

## **VARIOUS CHECKLISTS**

**FOR THE FERMI RETAKE EXAMINATION - JULY 7, 2003**

Facility: <u>Fermi 2</u>		Date of Examination: <u>7-7-03</u>
Examinations Developed by: <u>Facility</u> / NRC (circle one)		
Target Date*	Task Description / Reference	Chief Examiner's Initials
	<u>Written Retake Exam</u>	
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	BP
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	BP
-120	3. Facility contact briefed on security & other requirements (C.2.c)	BP
-120	4. Corporate notification letter sent (C.2.d)	BP
[-90]	[5. Reference material due (C.1.e; C.3.c)]	NA
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	BP
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	BP
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	BP
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	BP
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	BP
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	BP
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	BP
-7	13. Written examinations <del>and operating tests approved by</del> NRC supervisor (C.2.i; C.3.h) <u>NA</u>	BP
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	BP
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	BP
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	NA
<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>		



July 17, 2003  
NANT-03-0110

0801.26

Mr. B. Palagi  
Region III  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60532-4351

Dear Mr. Palagi:

Fermi 2 administered an initial written retake license exam on July 7, 2003. Enclosed please find the remaining material required in accordance with NUREG-1021, ES-501.

- Original Form ES-201-3, "Examination Security Agreement," with a pre and post-examination signature for each individual who had detailed knowledge of the written examination

If you have any questions or comments regarding the contents of these materials please contact Mr. Al Mann at 734-586-4067.

Sincerely,

A handwritten signature in cursive script, appearing to read "Larry D. Sanders".

Larry D. Sanders  
Manager, Nuclear Training  
Fermi 2

Enclosure

JUL 21 2003

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/7/03 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 7/7/03. 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. Stephen D. Bollinger	Sl. Ops. Trng. Instructn	<i>Stephen D. Bollinger</i>	4-1-03	<i>Stephen D. Bollinger</i>	7/14/03	0710
2. Timothy J. Barrett	Operations Training Supervisor	<i>Timothy J. Barrett</i>	4-1-03	<i>Timothy J. Barrett</i>	7-8-03	
3. Greg Strobel	GS OPS Trng	<i>Greg Strobel</i>	4/15/03	<i>Greg Strobel</i>	7/14/03	
4. Joseph Simone	CRS	<i>Joseph Simone</i>	6-3-03	<i>Joseph Simone</i>	7/15/03	
5. Michael Himebaugh	Shift Engineer	<i>Michael Himebaugh</i>	6/4/03	<i>Michael Himebaugh</i>	7/18/03	
6. CRAIG RICE	NSO	<i>Craig Rice</i>	6/4/03	<i>Craig Rice</i>	7/19/03	
7. ERIC SORG	NSO	<i>Eric Sorg</i>	6/6/03	<i>Eric Sorg</i>	7/10/03	
8. Jeff Yeager	Shift Engineer	<i>Jeff Yeager</i>	6/6/03	<i>Jeff Yeager</i>	7/10/03	
9. AL MANN	GS OPS Training	<i>Al Mann</i>	6/11/03	<i>Al Mann</i>	7/8/03	
10. Ray Duke	Program Supervisor - Ops Trng	<i>Ray Duke</i>	6-26-03	<i>Ray Duke</i>	7-7-03	
11. Stephen D. Bollinger						
12.						
13.						
14.						
15.						

NOTES:

# SECURITY AGREEMENT CLARIFICATION

WRITTEN EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
Michael Himebauch	<i>M. Himebauch</i>	6/4/03 0900 DB		<i>M. Himebauch</i>	7/8/03
CRAIG RICE	<i>C. Rice</i>	6/4/03 0900 DB		<i>C. Rice</i>	7/9/03
ERIC SORG	<i>E. SORG</i>	6/6/03 1300 DB		<i>E. SORG</i>	7/10/03
Jeff Yeager	<i>J. Yeager</i>	6/6/03 1300 DB		<i>J. Yeager</i>	7/10/03

SIMULATOR DYNAMIC EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
		N/A			

JPM EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
		N/A			

# SECURITY AGREEMENT CLARIFICATION

WRITTEN EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
Stephen D. Ballinger	<i>Stephen D. Ballinger</i>	4/14/03 1330	<i>AK</i>	<i>ABallinger</i>	7/14/03 0910
Timothy J. Barrett	<i>Timothy J. Barrett</i>	4-5-03 1500	<i>AK</i>	<i>Timothy J. Barrett</i>	7-8-03/ <del>AK</del> 0730
Greg Strobel	<i>Greg Strobel</i>	4/15/03 0700	<i>AK</i>	<i>Greg Strobel</i>	7/14/03 1110
Joseph Simone	<i>Joseph Simone</i>	6-3-03 0900	<i>AK</i>	<i>Joseph Simone</i>	7-15-03 1100

SIMULATOR DYNAMIC EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME

JPM EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME

# SECURITY AGREEMENT CLARIFICATION

WRITTEN EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
RE Duke	RE Duke	6-26-03 / 0810	DB	RE Duke	7/1/03 1025
A. Mann	AMC	6/11/03 0800	A	AMC	7/8/03 0958

SIMULATOR DYNAMIC EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
N/A					

JPM EXAMINATION					
PRINT NAME	PRE-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME	SUPERVISOR INITIALS	POST-EXAMINATION CERTIFICATION SIGNATURE	DATE/TIME
N/A					

EXAMINATION PERIOD -- 7/7/03 to 7/7/13

DTC: TPMMNT DSN: MNT04009 Rev. 1 P1/I File: 1703.22 Date: 101195  
DTC: VSNTDP DSN: \_\_\_\_\_ File: 0210.06.04 IP: I

Facility: <b>Fermi 2</b>		Date of Exam: <b>07/07/03</b>		Exam Level: <b>RO/SRO</b>																		
Item Description				Initial																		
				a	b*	c#																
1.	Questions and answers technically accurate and applicable to facility			AB	h	BP																
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			AB	h	BP																
3.	SRO questions are appropriate per Section D.2.d of ES-401			N/A	N/A	NA																
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process					BP																
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input checked="" type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)			AB	h	BP																
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual RO / SRO-only question distribution at right	Bank	Modified	New	AB	h	BP															
		35	9	31																		
7.	Between 50 and 60 percent of the questions on the RO exam are written at the comprehension/analysis level; the SRO Exam may exceed 60 percent if the randomly selected K/As support the higher cognitive levels; enter the actual question distribution at right	Memory	C/A		AB	h	* BP															
		33 (44%)	42 (56%)																			
8.	References/handouts provided do not give away answers			AB	h	BP																
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the Tier to which they are assigned; deviations are justified			AB	h	BP																
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			AB	h	BP																
11.	The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet			AB	h	BP																
<table border="0"> <thead> <tr> <th></th> <th>Printed Name / Signature</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>a. Author</td> <td>Stephen O. Bollinger / <i>SBollinger</i></td> <td>6/12/03</td> </tr> <tr> <td>b. Facility Reviewer (*)</td> <td>Alvin R. Moran / <i>ARMoran</i></td> <td>6/13/03</td> </tr> <tr> <td>c. NRC Chief Examiner (#)</td> <td>BRUCE PALASI / <i>Bruce Palasi</i></td> <td>6/30/03</td> </tr> <tr> <td>d. NRC Regional Supervisor</td> <td>RD Linking / <i>RD Linking</i></td> <td>7/2/03</td> </tr> </tbody> </table>									Printed Name / Signature	Date	a. Author	Stephen O. Bollinger / <i>SBollinger</i>	6/12/03	b. Facility Reviewer (*)	Alvin R. Moran / <i>ARMoran</i>	6/13/03	c. NRC Chief Examiner (#)	BRUCE PALASI / <i>Bruce Palasi</i>	6/30/03	d. NRC Regional Supervisor	RD Linking / <i>RD Linking</i>	7/2/03
	Printed Name / Signature	Date																				
a. Author	Stephen O. Bollinger / <i>SBollinger</i>	6/12/03																				
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d. NRC Regional Supervisor	RD Linking / <i>RD Linking</i>	7/2/03																				
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.																						

\* Per my review 40 questions are C/A, 35 Memory

Facility: Fermi 2		Date of Exam: 07/07/03		Exam Level: RO	
Item Description		Initials			
		a	b	c	
1.	Clean answer sheets copied before grading	RED	BP	BP	
2.	Answer key changes and question deletions justified and documented NONE BP	N/A	N/A	BP	
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	RED	BP	BP	
3.	Grading for all borderline cases (80% +/- 2% overall and 70 +/- 4% on the SRO-only) reviewed in detail 92% BP	N/A	N/A	BP	
4.	All other failing examinations checked to ensure that grades are justified NONE BP	N/A	N/A	BP	
5.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	RED	BP	BP	

  

Printed Name / Signature		Date
a. Grader	RE DUKE / REDuke	7-7-03
b. Facility Reviewer(*)	A. Mann / AMma	7/7/03
c. NRC Chief Examiner (*)	Bruce Palagyi	7/14/03
d. NRC Supervisor (*)	RD Lankford / RD Lankford	7/18/03

(\*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.  U/E/S	7.  Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
1	H	3				X								E/S	*# Distractor D. not credible <b>RESOLUTION: Distractor changed</b>
2	F	2												S	*#
3	F	3												S	*#
4	F	2												E S	Question is Fundamental not Higher cognitive level. Also editorial comment on stem. <b>RESOLUTION: stem changed</b>
5	H	3										X		U S	Does not ask question for K/A called for in outline <b>RESOLUTION: In stem trip point exceeded with no scram = KA</b>
6	F	2												S	*#
7	F	2												S	
8	H	4							X					U S	Can we expect the candidate to know the limit for Stator cooling water out let temperature? <b>RESOLUTION: Stem changed</b>
9	H	4												S	*#
10	H	3				X								S	

## Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
  - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
  - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
  - The answer choices are a collection of unrelated true/false statements.
  - More than one distractor is not credible.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
- Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

\* Question reviewed for 30 question K/A match

# Question reviewed for 30 question psychometric quality review

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
11	F	2												S	
12	F	3												S	*#
13	H	2												S	*#
14	H	3												S	
15	H	3				X	X							U S	*# A. IS NOT CREDIBLE, D. ALSO A CORRECT ANSWER <b>RESOLUTION:</b> Distractors A and D changed
16	F	2												S	
17	H	3												S	
18	H	3												S	*#
19	H	3												S	
20	F	2												S	
21	F	2				X								U S	*# C&D NOT CREDIBLE <b>RESOLUTION:</b> Distractors C and D changed
22	F	2												S	
23	H	3												E/S	Edit to add procedure names. <b>RESOLUTION:</b> done
24	H	3												S	*#
25	F	2												S	
26	F	2												S	
27	H	3												S	*#
28	F	2												S	*#
29	F	2												S	
30	H	3												S	*#

\* Question reviewed for 30 question K/A match

# Question reviewed for 30 question psychometric quality review

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
31	F	2												S	*#
32	H	2												S	
33	F	2				X								U S	*# C. IS THE ONLY CREDIBLE ANSWER <b>RESOLUTION:</b> Distractors changed
34	H	2												S	
35	H	2												S	
36	H	2				X								U/S	*# A. & C. NOT CREDIBLE <b>RESOLUTION:</b> Distractors changed
37	H	3												E/s	Edit stem for clarity <b>RESOLUTION:</b> done
38	F	2												S	
39	F	2				X								E/S	*# A. NOT CREDIBLE <b>RESOLUTION:</b> Distractor changed
40	F	3												S	
41	F	4					X		X					U S	C. & B. require candidate to remember alarm set points. A. also correct. <b>RESOLUTION:</b> Distractors changed
42	H	3												S	
43	H	3												S	
44	H	3												S	*#
45	F	3												S	
46	H	4												S	*#
47	H	2												S	
48	H	3												S	
49	H	3												S	
50	H	4												S	

\* Question reviewed for 30 question K/A match

# Question reviewed for 30 question psychometric quality review

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
51	H	3												S	*#
52	F	2												S	
53	H	3												S	
54	F	2												S	*# Question is Fundamental not Higher cognitive level.
55	F	2												E/S	Edit stem <b>RESOLUTION:</b> done
56	H	2												S	
57	H	3												E S	*# EDITORIAL COMMENTS TO DISTRACTORS A. & B. <b>RESOLUTION:</b> changes made
58	F	2				X								U/S	*# Distractors A.& B. not credible <b>RESOLUTION:</b> Distractors changed
59	H	2												S	
60	H	3												E/S	*# EDITORIAL COMMENTS TO STEM <b>RESOLUTION:</b> Stem changed
61	H	4												S	
62	H	3												S	
63	H	3												S	
64	H	3												S	*#
65	F	2												S	
66	F	2												S	*#
67	F	2												S	
68	F	2												S	
69	F	2												E/S	*# EDITORIAL COMMENTS TO DISTRACTOR C. <b>RESOLUTION:</b> Distractor changed
70	H	3												S	

\* Question reviewed for 30 question K/A match

# Question reviewed for 30 question psychometric quality review

[illegible]

\* Question reviewed for 30 question K/A match

# Question reviewed for 30 question psychometric quality review