Facility: FITZPATRICK 50-333 Date of Examination: JULY 21-25

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

Target Date*	Task Description / Reference	Chief Examiner's Initials
1/22 -180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	✓
3/24 -120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	✓
3/24 -120	3. Facility contact briefed on security & other requirements (C.2.c)	12/3/02 gHW
3/24 -120	4. Corporate notification letter sent (C.2.d)	12/12/02 gHW
[-90]	[5. Reference material due (C.1.e; C.3.c)]	N/A
5/7 -75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	5/22 gHW
5/12 -70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	5/22 gHW
6/6 -45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	6/6 gHW
6/20 -30	9. Preliminary license applications due (C.1.l; C.2.g; ES-202)	6/20 gHW
7/7 -14	10. Final license applications due and assignment sheet prepared (C.1.l; C.2.g; ES-202)	7/9 gHW
7/7 -14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	6/20 gHW
7/7 -14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	6/23-24 & 7/15 gHW
7/7 -7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	OP TEST - 7/9 Written - gHW
7/7 -7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	APPL RV - 7/14 ASSIG. SHT - WAIVER - gHW
7/7 -7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	gHW
7/7 -7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	7/9 gHW

• 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.

Exam Report # 50-333/2003-301

Facility: James A. FitzPatrick Date of Examination: 21-25 July, 2004

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	ℓ	M	qHW
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	ℓ	M	qHW
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	ℓ	M	qHW
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	ℓ	M	qHW
2. SIM	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	ℓ	M	qHW
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity; ensure each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s)*, and scenarios will not be repeated ~~over-successive~~ on subsequent days.	ℓ	M	qHW
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	ℓ	M	qHW
3. W/T	a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3) no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	ℓ	M	qHW
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) ~~40%~~4 - 6 (2 - 3 for SRO-U) of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	ℓ	M	qHW
	c. Verify that the required administrative topics are covered~~, with emphasis on performance-based activities~~.	ℓ	M	qHW
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on ~~successive~~ subsequent days.	ℓ	M	qHW
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	ℓ	M	qHW
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	ℓ	M	qHW
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	ℓ	M	qHW
	d. Check for duplication and overlap among exam sections.	ℓ	M	qHW
	e. Check the entire exam for balance of coverage.	ℓ	M	qHW
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	ℓ	M	qHW

	Printed Name / Signature	Date
a. Author	Richard W. DeVercelly / Richard W. DeVercelly	4/17/03
b. Facility Reviewer (*)	Steven W. Reininghaus / Steven W. Reininghaus	4/22/03
c. NRC Chief Examiner (#)	Julian H. Williams / Julian H. Williams	5/22/03
d. NRC Supervisor	Richard J. Conte / Richard J. Conte	5/22/03

w/ comments

Note: * Not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 21 July, 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 21JUL 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.	Richard W. DeVercelly	Operations Instructor		1/21/03		8/15/03	All *
2.	Mike Freihofer	Operations Instructor		1/23/03		7/29/03	All *
3.	Michael O. Needles	Operations Instructor		1/23/03		7/29/03	All *
4.	Steven W. Reinighaus	Operations Training Supervisor		2/6/03		7/29/03	All *
5.	Gary Frank	Operations Instructor		5/21/03		7/29/03	written
6.	Richard L Schilling Jr	Nuclear Training Specialist		5/21/03		7/30/03	written
7.	Donald Torbett	Assist Operation Manager		6/2/03		7/30/03	All
8.	BOB PIKE	BRS / OPS / FIN		7/9/03		8/13/03	All
9.	ROBERT BRUNS	CRS		7/9/03		8.12.3	written, JPM
10.	Larry Shaffer	SNO / OPS / FIN		7/9/03		8-14-03	written
11.	JETZEN	SNO / OPS		7/9/03		8/13/3	written
12.	Michele DuBois	Admistration Specialist		7/18/03		7/30/03	Operating
13.	PAT BERRY	TRAINING MANAGER		7/21/03		7/30/03	Operating
14.	MARK CARPENTIER	TRAINING SIMULATOR		7/21/03		7/30/03	Operating
15.	Michael Fochtman	Training Simulator		7/21/03		7/30/03	Operating

NOTES:
* originally signed on Revision 8 Form

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 21July03 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 21July03 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.	DAN Johnson	Operations Manager		7/21/03		6/12/03	Operating
2.	J Rivers Walsh	Administrator, Program Ops		07/21/03		07/31/03	Written
3.	David Penfield	Instructor, ILO		7/22/03		7/30/03	Simulator
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							

NOTES:

Rev 8

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 21 July 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 _____. 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	contents
1.	Richard W. DeVercelly	Operations Instructor		1/21/03	See Rev 9 Copy			All
2.	Michael A. Frihoff	Operations Instructor		1/23/03	See Rev 9 Copy			All
3.	Michael D. Needles	OPERATIONS INSTRUCTOR		1/22/03	See Rev 9 Copy			All
4.	Steven W. Remington	Operations Training Supervisor		2/6/03	See Rev 9 Copy			All
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

NOTES:

Facility: James A. FitzPatrick Date of Examination: 21-25 July, 2003 Operating Test Number: —

	1. GENERAL CRITERIA	Initials a	b*	c#
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	✓	✓	gHW
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	✓	✓	gHW
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	✓	✓	gHW
d.	Overlap with the written examination and between different parts of the operating test ~~categories~~ is within acceptable limits.	✓	✓	gHW
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	✓	✓	gHW
	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	✓	✓	gHW
~~b.~~	~~The prescripted questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.~~	N/A		
~~c~~b.	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.	✓	✓	gHW
~~d~~c.	At least 20 percent of the JPMs on each test are new or significantly modified.	✓	✓	gHW
	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.	✓	✓	gHW

	Printed Name / Signature	Date
a. Author	Richard W. DeVercelly / Richard W. DeVercelly	6/6/03
b. Facility Reviewer (*)	Steven W. Reininghaus / Steven W. Reininghaus	6/6/03
c. NRC Chief Examiner (#)	Julian H. Williams / Julian H. Williams	7/9/03
d. NRC Supervisor	Richard J. Conte / Richard J. Conte	7/9/03

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

Facility: James A. FitzPatrick Date of Exam: 21-25 July, 2003 Scenario Numbers: 1-4 Operating Test No.: —

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. Pursuant to 10 CFR 55.46(d), 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.45 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~~ 5.d)	Actual Attributes	--	--	--
1. Total malfunctions (5-8)	7 / 5 /			
2. Malfunctions after EOP entry (1-2)	2 / 1 /			
3. Abnormal events (2-4)	4 / 3 /			
4. Major transients (1-2)	1 / 1 /			
5. EOPs entered/requiring substantive actions (1-2)	2 / 1 /			
6. EOP contingencies requiring substantive actions (0-2)	1 / 1 /			
7. Critical tasks (2-3)	3 / 3-4 /			

REV 1

OPERATING TEST NO.: 21-25 July, 2003

Applicant Type	Evolution Type	Minimum Number	Scenario Number							
			1		2		3		4	
			RO	BOP	RO	BOP	RO	BOP	RO	BOP
RO	Reactivity	1*			6					
	Normal	1*		2						
	Instrument / Component	4*		5,9, 10	8					
	Major	1		7	7					
As RO In Scenario 1 or 2	Reactivity	1*	3			5				
	Normal	0	[redacted]							
	Instrument / Component	2*	4,8			1,4				
	Major	1	7			7				
SRO-I										
As SRO In Scenario 2 or 1	Reactivity	0								
	Normal	1*	[redacted]							
	Instrument / Component	2*	4,5, 8,9, 10		1,3, 4,8					
	Major	1	7		7					
SRO-U	Reactivity	0								
	Normal	1*								
	Instrument / Component	2*								
	Major	1								

SCENARIO 1 EVENT 1 DELETED

TRANSIENT AND EVENT CREDIT MATRIX

		SCENARIO 1										SCENARIO 2										SCENARIO 3						TOTALS							
		EVENT										EVENT										EVENT						REQUIRED				ACTUAL			
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	2	3	4	5	6	7	R	N	I/C	M	R	N	I/C	M
SROI 1	RO											I			C	R		M										1	0	2	1	1	0	2	1
	SRO	N	N		C	C		M	C	C	C																	0	1	2	1	0	1	5	1
SROI 2	RO											I			C	R		M										1	0	2	1	1	0	2	1
	SRO	N	N		C	C		M	C	C	C																	0	1	2	1	0	1	5	1
SROI 3	RO											I			C	R		M										1	0	2	1	1	0	2	1
	SRO	N	N		C	C		M	C	C	C																	0	1	2	1	0	1	5	1
SROI 4	RO	N		R	C			M	C																			1	0	2	1	1	0	2	1
	SRO											I		C	C			M	C									0	1	2	1	0	0	4	1
SROI 5	RO	N		R	C			M	C																			1	0	2	1	1	0	2	1
	SRO											I		C	C			M	C									0	1	2	1	0	0	4	1
SROI 6	RO	N		R	C			M	C																			1	0	2	1	1	1	2	1
	SRO											I		C	C			M	C									0	1	2	1	0	0	4	1
RO 1	RO		N			C		M		C	C						R	M	C									1	1	4	1	1	1	4	2
RO 2	RO		N			C		M		C	C						R	M	C									1	1	4	1	1	1	4	2

R = Reactivity Manipulation N = Normal Evolution I/C = Instrument/Component Failure M = Major Transient

SCENARIO 1 EVENT 1 DELETED

SROI-6 DELETED

7/1/03

Competencies	SRO ~~Applicant #1 RO/SRO-I/SRO-U~~				SRO ~~Applicant #2 RO/SRO-I/SRO-U~~				BOP ~~Applicant #3 RO/SRO-I/SRO-U~~			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
~~Understand and Interpret Annunciators and Alarms~~												
Interpret / Diagnose Events and Conditions	5,6, 7	1,3,4, 7			4,8	1,8, 7			4,5,6 ,7	1,4		
~~Understand Plant and System Response~~												
Comply With and Use Procedures (1)	1,4, 7,9, 10	1,3,4, 5,6,7			1,3,4, 7,8	6,7			2,4,7	1,2, 4,5, 7		
Operate Control Boards (2)					1,3,7, 8	6,7, 8			2,4,5 ,7,9, 10	1,2, 5,7		
Communicate and Interact ~~With the Crew~~	ALL	ALL			1,3,4, 5,7,8	1,6, 7,8			1,2,4 ,5,6, 7,9,1 0	1,2, 3,4, 5,7		
Demonstrate Supervisory Ability (3)	ALL	ALL										
Comply With and Use Tech. Specs. (3)	4	2										

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: Richard W. DeVercelly / Richard W. DeVercelly

NRC Reviewer: Julian H. Williams / Julian H. Williams

Facility: James A. FitzPatrick Date of Examination: 21-25 July, 2003 Exam Level: RO/SRO

	Item Description	Initials 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.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			
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 – other (explain)			
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(s) at right Bank: 35/9 → final 31/7; Modified: 0/0 → final 0/0; New: 40/16 → final 43/18			
7.	Between 50 and 60 percent of the questions on the RO exam ~~(including 10 new questions)~~ 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 RO / SRO question distribution(s) at right Memory: 29/35 → final 31/38; C/A: 46/65 → final 44/62			
8.	References/handouts provided do not give away answers			
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			
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			
11.	The exam contains ~~100~~, the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet			

	Printed Name / Signature	Date
a. Author	Richard W. DeVercelly	6 June, 2003
b. Facility Reviewer(*)	Steven W. Reininghaus	6 June, 2003
c. NRC Chief Examiner (#)	Julius A. Williams / Julius A. Williams	7/17/03
d. NRC Regional Supervisor	R.J. Conte / R.J. Conte	7/17/03

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.

Facility:	Date of Exam:	Exam Level: RO/SRO		
	Item Description	Initials a	b	c
1.	Clean answer sheets copied before grading			
2.	Answer key changes and question deletions justified and documented			
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)			
4.	Grading for all borderline cases (80 +/- 2% overall and 70 +/- 4% on the SRO-only) reviewed in detail			
5.	All other failing examinations checked to ensure that grades are justified	N/A	N/A	N/A
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants			

	Printed Name / Signature	Date
a. Grader	RW DeVarcelly	8/1/03
b. Facility Reviewer(*)		8/1/03
c. NRC Chief Examiner (*)	J H Williams / JHW	8/14/03
d. NRC Supervisor (*)	R J Caste	8/15/03

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