops Instructor
Bobby Ayers Ops Instructor - Oconee
Steve Helms Training Super
Charles Sawyer Initial Training - McGuire
Reggie Kinvay Initial Training Lead
E. T. Beadle Nuclear Instructor - CNS
James K. Black Nuclear Instructor - ONS
Gabriel Washburn Nuclear Instructor - ONS
Camden Eflin Team Leader - HLP - Oconee

(Exam Workshop Attendees cont'd - See page 2)

(Exam Workshop Attendees cont'd)

FP&L

Ivan Wilson	Operations Manager
Kris Metzger	Ops Training Supervisor - <u>St. Lucie</u>
Roger Walker	Instructor - <u>St. Lucie</u>
Tim Bolander	Instructor - <u>St. Lucie</u>
David P. Clark	Instructor - <u>St. Lucie</u>

Maria L. Lecal	Training Manager - <u>Turkey Point</u>
Rich Bretton	Ops Cert Trng Sup - <u>Turkey Point</u>
Philip G. Finegan	Ops Trining Supervisor - <u>Turkey Point</u>
Michael E. Crolteau	Cont Trng Instructor - <u>Turkey Point</u>

Southern Nuclear (SNC)

Joel L. Deavers	Senior Instructor - <u>Farley</u>
Scott Fulmer	Training & Emergency Preparedness Manager - <u>Farley</u>
Gerard W. Laska	Training Instructor - <u>Farley</u>

Charlie Edmund	Plant Instructor - <u>Hatch</u>
David Gidden	Training Supervisor - <u>Hatch</u>
Ed Jones	Plant Instructor - <u>Hatch</u>

Dan Scukanec	Ops Trng Supv - <u>Vogle</u>
Fred Howard	Plant Instructor - <u>Vogle</u>

Virginia Power

Keith Link	Requal - <u>North Anna</u>
Ed Trask	Instructor - <u>North Anna</u>
Joe Scott	Supervisor Operations Training - <u>North Anna</u>

Ken Grover	Senior Instructor (NUC) - <u>Surry</u>
Harold McCallum	Supervisor Ops Training - <u>Surry</u>
Paul K. Orrison	Ops Instructor - <u>Surry</u>

TVA

Ray Schorff	Instructor - <u>Browns Ferry</u>
Denny Campbell	Instructor - <u>Browns Ferry</u>
Bob Greenman	Training Manager - <u>Browns Ferry</u>
Marvin Meek	Instructor - <u>Browns Ferry</u>
A. R. Champion	Instructor - <u>Browns Ferry</u>

Rick King	Sr Ops Instructor - <u>Sequoyah</u>
Frank Weller	Instructor - <u>Sequoyah</u>
Phillip H. Gass	Sim Instructor - <u>Sequoyah</u>
Ed Keyser	Instructor - <u>Sequoyah</u>
Harold Birch	Instructor - <u>Sequoyah</u>

(Exam Workshop Attendees cont'd - See page 2)

(Exam Workshop Attendees cont'd)

TVA cont'd

Terry Newman	SRO Instructor - <u>Watts Bar</u>
Rancy Evans	SRO Instructor - <u>Watts Bar</u>
Rick O'Rear	Sift Manager - <u>Watts Bar</u>

V. C. Summer - SCE&G

Perry Ramicone	Ops Instructor
Bruce L. Thompson	Ops Instructor
William R. Quick	Ops Instructor

CONCERNS EXPRESSED DURING THE REGION II EXAMINATION WRITING WORKSHOP

The following is a condensation of the concerns received from the attending facilities during the January 1998 Workshop on Examination Writing. The workshop attendees and I would appreciate your consideration of the concerns during your revision to the Examiner Standards.

- 1) Security requirements are too restrictive, considering the limited resources available. Also, more guidance on minimum security expectations is needed. (three comments)
- 2) The NRC should develop the sample plan as this would save both utility and NRC resources. (two comments)
- 3) If independent groups generate the audit and licensing exams, some overlap should be allowed. (one comment, also I believe the standards allow this now?)
- 4) The K/A catalog contains errors and omissions and should be corrected, or at the least an errata sheet of know errors should be published. (two comments)
- 5) If an exam bank item has not been used during the licensing class, the exam item should be considered at "face value" for the licensing exam. (one comment)
- 6) The length of time allowed for written exams should be revised to a more reasonable period. Does this time also apply to continuing education. (one comment, I had commented that the length of time did not apply to requalification exams the utilities conducted.)
- 7) The NRC should periodically publish problem areas encountered during the exam process and distribute it to all training managers. (one comment)
- 8) The facilities appreciated the workshop. They want Region II to have another workshop in about six months. The next time they want to concentrate on good and bad examples of written and operating test items and the sample plan. (six comments)

DISCUSSION OF WORKSHOP ISSUES

During the workshop we discussed some of the problems with the revised operator licensing examination process as implemented by Revision 8 of NUREG-1021. The following were three of the principle issues discussed and a summary of the response given by NRC's Region II Operator Licensing staff.

1. *Why has exam development take so many man-hours?* Some facilities did not fully understand our methodology, concepts and expectations for developing the initial examination such as content validity, plausible distractors and other psychometric issues. The NRC did not recognize the variance across facilities in their depth of understanding. As a result, some facilities submitted examinations with the quality lower than expected and these examinations did not meet the standards described in NUREG-1021. The amount of resources required to modify the examinations to meet the standards was more than either the facility or the NRC had anticipated. There was general agreement during the workshop that more discussion with the facility examination writers and reviewers, such as these workshops, would better align the facilities' original products with the standards of NUREG-1021 and reduce the resources required to develop an acceptable examination.
- 2) *Why has the NRC raised the level of difficulty of the examinations?* Many participants felt that the NRC was "raising the bar." We stated that the purpose of the initial operator licensing examination is to test valid knowledges, skills and abilities required to safely carry out duties as a licensed operator at a specific facility. The examination should be written to a discrimination level not specific to the quality of the facility's training program, but so that a minimal competent operator, with specific site knowledge and skills, will pass the examination. Therefore, the level of difficulty of the examination should not vary significantly from site to site. The concept of discrimination validity is that a given test item is written at a level which will discriminate between a competent and less than competent operator. In some cases, the NRC examination reviews have adjusted the discrimination validity (difficulty) in order to achieve region-wide consistency on what is required of a competent operator. We try to create an examination such that an applicant who is capable of safely operating the plant will achieve a score of 80 percent or greater. For facilities that prepare candidates beyond the minimally qualified level, we would expect the average score to be higher. Historically, nationwide NRC examination scores have averaged approximately 85 percent, which is a reasonable benchmark and expectation for a discriminating criterion-referenced examination.

I explained that I use a mental description of a minimally competent operator to decide if the question is one that he/she needs to know and whether the overall exam is targeted for that person to achieve a score of 80%. An 80% score on the written examination for a minimal competent candidate does not correlate to an 80% pass rate and we have no goal

regarding pass rate. Overall, we did not intend to change the 'bar' and are reviewing results to ensure our practice meets our intent.

- 3) *Why have some applicants not been able to complete the examination in the four hours currently allowed?* Prior to the current examination revision, we had two actions in the implementation phase. One was the improvement in the plausibility of distractors and the other was standardizing the percent of comprehension and analyses questions. In the last two years, we have improved our identification of poor distractors. A question does not have discrimination validity if the distractors (i.e. incorrect answers in a multiple choice test) can be eliminated by a less than competent operator due to psychometric flaws in the question structure. These types of flaws are detailed in Appendix B of NUREG-1021. At the workshop, several examples of these psychometric flaws were illustrated and discussed. Answering questions with incorrect but plausible distractors should not take longer for a candidate who is sure of the answer, but does take longer for the candidate who must eliminate each distractor. Also, in general, comprehension / analyses questions require more thought process than memory level questions and consequently more time. The requirement for a fifty percent minimum of higher level questions was based on a review of the last two years of examination audits and an effort to standardize the level of examination difficulty.

We stated that the four hour time limit for the written examination is under review by the NRC for possible extension of the limit and that extensions may be granted in accordance with the examiner standards.