VARIOUS CHECKLISTS

FOR THE FERMI INITIAL EXAMINATION - JUNE 2001

Facility: Fermi Date of Examination: 6/4-14/01

Examinations Developed by: Facility / (NRC) (circle one)

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

* 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.

[ ] Applies only to examinations prepared by the NRC.

Facility: Fermi 2 Date of Examination: 6/4/01 Operating Test Number: 2001

	1. GENERAL CRITERIA	Initials a	b*	c#
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	BM/JH	N/A	MEB
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	BM/JH		MEB
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	JH		MEB
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	BM/JH		MEB
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	BM/JH	↓	MEB
	2. WALK-THROUGH (CATEGORY A & B) CRITERIA	–	–	–
a.	Each JPM includes the following, as applicable: · initial conditions · initiating cues · references and tools, including associated procedures · reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee · specific performance criteria that include: - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable	BM/JH	N/A	MEB
b.	The prescripted questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	N/A	N/A	N/A
c.	Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity.	BM/JH	N/A	MEB
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	BM/JH	↓	MEB
	3. SIMULATOR (CATEGORY C) CRITERIA	–	–	–
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	BM/JH	N/A	MEB

	Printed Name / Signature	Date
a. Author	P Mowry P Mowry / JAY Hopkins Jay Hopkins	5/10/01 / 5-10-01
b. Facility Reviewer(*)	N/A	N/A
c. NRC Chief Examiner (#)	Michael E. Bielby Sr. Michael E. Bielby	6/1/01
d. NRC Supervisor	Dell R. McNeil / Dell R. McNeil for	06/01/01

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

ES-301 Simulator Scenario Quality Checklist Form ES-301-4 (R8, S1)

Facility: Fermi 2 Date of Exam: 6/4/01 Scenario Numbers: A / C / Operating Test No.: 2001

QUALITATIVE ATTRIBUTES		Initials a	b*	c#
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.			
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/cues that will be visible to the crew · the expected operator actions (by shift position) · the event termination point (if applicable)			
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.			
5.	The events are valid with regard to physics and thermodynamics.			
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 modeling is not altered.			
9.	The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.			
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.4 of ES-301.			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.			

TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes	–	–	–
1.	Total malfunctions (5-8)	7 / 6 /			
2.	Malfunctions after EOP entry (1-2)	2 / 1 /			
3.	Abnormal events (2-4)	5 / 2 /			
4.	Major transients (1-2)	2 / 2 /			
5.	EOPs entered/requiring substantive actions (1-2)	2 / 2 /			
6.	EOP contingencies requiring substantive actions (0-2)	1 / 1 /			
7.	Critical tasks (2-3)	3 / 2 /			

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #1 Type	Evolution Type	Minimum Number	Scenario Number A RO	Scenario Number C BOP
RO	Reactivity	1 ✓	1	
	Normal	1 ✓		1
	Instrument / Component	4 ✓	IC+IC / 2	IC+IC / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Lipinski

NRC Reviewer: Michael E. Bell

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #2 Type	Evolution Type	Minimum Number	Scenario Number A RO	Scenario Number C BOP
RO	Reactivity	1 ✓	1	
	Normal	1 ✓		1
	Instrument / Component	4 ✓	1C+1I / 2	1C+1I / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Robert E. Kelly Sr

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #3 Type	Evolution Type	Minimum Number	Scenario Number A RO	Scenario Number C BOP
RO	Reactivity	1 ✓	1	
	Normal	1 ✓		1
	Instrument / Component	4 ✓	IC+IS / 2	IC+IS / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Michael E Bell

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #4 Type	Evolution Type	Minimum Number	Scenario Number	
			A RO	C BOP
RO	Reactivity	1 ✓	1	
	Normal	1 ✓		1
	Instrument / Component	4 ✓	1C+1S / 2	1C+1S / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Richard P. Bully

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #5 Type	Evolution Type	Minimum Number	Scenario Number	
			A BOP	C RO
RO	Reactivity	1 ✓		1
	Normal	1 ✓	1	
	Instrument / Component	4 ✓	2-C / 2	2C / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: _____

NRC Reviewer: _____

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #6 Type	Evolution Type	Minimum Number	Scenario Number A BUP	Scenario Number C RO
RO	Reactivity	1 ✓		1
	Normal	1 ✓	1	
	Instrument / Component	4 ✓	2C / 2	2-C / 2
	Major	1 ✓	2	2
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Michael E. Gallagher

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #7 Type	Evolution Type	Minimum Number	Scenario Number SRO A	Scenario Number RO C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1 ✓		1
	Normal	0 ✓		0
	Instrument / Component	2 ✓		2-C / 2
	Major	1 ✓		2
SRO-I (circled)				
As SRO	Reactivity	0 ✓	1	
	Normal	1 ✓	1	
	Instrument / Component	2 ✓	3-C 1-S / 4	
	Major	1 ✓	2	
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Michael E. Bielby

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #8 Type	Evolution Type	Minimum Number	Scenario Number A	Scenario Number C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1 ✓		1
	Normal	0 ✓		0
	Instrument / Component	2 ✓		2-C 2
	Major	1 ✓		2
SRO-I				
As SRO	Reactivity	0 ✓	1	
	Normal	1 ✓	1	
	Instrument / Component	2 ✓	3-C 1-I 4	
	Major	1 ✓	2	
SRO-U	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: _____

NRC Reviewer: _____

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #9 Type	Evolution Type	Minimum Number	Scenario Number	
			A	C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0 /		1
	Normal	1 /		1
	Instrument / Component	2 /		3^C, 1^I 4
	Major	1 /		2

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: _____

NRC Reviewer: _____

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #10 Type	Evolution Type	Minimum Number	Scenario Number A	Scenario Number C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0 ✓		1
	Normal	1 ✓		1
	Instrument / Component	2 ✓		3-C, 1-I / 4
	Major	1 ✓		2

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: _____

NRC Reviewer: _____

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #11 Type	Evolution Type	Minimum Number	Scenario Number	
			A	C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0 /	1	
	Normal	1 /	1	
	Instrument / Component	2 /	3C 1-5 4	
	Major	1 /	2	

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Richard E. Bulley Sr

OPERATING TEST NO.:Fermi 2 - June 2001

Applicant #12 Type	Evolution Type	Minimum Number	Scenario Number	
			A	C
RO	Reactivity	1		
	Normal	1		
	Instrument / Component	4		
	Major	1		
As RO	Reactivity	1		
	Normal	0		
	Instrument / Component	2		
	Major	1		
SRO-I				
As SRO	Reactivity	0		
	Normal	1		
	Instrument / Component	2		
	Major	1		
SRO-U	Reactivity	0 ✓	1	
	Normal	1 ✓	1	
	Instrument / Component	2 ✓	2 I-I / 4	
	Major	1 ✓	2	

Instructions:
(1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
(2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: Jay Hopkins

NRC Reviewer: Michael E. Bulley

Competencies	Applicant #1 **RO**/SRO-I/SRO-U		Applicant #2 **RO**/SRO-I/SRO-U		Applicant #3 **RO**/SRO-I/SRO-U	
	SCENARIO		SCENARIO		SCENARIO	
	RO A	BOP C	RO A	BOP C	RO A	BOP C
Understand and Interpret Annunciators and Alarms	1/2/7a 8	3/4/5 7/8/9	1/2/7A 8	3/4/5 7/8/9	1/2/7A 8	3/4/5 7/8/9
Diagnose Events and Conditions	6/7a/8	5/7/8/9	6/7a/8	5/7 8/9	6/7a/8	5/7 8/9
Understand Plant and System Response	1/2/6/7a 8	4/5/7 9	1/2/6/7a 8	4/5 7/9	1/2/6/7a 8	4/5 7/9
Comply With and Use Procedures (1)	1/2/6/8	3/4/5/7 8/9	1/2/6/8	3/4/5 7/8/9	1/2/6/8	3/4/5
Operate Control Boards (2)	1/2/6/8	4/5/8 9	1/2/6/8	4/5 8/9	1/2/6/8	4/5 8/9
Communicate and Interact With the Crew	1/2/6/7a 8	4/5/7/8 9	1/2/6/7a 8	4/5/7 8/9	1/2/6 7a/8	4/5/7 8/9
Demonstrate Supervisory Ability (3)						
Comply With and Use Tech. Specs. (3)						

Notes:

(1) Includes Technical Specification compliance for an RO.
(2) Optional for an SRO-U.
(3) Only applicable to SROs.

Instructions:

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

Author: _____

NRC Reviewer: _____

Competencies	Applicant #4 **RO**/SRO-I/SRO-U		Applicant #5 **RO**/SRO-I/SRO-U		Applicant #6 **RO**/SRO-I/SRO-U	
	SCENARIO		SCENARIO		SCENARIO	
	RO A	BOP C	BOP A	RO C	BOP A	RO C
Understand and Interpret Annunciators and Alarms	1/2 2a/8	3/4/5 7/8/9	4/5 8/9	6/8	4/5 8/9	6/8
Diagnose Events and Conditions	6/7a/8	5/7 8/9	4/5 8/9	2/6 8	4/5 8/9	2/6 8
Understand Plant and System Response	1/2/6 7a/8	4/5 7/9	4/5 8/9	1/2 6/8	4/5 8/9	1/2 6/8
Comply With and Use Procedures (1)	1/2/6/8	3/4/5	3/4/5 8/9	1/2 6/8	3/4/5 8/9	1/2 6/8
Operate Control Boards (2)	1/2 6/8	4/5 8/9	3/4/5 8/9	1/2/6 8	3/4/5 8/9	1/2/6 8
Communicate and Interact With the Crew	1/2/6 7a/8	4/5/7 8/9	3/4/5 8/9	1/2/6 8	3/4/5 8/9	1/2/6 8
Demonstrate Supervisory Ability (3)						
Comply With and Use Tech. Specs. (3)						

Notes:

(1) Includes Technical Specification compliance for an RO.
(2) Optional for an SRO-U.
(3) Only applicable to SROs.

Instructions:

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

Author: Jay Hopkins

NRC Reviewer: Michael F. Bulley

Competencies	Applicant #7 RO/**SRO-I**/SRO-U		Applicant #8 RO/**SRO-I**/SRO-U		Applicant #9 RO/SRO-I/**SRO-U**	
	SCENARIO		SCENARIO		SCENARIO	
	SRO A	RO C	SRO A	RO C	A	C
Understand and Interpret Annunciators and Alarms	1/2/4/5 7a/8/9	C/8	1/2/4/5 7a/8/9	6/8		3/5/6/7 8/9
Diagnose Events and Conditions	2/4/5/6 7a/8/9	2/6 8	2/4/5/6 7a/8/9	2/6 8		3/5/6/7 8/9
Understand Plant and System Response	1/2/3/4 5/6/7a/8/9	1/2 6/8	1/2/3/4 5/6/7a/8/9	1/2 6/8		2/5/6/7 8/9
Comply With and Use Procedures (1)	1/2/4/5/6 7b/8/9	1/2 6/8	1/2/4/5/6 7b/8/9	1/2 6/8		2/3/5/6 7/8/9
Operate Control Boards (2)	X	1/2/6 8	X	1/2/6 8		X
Communicate and Interact With the Crew	1/2/3/4 5/6/7a+b 8/9	1/2/6 8	1/2/3/4 5/6/7a+b 8/9	1/2/6 8		1/2/3/4/5 6/7/8/9
Demonstrate Supervisory Ability (3)	1/2/3/4 5/6/7a+b 8/9		1/2/3/4 5/6/7a+b 8/9			1/2/3/4/5 6/7/8/9
Comply With and Use Tech. Specs. (3)	4/5/7a		4/5/7a			5/6/7

Notes:

(1) Includes Technical Specification compliance for an RO.
(2) Optional for an SRO-U.
(3) Only applicable to SROs.

Instructions:

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

Author: Jay Hopkins

NRC Reviewer: Michael Bates

Competencies	Applicant #10 RO/SRO-I/**SRO-U** SCENARIO A	Applicant #10 RO/SRO-I/**SRO-U** SCENARIO C	Applicant #11 RO/SRO-I/**SRO-U** SCENARIO A	Applicant #11 RO/SRO-I/**SRO-U** SCENARIO C	Applicant #12 RO/SRO-I/**SRO-U** SCENARIO A	Applicant #12 RO/SRO-I/**SRO-U** SCENARIO C
Understand and Interpret Annunciators and Alarms		3/5/6/7 8/9	1/2/4/5 7a/8/9		1/2/4/5 7a/8/9	
Diagnose Events and Conditions		3/5/6/7 8/9	2/4/5/6 7a/8/9		2/4/5/6 7a/8/9	
Understand Plant and System Response		2/5/6/7 8/9	1/2/3/4 5/6/7a/8/9		1/2/3/4 5/6/7a/8/9	
Comply With and Use Procedures (1)		2/3/5/6 7/8/9	1/2/4/5/6 7b/8/9		1/2/4/5/6 7b/8/9	
Operate Control Boards (2)						
Communicate and Interact With the Crew		1/2/3/4/5 6/7/8/9	1/2/3/4 5/6/7a+b 8/9		1/2/3/4 5/6/7a+b 8/9	
Demonstrate Supervisory Ability (3)		1/2/3/4/5 6/7/8/9	1/2/3/4 5/6/7a+b 8/9		1/2/3/4 5/6/7a+b 8/9	
Comply With and Use Tech. Specs. (3)		5/6/7	4/5/7a		4/5/7a	

Notes:

(1) Includes Technical Specification compliance for an RO.
(2) Optional for an SRO-U.
(3) Only applicable to SROs.

Instructions:

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

Author: _____

NRC Reviewer: _____

ES-401 | Written Examination Quality Checklist | Form ES-401-7 (R8, S1)

Facility: Fermi 2 | Date of Exam: 6/4/01 | Exam Level: RO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	PM/JH		MEG
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	PM/JH		MEG
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	PM/JH		MEG
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			MEG
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or __ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or X other (explain) NRC Developed Exam	PM/JH		MEG
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 question distribution at right Bank: 31 30 JH; Modified: 25 26 JH; New: 44	PM/JH		MEG
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: 45 44 JH; C/A: 55 56 JH	PM/JH		MEG
8.	References/handouts provided do not give away answers	PM/JH		MEG
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	PM/JH		MEG
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	PM/JH		MEG
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	PM/JH		MEG

	Printed Name / Signature	Date
a. Author	PM Jours PM Jours / Jay Hopkins	5/10/01 5-10-01
b. Facility Reviewer (*)		
c. NRC Chief Examiner (#)	Michael Bielby / Michael E. Bielby	5/10/01
d. NRC Regional Supervisor	Dell R. McNeil / Dell R. McNeil (for DEH)	06/04/01

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.

ES-401 | Written Examination Quality Checklist | Form ES-401-7 (R8, S1)

Facility: Fermi 2 | Date of Exam: 6/4/01 | Exam Level: SRO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	PMY JH		MGB
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	PMY JH		MGB
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	PMY JH		MGB
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			MGB
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or __ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or X other (explain) NRC Developed Exam	PMY JH		MGB
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 question distribution at right Bank: 31 / Modified: 26 / New: 43	PMY JH		MGB
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: ~~42~~ 43 JH / C/A: ~~58~~ 57 JH	PMY JH		MGB
8.	References/handouts provided do not give away answers	PMY JH		MGB
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	PMY JH		MGB
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	PMY JH		MGB
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	PMY JH		MGB

	Printed Name / Signature	Date
a. Author	PTYoung PTYoung / Jay Hopkins	5/10/01
b. Facility Reviewer (*)		
c. NRC Chief Examiner (#)	Michael Bielby / Michael E Bielby	5/10/01
d. NRC Regional Supervisor	Dell R. McNeil / Dell R. McNeil (for DEH)	06/04/01

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.

Facility: Fermi 2	Date of Exam: June 14,2001	Exam Level: RO

Item Description	Initials a	Initials b	Initials c
1. Clean answer sheets copied before grading	JH	N/A	MEB
2. Answer key changes and question deletions justified and documented	JH	N/A	MEB
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	JH	N/A	MEB
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	JH	N/A	MEB
5. All other failing examinations checked to ensure that grades are justified	JH	N/A	MEB
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	JH	N/A	MEB

	Printed Name / Signature	Date
a. Grader	Jay A. Hopkins / Jay A. Hopkins	6-29-01
b. Facility Reviewer(*)	N/A	N/A
c. NRC Chief Examiner (*)	Michael E. Bielby Sr / Michael E. Bielby Sr	6/29/01
d. NRC Supervisor (*)	David E. Hills / David E. Hills	7/5/01

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

Facility: Fermi 2	Date of Exam: June 14,2001	Exam Level: SRO

	Item Description	Initials a	b	c
1.	Clean answer sheets copied before grading	JH	N/A	MGB
2.	Answer key changes and question deletions justified and documented	JH	N/A	MGB
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	JH	N/A	MGB
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	JH	N/A	MGB
5.	All other failing examinations checked to ensure that grades are justified	JH	N/A	MGB
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	JH	N/A	MGB

	Printed Name / Signature	Date
a. Grader	JAY A. Hopkins / Jay A. Hopkins	6-29-01
b. Facility Reviewer(*)	N/A	N/A
c. NRC Chief Examiner (*)	Michael E. Bielby Sr. / Michael E. Bielby Sr.	6/29/01
d. NRC Supervisor (*)	David E. Hills / David E. Hills	7-5-01

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