

## **VARIOUS CHECKLISTS**

**FOR THE DAVIS-BESSE INITIAL EXAMINATION - MARCH 2002**

Facility: <u>Davis-Besse</u>		Date of Examination: <u>March 4, 2002</u>
Examinations Developed by: <input checked="" type="checkbox"/> 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)	MEB
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	MEB
-120	3. Facility contact briefed on security & other requirements (C.2.c)	MEB
-120	4. Corporate notification letter sent (C.2.d)	MEB
{-90}	{5. Reference material due (C.1.e; C.3.e)}	N/A
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	MEB
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	MEB
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	MEB
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	MEB
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	MEB
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	MEB
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	MEB
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	MEB
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	MEB
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	MEB
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	MEB
<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>		

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 3/4/02 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 3-4-02. 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)	DATENOTE
1. Don L Bondy	Lead Initial License Program	<i>Don L Bondy</i>	6-9-01	<i>Don Bondy</i>	3/11/02
2. John C. House	Sr Training Advisor	<i>J C House</i>	10/15/01	<i>J C House</i>	3/11/02
3. Gina M. O'Laide	Nuc. Admin. Assoc.	<i>Gina M. O'Laide</i>	10/5/01	<i>Gina M. O'Laide</i>	3-11-2
4. David M. Imbruglia	Supv- Operations Training	<i>David M. Imbruglia</i>	11/24/01	<i>David M. Imbruglia</i>	3/11/2
5. CRAIG S STRUMBERG	Unit Supervisor	<i>Craig S Strumberg</i>	1/3/02	<i>Craig S Strumberg</i>	3/13/2
6. DAVID S WITT	R/O	<i>David Witt</i>	1/3/2	<i>David Witt</i>	3/11/2
7. LARRY W. ISBELL	R/O	<i>Larry Isbell</i>	1/3/2	<i>Larry Isbell</i>	3-11-2
8. ARTHUR J. LEWIS	SHIFT MANAGER	<i>Arthur Lewis</i>	1/3/2	<i>Arthur Lewis</i>	3/11/02
9. RANDY L. PATRICK	SHIFT ENGINEER	<i>Randy Patrick</i>	1/3/2	<i>Randy Patrick</i>	3/11/02
*10. Lillie M. Winckowaska	Computer Engineer	<i>Lillie M. Winckowaska</i>	1/30/02	per tele com	3/13/02
11. KARA KANAPKA	Computer Analyst	<i>Kara Kanapka</i>	1/3/02	<i>Kara Kanapka</i>	3/13/02
12. Kim A. Steger	Qualification Instructor	<i>Kim A. Steger</i>	1/7/02	<i>Kim A. Steger</i>	3/11/02
13. Jammie J. Boyd	Clerical	<i>Jammie Boyd</i>	1/8/02	<i>Jammie Boyd</i>	3-11-02
14. CHARLES N. STANARD	S E	<i>Charles Stanard</i>	1/10/02	<i>Charles Stanard</i>	3/14/02
15. JAMES A. PIERSON	UNIT SUPERVISOR	<i>James A. Pierson</i>	1/10/02	<i>James A. Pierson</i>	3/14/02
16. John BAKER	R.O.	<i>John Baker</i>	1/10/02	<i>John Baker</i>	3/12/02

NOTES: \* Per tele com.

Facility Davis-Besse Unit 1	Date of Examination March 4, 2002	Operating Test Number 1		
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). <b>In Scenario 2, the Main Steam Safety Valve (MSSV) failure on the original sample plan was removed. During validation of the scenario, steam generator pressures did not reach the MSSV lift setpoint following the reactor trip. The major event in the scenario is the RCS overcooling caused by the SG overfeed.</b>	JCH	DI	MCS
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	JCH	DI	MCS
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	JCH	DI	MCS
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	JCH	DI	MCS
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designed license level.	JCH	DI	MCS
2. WALK-THROUGH (CATEGORY A & B) CRITERIA		-	-	-
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>• initial conditions</li> <li>• initiating cues</li> <li>• references and tools, including associated procedures</li> <li>• reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility license</li> <li>• specific performance criteria that include:                             <ul style="list-style-type: none"> <li>- detailed expected actions with exact criteria and nomenclature</li> <li>- system response and other examiner cues</li> <li>- statements describing important observations to be made by the applicant</li> <li>- criteria for successful completion of the task</li> <li>- identification of critical steps and their associated performance standards</li> <li>- restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>	DBB	DI	MCS
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	DBB N/A	DI	NA MCS
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.	DBB	DI	MCS
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	DBB	DI	MCS
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.	JCH	DI	MCS
		Printed Name / Signature		Date
a. Author	John C. House / John C. House, Don L. Bondy / Don Bondy		01/14/02	
b. Facility Reviewer*	David M. Imray / David M. Imray		01-14-02	
c. NRC Chief Examiner (#)	Michael E. Bielloy / Michael E. Bielloy		1/30/02	
d. NRC Supervisor	David E. Huls / David E. Huls		2-21-02	
NOTE: *The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.				

Facility: Davis-Besse Date of Examination: March 4, 2002 Scenario Numbers: 1 / 2 / 3 Operating Test No.: 1

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.	JEH	DI	MSB	
2.	The scenarios consist mostly of related events.	JEH	DI	MSB	
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)	JEH	DI	MSB	
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.	JEH	DI	MSB	
5.	The events are valid with regard to physics and thermodynamics.	JEH	DI	MSB	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	JEH	DI	MSB	
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.	JEH	DI	MSB	
8.	The simulator modeling is not altered.	JEH	DI	MSB	
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.	JEH	DI	MSB	
10.	Every operator will be evaluated using at least one new or significantly modifies scenario. All other scenarios have been altered in accordance with Section D.4 of ES-301.	JEH	DI	MSB	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	JEH	DI	MSB	
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).	JEH	DI	MSB	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	JEH	DI	MSB	
<b>TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)</b>		Actual Attributes	-	-	-
1.	Total malfunction (5-8)	7 / 6 ** / 6	JEH	DI	MSB
2.	Malfunctions after EOP entry (1-2)	1 / 2 ** / 2	JEH	DI	MSB
3.	Abnormal events (2-4)	4 / 3 / 3	JEH	DI	MSB
4.	Major transients (1-2)	1 / 1 ** / 2	JEH	DI	MSB
5.	EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1	JEH	DI	MSB
6.	EOP contingencies requiring substantive actions (0-2)	1 / 0 / 1	JEH	DI	MSB
7.	Critical tasks (2-3)	2 / 3 / 2	JEH	DI	MSB

\*\* In Scenario 2, the Main Steam Safety Valve (MSSV) failure on the original sample plan was removed. During validation of the scenario, steam generator pressures did not reach the MSSV lift setpoint following the reactor trip. The major event in the scenario is the RCS overcooling caused by the SG overfeed.

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	4	6	5*	6	
	Major	1	1	1*	1	

As RO	Reactivity	1	1	1	1	
	Normal	0	0	1	0	
	Instrument / Component	2	3	2	2	
	Major	1	1	1*	1	
SRO-I	Reactivity	0	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	2	6	5*	6	
	Major	1	1	1*	1	

SRO-U	Reactivity	0	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	2	6	5*	6	
	Major	1	1	1*	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: John C. House / John C House 1/14/02

NRC Reviewer: Michael E. Bielby / Michael E. Bielby 5/30/02

\* In Scenario 2, the Main Steam Safety Valve (MSSV) failure on the original sample plan was removed. During validation of the scenario, steam generator pressures did not reach the MSSV lift setpoint following the reactor trip. The major event is the RCS overcooling as a result of the SG overfeed.

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			
	1	2	3	4	1	2	3	4	1	2	3	4
Understand and Interpret Annunciators and Alarms	4,5,6,7,8	3,4,5,7	3,4,5,6,9		4,5,6,7,8	3,4,5,7	3,4,5,6,**		4,5,6,7,8	3,4,5,7	3,4,5,6,9	
Diagnose Events and Conditions	2,3,4,5,6,7	3,4,5,6,7,8,9	3,4,5,6,7,8,9		2,3,4,5,6,7,8	3,4,5,6,7,8,**	3,4,5,6,7,8,**		2,3,4,5,6,7,8	3,4,5,6,7,8,9	3,4,5,6,7,8,9	
Understand Plant and System Response	2,3,4,5,6,7	3,4,5,6,7,8,9	3,4,5,6,7,8,9		2,3,4,5,6,7	3,4,5,6,7,8,**	3,4,5,6,7,8,**		2,3,4,5,6,7	3,4,5,6,7,8,9	3,4,5,6,7,8,9	
Comply With and Use Procedures (1)	1,2,3,4,5,6,7,8,9	1,2,3,5,6,7,9	1,2,4,5,6,7,9		1,2,3,4,5,6,7,8,**	1,2,3,5,6,7,**	1,2,4,5,6,7,**		1,2,3,4,5,6,7,8,9	1,2,3,5,6,7,9	1,2,4,5,6,7,9	
Operate Control Boards (2)	1,2,4,5,6,8	1,2,3,4,5,6,7,8,9	1,2,3,4,5,7,8,9		1,2,4,5,8	1,2,3,4,5,6,7,8	1,2,3,4,6,7,8,**					
Communicate and Interact With the Crew	1,2,3,4,5,6,7,8	3,4,5,6,7,8,9	1,2,3,4,5,6,7,8,9		1,2,3,4,5,6,7,8,**	3,4,5,6,7,8,**	1,2,3,4,5,6,7,8,**		1,2,3,4,5,6,7,8,9	3,4,5,6,7,8,9		
Demonstrate Supervisory Ability (3)					1,2,3,4,5,6,7,8,**	3,4,5,7,8,**	2,3,4,5,7,8,**		1,2,3,4,5,6,7,8,9	3,4,5,6,7,8,9	2,3,4,5,7,8,9	
Comply With and Use Tech. Specs. (3)					5,6,7		5		5,6,7		5	

Notes: \*\* In Scenario 2, the Main Steam Safety Valve (MSSV) failure on the original sample plan was removed. During validation of the scenario, steam generator pressures did not reach the MSSV lift setpoint following the reactor trip. The major event is the RCS overcooling caused by the SG overfill.

- (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: John C. House / John C House 1/14/02  
 NRC Reviewer: Michael E. Bielby / Michael E. Bielby 1/30/02

Facility: Davis-Besse	Date of Exam: March 4, 2002	Exam Level: <u>RO/SRO</u>
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Item Description	Initial					
	a	b*	c#			
1. Questions and answers technically accurate and applicable to facility	JCH	DI	MFB			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	JCH	DI	MFB			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	JCH	DI	MFB			
4. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			MFB			
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)	JCH	DI	MFB			
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	Modified	New	JCH	DI	MFB
	21	6	73			
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	C/A		JCH	DI	MFB
	MFB 47/48	53/52				
8. References/handouts provided do not give away answers	JCH	DI	MFB			
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	JCH	DI	MFB			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	JCH	DI	MFB			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	JCH	DI	MFB			

	Date
a. Author	1/14/02
b. Facility Reviewer (*)	01-14-02
c. NRC Chief Examiner (#)	1/8/02
d. NRC Supervisor	2/21/02

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: Davis-Besse	Date of Exam: March 4, 2002	Exam Level: RO/SRO	
Item Description	Initial		
	a	b*	c#
1. Questions and answers technically accurate and applicable to facility	JCH	DI	MFB
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	JCH	DI	MFB
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	JCH	DI	MFB
4. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			MFB
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 licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	JCH	DI	MFB
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	Modified	New
	26	4	70
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	C/A	
	46 MFB 49	54 MFB 51	JCH DI MFB
8. References/handouts provided do not give away answers	JCH	DI	MFB
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	JCH	DI	MFB
10. Question psychometric quality and format meet ES, Appendix B, guidelines	JCH	DI	MFB
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	JCH	DI	MFB
Printed Name / Signature		Date	
a. Author	John C. House / <i>John C House</i>	1/14/02	
b. Facility Reviewer (*)	David M. Imray / <i>David M Imray</i>	01-14-02	
c. NRC Chief Examiner (#)	Michael E. Bielloy / <i>Michael E Bielloy</i>	1/30/02	
d. NRC Supervisor	David P. Hills / <i>David P Hills</i>	2/21/02	
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: Davis Besse Nuclear Station		Date of Exam: 03/08/02		Exam Level: RO/SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<i>sm</i>	n/a	<i>MEB</i>		
2. Answer key changes and question deletions justified and documented	<i>sm</i>	n/a	<i>MEB</i>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>sm</i>	n/a	<i>MEB</i>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<i>sm</i>	n/a	<i>MEB</i>		
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	<i>sm</i>	n/a	<i>MEB</i>		
Printed Name / Signature		Date			
a. Grader	<i>Dell R. McNeil / Dell R. McNeil</i>	<i>03/08/02</i>			
b. Facility Reviewer(*)	n/a	n/a			
c. NRC Chief Examiner (*)	<i>Michael E. Bielby Sr. / Michael E. Bielby Sr.</i>	<i>3/9/02</i>			
d. NRC Supervisor (*)	<i>David E. Hill / David E. Hill</i>	<i>3-20-02</i>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility: Davis Besse Nuclear Station		Date of Exam: 03/08/02		Exam Level: RO/SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	dm	n/a	MES		
2. Answer key changes and question deletions justified and documented	dm	n/a	MES		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	dm	n/a	MES		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	n/a	n/a	n/a		
5. All other failing examinations checked to ensure that grades are justified	dm	n/a	MES		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	dm	n/a	MES		
Printed Name / Signature			Date		
a. Grader	<u>Dell R. McNair / Dell R. McNair</u>		<u>03/08/02</u>		
b. Facility Reviewer(*)	n/a		n/a		
c. NRC Chief Examiner (*)	<u>Michael E. Bielby / Michael E. Bielby</u>		<u>3/9/02</u>		
d. NRC Supervisor (*)	<u>David E. Hills / David Hills</u>		<u>3/20/02</u>		
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					