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# PUBLIC SUBMISSION

**Docket:** NRC-2016-0006

Operator Licensing Examination Standards for Power Reactors, NUREG-1021, Revision 11

**Comment On:** NRC-2016-0006-0005

Operator Licensing Examination Standards for Power Reactors; Extension of Comment Period

**Document:** NRC-2016-0006-DRAFT-0016

Comment on FR Doc # 2016-04748

## Submitter Information

**Name:** Charles Pierce

**Submitter's Representative:** Catherine Galloway

**Organization:** Southern Nuclear Operating Company

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## General Comment

See attached file(s)

## Attachments

NL-16-0298

2/5/2016  
 81FR 6301-1

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**SUNSI Review Complete**

Template = ADM - 013

E-RIDS= ADM-03

Add= *M. Schultz (mcsr)*

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March 29, 2016

NL-16-0298

Cindy Bladey  
Office of Administration, Mail Stop OWFN-12-H08  
US Nuclear Regulatory Commission  
Washington, DC 20555-0001

Comments on Draft Revision 11 to NUREG 1021, "Operator Licensing Examination  
Standards for Power Reactors"  
(Docket ID NRC-2016-0006)

Dear Ms. Bladey:

Southern Nuclear Operating Company (SNC) hereby submits comments for consideration by the U.S. Nuclear Regulatory Commission (NRC) staff. Specifically, SNC is providing comments on Draft Revision 11 to NUREG 1021, "Operator Licensing Examination Standards for Power Reactors," (Docket ID NRC-2016-0006) as noticed in the Federal Register (*Federal Register* Vol. 81, No. 24, 6301, dated February 5, 2016).

SNC has reviewed the draft RIS and has the following general comments:

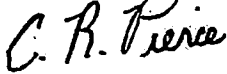
1. The cumulative effects of the proposed changes, as well as the effect of several of the individual proposed changes, unnecessarily complicate operator licensing examination preparation and execution with the potential result of failing a competent applicant.
2. There is no evidence that the current operator licensing standards would result in issuing a license to a candidate who is not competent to operate a reactor. The proposed changes would unnecessarily raise the standard for being granted an operating license with no corresponding safety benefit.
3. The effects of the proposed changes would have a negative economic impact on licensees with no positive impact on safe plant operations and corresponding protection of the health and safety of the public.

Specific comments are included in the attachment to this letter.

SNC encourages the NRC to hold one or more public meetings to discuss resolution of industry comments on the proposed revision to NUREG 1021 so that appropriate operator licensing standards promote safe plant operation and adequate protection of the health and safety of the public without undue burden on candidates, examination preparers, or examiners.

If you have any questions or comments, please contact Justin Wheat at (205) 992-5998.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. R. Pierce". The signature is written in a cursive, flowing style.

C. R. Pierce  
Regulatory Affairs Director

*CRP/DN/cbg*

cc: Southern Nuclear Operating Company  
Mr. S. E. Kuczynski, Chairman, President & CEO  
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer  
Mr. M. D. Meier, Vice President – Regulatory Affairs  
Mr. B. J. Adams, Vice President – Engineering  
SNC Document Services - RType: CGA02.003

**Comments on Draft NUREG-1021, Revision 11**  
**“Operator Licensing Examination Standards for Power Reactors”**  
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<b>ID</b>	<b>Section, Page, and Line #</b>	<b>Comment</b>	<b>Proposed Resolution</b>
1	ES-201, D.1.a	<p>Revision 11 revises the the requirements for NRC examiners to be involved in an operating test re-examination.</p> <p>As written, it is not clear if a student that fails an operating exam will be allowed to have an examiner who participated on the exam team but did not evaluate that student.</p> <p>The NRC should ensure that this provision is implemented in a manner that allows for sufficient resources such that re-examinations are administered in a timely manner to support licensee staffing needs. This is of particular concern for large classes of initial license candidates.</p>	<p>The NRC should write D.1.a in a manner to take into account multiple simulators, large exam teams and the need for preserving examiners for future exams in the event of operating exam failures.</p>

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ID	Section, Page, and Line #	Comment	Proposed Resolution
2	ES-301 D.5.b and form ES-301-4 #9.	<p>“A significant modification means that at least two events or conditions have been replaced or significantly altered such that operators will not recognize them from the <b>previous two NRC initial licensing operating exams.</b>”</p> <p>The requirement to replace or significantly alter events from the previous two exams is overly restrictive.</p> <p><b>Reason:</b></p> <ol style="list-style-type: none"> <li>1. The chief examiner regulates predictability by interpreting “significantly altered” and ensures there is an acceptable mix of events.</li> <li>2. Each scenario has to flow and make sense. Some events do not support the theme of the scenario and should be excluded since they would challenge the flow of the scenario.</li> <li>3. It was presented at the NEI conference that there are thousands of events (failures) that can be used; however, a majority of those failures are one switch events, non-events, or have no real impact on the plant. Thus, there are not as many failures for each position as perceived. Attempting to include minor failures as events in order to expand the population of events would not provide for a quality exam.</li> <li>4. At present, no event from an audit exam is allowed to be used on the NRC exams, further reducing the number of failures available. Most facilities are required to submit five scenarios for the NRC exam and use four scenarios for the audit exam at a minimum. Exam writers are also tasked with using more events in each scenario in case something is missed. Given these requirements, disallowing 50% of the past two NRC exams would reduce the population of available events by more than 30 events overall, severely restricting the ability to prepare an acceptable exam. This makes it extremely difficult to provide an NRC exam that will be a good evaluation tool and is non-predictable.</li> <li>5. A cumulative impact is that this change will also affect the written exam and job performance measures (JPMs). Since only a certain group of failures will be available for the operating exam, those failures will not be available to the written exam or JPMs.</li> </ol>	<p>Remove this paragraph from ES-301 D.5.b. and from form ES-201-2, Item 4.d. (failures from the last two NRC exams). If it is not acceptable to remove this guidance entirely, consider excluding 50% of the events from the past one NRC exam instead the past two exams.</p>

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3	ES-301 D.5.b and Appendix D C.1.f.	<p>In both places, Revision 11 states: "Additionally, any repeated major events from the last two tests should be changed so as to alter the course of action (within the emergency procedures) for the given scenario(s)."</p> <p>This addition to the NUREG restricts major events. The major events are much more limited than the Instrument/Malfunction events. For example, if an H.1 major event is used with 1) Steam Generator Feed Pump recovery 2) Condensate pump recovery 3) Bleed and Feed recovery, on the Audit and last 2 NRC exams respectively, the H.1 event cannot be used on the next NRC exam. Not only does it make it very difficult to comply, it makes the NRC exam more predictable. Students can know what has been used and determine what can be excluded. By excluding items from an exam, the items that may appear on the exam are significantly narrowed. Exam preparers understand the need to avoid exact repetition of scenarios.</p>	Remove this statement from the NUREG.
4	ES-301 D.5.d	<p>The proposed revision would include the requirement that "A scenario must have at least two critical tasks."</p> <p>For the new reactor designs it is increasingly difficult to employ critical tasks that have a defined failure point, such as a parameter that will occur in a reasonable amount of time. Most events require more than 72 hours to reach these parameters based on the safety systems design.</p> <p>NUREG 1021, Revision 10 allows the chief examiner to include only one critical task because of the caveat that "The quantitative attribute target ranges that are specified on the form are not absolute limitations; some scenarios may be an excellent evaluation tool, but may not fit within the ranges."</p>	For new reactors provide the same type of wording that is in NUREG 1021, Revision 10 shown below. (ES-301 page 15 of 27): "The quantitative attribute target ranges that are specified on the form are not absolute limitations; some scenarios may be an excellent evaluation tool, but may not fit within the ranges."

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5	ES-303 D.1.d	<p>In the proposed revision, Technical Specification competency would be graded individually for each entry rather than for each event. This change could have unintended consequences. For instance failures with multiple Technical Specification entries may be less likely to be placed on NRC exams, which would limit the evaluation process of the exams.</p> <p>Additionally, a scenario with multiple Technical Specification entries may put candidates at undue risk of failure because of separate grading for each entry.</p>	<p>Allow the facility to use one event that involves multiple Technical Specifications instead of requiring 2 events with Tech Specs entry. The number of Tech Specs would be the same or more than is required at present without unnecessarily oversampling this area on the operating exam.</p> <p>Consider allowing a "points back" grading system that would allow flexibility to show a satisfactory result for a competent operator in instances where more than one error is made during multiple Technical Specification scenarios.</p>
6	ES-303 D.2.b.	<p>The proposed revision would include the following guidance for noncritical errors: "If an applicant has three or more performance deficiencies related to a rating factor, other than rating factors under the Communications competency, circle an 'RF Score' of '0.'"</p> <p>Changing the range for the rating factor from 1 to 0 for noncritical errors will unnecessarily increase likelihood of failure for applicants who would otherwise be successful. This is unnecessary and will not provide a measurable increase in competency for applicants.</p>	<p>Leave the rating factors as is in Rev 10 and do not implement this change.</p>

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7	ES-303 D.2.b	<p>The proposed language of Revision 11 eliminates the allowance to give points back for noncritical errors. This allowance was necessary to provide relief for a candidate who is competent but makes a few noncritical errors.</p> <p>During a scenario, an applicant can be provided multiple opportunities to show competency in an area. Some scenarios provide more than the expected three opportunities and therefore can fail the applicant who is at the minimum standard. The practice of allowing points back can provide the examiner a better picture of the candidate's overall ability. Due to the number ratings being revised to more stringent criteria, this is even more important to the rating of the candidate than in previous exams.</p>	<p>Retain the wording from Revision 10, "If an applicant makes two errors related to a rating factor, circle an 'RF Score' of '1' for that rating factor unless the applicant correctly performed another activity (or activities) related to the same rating factor, in which case the 'RF Score' shall remain at '2.' In either case, a justification of the 'RF Score' shall be documented on the applicant's Form ES-303-2. For example, a score of '1' shall include documentation such as 'the applicant correctly performed no other activities related to this RF during the simulator operating test'; whereas a score of '2' shall include documentation such as 'the applicant correctly performed another activity associated to this rating factor'. As stated above, if an error is related to a critical task then this requires an 'RF Score' of '1.'"</p>
8	ES-303 D.2.b.	<p>In the proposed revision, a missed critical task (CT) would result in a 3 point reduction with a score of 0. This is not a fair evaluation of the applicant. Revision 10 had a decrease of 2 points for this issue and since a 0 has more consequences on the overall grade, consideration should be given to a 2 point deduction. If the applicant has more issues past 1 Critical error, they will appear and be graded in other areas, which would then lead to failure of the applicant.</p>	<p>Change "a missed CT results in a 3-point deduction for an 'RF Score' of '0.'" to "a missed CT results in a 2-point deduction for an 'RF Score' of '1.'"</p> <p>Revise other guidance in the NUREG to align with this comment.</p>



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<b>ID</b>	<b>Section, Page, and Line #</b>	<b>Comment</b>	<b>Proposed Resolution</b>
9	ES-401 D.2.c. and Form ES- 401-6	Since reference to the percent of questions was removed from previous wording in D.2.f. and the actual number of questions was inserted, instead of referencing “between 50 and 60 percent of the questions on the RO examination and at least 50 percent of the questions on the SRO-only portion” re-write the sentence using the number of questions instead of percent.	Change the wording to “between 38 and 45 questions on the RO examination and at least 13 questions on the SRO-only portion ....”
10	Appendix D C.2.j	Appendix D item C.2.j contains a note: “Note: An unintentional RPS or ESF actuation does not equate to a failure to perform a CT. A post-scenario CT may be created if that unintentional actuation results in a significant plant degradation or significantly alters a mitigation strategy. The <u>active</u> of initiating the actuation is not a CT” (Emphasis added)  The last sentence appears garbled.	Clarify the last sentence in the note.