

<b>United States Nuclear Regulatory Commission Official Hearing Exhibit</b>	
<b>In the Matter of:</b>	Charlissa C. Smith (Denial of Senior Reactor Operator License)
	<b>ASLBP #:</b> 13-925-01-SP-BD01
	<b>Docket #:</b> 05523694
	<b>Exhibit #:</b> NRC-032-00-BD01
	<b>Admitted:</b> 7/17/2013
	<b>Rejected:</b>
<b>Other:</b>	<b>Identified:</b> 7/17/2013
	<b>Withdrawn:</b>
	<b>Stricken:</b>

NRC-032  
Submitted: May 31, 2013

**GRADING PHILOSOPHY AND CONSISTENCY**

One of the principal assertions that is present throughout multiple comments made by Carla in her appeal is that she was graded excessively hard; specifically because many of her errors did not result in adverse consequences. However, NUREG 1021 directly contradicts this position; in section ES-303 it states:

Using Form ES-303-3 or ES-303-4, depending on the applicant's license level, and the following generic guidance, evaluate any deficiencies coded for the simulator test to determine a grade for every applicable rating factor (RF) and competency. Keep in mind that the simulator test is generally graded based on competencies rather than consequences; every error that reflects on an operator's competence is considered equal unless it is related to the performance of a critical task (as determined in accordance with ES-301 and Appendix D).

Therefore, with the exception of a critical task as noted above, the examiners were required to grade every error that reflects on an operator's competence equally, irrespective of the consequences or potential consequences of the error. The potential or actual consequences of the individual errors are documented in the 303 form write-up in accordance with NUREG 1021 ES-303 D.3.b., but do not have any bearing on the grading.

Furthermore, the applicant contends that some of her communications errors contained minimal consequences. In addition to the above guidance, NUREG-1021 recognizes that communications, on its own, has lesser significance. This is evidenced by the grading criteria specifically preventing a failure based solely on competency 4, Communications. Competency 4 is treated differently than all of the other competencies in that a score of less than 1.8 can still result in a passing grade for the dynamic simulator portion of the exam. Receiving a score of less than 1.8 only raises the cut score in the other competencies from 1.8 to 2.0. With this in mind, NUREG-1021 contains scoring mechanics that explicitly address the level of significance of communication errors. Lastly, as can be seen in the table discussed below, several communications errors existed that were not documented. The number of communication errors display a pattern of poor communications, some of which did contain significance.

Another one of the principal assertions was that many of her errors were corrected by her teammates. However, in NUREG-1021, Appendix E, Part E, item 4, states:

Members of the operating team or crew (whether applicants or surrogates) should perform peer checks in accordance with the facility licensee's procedures and practices; non-crew members and NRC examiners will not perform this function. However, if you begin to make

an error that is corrected by a peer checker, you will be held accountable for the consequences of the potential error without regard to mitigation by the crew.

Therefore, when corrected by her teammates when a direction or mis-operation was performed, the examiners were required to downgrade Carla and hold her accountable for the consequences of the potential error without regard to the mitigation by the crew.

NUREG-1021, ES-303, Section D.1.d, reads as follows:

..... Whenever possible, attempt to identify the root cause of the applicant's deficiencies and code each deficiency with no more than two different rating factors. However, one significant deficiency may be coded with additional rating factors if the error can be shown, consistent with the criteria in Section D.3.b, to be relevant to each of the cited rating factors.

Considering the above guidance, the errors were assigned to the rating factor the exam team believed to be the root cause of the deficiency. In many instances, the exam team discussed that it may be appropriate to place some of the errors in more than one rating factor. In the end, the exam team decided to only place each error in one rating factor that was most closely related to the root cause of the error, although the above guidance allowed for up to two different rating factors to be documented under normal circumstances. Throughout the analysis of the grading during the appeal process, the exam team has noted other rating factors in which the applicant displayed weakness during a specific error. Even though the errors were only documented under one rating factor, the association with other rating factors was used as justification for placing a score of "1" in some rating factors where only two errors were documented.

Furthermore, prior to issuance of the license denial to Carla, the exam team sought independent reviews from two Senior Operations Engineers and one Operations Engineer, all having previously held senior reactor operator licenses, to critique the grading of the form 303 write-up and provide critical feedback. Comments from these reviews were largely incorporated into the final documentation.

The applicant contended in her cover letter that the grading was inconsistent due to there not being any errors documented in areas of Procedures (Competency 3) and Directing Shift Operations (Competency 5):

In addition, the overall exam results are not consistent. The applicant received a score of 3.0 in the areas of Procedure Usage and Directing Operations but received a 1.70 in Interpretation/Diagnosis and a 1.2 in Communication. These areas have a direct impact on the success path for

Procedure usage and Directing Operations. In reviewing the comments there were instances where pertinent information was not included in the description of the assessment, allowing the competencies to be downgraded. How is the crew able to be successful when all directions are taken from the Shift Supervisor (role) and requires that individual to be able to interpret, diagnose, and communicate to navigate through the various procedures?

It is true that no errors were documented on the Form 303 in these two competency areas. The exam team had discussions with the Branch Chief on this exact point prior to issuance of the denial. It was recognized by the entire team that there were elements of Directing Shift Operations prevalent throughout the errors that were documented in other rating factors. The team chose to assign each error to only one rating factor even though there were elements of the error that could be assigned to additional rating factors. It was also noted, to a lesser degree, that there were also elements of procedure usage errors. See the following table for a depiction of rating factor association with applicant errors.

ES-303

**SRO Competency Grading Worksheets  
for the Simulator Operating Test**

Form ES-303-4

1. Interpret/Diagnose Events and Conditions Based on Alarms, Signals, and Readings				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant RECOGNIZE AND ATTEND TO off-normal trends and status in order of their importance and severity?	N/O = 0	3		
	Nominal = 0.20	2		
	(b) N/O = 0.25	1		
	(c) or (d) N/O = 0.29			
(b) Did the applicant ensure the collection of CORRECT, ACCURATE, and COMPLETE information and reference material on which to base diagnoses?	N/O = 0	3		
	Nominal = 0.20	2		
	(a) N/O = 0.25	1		
	(c) or (d) N/O = 0.28			
(c) Did the applicant's directives and actions demonstrate an UNDERSTANDING of how the PLANT, SYSTEMS, and COMPONENTS OPERATE AND INTERACT (including set points, interlocks, and automatic actions)?	N/O = 0	3		
	Nominal = 0.30	2		
	(a) or (b) N/O = 0.38	1		
	(d) N/O = 0.43			
(d) Did the applicant correctly INTERPRET/DIAGNOSE plant conditions based on control room indications?	N/O = 0	3		
	Nominal = 0.30	2		
	(a) or (b) N/O = 0.37	1		
	(c) N/O = 0.43			
2. Comply with and Use Procedures and References				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant REFER to correct procedures, procedural steps, and references when appropriate?	N/O = 0	3		
	Nominal = 0.30	2		
	(b) N/O = 0.43	1		
	(c) N/O = 0.50			
(b) Did the applicant RECOGNIZE EOP ENTRY CONDITIONS?	N/O = 0	3		
	Nominal = 0.30	2		
	(a) N/O = 0.43	1		
	(c) N/O = 0.50			
(c) Did the applicant USE PROCEDURES CORRECTLY, including following procedural steps in correct sequence, abiding by procedural cautions and limitations, selecting correct paths on decisions blocks, and correctly transitioning between procedures?	N/O = 0	3		
	Nominal = 0.40	2		
	(a) or (b) N/O = 0.57	1		

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Form ES-303-4

3. Operate the Control Boards <i>[NOTE: This competency is optional for SRO-upgrade applicants; refer to Section D.2.b.]</i>				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant LOCATE AND MANIPULATE CONTROLS in an accurate and timely manner?	N/O = 0	3		
	<b>Nominal = 0.34</b>	2		
	(b) or (c) N/O = 0.5	1		
(b) Did the applicant's control manipulations demonstrate an UNDERSTANDING OF SYSTEM OPERATION, including set points, interlocks, and automatic actions?	N/O = 0	3		
	<b>Nominal = 0.33</b>	2		
	(a) or (c) N/O = 0.5	1		
(c) Did the applicant demonstrate the ability to take MANUAL CONTROL of automatic functions?	N/O = 0	3		
	<b>Nominal = 0.33</b>	2		
	(a) or (b) N/O = 0.5	1		
4. Communicate and Interact with the Crew and Other Personnel				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant communicate in a clear, easily understood manner?	N/O = 0	3		
	<b>Nominal = 0.4</b>	2		
	(c) N/O = 0.5	1		
	(b) N/O = 0.67			
(b) Did the applicant keep crew members and those outside the control room informed of plant status?	N/O = 0	3		
	<b>Nominal = 0.4</b>	2		
	(c) N/O = 0.5	1		
	(a) N/O = 0.67			
(c) Did the applicant ENSURE RECEIPT of clear, easily-understood communications from crew and others?	N/O = 0	3		
	<b>Nominal = 0.2</b>	2		
	(a) or (b) N/O = 0.33	1		

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Form ES-303-4

5. Direct Shift Operations				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant take <b>TIMELY AND DECISIVE ACTION</b> that demonstrated appropriate <b>CONCERN</b> for the <b>SAFETY</b> of the plant, staff, and public?	N/O = 0	3		
	<b>Nominal</b> = 0.30	2		
	(c) or (d) N/O = 0.38	1		
	(b) N/O = 0.43			
(b) Did the applicant remain <b>ATTENTIVE</b> to control room indications, stay in a position of <b>OVERSIGHT</b> , and provide an <b>APPROPRIATE AMOUNT</b> of <b>DIRECTION</b> and <b>GUIDANCE</b> that facilitated <b>CREW PERFORMANCE</b> ?	N/O = 0	3		
	<b>Nominal</b> = 0.30	2		
	(c) or (d) N/O = 0.37	1		
	(a) N/O = 0.43			
(c) Did the applicant <b>SOLICIT</b> and <b>INCORPORATE FEEDBACK</b> from the crew to foster an effective, team-oriented approach to problem solving and decision making?	N/O = 0	3		
	<b>Nominal</b> = 0.20	2		
	(d) N/O = 0.25	1		
	(a) or (b) N/O = 0.29			
(d) Did the applicant ensure that <b>CORRECT AND TIMELY ACTIVITIES</b> (including diagnosis, procedural implementation, and control board operations) were carried out <b>BY THE CREW</b> ?	N/O = 0	3		
	<b>Nominal</b> = 0.20	2		
	(c) N/O = 0.25	1		
	(a) or (b) N/O = 0.28			
6. Comply with and Use Technical Specifications (TS)				
Rating Factors	Weighting Factors	RF Scores	RF Grades	Comp. Grade
(a) Did the applicant <b>RECOGNIZE</b> when conditions were covered by the TS and <b>LOCATE</b> the appropriate TS?	N/O = 0	3		
	<b>Nominal</b> = 0.4	2		
	(b) N/O = 1.0	1		
(b) Did the applicant ensure correct <b>COMPLIANCE</b> with TS and LCO action statements?	N/O = 0	3		
	<b>Nominal</b> = 0.6	2		
	(a) N/O = 1.0	1		

**Cross Reference Table of Errors and Related Rating Factors**

RF / 303 Pg # of Doc Error	8	10	12	14	16	18	19	20	21	23	24	25	26	27	28	29	30	31	RF Score
<b>1. Interpretation/Diagnosis</b>																			
a. Recognize & Attend	X																		3
b. Ensure Accuracy	D	D			X	X					X								1
c. Understanding			D	D					X										1
d. Diagnosis					D														2
<b>2. Procedures</b>																			
a. Reference				X															3
b. EOP Entry																			3
c. Correct Use		X										X							3
<b>3. Control Board Operations</b>																			
a. Locate & Manipulate						D	D	D											1
b. Understanding																			3
c. Manual Control									D										2
<b>4. Communications</b>																			
a. Clarity			X							D	D	D							1
b. Crew & Others Informed	X					X	X	X					D	D					1
c. Receive Information			3X												D				2
<b>5. Directing Operations</b>																			
a. Timely & Decisive Action																			3
b. Oversight		X		X															3
c. Solicit Crew Feedback	X										X								3
d. Monitor Crew Activities			X	X	X														3
<b>6. Technical Specifications</b>																			
a. Recognize & Locate															D	D	D		1
b. Compliance																			3

D: denotes where the actual error was originally placed on the Form 303-1.  
 X: denotes other rating factors where weaknesses were attributed, but not documented on the Form 303-1.