NOTE TO: Steve Garchow

Chief Examiner, Operations Branch

FROM:

Tony Gody, Chief

Operations Branch

Division of Reactor Safety

SUBJECT: EXAMINATION ASSIGNMENT

You have been assigned as Chief of the Cooper Nuclear Station retake examination. The operating test has been scheduled to be completed by January January 31, 2007. Thank you for contacting the Cooper Nuclear Station facility to finalize the details of the examination. You are reminded that the RPS/IP system must be maintained to ensure that the examiners and numbers of candidates are accurate. In addition, you are reminded that only qualified examiners are permitted to conduct any part of the examination.

CHIEF:	Steve Garchow	FACILITY:	Cooper Nuclear Stati	on	DATE of	OPERATING EXAM:	1/29/07
Due Date	Description	,		Date Complet	e Initials	s Notes	
8/2/06	Exam Administr	ation Date Confir	med (C.1.a; C.2.a & b)	12/06	m	-	
10/1/06	NRC Staff & Fac	cility Contact Ass	igned (C.1.d; C.2.e)	12/06	SME		
10/1/06	Facility Contact	Briefed on Secur	rity & Other Req's (C.2.c)	12/06	me	5-	
10/1/06	Corporate Notifi	cation Letter (ES	-201 Att-3) Sent (C.2.d)	12/06	8mt	produced by Chie	f Examiner
10/31/06	Reference Mate	erial Due (if NRC	authored) (C.1.e; C.3.c)	NA	NA	\	
11/15/06	Integrated Exam	n Outlines Due (C	C.1.e & f; C.3.d)	115/07	Sm	<i>σ</i>	
11/20/06	Outlines Review	v & NRC Feedbac	ck Provided (c.2.h; C.3.e)	1/18/07	Smo	•	
12/15/06	Draft Exams w/l	References Due ((C.1.e,f,g,h; C.3.d)	1/15/07	me	5	
12/30/06	*Peer Reviewer	Completes Revie	ew of Exam on ES-401-9	NA	NA		
12/30/06	*NRC BC Appro	oves Feedback to	Facility (C.2.h; C.3.f)	1/18/07	m	5	
12/30/06	*Exams Review	red w/ Fac. (C.1.h	n;C.2.f & h; C.3.g)	1/18/07	Into	•	
12/30/06	Preliminary App	olications Due (C.	1.l;C.2.g; ES-202)	1/15/07	Smo		
1/4/07	Preliminary App	lications Reviewe	ed (C.1.I;C.2.g)	116 107	Smit	6	
1/15/07	Final Application	ns Due (C.1.l;C.2	i;ES-202)	1/22/07	mo	•	
1/15/07	On-Site Prepara	atory Week to Va	lidate Operating Exam	1/24/07	Smo		
1/15/07	On-Site Audit (1	10%) of License A	App's (ES-202 C.2.e)	1/29/07	mo	-	
1/22/07	Final Appl. OK'e	ed & Waiver Lette	ers Sent (ES-204; C.2.e)	1/23/07	Inf		
1/22/07	NRC Superviso	r Approved Final	Exams (C.2.i;C.3.h)	1/25/07	Smb		
1/22/07	Exam Approval (ES-201-4) Prep		att-4) and List of Applicants	1/07	fm+	produced by OLA	
1/22/07	Proctor Rules R	Review w/Fac. & V	Written Authorized (C.3.k)	NA	NA		
1/22/07	Exam Material t	o Exam Team (C	.3.i)	NA	NA		
1/29/07	Administer Ope	rating Exam On-	Site	1/29-31/0	1 Smt		
2/10/07	Facility Graded	Exam & Comme	nts Received	NV	NA		
2/13/07	NRC Written Ex	cam Grading Con	npleted	NA	NA	1	
2/13/07	Examiners Doc	ument Exam Gra	des on ES Forms	2/1/07	Smb	7	
2/23/07	NRC Chief Exa	miner Grading Re	eview Completed	2/1/07	Jm6		
2/24/07	NRC BC Review	w Completed		2/1/07	8m6		
2/28/07	License/Denials	Signed & Repor	t Issued	2/1/07	Smt	5	
2/28/07	RPS/IP Numbe	r of Examinees U	pdated	1/25/07	Jm t	print Report-21	
3/15/07	Examination Re	eport Issued		2/21/07	Jan 6	produced by Chie	f Examiner
3/22/07	Package Close	d Out		2/21/07	an 6		
3/22/07	Chief QA of AD	AMS and SISP re	eview complete	2/21/0-	n 8m	5	
* Indicates	the due dates are	e more conservat	ive than the ES-201-1 requires.				

Facility	Cooper Nuclear Station Date of Examination:	1-2	9-	07
	Task Description		Initials	
Item		а	b*	с#
1. V	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.			
R I	 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. 			
T	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.			
E N	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.			
2. S	Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	R	Ŋ	ABS
M U L A T	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, and ensure that 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 that scenarios will not be repeated on subsequent days.	fe	DY.	448
O R	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.	R	DL	118
3: W /	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power expressions and RCA tasks meet the criteria on the form.			
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations			
	Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.			
4.	Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	R	DY	W8
G E	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	R	M	NIA
N	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	NA		PK
E R	d. Check for duplication and overlap among exam sections.	R	AL	NA
A	e. Check the entire exam for balance of coverage.	KC	M	MA
L	f. Assess whether the exam fits the appropriate job level (RO or SRO).	RC	48	MA
c. NR	hor Randy Carlson Printed Rame/Signature Sility Reviewer (*) C Chief Examiner (#) C Supervisor ANNIONY T. Gody ANNIONY T. Gody ANNIONY T. Gody ANNIONY T. Gody	/	1-10 1-10 1-7	
Note:	# Independent NRC reviewer initial items in Column "c"; chief examiner concurrence re-			

Fac	cility: Cooper Nuclear Station Date of Examination: 1-29-07 Operating	Test N	lumbei	:
	1. General Criteria	а	Initial	s 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).	Al	DL	18
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	NIA	NA	N/A
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	RC	OL	H8
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	NJA	NIA	NA
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	R	N	133
	2. Walk-Through Criteria			
a.	Each JPM includes the following, as applicable: initial conditions initial conditions references and tools, including associated procedures 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 operationally important specific performance offering that include: detailed expected actions with exact criteria and formenciature 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			
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.			
	3. Simulator Criteria			7
The For	e associated simulator operating tests (scenario sets) have been reviewed in accordance with rm ES-301-4 and a copy is attached.	R	D	TR.
a. b. c. d.	NRC Chief Examiner (#) NRC Chief Examiner (#) NRC Chief Examiner (#) NRC Chief Examiner (#)	Dat 0 - C 10 - C 23 - C	27	

Facility	: Cooper Nocker Station Date of Exam: 1-24-6 Scenario Numbers: 1 /2	2 / 3 Operating Test	No.:		
	QUALITATIVE ATTRIBUTES			Initial	8
			а	b*	c#
1.	The initial conditions are realistic, in that some equipment and/or instrumenta of service, but it does not cue the operators into expected events.	ition may be out	R	D	199
2.	The scenarios consist mostly of related events.		R	NX.	48
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)		R	蚁	Aaj
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated in without a credible preceding incident such as a seismic event.	nto the scenario	RC	W	443
5.	The events are valid with regard to physics and thermodynamics.		RC	102	AS
6.	Sequencing and timing of events is reasonable, and allows the examination to complete evaluation results commensurate with the scenario objectives.	eam to obtain	R	DY	AS
7.	If time compression techniques are used, the scenario summary clearly so in Operators have sufficient time to carry out expected activities without undue Cues are given.		WA	NA	Ma
8.	The simulator modeling is not altered.		R	12	VAS
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(d), any open performance deficiencies or deviations from the referenced plant have been to ensure that functional fidelity is maintained while running the planned scen	evaluated	A.	W	A38
10.	Every operator will be evaluated using at least one new or significantly modif All other scenarios have been altered in accordance with Section D.5 of ES-3		æ	D	W8
11.	All individual operator competencies can be evaluated, as verified using Forr (submit the form along with the simulator scenarios).	m ES-301-6	R	N	Mg
12.	Each applicant will be significantly involved in the minimum number of transic specified on Form ES-301-5 (submit the form with the simulator scenarios).	ents and events	R	N	THE
13.	The level of difficulty is appropriate to support licensing decisions for each cr	ew position.	R	DL	RS
	Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes			
1.	Total malfunctions (5–8)	5 1517	R	DZ	448
2	Malfunctions after EOP entry (1–2)	21112	Re	DL	118
3.	Abnormal events (2-4)	3 1314	R	11	Ths
4.	Major transients (1–2)	1 /1/ 1	AC.	Del	41)
5.	EOPs entered/requiring substantive actions (1–2)	21212	RC	02	THE
6.	EOP contingencies requiring substantive actions (0-2)	1 101 1	H	BZ.	V18
7.	Critical tasks (2–3)	21313	1	12	133

Facility: Z	coper 1	Vucleo	s Stree	tion		Date	of Exam	: 1-2	9-07	<u> </u>	Ope	rating	Test N	0.:			
A P	E V							Sc	enarios	3							
P	Ē		1			2			3			4		T		М	
L I	N T		005141			005			00514			00514		O		I N	
C A	T		CREW DSITIO	N		CREV OSITI			CREW OSITIC			CREW OSITIC		A			
N	Υ	S	A	В	S	Α	B	S	Α	В	S	Α	В	L		M U	
Т	P E	R O	T C	O P	R	T C	O P	R O	T C	O P	R	T C	O P			M(*	<u> </u>
			Ů			ਁ		Ŭ		•			'		R	ı	U
RO D	RX		1				0							1	1	1	0
SRO-I	NOR		1				0		!					1	1	1	1
	I/C		3				4							7	4	4	2
SRO-U	MAJ		1				1		<u> </u>					2	2	2	1
	TS		0											0	0	2	2
RO	RX													<u> </u>	1	1	0
SRO-I	NOR		<u> </u>												1	1	1
SRO-U	I/C		<u> </u>												4	4	2
	MAJ		<u> </u>	ļ											2	2	1
	TS					<u> </u>			1						0	2	2
RO	RX			ļ						ļ			ļ		1	1	0
SRO-I	NOR	<u> </u>	<u> </u>				<u> </u>							<u> </u>	1	1	1
SRO-U	I/C	ļ	<u> </u>	<u> </u>					<u> </u>					ļ	4	4	2
	MAJ		<u> </u>		ļ	<u> </u>									2	2	1
	TS		ļ	ļ				<u> </u>						ļ	0	2	2
RO	RX			ļ		-			ļ					_	1	1	0
SRO-I	NOR			<u> </u>	<u> </u>	ļ				ļ				-	1	1	1
SRO-U	I/C	ļ	ļ	<u> </u>	-	ļ	ļ		ļ	ļ	-	<u> </u>		-	4	4	2
	MAJ		 		 	<u> </u>	<u> </u>	 	<u> </u>			1		\vdash	0	2	2
Instructio				<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> Ш</u>	<u> </u>	<u> </u>	<u> </u>
1.	Check the event type and "bala two instru	e; TS a nce-of	are not -plant (applic BOP)'	able fo positi	r RO ons; Ir	applican nstant SI	its. RC ROs m)s mus ust do	t serve one sc	in both enario,	the "a includi	t-the-c ing at I	ontro east			

- 2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
- 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 requirements specified for the applicant's license level in the right-hand columns.

Facility: Cooper Nocker State	D دون	ate c	f Ex	amir	natio	n: <i>/</i> ·	-27-	07		Оре	eratir	ng T	Γest	No.:		
							APP	LIC	ANT	— S						
	11	RO SRC SRO)-I			RO SRO SRO			,	RO SRC				RO SRC SRO		
Competencies	s	CEN	IARI	0	5	CEN	IARI	0	S	CEN	IARI		S	CEN	ARI	2
	0	(2)	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	V	1														
Comply With and Use Procedures (1)	v	1														
Operate Control Boards (2)	V	1													,	
Communicate and Interact	V	V														
Demonstrate Supervisory Ability (3)																
Comply With and Use Tech. Specs. (3)				:												
Notes: (1) Includes Technical S (2) Optional for an SRC (3) Only applicable to S)-U.	icatio	n cor	mplia	nce f	or an	RO.									

Instructions:

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

Page 1 of 4

07:51:31 01/26/2007

Operator Licensing Exam Schedule From 01/01/2007 To 02/15/2007

Report 21

Phase Code: 5 Operational

Region: 4

Cooper / 05000298 / 2007301 TAC #: X02372 Exam Week Site/Docket No./Insp Rpt # 01/29/2007

RO-1

Candidates

GARCHOW, STEPHEN M.

Exam Author Chief Examiner

GARCHOW, STEPHEN M.

Examiners Assigned

Operator Licensing Exam Schedule From 01/01/2007 To 02/15/2007

07:51:31 01/26/2007

Report 21

Region: 4

Page 2 of 4

Phase Code: 5 Operational

Summary By Date

01/2007 CNS - Cooper RO - 1

SROI-0

SROU - 0

LSRO-0

Total for Cooper: 1

Operator Licensing Exam Schedule From 01/01/2007 To 02/15/2007

07:51:31

01/26/2007 Report 21

Page 3 of 4

Phase Code: 5 Operational

Region: 4

Summary By Site

CNS - Cooper RO - 1

SROI - 0

SROU-0

LSRO-0

Total for Cooper: 1

Operator Licensing Exam Schedule From 01/01/2007 To 02/15/2007

07:51:31 Page 4 of 4 01/26/2007 Region: 4 Report 21

Phase Code: 5 Operational

Summary By Region

SROI-0 Region 4 RO - 1

SROU - 0

LSRO-0

Total for Region 4: 1

Pre-Examination

authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or 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 I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 0 1-29-0 7 as of the enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and suggestions that examination security may have been compromised.

2. Post-Examination

during the week(s) of 0/-29-67. From the date that I entered into this security agreement until the completion of examination administration, I did not To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered 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.

2-1-07 1/30/07 1/30/07 2/3/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2	
SIGNATURE (2)	1
1/8/07 1 1/8/07 1 1/8/07 1 1/9/07 1	
SIGNATURE (1) SIGNATURE (1) SHALL STORY SHALL SHALL STORY SHALL STORY SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHALL SHAL	
JOB TITLE / RESPONSIBILITY Instructor Developer JOST FRACTOR SPECIALIST MELLIN THISTORY SPECIALIST CANS SIM SAND SIM SAND SIM SAND Thistory (Velialists Thistory (Velialists) Thistory (Velialists)	
1. Land Calson 2. Cawle Done Son 3. Cicil Role Offer 5. Swaren Ketcls Co. 6. Septem Ketcls Co. 7. Kobert Alexander 8. Ken Hole Oce 9. Rol W. Giles 9. Rol W. Giles 11. Idnmy KNOPP 12. M. Donerke U 13. Dang Washell 14. Ed Jan Donerke U 15. J.W. Jan 15. J.W. Jan 15. J.W. Jan	NOTES:

Form ES-201-3	
Examination Security Agreement	
ES-201	

Pre-Examination

authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or 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 I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of DI - 29 - b 7 as of the enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and suggestions that examination security may have been compromised.

Post-Examination

during the week(s) of 24-27. From the date that I entered into this security agreement until the completion of examination administration, I did not To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered 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 (3) DATE NOTE
Ladelle 308 Mark	1/elistate		19/54/1	,
2. Josh Unral	Serus Procedures) 129/01	Well Se
3. Lorne J. Coving	Reactor Engineer	AND THE	1952/1	
Į.		C	/	1
5.				
6.				
7.				
· Θ.				
ග				
10.				
12.				
13.				
14.				
15.				
NOTES:				