

Docket-2016-0006, Operator Licensing Examination Standards for Power Reactors, NUREG- 1021, Revision 11

General Comment	Date Received	Commenter	Commenter's organization	Applicable Section(s)	Category	NRC disposition	Basis	Set	#
The Nuclear Energy Institute requests that the comment period be extended to 60 days. This document is voluminous and the revisions appear to be extensive. This additional time is required to allow the industry sufficient time to review it and to develop a comprehensive set of public comments.	2/9/2016	Bruce Montgomery	Nuclear Energy Institute	General	Public comment period	Comment period extended.	Comment period extended due to the substantive nature of the changes and additional substantive changes due to Project AIM items.	1	a
The value of 50% [(of the events used in all scenarios from the previous two NRC initial licensing exams)] as a limit applied universally is too arbitrary. Recommendation: Delete the universal 50% repeat limitation. Rev. 11 D.5.b already states: "To maintain test integrity, every applicant shall be tested on at least one new or significantly modified scenario that he or she has not had the opportunity to rehearse or practice. 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 previous two NRC initial licensing operating exams." If that is not deemed adequate, include a limitation that malfunction events in any single scenario must be 50% different than malfunction events in any single scenario during the previous 2 exams. Reduce the limitation on repeat events based on the exam scenario set population (i.e for an exam with 2 scenarios, limit repeat events to 25%; for 3 scenarios, limit repeat events to 50%; for 4 or more scenarios, limit repeat events to 25%).	2/23/2016	Anonymous	Anonymous	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	2	a
With respect to reactivity manipulations, the possible permutations for a BWR are limited (e.g via Control rods or Recirc flow, raise or lower). Therefore, to include a reactivity manipulation will almost certainly be repeating an event from the previous 2 exams and will, thus, consume a large portion of any repeats allowed. Recommendation: The wording in revision 11 should specifically exclude reactivity manipulation events from any repeat limitation.	2/23/2016	Anonymous	Anonymous	ES-301	50% limit of events from previous two exams	Incorporated	As discussed in the resolution to comment 2 a, the entire operating test scenario overlap guidance was edited to instead require every scenario to be new or significantly modified, with the definition of significant modification being updated to require at least 2 events that had not been used on the previous 2 NRC initial license operating tests. However, due to the limited nature of reactivity manipulations, these have been explicitly excluded from overlap requirements.	2	b
Rev 11 section ES-301 D.5.b and form ES-301-4 item 9 both state the event repetition limit is exclusive of major events. However, ES-301 D.5.b goes on to state: "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)." This contradicts the exclusion and is actually a requirement to have 100% different major events, since the language states "any" repeated major event. That, in itself, would promote predictability. Recommendation: Delete "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)." Instead, add that if a major event is repeated, the exam writer should vary initial conditions and subsequent malfunctions in order to require some operator response that is different than that required in the previous 2 exams.	2/23/2016	Anonymous	Anonymous	ES-301	Repeated "major events" limit	Partially incorporated	Language was moved to Appendix D and altered to state that the examination author should change the major event, the initial conditions, and/or the subsequent malfunctions to alter the course of action in the EOP's. This allows the author more flexibility in addressing any overlap considerations with major events in the previous two operating tests.	2	c
To guard against unintended consequences [due to changing the grading from 1, 2, and 3 to 0, 1, 2, and 3 and by eliminating the point back feature] in the form of higher than expected failure rates, Recommendation: the NRC should review the administration of initial operating tests after about one year to determine if the test outcomes meet the agency's goals.	3/15/2016	David Lochbaum	Union of Concerned Scientists	ES-303	Grading practices	Noted.	A pilot program has been in place to review current operating test grading against the new criteria to see the impact of the changes. The initial pilot program, which compared grading of all license exams between current simulator grading requirements with the grading requirements of NUREG 1021, Rev.11, was conducted between November 2014 and December 2015. No additional pilot program is planned.	3	a
the last paragraph on ES-303, page 1 of 19 contradicts ["the equitable and consistent administration of examinations for all applicants"] and can result in inequities. It states that "If an applicant has a performance deficiency with serious safety consequences, the examiner may recommend an operating test failure even if the grading instruction in Section D would normally result in a passing grade." Likewise, this paragraph also permits the Chief Examiner to recommend issuing a license to an applicant who has failed the operating test. But NUREG-1021 fails to contain even minimal guidance on what constitutes "serious safety consequences." Absent such guidance, it is up to the Chief Examiner to decide whether a performance deficiency does, or does not constitute serious safety consequences...Consequently, either this provision must be entirely removed from NUREG-1021 or extensive text added to it to give applicants and examiners appropriate guidance on what does, and what does not, have "serious safety considerations."	3/15/2016	David Lochbaum	Union of Concerned Scientists	ES-303	"Nuclear option"	Noted.	NUREG-1021 cannot provide prescriptive guidance for every possible situation and therefore some flexibility and reliance on examiner judgment is required. However, such a determination as described in this comment is not solely up to the Chief Examiner. The applicant's examiner of record can recommend performance of this provision. The Chief Examiner would then have to agree with the justification as would the regional branch chief. Finally, the last sentence states that the region shall obtain written concurrence from the requisite headquarters program office if such a provision was exercised. Therefore, the program office, in conjunction with the region, will determine if sufficient justification exists to determine that serious safety consequences exist. No additional guidance is necessary.	3	b
Paragraph h, 2nd bullet: " in any way " was added to require submission of the original question anytime a question is modified in any way. What does " in any way " mean? Typos, editorial changes, changing the font? What is the goal of this change because it seems to add unnecessary administrative burden to the process.	3/17/2016	Fred Bruns	Exelon Corp.	ES-201	Meaning of "in any way"	Noted.	The NRC needs to evaluate changes to bank questions both to determine if the changes meet the definition of significantly modified (whether coded that way or not by the facility) as well as to determine if the changes to the question (including typo correction) result in any psychometric/job content flaws that were not in the original question. This information is also used by the NRC in determining initial submittal quality. However, the NRC does not consider a formatting change to require a submittal of the original question. This was added as a footnote for clarity.	4	a
As stated in Appendix D, section D.2 (page D-17), emergency event classification is not required by NUREG-1021 to be part of the simulator scenario. The additional sentences added to ES-302, section D.3.n, seem to suggest otherwise. Please clarify the wording in ES-302.	3/17/2016	Fred Bruns	Exelon Corp.	ES-302	Emergency event classification	Incorporated	Wording changed to clarify that event classification is not a required part of the scenario operating test. Event classification MAY occur as part of the Administrative portion of the walkthrough, but is not guaranteed to occur.	4	b
Third paragraph of D.1.d: the last sentence states "There is no limit on the number of rating factors that may be assigned to a single performance deficiency, provided there is adequate justification for each rating factor." The previous paragraph places limits on carrying over performance deficiencies for the Tech Spec competency. Why are there no limits on carrying over performance deficiencies for the other competencies? Allowing a single performance deficiency to be applied to unlimited rating factors will increase examiner bias and result in grading inconsistencies from examiner to examiner and region to region. Merely requiring "adequate justification" is insufficient. ... who will be the arbiter of what is "adequate" and how can the NRC ensure this will be consistently applied from examiner to examiner and region to region?	3/17/2016	Fred Bruns	Exelon Corp.	ES-303	Limitation of number of rating factor assignments	Incorporated	After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.	4	c
Last bullet states "Is the K/A more appropriately tested on the written examination rather than the operating test?" I believe this should state "Is the K/A more appropriately tested on the operating test rather than the written examination?" This section lists reasons to consider rejecting a K/A from the written exam so this change would make more sense and would also make the first sentence agree with the last sentence in that paragraph (The justification should include one or more reasons why the operating test is a better evaluation tool.)	3/17/2016	Fred Bruns	Exelon Corp.	ES-401	Clarification	Partially incorporated	The next paragraph states that if all answers to the above questions are 'yes', then the K/A is appropriate for testing on the written examination. The NRC agrees that the wording is a bit awkward, but the question is worded that way specifically to obtain a 'yes' answer if the K/A should be tested on the written instead of the operating test. If it was reworded as described by the commenter, then the next paragraph statement would no longer be true. However, the statement was revised to provide clarity.	4	d
Paragraph e: the last sentence states "The NRC must receive the revised outline along with Form ES-401-4 by the date agreed upon when the examination arrangements were confirmed (normally approximately 90 days before the scheduled exam date)." Form ES-201-1, item #7 requires the revised written exam outlines to be submitted 120 days before the scheduled exam date. Change this paragraph in ES-401 to "120 days" to align with Form ES-201-1.	3/17/2016	Fred Bruns	Exelon Corp.	ES-401	Editing	Partially incorporated	Written exam outlines are no longer returned to the licensee on a separate date so the referenced line item has been deleted. Instead outlines are submitted with the draft examination materials. See comment resolution 15.z on why a revised outline is necessary for records management purposes.	4	e

Paragraph 4.a: "Format the examinations using a one-question-per-page layout by placing one complete question on each page." How does this apply to questions that contain imbedded references (flowchart, drawing, etc.) that take up more than a single page? Please clarify.	3/17/2016	Fred Bruns	Exelon Corp.	ES-401	Clarification	Incorporated	Per change page xxiv, the intent of the revision was to ensure that only one question was listed on a page (no more than one question per page). It is okay for a question to take more than one page if there are embedded references. Statement was revised to clarify that the facility should have one complete question per page, if possible.	4	f
Form ES-401-8 Instructions: last sentence should state "You have 9 hours to complete the combined examination..." to match the change in Appendix E (page E-1).	3/17/2016	Fred Bruns	Exelon Corp.	ES-401/ES-401	Editing	Incorporated	The SRO has 9 hours to complete a combined RO/SRO written examination and therefore the form was revised to reflect this.	4	g
Paragraph 4.d: first sentence should state "... and 9 hours for the combined RO/SRO exam ..." to match the change in Appendix E (page E-1).	3/17/2016	Fred Bruns	Exelon Corp.	ES-402	Editing	Incorporated	The SRO has 9 hours to complete a combined RO/SRO written examination and therefore the sentence was revised to reflect this.	4	h
[Grammatical changes should be made to Paragraph f (page 15 of 31) to reflect what is shown in the comment submission (e.g., changing "exams" to "exam").] [Also, as written, this new requirement is too restrictive and too difficult to meet, considering the overlap requirements with the Cert/Audit exam, the number of malfunctions (8-10) with verifiable actions that are required to make up each initial licensing exam scenario, the need for a scenario to flow from event to event (Appendix D) and the number of scenarios that are required for a typical initial license exam (6-10, including Cert/Audit and NRC scenarios). Also note that this new requirement is more restrictive than the overlap requirement in IP 71111.11, which is to repeat ::; 50% of the scenario events that have been previously administered during the same exam cycle.	3/17/2016	Fred Bruns	Exelon Corp.	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. The NRC has removed any reference to a specific percentage scenario overlap limitation. The NRC was unable to identify what grammatical changes were necessary (as there was no paragraph f on pg. 15 of ES-301). Please note that due to the limited nature of	4	i
Paragraph g, last sentence: the word shall was added to require use of at least one EOP contingency procedure in each scenario set. This new requirement should be incorporated into Form ES-301-4 Target Quantitative Attributes (per scenario), item #5.	3/17/2016	Fred Bruns	Exelon Corp.	ES-301	Editing	Incorporated	Item #5 on Form 301-4 was intended to be the target quantitative attribute <u>per scenario</u> , not per scenario set. Clarification was made to ensure that at least one contingency procedure is used in each scenario set.	4	j
[In Appendix D] Paragraph j, last sentence of the Note: should state "The <i>action</i> of initiating the actuation is not a CT."	3/17/2016	Fred Bruns	Exelon Corp.	General	Editing	Noted.	This entire Note was deleted due to conflict with the main body of the NUREG and to minimize confusion.	4	k
Paragraph j: the note says an unintentional RPS or ESF actuation may be a CT if it results in something significant (plant degradation, alters mitigation strategy). The paragraph that follows says if an unintended RPS or ESF actuation occurs (but could have been prevented) then the CT criteria have been met. The note and the paragraph that follows seem to conflict with each other. ... please clarify.	3/17/2016	Fred Bruns	Exelon Corp.	App D	Clarification	Incorporated	The note in question was deleted to remove the conflict with the main body of the Appendix noted in comment 15hhhh.	4	l
Paragraph j, last sentence of the 2nd to last paragraph: this states each scenario must have at least 2 CTs; Form ES-301-4 requires at least 2 EOP-based CTs. ES-301, page 15 of 31, paragraph d also states each scenario must have at least 2 CTs. Please clarify and make consistent.	3/17/2016	Fred Bruns	Exelon Corp.	App D	Clarification	Incorporated	Appendix D, ES-301-4 and ES-301 have been updated to indicate that each scenario should include at least 2 pre-identified critical tasks. Reference to EOP-based critical tasks has been removed.	4	m
The first paragraph on page D-15 (which was added on Rev. 11) appears to be redundant to the last paragraph of section D.1.c on page D-16.	3/17/2016	Fred Bruns	Exelon Corp.	General	Editing	Incorporated	The two paragraphs basically restate almost the same information and were combined into one paragraph to reduce redundancy.	4	n
Regarding implementation of Rev 11, will there be a 6-month implementation window as was the case for Rev 1 O? How will this be applied when considering exam development vs. exam administration? (Keep in mind that exam development typically starts at least 6-9 months prior to the administration date.) When will the 6-month clock start? For example, will the new simulator scenario grading criteria apply to an exam that begins development 6 months or longer after Rev 11 becomes effective? Or, will the new criteria apply to an exam that is administered 6 months or longer after Rev 11 becomes effective?	3/17/2016	Fred Bruns	Exelon Corp.	General	Administration/ Logistics/ Procedure	Noted.	Per 10 CFR 55.40(a), "The Commission shall use the criteria in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," in effect six months before the examination date to prepare.." Therefore, once the NUREG revision is issued, six months from that date is when the new revision must be used. Also, the operator licensing web page at http://www.nrc.gov/reactors/operator-licensing/regs-guides-comm.html , will state when the new revision is applicable to exams. It currently states that revision 10 is effective for all exams after July 2, 2015. The NRC plans to do the same thing for revision 11, to ensure there is no confusion about when the changes take effect.	4	o
We endorse and concur with the NEI Comments NRC Operator Licensing Lessons Learned Report (Comments to LLRT Recommendations 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.9, 2.1, 2.2-2.4, 3.3, 3.6, 4.1	3/18/2016	Anonymous	Anonymous	Various	General	Noted.	See response to individual comments from NEI (Comments 15.a-15.mmmm).	5	a
On page xvii, item C.3.j, change the second to last sentence to say it was the 4th paragraph that was deleted.	3/18/2016	Anonymous	Anonymous	General	Editing	Incorporated	Although in the draft revision 11 of NUREG-1021 that paragraph is the 5th paragraph, it is the 4th paragraph in Revision 10 and therefore the change page was revised accordingly.	5	b
[in reference to Page 4 of 31, Paragraph g] Facility Rep sign the submittal letter, not the senior site representative? This is inconsistent with most licensee docket correspondence.	3/18/2016	Anonymous	Anonymous	ES-201	Clarification	Noted.	This language is consistent with the regulation, 10 CFR 55.40(b)(3). Therefore, although perhaps different from typical docketed correspondence, this statement shall not be changed in the NUREG revision, as it would require a rulemaking change and is thus outside of the scope of this revision.	5	c
[page 4 of 31] if there isn't any reduction in review of the previously approved exam material, then there isn't any point in reporting whether or not they were used on previous NRC-approved exams. This creates questions about the validity of previously approved materials when the subsequent examiners grade a question as "unsat" - this also presents more room for inconsistencies between examiners and a moving target for licensee exam writers.	3/18/2016	Anonymous	Anonymous	ES-201	Administration/ Logistics/ Procedure	Noted.	The point in referencing if they were on a previous NRC examination is two-fold. Firstly, there are limits on the number of questions that can be on this examination that were also on either of the previous two NRC examinations, and the NRC needs to be informed if there are any such questions. Secondly, as stated in ES-501 E.3.a, any previously NRC approved test items (i.e. were on a prior NRC approved exam) do not count toward the 20% acceptable initial submittal quality determination, unless the facility caused the unacceptable flaw since the NRC previously approved the item. Therefore, providing the NRC this information does still have merit and use to the facility. Also, to answer the second part of the comment, test items might have been approved on an NRC examination that was developed to an earlier revision to the standard (i.e. Revision 8) and were considered satisfactory to that revision but are not now, which is why they still undergo a thorough review. As stated in the NUREG, there is some subjectivity in determination of question flaws (i.e. distractor plausibility) which is why the 20% threshold for initial submittal quality was instituted. This does not, therefore, increase inconsistency nor provide a moving target beyond what would be necessary to bring, for example, a Revision 7 test item up to the standards of Revision 11.	5	d
[on page 4 of 31] adding "in any way" creates unnecessary paperwork. doesn't meet the intent of "modified."	3/18/2016	Anonymous	Anonymous	ES-201	Clarification	Noted.	The NRC needs to evaluate changes to bank questions both to determine if the changes meet the definition of significantly modified (whether coded that way or not by the facility) as well as to determine if the changes to the question (including typo correction) result in any psychometric/job content flaws that were not in the original question. This information is used by the NRC in determining initial submittal quality. However, the NRC does not consider a formatting change to require a submittal of the original question. This was added as a footnote for clarity.	5	e

[on page 4 of 31] there is no description of the process to adjudicate the licensee's comments for NRC-prepared exam materials. These should follow the same process of revision and approval by the facility representative as licensee-approved exam materials.	3/18/2016	Anonymous	Anonymous	ES-201	Administration/ Logistics/ Procedure	Noted.	The facility is given the opportunity to review and comment on an NRC-authored examination, primarily to ensure that the technical aspects of the examination are correct. The facility may also provide other comments as desired, however, the facility is not required to approve the examination. See 10 CFR 55.40(a), which directs the Commission to prepare the examinations. 10 CFR 55.40(b) allows the facilities to prepare the examinations, subject to Commission approval. Therefore, the NRC must specifically approve a facility written examination, but a facility does not have to approve an NRC authored examination. That said, as stated in the exam approval letter in ES-201, if the facility feels the exam is not appropriate, they should not administer it but instead call the regional branch chief. Therefore there is a mechanism in place to prevent a facility from having to administer an exam that does not meet quality standards. Therefore no change is necessary.	5	f
[on page 8 of 31, item g, referencing "assigned examiners should attend onsite validation activities if possible"] Not previously done. [This could have had an impact on the administration of JPMs. No clear guidance on the process if all examiners do not attend. The second paragraph provides another softened tolerance to deviate from this recommendation. Also, having more than one onsite validation/preparatory visit adds cumulative impact for the licensee and additional expense for both licensee and the NRC.	3/18/2016	Anonymous	Anonymous	ES-201	Validation activities	Noted.	As the commenter is anonymous, the NRC cannot confirm who/what they are specifically referring to when they say that examiners attending onsite validation was not previously done. Therefore the NRC cannot comment on what is specifically meant by not previously done, as the NRC encourages all examiners assigned to an exam participate in the onsite validation activities during prep week. However, this is not always possible and the second paragraph is intended to give the regions some flexibility if there is a scheduling conflict with an examiner and the validation prep week. The region must weigh the added burden and expense to both the licensee and NRC against the need to familiarize the examiner with the site and/or examination on a case by case basis. This is discussed in the second paragraph. No change is necessary.	5	g
[on ES-201-1, item 7] What is this item? It is new, and not called out in the summary of changes. It creates a new requirement without any direction with a 120-day due date. It is not supported by the references (C.1 e and f). The summary of changes at the beginning of the document does not call out this item as new.	3/18/2016	Anonymous	Anonymous	ES-201	Clarification	Noted.	Due to proposed timeline submitted as part of another public comment, this entire form is being revised.	5	h
[on page 4 of 15, referencing "Such excusals are limited to the first re-application and the corresponding retake examination must take place within 1 year of the date on which the applicant completed the original examination. The NRC staff will also consider written examination waivers for ROs in good standing"] Subtle change, but shortens the time from denial to reapplication. The adjudication of an appeal may not be closed within the time frame to allow the licensee to apply and develop/approve exam materials within one year if the maximum times are used throughout the exam process. Recommend leaving this section as it was in Revision 10: Time from original exam to application/request for waiver/excusal is 1 year.	3/18/2016	Anonymous	Anonymous	ES-202	Administration/ Logistics/ Procedure	Partially incorporated	ES-202 C.1.a referenced sentence is deleted in order to make the section more consistent with the plain language of the regulation. The applicant can request excusal as allowed by 10 CFR 55.35. The restriction on only failing one part and re-taking the examination within one year of the original examination is only for excusals that the region can approve. If the excusal requested does not meet these restrictions, the applicant can still request the excusal, however the program office will have to be consulted.	5	i
[on page 4 of 15, referencing "Although licensed operators can go up to 24 months between medical examinations, new license applicants are generally expected to be examined and certified as fit (on NRC Form 396) no more than 6 months before the anticipated date of licensing"] Recommendation: There should be an additional provision for SRO-Upgrade candidates that have a current RO license. They are still maintaining the conditions of their licenses and reporting changes in accordance with this section, so they should not be required to have another physical within 60 days (as long as they have had a physical within 2 years). This reduces cost for the licensees while still meeting the legal requirements for physical condition	3/18/2016	Anonymous	Anonymous	ES-202	Administration/ Logistics/ Procedure	Noted.	This comment is already covered by the last sentence of the 3rd paragraph of ES-202 C.1.a which states, "Licensed ROs or LSROs upgrading to an SRO license need not have an additional medical examination or waiver request , as long as their medical status as a licensed RO or LSRO is up to date at the time of application, including a complete medical examination within the past 24 months." No change required.	5	j
[on page 10 of 33, referencing "If applicant requests an informal NRC staff review or an adjudicatory hearing in accordance with ES-502, the chief examiner shall consult with their regional counsel before returning or destroying any document related to the examination"] No original material should be destroyed by the Region or the examiners until all final appeals or hearings are complete, or until the allowed time to request those appeals or hearings has passed. This could be considered a destruction of evidence if the matter is taken to a hearing or higher. Recommendation: This should be revised - it is not the decision of the chief examiner or regional counsel at this point in the process. This statement is also inconsistent and conflicting with the guidance in ES 501, E.4.b below.	3/18/2016	Anonymous	Anonymous	ES-501	Administration/ Logistics/ Procedure	Noted.	The information in question is the facility reference material used to prepare for the examinations. This is not exam-related material. This provision is for the return or destruction of facility reference material as requested by the facility. There is a provision for the region to consult with their regional counsel (lawyer) prior to taking any action to ensure that this is allowable. This paragraph does not apply to original materials such as examination administration materials (aka examiner notes), but only to facility reference materials (P&ID, conduct of ops procedures, TS's, etc.).	5	j
[on page 7 of 15 and 14 of 15] Why was the informal staff review of the denial removed? No explanation is given.	3/18/2016	Anonymous	Anonymous	ES-202	Informal Staff Review	Partially incorporated	As part of the Project AIM initiative to streamline agency tasks, one of the screening criteria was to evaluate processes that the NRC was doing that were not required by regulation and it was determined that the informal staff review met that screening criteria. The Commission approved the elimination of the informal staff review process provided that additional actions were taken to strengthen the post exam comment process. In this case, by extending the post exam comment period and requiring inclusion of all applicants' comments with a corresponding facility position, the region will be better able to make a quality determination of post exam comments and any necessary answer key changes without requiring additional headquarters involvement. However, the regions can solicit input from the program office upon request and these requests will be supported on a high priority basis. Headquarters will still maintain program oversight through exam audits, in-office reviews and assessments, training, periodic discussion, and policy interpretation. Based on the number and significance of the other changes to NUREG-1021, the elimination of the informal staff review process has been deferred and will be re-evaluated at a later date.	5	k
[on page 8 of 15] These changes [on this page] are not included in the summary changes pages at the beginning of this document. Also, there is a duplicate "in" within the 5th paragraph.	3/18/2016	Anonymous	Anonymous	General	Editing	Incorporated	Duplicate "in" has been deleted. Changes are included in the summary changes pages.	5	l
[on page 11 of 15, referencing "1 year onsite experience specified in Item D.1 (a)(1) above"] There is no longer a 1-year requirement above. This was changed from Rev 10, and this paragraph needs to be updated to match the language to avoid confusion. (paragraph D.1.a.1 only requires 6 months)	3/18/2016	Anonymous	Anonymous	ES-202	Editing	Incorporated	This has been incorporated to be consistent with the changes made to D.1.a.1.	5	m
[on page 5 of 9, referencing "For renewal and SRO upgrade applicants, the medical examination documented on NRC Form 396 is good for 2 years from the date of the medical examination"] This is slightly different than the guidance in ES 202 C.1.a, which requires that all applicants obtain a physical within 6 months of application. Recommend leaving this as-is, and adding this guidance in ES 202 above.	3/18/2016	Anonymous	Anonymous	ES-204	Clarification	Noted.	This comment is already covered by the last sentence of the 3rd paragraph of ES-202 C.1.a which states, "Licensed ROs or LSROs upgrading to an SRO license need not have an additional medical examination or waiver request , as long as their medical status as a licensed RO or LSRO is up to date at the time of application, including a complete medical examination within the past 24 months."	5	n

[on page 15 of 31, referencing "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)"] Major mitigative actions through the emergency operating procedures do not change even with different initiating conditions. This statement is needlessly confining.	3/18/2016	Anonymous	Anonymous	ES-301	Repeated "major events" limit	Partially incorporated	Language was moved to Appendix D and altered to state that the examination author should change the major event, the initial conditions, and/or the subsequent malfunctions to alter the course of action in the EOP's. This allows the author more flexibility in addressing any overlap considerations with major events in the previous two operating tests.	5	o
[on page 15 of 31, referencing "expected that all major events would be broadly sampled over the course of several exams, and that no major event will routinely be omitted without justification"] There is no actual requirement here; it is implied through the previous statements, but opens up both the regulator and the licensee to being able to prove that this happens. Recommend removal.	3/18/2016	Anonymous	Anonymous	ES-301	Clarification	Noted.	Ensuring that no major event is routinely omitted without justification is expected and such justification should be readily available if a question is asked. The expectation that the major events are broadly sampled over the course of several exams is also expected, through a review of the recent examinations that were administered. The "proof" of both of these is through a review of the recent examinations, which may be publicly available. In any case, both the NRC and the facility should have these recent examinations in their records. If over the course of several examinations, a specific major event is omitted, then an individual could ask what the justification is, and the facility should be able to provide it. Also, there are numerous instances where the NUREG states that something 'should' be done or not done, and therefore are also not considered requirements, but are included in order to provide some flexibility on a process that has so many potential variables to consider. Therefore, no change will be made.	5	p
[on page 17 and 18 of 31, referencing "the examiner should keep in mind that counting the number of scenario quantitative attributes is not always indicative of the scenario's level of difficulty. Although there are no definitive minimum or maximum attribute values that can be used to identify scenarios that will not discriminate because they are too easy or difficult"] Subjective at best. The scenarios, and all exam items, should not be judged for difficulty, only if they meet the minimum standards for construction. If the qualitative attributes are satisfied and there are enough verifiable actions, then the standard is met.	3/18/2016	Anonymous	Anonymous	ES-301	LOD	Noted.	Typically, if a scenario meets the target quantitative attribute ranges listed in the form, these scenarios are considered to meet sufficient level of difficulty. However, because malfunctions and events can individually range significantly in both difficulty and complexity, the examiner must evaluate the scenario as a whole, even if each individual malfunction is satisfactory on its own. What might be considered okay in one individual malfunction might not be okay for all the malfunctions in one scenario. Therefore, there is some examiner subjectivity in this review. However, the examiner must explain why a scenario level of difficulty is not sufficient or if the level of difficulty is too high.	5	q
[on page 25 of 31, referencing ES-301-4 item 9, "Not more than 50% of the events/malfunctions are repeated from the previous two NRC initial licensing operating exams, major events excluded"] This isn't quite clear. The guidance is that they can be repeated if they are modified. There is going to be a decreasing number of available "events." and with larger and larger classes, this could become difficult to meet with no benefit. As long as the scenario is different, it should be OK to have a combination of events put together to make that scenario. This adds no value and pushes into the operational validity of the exam.	3/18/2016	Anonymous	Anonymous	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	5	r
[on page 25 of 31, referencing ES-301-4 item 13, "Applicants are evaluated on a similar number of pre-identified CTs across scenarios"] No justification for adding this. Recommend: Remove or justify/explain.	3/18/2016	Anonymous	Anonymous	ES-301	Clarification	Partially incorporated.	Line item was added in an attempt to ensure "uniform conditions" for the examination as required by the Atomic Energy Act of 1954. However, wording was clarified that applicants are evaluated on a similar number of pre-identified CT's <u>when possible</u> to recognize the fact that it is not always possible to ensure that this provision is met.	5	s
[on page 28 of 31, referencing ES-301-7] This new form will take some vetting. It should have been used in draft for several exams in each region before implementation, otherwise an additional revision to the NUREG will be required .	3/18/2016	Anonymous	Anonymous	ES-301	Administration/ Logistics/ Procedure	Noted.	This form was vetted at a region for a period of time and all regions provided input for the final version. The form is intended to verify that operating test content meets the minimum standards. The NRC is unsure what the commenter means by an additional revision to the NUREG will be required, unless they mean if an error is discovered, and therefore cannot further respond to that portion of the comment.	5	t
[on page 25 of 31, referencing ES-301-7, instruction item 2] How do you discern LOD for a JPM? This is needlessly subjective. For task-based performance activities, the standard should be the only measure of judgement. If the task has a high enough KA, then the LOD is irrelevant. This is not SAT-based.	3/18/2016	Anonymous	Anonymous	ES-301	LOD	Noted.	There is a discussion in the NUREG itself in Appendix C B.3, where it states that simple, one-step JPMs are not appropriate for testing, so there is guidance provided on determining an unacceptable level of difficulty (i.e. if the JPM only has the applicant turning one switch, it's too simple, and thus LOD 1). It is possible to have a JPM that has high safety significance but low discriminatory value (i.e. LOD 1) and therefore is not appropriate for testing on the examination, although it could be appropriate for other training/testing (i.e. periodic exam). See OLPF 301-6 for a further discussion of JPM difficulty.	5	u
[on page 30 of 31 in ES-301, referencing the 2nd column] ES 301, d.5.d changed the wording for this from "Event" to "Evolution, failure, or transient," yet this change was not incorporated throughout the rest of the NUREG. This highlighted location is one of many where the wording is inconsistent.	3/18/2016	Anonymous	Anonymous	General	Editing	Partially incorporated	Added definition to Appendix F to clarify that an event is any normal evolution, instrument or component malfunction, equipment malfunction, reactivity manipulation or major plant transient when used in the context of the simulator scenario portion of the operating test. This will ensure that there is a consistent understanding of what is meant when the term event is used in relation to the simulator scenarios.	5	v
[on page 5 of 13, referencing "e.g., a shift technical advisor (STA) to augment the operating shift team if necessary"] Has this ever been done (allow an STA in an initial license exam)? Our candidates ask about this, and it appears as though the NUREG allows it even though it is never practiced. Recommend removal or start allowing it from a realism standpoint.	3/18/2016	Anonymous	Anonymous	ES-302	Clarification	Noted.	The NUREG allows this option at the discretion of the chief examiner and the facility would need to discuss exercising this option with him/her. The program office does not keep track of how often/if this provision is used and cannot answer that question, but it is important to continue to allow the chief examiner to determine on a case by case basis whether or not to permit exercising this option.	5	w

<p>[on page 5 of 13, referencing "Although the applicants will generally be expected to perform "peer checks" in accordance with the facility licensee's operations and training procedures and practices, additional personnel may not be stationed or called upon for this purpose"] This is inconsistently implemented by examiners. This revision is an opportunity to define exactly how this is done so that it is consistent. The statement is incorrect that the applicants are expected to do Peer Checks in accordance with station procedures.</p>	3/18/2016	Anonymous	Anonymous	ES-302	Clarification	Noted.	<p>This provision is part of the general provision for the operating test and therefore covers both JPMs and the scenario sets. During scenarios, it is expected that applicants will follow station policy for peer checks from the other applicants on the crew. In the event that there is a surrogate, the applicant can ask for a peer check but the surrogate will have been briefed not to correct any applicant errors and would merely agree with whatever action has been proposed. For Administrative JPMs, it's not practical to have/request a peer check for performance of actions. The NRC understands this comment to primarily be about JPMs both in the simulator and in the plant. All examiners brief the applicant per Appendix E, which addresses peer checks during JPMs (D.7). It states that if the facility procedures require use of peer checks, the applicant may (emphasis added) ask the NRC examiner to perform those functions. The examiner will then agree with whatever the proposed action is, even if wrong. Therefore, the applicant is the one who should decide how they want to do peer checks. They are not required (per Appendix E) to request those peer checks from the examiner, but they may choose to do so if they wish.</p>	5	x
<p>[on page 10 of 13, item h., referencing "Before beginning each scenario set, the examiners shall"] The change summary says that this "shall" is added for exam security purposes, but this statement doesn't have anything to do with exam security. If the data is collected and retained digitally per D.3.f above, the charts shouldn't need to be retained. Initialing/dating/timing the charts doesn't add any value from an exam security standpoint (see change summary). Recommend restating to "ensure charts that are not retained for data collection purposes do not provide any cues to the candidates regarding exam content."</p>	3/18/2016	Anonymous	Anonymous	ES-302	Clarification	Noted.	<p>Revision 11 to NUREG 1021 requires the examiner to initial charts for exam security purposes in order to ensure that no information from previous scenarios is available to the next scenario crew. Many charts have been replaced with digital charts that cannot be initialed, and it should not take an examiner very long to initial any remaining charts. If all the recorders are digital, then the only action required is to ensure that the next crew does not have access to any data from the previous crew's test, typically done by ensuring that all the recorders are reset. This can be done while the facility continues with other simulator reset actions like changing out/cleaning procedure pages, etc.</p>	5	y
<p>[on page 11 of 13, item n., referencing "in most cases, the applicant is asked to classify the event after the scenario is complete and the simulator is in freeze"] Does this remove the classification from use as an Administrative JPM? In a 3-person crew, these should be left to the Admin JPM, not included as an evaluation in the scenario. Recommend to remove this.</p> <p>Separately, the classification is often escalated throughout the scenario, so classification accuracy and questioning the candidate after the event may not provide a realistic assessment of the candidate's ability to perform the function.</p>	3/18/2016	Anonymous	Anonymous	ES-302	Emergency event classification	Partially incorporated	<p>Wording changed to clarify that event classification is not a required part of the scenario operating test. Event classification MAY occur as part of the Administrative portion of the walkthrough, but is not guaranteed to occur.</p>	5	z
<p>[on page 3 of 19, item d., referencing "keep in mind that for the SRO Technical Specifications (TS) competency, every missed TS entry represents a performance deficiency"] This statement is not aligned with sound evaluation techniques. Each action should be taken in aggregate against the exam as a whole, not weighted unnecessarily toward technical specification calls.</p>	3/18/2016	Anonymous	Anonymous	ES-303	Tech Spec performance deficiency	Noted.	<p>Per ES-303, D.2.b, the examiner must, "document and justify every deficiency." Also in ES-303, D.1.c, the examiner must, "label or highlight every action, response, note, or comment that may constitute a performance deficiency". ES-303, D.1.d has the examiner then "code each deficiency" with the applicable rating factor(s). Therefore, the clarification provided specifically for the Technical Specifications is in accordance with how the rest of the examination is graded. In other words, if an individual makes multiple errors in response to a single malfunction, the individual would be graded on each specific error, and not on the malfunction overall. This is the basis of the simulator scenario portion of the operating test, in that each applicant enters the test with an assumed level of competence (score of "3") and the grade is then adjusted when the applicant has deficient performance that could call into question that competence. Since this is the method by which we grade malfunction responses and communications, it is not appropriate to treat Technical Specification performance deficiencies any differently, however, additional guidance was previously added regarding "carrying forward" an error pertaining to the recognition and compliance rating factors and therefore no change will be made to the NUREG. For the proposed recommendation to only evaluate the "most-limiting" Technical Specification, this would not be in accordance with examination security requirements of 10 CFR Part 55.49, nor of NUREG-1021 ES-201 Attachment 1, which states that "license applicants should not be able to predict or narrow the possible scope or content of the licensing examination." Limiting evaluation of the Technical Specifications as requested would violate this and therefore, no change will be made to the NUREG.</p>	5	aa
<p>[on page 3 of 19, item d., referencing "there is no limit on the number of rating factors that may be assigned to a single performance deficiency, provided there is adequate justification for each rating factor"] This is in direct contradiction of the above statements regarding "carrying forward" errors or performance deficiencies. Objective evaluation, whether written or operating exam, should evaluate each item only once in the appropriate category.</p> <p>This adds too much latitude for examiners to evaluate subjectively instead of whether the candidate can adequately carry out the duties of his/her license safely.</p> <p>The LLRT recommended that these are limited to no more than 2 rating factors, which is endorsed by NEI.</p>	3/18/2016	Anonymous	Anonymous	ES-303	Limitation of number of rating factor assignments	Incorporated	<p>After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.</p>	5	bb
<p>[on page 5 of 19, referencing item b "The Simulator Operating Test"] Disagree with the proposed change to the rating scale from 1-3 to 0-3. This has the consequence of reducing reliability in grading and leads to high failure rates without change in candidate performance. The rating factors for this exam should be based on compliance with the standard, and this change creates an upward bias in performance without a change in rule.</p> <p>Additionally, the definition of critical tasks contradicts many years of written guidance by the owners groups.</p> <p>Endorse the NEI argument and recommendation regarding rejecting this change.</p>	3/18/2016	Anonymous	Anonymous	ES-303	Grading practices	Noted.	<p>The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. With respect to the definition of a critical task, although the owners group use the same verbiage in their guidance, the definition of a critical task with respect to the initial license examination as defined in the NUREG is the NRC's definition of a critical task and will not be changed. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.</p>	5	cc

[on page 6 of 19, referencing "the minimum score for rating factors under Communications is "1"] All grading should be consistent. As stated above, minimum should be 1. Creating two different minimum grades presents an error-likely situation for examiners .	3/18/2016	Anonymous	Anonymous	ES-303	Grading practices	Noted.	The decision to have a minimum score of '1' in the Communications competency is to address numerous concerns expressed by examiners due to the numerous communications that occur during a simulator scenario and thus the more opportunities for errors. Also, communications are perceived as less safety-significant and the review and implementation teams (LLRT and OLIT) determined that these concerns and perceptions should be addressed in the error counting system by making a minimum score of '1', which is higher than the minimum scores in the other competencies, and requiring 4 or more non-critical errors to result in receiving that minimum score. The grading criteria is specifically delineated in the revision to the NUREG and the examiners have all received training on the new grading method. Also, all grading must be performed by the examiner and is reviewed by the chief examiner (or another examiner if the chief examiner is the examiner of record) and the supervisor prior to approval. Therefore, this new grading method, including a different minimum score for the Communications competency, will not present a more error-likely situation for the examiners. Since these concerns have been thoroughly evaluated and vetted by the NRC, no change to the minimum score in Communications will be made.	5	dd
[on page 6 of 19, referencing "failing to perform one CT will not necessarily result in an automatic overall exam failure. However, success on every CT does not prevent overall exam failure if other noted deficiencies, when aggregated, justify a failure"] The grading should be ultimately based on the competence of the operator to ensure the health and safety of the public. Taking conservative action and not meeting a series of non-critical tasks should not result in an exam failure. Endorse the NEI argument and recommendation regarding rejecting this change.	3/18/2016	Anonymous	Anonymous	ES-303	Critical Tasks guidance	Noted.	Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Additionally, if an individual passes all the critical tasks but performs 20 non-critical errors, that leads the examiners to question the assumption of competence as stated in the response to comment 5.cc. Therefore, the examiner follows the grading standard as provided to determine the competency scores based on performance on both critical and non-critical tasks, which are weighted to show the safety significance of a critical task. If the commenter desires the NRC to change the grading to a pass/fail solely on the determination of some kind of critical task list, similar to what is done in other countries, this is outside the scope of this revision.	5	ee
[on page 45 of 50, referencing the "Question History" item within ES-401-5] This was removed in ES 201 C.I.h (although I disagree with that change). It adds no value to change this process, but if you are going to change it, it needs to be removed from this form as well.	3/18/2016	Anonymous	Anonymous	ES-401	Editing	Incorporated	This optional statement was removed from the form for consistency.	5	ff
[on page 5 of 7 in ES-402, referencing "3 hours for the 25-question SRO-upgrade exam, 4 hours for the SRO exam limited to fuel handling, 6 hours for the RO exam, and 8 hours"] This is different than what is in Appendix E. This should say 9 hours instead of 8	3/18/2016	Anonymous	Anonymous	General	Editing	Incorporated	The SRO now has 9 hours to complete a combined RO/SRO examination and therefore the sentence was revised.	5	gg
[on page 10 of 33, referencing "copy of all JPMs that the applicant failed (if the applicant failed the operating test in the walk-thru or admin topics categories)] [Recommendation:] Please revise to ensure that the actual marked-up JPMs that the applicant failed are sent to the applicant. This has been inconsistently performed in the past, and sending clean, unmarked versions of the JPMs does not help the applicants or the station remediate or analyze the failures.	3/18/2016	Anonymous	Anonymous	ES-501	Administration/ Logistics/ Procedure	Noted.	The current guidance is similar to the guidance for ES-D-1 and ES-D-2. If an applicant fails the scenario portion, they receive the as-run ES-D-1 and ES-D-2, but without the examiner notes. The same holds true for JPMs. The applicant will receive a copy of the as-run JPM, but without the examiner notes. There was also a copy and paste error, which has been corrected. Please note that the operating test grading is based on information that is already contained in the ES-303 forms, which the applicant receives and therefore a copy of the examiner's notes is not needed.	5	hh
[on page 10 of 33, referencing "copy of the applicant's written examination cover and answer sheets (as well as a copy of the master written examination and answer key if the applicant failed the written examination) reflecting the "as administered" JPM conditions but [without] any rough examiner notes regarding the applicant's performance (pen-and-ink markups of the original approved JPMs) are acceptable)] This sentence does not make sense; the first part is about the written exam and answer key, and the second part is about the JPMs. See comment above regarding failed JPMs - the candidate/site should receive a copy of the as-administered JPM for analysis/remediation/response. Sending the actual, marked up version of the JPM is also appropriately aligned with full disclosure of licensing or inspection procedures.	3/18/2016	Anonymous	Anonymous	ES-501	Editing	Noted.	This was a copy and paste error, which has been corrected.	5	ii
[on page D-7, referencing "The final product of all required scenarios should not contain more than 50 percent of the events (excluding the major events) from the previous two NRC initial licensing exams"] This requirement may not be achievable for large classes or subsequent large classes. There are a limited number of events which meet the requirements of this section for verifiable actions, and to exclude 50% of all previously developed events in the last 2 NRC exam cycles means that more events with low safety significance, importance, or operational validity are going to be submitted on exams. Recommend revision to state that low overlap is desirable to prevent candidates from being able to predict exam content.	3/18/2016	Anonymous	Anonymous	App D	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	5	kk
[on page D-7, referencing "Additionally, any repeated major events from the last two NRC exams should be changed so as to alter the course of action (within the emergency procedures) for the given scenario(s)"] This is not achievable. The mitigative strategy of major events does not change.	3/18/2016	Anonymous	Anonymous	App D	Repeated "major events" limit	Partially incorporated	Language was altered to state that the examination author should change the major event, the initial conditions, and/or the subsequent malfunctions to alter the course of action in the EOP's. This allows the author more flexibility in addressing any overlap considerations with major events in the previous two operating tests.	5	ll
[on page D-17, referencing "Emergency event classification is not required by NUREG-1021 to be part of the simulator scenario; Emergency Plan understanding is explicitly tested during the Administrative Topics Job Performance Measures. However, if a facility does include an event classification in a simulator scenario, performance of an event classification does not meet the CT criteria"] See previous comment about follow-up questions regarding EPlan classification. These should be left to Admin JPMs, and not included in dynamic scenarios, even as follow-up questions. The SRO should not be evaluated/graded on this during the simulator exam.	3/18/2016	Anonymous	Anonymous	App D	Emergency event classification	Noted.	Guidance in section ES-302 D.3.n has been revised to clarify that event classification is typically performed during Administrative JPMs. However, there is no prohibition on performing event classification as part of the scenario, so the clarification in Appendix D that an emergency classification does not count as a CT still applies. Therefore no change is necessary to App. D.	5	mm
[on page D-21, referencing the "Video and Audio Recording" bullet] Format is not correct	3/18/2016	Anonymous	Anonymous	General	Editing	Incorporated	Formatting for the bullet was corrected.	5	nn
[on page 1 of 31 in ES-301, referencing "The second major portion of the operating test (the "Simulator Test") is administered on a <u>U.A.</u> Nuclear Regulatory Commission (NRC)-approved or plant-referenced simulator" typo - this is not in revision 10, so it should also have a rebar on the side.	3/18/2016	Anonymous	Anonymous	General	Editing	Incorporated	This typo was corrected. Change information updated.	5	oo
[on page 3 of 31, referencing "The 'Administrative Topics' are administered in a one-on-one walk-through format"] The Admin JPMs have rarely been administered one-on-one, in my experience. In most cases, they have been administered with one inspector/examiner with a group (2-4) of operator candidates.	3/18/2016	Anonymous	Anonymous	ES-301	Clarification	Incorporated	Current practice is to administer the majority of Administrative JPMs in a classroom setting, with one or two examiners administering the JPM to some number of applicants. This is usually in excess of a one-on-one format.	5	pp

[for ES-201-1, items 1-18] recommends changes to the Examination Preparation Checklist items as shown [within the attachment] to allow adequate time to develop, review, compare/contrast and then revise the audit and NRC outlines/exams.	3/25/2016	Paul Duke	PSEG Nuclear LLC	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	A revised timeline was developed, increasing the overall time by 2 months. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam. The industry proposed 11 month exam timeline could cause the NRC to be unable to administer all requested exams from a resource perspective. The NRC increased the revised timeline from 6 months to 8 months.	6	a
[in reference to Section D.5.d, with the proposal to add guidance for assigning simulator operating test scenarios to applicants to ensure that applicants are evaluated on a similar number of pre-identified critical tasks] Trying to ensure that applicants are evaluated on a similar number of pre-identified critical tasks will be difficult at best, whether the Licensee or the NRC is developing the exam. Unintended consequences of the change will be the use of more surrogates and possibly the need to develop additional scenarios. Will allowances be made for NOT having a similar number of Critical Tasks per applicant based class size and makeup?	3/25/2016	Paul Duke	PSEG Nuclear LLC	ES-301	Critical Tasks guidance	Incorporated	The criteria was changed to indicate that applicants should be evaluated on a similar number of critical tasks when possible , providing an allowance when class size/makeup makes it impossible to test on a similar number of critical tasks.	6	b
[in reference to ES-301-4, item 9, the proposal to add criteria to qualitative attribute No. 9 to check that not more than 50% of the events/malfunctions are repeated from the previous two NRC initial licensing operating exams, excluding major events] The number of scenario events/malfunctions used in the previous two exams is dependent on the number of scenarios required to be developed per exam, which is a function of class size, and on the number of malfunctions available with "Verifiable Actions" in a particular position (RO, BOP)...Limiting the overlap to 50% will eliminate many malfunctions that are important to safety, in particular for the RO. Additionally, smaller plants may have further limitations...Limiting the overlap to 50% would eliminate the ability to adequately evaluate the applicants in this type of scenario if five or six scenarios need to be developed for the new exam...this new limitation will prevent evaluation of events extremely important to safety such as reactivity management.	3/25/2016	Paul Duke	PSEG Nuclear LLC	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	6	c
[in reference to Section D.1.d, the proposal to add details for grading SRO applicants in the Technical Specifications competency during simulator events, including guidance to treat every missed TS entry as an individual performance deficiency, Form ES-303-4, Competency Grading Worksheet, Competency 6, Comply with and Use Technical Specifications, would be split into three separate sub-competencies with changed weighted factors] Treating every missed TS entry as an individual performance deficiency could lead to overemphasis on this competency... Although it is important to identify all potential TS, the ability to recognize, locate and interpret the most limiting TS for that event is the critical safety significant aspect of the competency. Can the grading for the competency "Comply with and Use TS" be focused on the "most limiting" TS with follow-up questioning as required? This could prevent an overemphasis on a single event with multiple TS, resulting in a failure in this competency even though the ability to recognize, locate and interpret the most limiting TS was successfully demonstrated.	3/25/2016	Paul Duke	PSEG Nuclear LLC	ES-303	Tech Spec performance deficiency	Noted.	Per ES-303, D.2.b, the examiner must, "document and justify every deficiency." Also in ES-303, D.1.c, the examiner must, "label or highlight every action, response, note, or comment that may constitute a performance deficiency". ES-303, D.1.d has the examiner then "code each deficiency" with the applicable rating factor(s). Therefore, the clarification provided specifically for the Technical Specifications is in accordance with how the rest of the examination is graded. In other words, if an individual makes multiple errors in response to a single malfunction, the individual would be graded on each specific error, and not on the malfunction overall. This is the basis of the simulator scenario portion of the operating test, in that each applicant enters the test with an assumed level of competence (score of "3") and the grade is then adjusted when the applicant has deficient performance that could call into question that competence. Since this is the method by which we grade malfunction responses and communications, it is not appropriate to treat Technical Specification performance deficiencies any differently, however, additional guidance was previously added regarding "carrying forward" an error pertaining to the recognition and compliance rating factors and therefore no change will be made to the NUREG. For the proposed recommendation to only evaluate the "most-limiting" Technical Specification, this would not be in accordance with examination security requirements of 10 CFR Part 55.49, nor of NUREG-1021 ES-201 Attachment 1, which states that "license applicants should not be able to predict or narrow the possible scope or content of the licensing examination." Limiting evaluation of the Technical Specifications as requested would violate this and therefore, no change will be made to the NUREG.	6	d
[in reference to Section C.1.h] The wording "in any way" needs to be eliminated or clarified. If a bank question is revised in the existing test bank to address typographical errors, spacing or minor style or wording issues, the question then becomes the current bank version and can be submitted as such. There is no substantive reason to maintain an accounting of before and after versions when the change is not a significant modification... [Recommendation:] The paragraph can be clarified by stating that any question that is counted toward the significantly modified category of questions must have the source version included with the submittal.	3/29/2016	Anonymous	VC Summer	ES-201	Meaning of "in any way"	Noted.	The NRC needs to evaluate changes to bank questions both to determine if the changes meet the definition of significantly modified (whether coded that way or not by the facility) as well as to determine if the changes to the question (including typo correction) result in any psychometric/job content flaws that were not in the original question. This information is used by the NRC in determining initial submittal quality. However, the NRC does not consider a formatting change to require a submittal of the original question. This was added as a footnote for clarity.	7	a
[in reference to Section C.1.k] [Recommendation:] The passage should be revised to eliminate the preference of phone conferencing...Eliminating the preference [] would allow for an easier accommodation of a facility request to meet in person.	3/29/2016	Anonymous	VC Summer	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	This NUREG change was added to explicitly allow and encourage the use of the telephone to enable review of the examination comments. The guidance to obtain station agreement for a face to face meeting is because the NRC cannot require the facility to come to the region without this agreement for this purpose. Also, the guidance on obtaining regional management agreement to a face to face meeting is primarily intended for meetings occurring at the facility, as the managers need to be involved from a budgetary perspective. Also, if the facility is coming to the regional office, the region management needs to be aware that they are coming. None of this guidance is intended to require a formal concurrence process, therefore the NRC is changing the terminology from concurrence to agreement. An e-mail would be sufficient to document the facility's agreement to a face to face.	7	b
[in reference to Section C.2.g] This passage needs to be clarified. The validation activities specified are part of the preparatory visit and not part of the facility internal validation activities that occur prior to submittals.	3/29/2016	Anonymous	VC Summer	ES-201	Validation activities	Noted.	The onsite validation activities referenced herein are for the officially scheduled preparatory week. However, due to examiner scheduling conflicts, some examiners might not be able to attend that preparatory week, hence the second paragraph which allows the region to send an examiner, at its discretion, to the site to help prepare that individual for the examination (the paragraph refers to it as a separate preparatory site visit). No change necessary.	7	c
[in reference to Section C.3.a] Same as previous comment for ES-201, C.2.g. This passage needs to specify "during the preparatory visit" to make clear that it is not intended for examiners to attend the facility's internal validation activities.	3/29/2016	Anonymous	VC Summer	ES-201	Validation activities	Noted.	See comment 7.c for comment resolution.	7	d
[in reference to Section C.1.a] The change from 'requested within one year' to 'retake within one year' seems too limiting. Time should allow for insertion into next license class. Recommendation: it would be better if the statement said 2 years or next License Exam (whichever is sooner).	3/29/2016	Anonymous	VC Summer	ES-202	Administration/ Logistics/ Procedure	Partially incorporated.	ES-202 C.1.a referenced sentence is deleted in order to make the section more consistent with the plain language of the regulation. The applicant can request excusal as allowed by 10 CFR 55.35. The restriction on only failing one part and re-taking the examination within one year of the original examination is only for excusals that the region can approve. If the excusal requested does not meet these restrictions, the applicant can still request the excusal, however the program office will have to be consulted.	7	e
[in reference to Section D.1.a] [Recommend:] adding to section D.1 to allow excusal of portions passed without NRR/NRO approval: (1) passing a single portion of the exam without taking the rest of the exam the applicant has passed previously. (2) changing the excusal time requirement to 2 years or next License Exam (whichever is sooner).	3/29/2016	Anonymous	VC Summer	ES-204	Administration/ Logistics/ Procedure	Noted.	See response to comment 7e.	7	f

<p>[in reference to Section D.3.n] [Recommendation:] This passage needs to prohibit requiring candidates to provide a time line of classifications. A real classification in real time would be performed by a Shift Manager in an oversight role. Because the SRO candidate is actually directing shift activities, he or she may miss conditions for the earliest [classification(s)]. If a classification is required, then only the highest level classification at the conclusion of the scenario should be sought and evaluated. A timeline that describes the lowest to highest over the scenario duration should not be pursued.</p>	3/29/2016	Anonymous	VC Summer	ES-302	Emergency event classification	Incorporated	Clarified wording to indicate that the event classification would be based on the current simulated plant conditions at the end of the scenario with the simulator in freeze.	7	g
<p>(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.</p> <p>(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.</p> <p>(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.</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	General	General	Noted.	<p>processes and, as part of this review, has considered substantial stakeholder input. Based on this review, the NRC staff identified specific changes to its operator licensing processes that it had determined, in its expert opinion, would increase the equitability, consistency, and discriminatory ability of these processes. Therefore, contrary to the commenter's suggestion, the NRC staff's Revision 11 to NUREG-1021 was developed after careful, well-informed, and expert consideration. The NRC established the LLRT to review the initial license examination process. The Team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience. The Team conducted a review of the NRC's processes for initial operator licensing and informal reviews. It developed preliminary recommendations on which it solicited stakeholder input resulting in over two hundred comments. Upon evaluating these comments, the Team developed a report concluding that the license operator examination process is an extremely high quality process that has been demonstrated over time to successfully evaluate and discriminate the level of competency of operator license applicants, but which also recommended 23 enhancements to this process to improve its consistency and transparency (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15124A615). The purpose of these changes was to simplify the grading process, to promote consistency, and to improve the discriminatory level of the operating test. The Team recognized that these changes might result in an increased failure rate; however, the Team believed that any such increase would be minimal and offset by the positive benefit of a more discriminatory test. In conclusion, the NRC staff, after careful, well-informed, and expert consideration, found that the changes made to NUREG-1021 as part of Revision 11 were necessary to ensure that the NRC's operator licensing process is sufficiently equitable, consistent, and discriminatory. As with all changes, the NRC staff will monitor the impact of these changes to ensure that they do indeed improve the operator licensing process. If, as the commenter suggests, the changes do not improve the process for distinguishing competent from non-competent applicants, the NRC staff can revisit them.</p>	8	a
<p>[in reference to Section D.1.a] 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. 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. [Recommendation:] 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>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-201	Administration/ Logistics/ Procedure	Noted.	<p>Even if an examiner never actually observes the individual's performance directly (e.g., no JPMs, not on any of the scenarios, etc.), examiners do still discuss individual performance with the other examiners on the exam team or in places where other examiners can overhear the comments (i.e., the exam team room). Therefore, to ensure that there is no introduced bias, the NRC has decided to prevent an examiner who was on the failed exam team, regardless of whether or not he/she evaluated the failed applicant's performance, from participating on the retake examination. Instead, the NRC has determined that it is better to get an examiner who had nothing to do with the previous exam administration. That way there are no questions about possible bias on the retake examination applicant performance. If necessary, the region can get an examiner from another region or from headquarters to proctor the retake examination if regional resources cannot support.</p>	8	b
<p>[in reference to Section D.5.b and Form ES-301-4 item 9] The requirement to replace or significantly [alter] events from the previous two exams is overly restrictive [and 5 reasons why are shown in the comment attachment]. [Recommendation:] 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 exams instead of the last two exams.</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-301	50% limit of events from previous two exams	Partially incorporated	<p>Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.</p>	8	c
<p>[in reference to Section D.5.b and Appendix D C.1.f., "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)"] This addition to the NUREG restricts major events. The major events are much more limited than the Instrumentation/Malfunction events. 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. [Recommendation:] Remove this statement from the NUREG</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-301	Repeated "major events" limit	Partially incorporated	<p>Language was moved to only Appendix D and altered to state that the examination author should change the major event, the initial conditions, and/or the subsequent malfunctions to alter the course of action in the EOP's. This allows the author more flexibility in addressing any overlap considerations with major events in the previous two operating tests.</p>	8	d
<p>[in reference to Section D.5.d, the proposal that "A scenario must have at least two critical tasks"] 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. [Recommendation:] 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."</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-301	Critical Tasks guidance	Partially incorporated	<p>Section was reworded to state that the Chief Examiner should ensure each scenario includes at least 2 pre-identified critical tasks and clarifies that that is a target and not an absolute minimum requirement. This was to clarify confusion from public comments on what the intent of that section was. Note that there is a provision in the NUREG to allow time compression, although not preferred, if it is desired to observe some task that would otherwise not be observable due to time constraints (See Appendix D, C.1.a).</p>	8	e

<p>[in reference to Section D.1.d] 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. Additionally, a scenario with multiple Technical Specification entries may put candidates at undue risk of failure because of separate grading for each entry. [Recommendation:] 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 entry. 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>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-303	Tech Spec performance deficiency	Noted.	<p>Per ES-303, D.2.b, the examiner must, "document and justify every deficiency." Also in ES-303, D.1.c, the examiner must, "label or highlight every action, response, note, or comment that may constitute a performance deficiency". ES-303, D.1.d has the examiner then "code each deficiency" with the applicable rating factor(s). Therefore, the clarification provided specifically for the Technical Specifications is in accordance with how the rest of the examination is graded. In other words, if an individual makes multiple errors in response to a single malfunction, the individual would be graded on each specific error, and not on the malfunction overall. This is the basis of the simulator scenario portion of the operating test, in that each applicant enters the test with an assumed level of competence (score of "3") and the grade is then adjusted when the applicant has deficient performance that could call into question that competence. Since this is the method by which we grade malfunction responses and communications, it is not appropriate to treat Technical Specification performance deficiencies any differently, however, additional guidance was previously added regarding "carrying forward" an error pertaining to the recognition and compliance rating factors and therefore no change will be made to the NUREG. For the proposed recommendation to only evaluate the "most-limiting" Technical Specification, this would not be in accordance with examination security requirements of 10 CFR Part 55.49, nor of NUREG-1021 ES-201 Attachment 1, which states that "license applicants should not be able to predict or narrow the possible scope or content of the licensing examination." Limiting evaluation of the Technical Specifications as requested would violate this and therefore, no change will be made to the NUREG.</p>	8	f
<p>[in reference to Section D.2.b, the proposal "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 'O'"] 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. [Recommendation:] Leave the rating factors as is in Rev 10 and do not implement this change.</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-303	Grading practices	Noted.	<p>The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.</p>	8	g
<p>[in reference to Section D.2.b, the proposal that 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... The practice of allowing points back can provide the examiner a better picture of the candidate's overall ability. [Recommendation:] 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..."</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-303	Grading practices	Noted.	<p>Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency. Therefore, an individual will not fail for merely having a few non-critical performance errors.</p>	8	h
<p>[in reference to Section D.2.b, the proposal that 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. [Recommendation:] Change "a missed CT results in a 3-point deduction for an 'RF Score' of 'O.'" to "a missed CT results in a 2-point deduction for an 'RF Score' of '1.'" "</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-303	Critical Tasks guidance	Noted.	<p>Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.</p>	8	i
<p>[in reference to Section 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 o[n] the SRO-only portion" re-write the sentence using the number of questions instead of percent. [Recommendation:] Change the wording to "between 38 and 45 questions on the RO examination and at least 13 questions on the SRO-only portion..."</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	ES-401	Editing	Partially incorporated	<p>Both the percentages and number of questions mean the same thing, so it does not matter which is in the form so long as the form is filled out correctly (using actual number of questions). Therefore, for clarity, the NRC removed the reference to percentage and just left the actual number of questions on the form. However, it is still useful to know where those numbers came from and so the reference to percentages was left in D.2.c. Please note that the reference to percents in D.2.f was to correct an error (75% of questions (75) does not equate to 56% of RO questions (42) and 19% of SRO questions (~5)). However, the initial reference to percentage (75%) remains in D.2.f and so the reference to percentage in D.2.c should also remain.</p>	8	j
<p>[in reference to C.2.j, "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 active of initiating the actuation is not a CT" (Emphasis added) this last sentence appears garbled. [Recommendation:] clarify the last sentence in the note.</p>	3/29/2016	Charles Pierce	Southern Nuclear Operating Company	App D	Clarification	Incorporated	<p>The note in question was deleted to remove the conflict with the main body of the Appendix noted in comment 15hhhh.</p>	8	k
<p>ES-205 There is a need to maintain four (4) Generic Fundamentals Examinations per year to prevent overloads on NRC Operator Licensing personnel due to the growing needs of the Industry to license replacement operators to fill in the aging workforce of the nuclear industry. If needed shift funding of the additional exams to the industry as a whole in the form of a fee each year.</p>	4/5/2016	Michael Rasch	Entergy	ES-205	GFE	Partially incorporated	<p>Proposed alternative is outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. However, the NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.</p>	9	a

The responsibility of actual administration of initial NRC License Examinations should be shifted to industry representatives the same as is conducted in the Requalification annual and biennial License examination process. This is similar to the process conducted in Canada with their equivalent to the USNRC. USNRC Examiners could review and approve examinations and provide oversight to the administration process. This shift would reduce the impact on the Operations Licensing Branch allowing more examinations to be administered. More examinations are going to be required in the future to replace the aging workforce.	4/5/2016	Michael Rasch	Energy	General	Administration/ Logistics/ Procedure	Noted.	Per 10 CFR 55.40(b), "Power reactor facility licensees may prepare, proctor, and grade the written examinations....and may prepare the operating tests...." This clearly demonstrates that the facility may proctor the written examination, which is performed, but does not include a provision for the facility to administer the operating test as it only discusses the preparation of it. Therefore this recommendation would require rulemaking to revise this regulation and is outside the scope of this revision.	10	a
[in reference to the proposal that the GFE being administered in March and September only] This proposed change will place a significant burden on the management of license class sequencing and scheduling for the utilities based on outage schedules and availability of the applicants to systematically learn the fundamentals and then progress to the next sections of the licensed operator course. Also with limited resources due to retirements and attrition, the availability of the GFE exam being limited will likely cause many more eligibility requests from the utilities. [Recommendations:] (1) transition the GFE exam construction and administration over to the utilities similar to the existing initial exam with only the five modified and the five new questions having to gain prior approval from the NRC for the utility to add to the 40 randomly generated 40 questions from the existing bank which is similar to what is currently contained within ES-205. (2) extend or eliminate the "shelf life" of two years on the GFE exam so the scheduling is less time sensitive for the conduct of the utility's license course. (3) remove the stand alone GFE exam from the initial exam process and allow the outline generation to select GFE topics and associated K/A's from the respective NUREG 1122/1123 as part of the initial written exam development and administration.	4/8/2016	Randal Martin	Energy	ES-205	GFE	Partially incorporated	Proposed alternatives are outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. However, the NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	11	a
ES 604-1 for Quantity Attributes does not align with the latest IP 71111.11 Scenario Review checklist, C-4	4/15/2016	Robert Acree		ES-604	Administration/ Logistics/ Procedure	Noted.	This comment is outside the scope of this NUREG-1021 change and will not be incorporated.	12	a
[in reference to Section C.1.f] The NUREG now requires the NRC to prepare the written outlines for the facilities. In many cases, this will be an additional burden on the NRC as well as the facilities in that the Rejected K/A list could be much larger than if the facility prepared the written outline... Unless the NRC tailors the generation of an outline to each facility, much time and effort will be expended rejecting and agreeing on replacement K/A's. (ES-401 D-1-b p51)	4/25/2016	Anonymous	Anonymous	ES-201	Written exam outline guidance	Noted.	If desired, the facility can provide the NRC with their pre-screened list of rejected K/A's, with justification, to the NRC to assist them in the preparation of the outline, thus cutting down on the number of rejected K/A's in accordance with section ES-401 C.1.a and D.1.b.	13	a
[in reference to Section C.1.f] The NRC generated outlines need to be provided to the utilities earlier than the timeline shown in the NUREG. There is not enough time from the 150 days prior to the exam to develop the written exam.	4/25/2016	Anonymous	Anonymous	ES-201	Examination timeline target dates	Partially incorporated	The revised timeline has the NRC submit the written exam outline to the utility at 195 days before the exam date. The industry proposed 11 month exam timeline could cause the NRC to be unable to administer all requested exams. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	13	b
[in reference to Section C.3.f] The requirement for the NRC to provide the exams to the facility 60 days prior to the exam may not provide adequate time for the facility to review and validate the exam due to constrictions on Operations resources. Comment should address providing the exam materials earlier in the process.	4/25/2016	Anonymous	Anonymous	ES-201	Examination timeline target dates	Partially incorporated	The revised timeline has exams written by the NRC sent to the facility 75 days before the exam date. The industry proposed 11 month exam timeline could cause the NRC to be unable to administer all requested exams. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	13	c
[in reference to Form 201-1] The form delineates when the exam materials are submitted. The 150 day time frame is too short to develop the exam and needs to be modified. The form also has a new item 9 for submitting preliminary waiver/ excusal requests. The final version of this form will need to be incorporated into NOP-TR-1270.	4/25/2016	Anonymous	Anonymous	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	The revised timeline has exam materials submitted at 210 days before the exam administration date. No change was made to the line item for preliminary waiver/excusal requests, as the commenter does not provide any comment requesting action on this item. The industry's timeline could cause the NRC to be unable to administer all requested exams. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	13	d
Section D.I.a (1) States that an RO candidate must have 6 months on the site for which they are licensing. However ES 202 Section D.I.b (1) states that the onsite requirement of the first section is one year not six months. Additionally, ES 204 D.1.i(1) also refers to the onsite RO experience as one year versus 6 months. This may be a typographical error.	4/25/2016	Anonymous	Anonymous	ES-202	Editing	Incorporated	ES-202 D.1.b(1) and ES-204 D.1.i(1) have been updated to reflect the change from 1 year to 6 months.	13	e
[in reference to Section C.2.e] If the intent to address eligibility issues prior to class start or at least 60 days prior to an exam, why will the official notification of granting or denial only be 14 days prior to the exam?	4/25/2016	Anonymous	Anonymous	ES-204	Clarification	Noted.	The NRC is required to have received the final application, signed by the applicant themselves, before the NRC can officially determine whether to grant or deny any waivers/excusals/deferrals. Refer to ES-204 for waivers/excusals/deferrals that are likely to be granted, including what supporting documentation/justification is required. Please note that if the final, signed application is submitted before the required due date per the NUREG, then the NRC can make its decision earlier.	13	f
[in reference to Form ES-301-4] Rev 10 of the NUREG changed Form ES-301-4, Target Quantitative Attributes (Per Scenario; See Section D.5.d) section, item 6 from "Critical tasks (2-3)" to "EOP based Critical tasks (2-3)". Rev 11 should clarify this.	4/25/2016	Anonymous	Anonymous	ES-301	Clarification	Incorporated	Removed "EOP based" designation for critical tasks (CTs) and changed this line to "Pre-identified Critical Tasks" in response to public comments. As long as a CT meets the methodology in Appendix D it can count as a CT.	13	g
[in reference to Form 301-7] NRC grading form to determine Operating exam acceptability. There are several typographical errors on this page: - Form ES 301 -7 on Page 29 of 31 is missing the form title. - Page 28 of 31 item 4 for Admin JPMs implies that they should have Safety Significance, however many of the ADMIN K/As are not related to Safety (i.e Conduct of OPS) - Page 30 of 31 item 2.b the word "difference" should be "different" - Page 30 of 31 does not allow for Non-EOP based critical tasks to be counted towards the scenario minimums, rather they must be EOP based. - Page 31 of 31 Item 2 typo ... "JPM column Nol 5's" - Page 31 of 31 Item 3 typo includes epsilon 1111 symbol - Page 31 of 31 Item 6 needs spacing corrected	4/25/2016	Anonymous	Anonymous	ES-301	Editing	Incorporated	Entire form has been revised based on public and internal comment and typos corrected.	13	h
[in reference to Section D.1.K] Limits the Simulator exam to only one SRO position. Question to the NRC if it is acceptable to have a member of the site staff to role play the Shift Manager position to [perform] administrative duties such as notifying maintenance or management.	4/25/2016	Anonymous	Anonymous	ES-302	Administration/ Logistics/ Procedure	Incorporated	Clarified that simulator facility operators can role play as the Shift Manager position as required. In other words, the simulator operator can act as the Shift Manager when requested to classify the event during the scenario, or to accept reports from the applicant as the Shift Manager, but must be sure not to unduly influence the course of action of the applicant without approval of the Chief Examiner.	13	i
[in reference to Form ES 403-1] Was [this] modified to not have the Facility Reviewer sign item 2 since the exam is not complete if comments are submitted. Question, should this include the Grader as well? (Column a)	4/25/2016	Anonymous	Anonymous	ES-403	Clarification	Incorporated	Changed the wording to proposed changes and deletions being justified, so that the facility must initial if there are post exam comments. If there are no post exam comments, there should not be any proposed changes or deletions and thus this line item would be "Not Applicable (N/A)".	13	j

<p>[in reference to Section C.1.f, scenario overlap proposal that "all required scenarios should not contain more than 50 percent of the events (excluding the major events) from the previous two NRC initial licensing exams"] New 50% overlap requirement will result in less operationally challenging exams. Current exams are designed to have sufficient complexity of events to allow a complete evaluation. This new [] requirement will drive us to use less complex events that will reduce overall difficulty of exams. We will need to use more address alarm and turn a switch type events to minimize overlap. These events have been previously not allowed to be a major portion of pre-major events. [Recommendation:] Decrease to 20% or remove new requirement completely. At the 20% level, a lot less "coordinate with the NRC chief examiner to meet the intent of this section to the extent possible" exemption being used.</p>	5/3/2016	Aaron Forsha	Duke Energy	App D	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	14	a
<p>[in reference to Section 1.d, Page 3 of 9, beginning Line 8] New method of grading TS evaluation opportunities will result in unbalance difficulty between exams. Under current guidelines each event can only have 1 TS evaluation for a design target of 2, with the new requirement some applicants could end up with double or more of others. [Recommendation:] Keep Rev-10 design criteria OR add clarification that a single event that requires 2 TS action statements to be entered will meet minimum design criteria. While this solution will not completely eliminate the concern, it makes it much more manageable when designing quality exams.</p>	5/3/2016	Aaron Forsha	Duke Energy	ES-303	Tech Spec performance deficiency	Noted.	The responsibility resides with both the examination author and the chief examiner to ensure that the difficulty between the scenarios is balanced such that each applicant is appropriately tested to approximately the same level of difficulty. Therefore, the examination author and chief examiner should ensure that no one individual on an examination has only two technical specification (TS) entries, while another has 15. This is true though for more than just TS entries. The chief examiner needs to ensure that these scenarios appropriately test each applicant's competency and thus ensure that the scenario sets balance the difficulty between the various applicant crew members. The NUREG is clear in ES-303 D.1 and D.2 that each error (performance deficiency) must be documented and evaluated accordingly. Therefore, the clarification was added to ensure that it was understood that TS entries are treated equivalently to malfunctions and communications in that an individual can make more than one error and will be evaluated on each error and not singly on the malfunction or communication. This is not a new requirement, but is instead a clarification to ensure consistent grading is applied per the already applicable NUREG requirement. With only a single event, if the applicant does not recognize the applicability of TSs, the applicant would automatically fail that competency (the 6.a would be weighted at a 1.0 with a score of 1 or 0, depending on the number of missed TS entries) and wouldn't have the opportunity to demonstrate capability in the competency as they might with another opportunity. An individual who did not recognize applicability of 2 TS entries in one event, but made 2 TS calls on a second event, would receive a score of 1 in 6.a, but would receive scores of 3 in 6.b and 6.c, resulting in a final competency score of 2.4 (0.3 * 1 + 0.3 * 3 + 0.4 * 3 = 2.4), resulting in a passing score. Therefore, the NRC will not be incorporating this recommendation.	14	b
<p>[in reference to Section D.2.b, proposed grading scale change from 1-3 to 0-3] Changing the lowest rating factor from 1 to 0 is unnecessary and will requires facilities to expend resources aligning current practices and procedures to. the change. NRC examiners and the NUREG already recognizes that sometimes the grading does not match the performance and judgment is required for a licensing decision. See ES-303 Section 2, Page 1-19 Lines 4-8 for further details. This change will require a lot of time/money for what experience has shown is less than a 1% occurrence. [Recommendation:] Leave grading scales as they are and make it a practice of using the guidance in ES-303 Section 2, Page 1-19 Lines 4-8 to resolve conflicts between what the grade is the judgment of the examiner.</p>	5/3/2016	Aaron Forsha	Duke Energy	ES-303	Grading practices	Noted.	The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.	14	c
<p>[in reference to Section D.2.b, proposed elimination of "point back" allowance] This allowance was necessary to provide a candidate who is competent but makes just a few errors to be penalized without relief. During a scenario an applicant can have multiple chances to show competency in an area. Some scenarios provide more than the expected three chances 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 ability. Due to the number ratings being revised to a more stringent criteria, this is even more important to the rating of the candidate than in previous exams. [Recommendation:] Retain the wording from Revision 10.</p>	5/3/2016	Aaron Forsha	Duke Energy	ES-303	Grading practices	Noted.	Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency. Therefore, an individual will not fail for merely having a few non-critical performance errors.	14	d
<p>[in reference to Section D.2.b, proposed change of missed CT results in 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. [Recommendation:] Change "a missed CT results in a 3-point deduction for an 'RF Score' of 'O.'" to "a missed CT results in a 2-point deduction for an 'RF Score' of '1.'" Revise other guidance in the NUREG to align with this comment.</p>	5/3/2016	Aaron Forsha	Duke Energy	ES-303	Critical Tasks guidance	Noted.	Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.	14	e
<p>[in reference to Section 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 correct number of questions was inserted, instead of saying "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" [Recommendation:] rewrite the sentence using the number of questions instead of percent.</p>	5/3/2016	Aaron Forsha	Duke Energy	ES-401	Editing	Partially incorporated	Both the percentages and number of questions mean the same thing, so it does not matter which is in the form so long as the form is filled out correctly (using actual number of questions). Therefore, for clarity, the NRC removed the reference to percentage and just left the actual number of questions on the form in the interest of brevity. However, it is still useful to know where those numbers came from and so the reference to percentages was left in D.2.c. Please note that the reference to percents in D.2.f was to correct an error (75% of questions (75) does not equate to 56% of RO questions (42) and 19% of SRO questions (~5)). However, the initial reference to percentage (75%) remains in D.2.f and so the reference to percentage in D.2.c should also remain.	14	f

[in reference to Section E.2] Considering the workload of [NRC] chief examiners, the practice of "The chief examiner shall consolidate the comments from all [NRC] reviewers and submit one set of comments to the author or facility contact." Can cause significant delays in the sites receiving the 401-9 comments. These delays often challenge our procedures and processes. [Recommendation:] Change exam review feedback to allow partial 401-9's to be provided to the sites to allow the exam team to begin processing them sooner.	5/3/2016	Aaron Forsha	Duke Energy	ES-401	Administration/ Logistics/ Procedure	Noted.	The regional operator licensing branch chief must review and approve comments on the examination submittal before the chief examiner can provide those comments to the facility per ES-401 E.2.e. Therefore, the chief examiner cannot provide comments to the facility before this review occurs. However, the timeline is being revised to provide additional time to revise the examination based on the comments without unduly delaying administration. Therefore, because the timeline is being extended and the supervisor must review all comments before being provided to the licensee, no additional change is required.	14	g
[in reference to the Operator Lessons Learned Review Team (LLRT) Report, which formed a basis for the NUREG-1021 revision, and included a statement to the effect "any changes to the operator licensing process should be focused on and limited to addressing the specific concerns arising from the Atomic Safety and Licensing Board (ASLB) reversal"] The proposed changes [to NUREG-1021] have not been limited to those concerns arising from the ASLB reversal. The ASLB did not conclude that the examination standards were incorrect but concluded that the administration of the examination to the applicant was not "equitable and consistent" with the standards applied to other applicants. The proposed changes to the grading of the operating examination are not responsive to this conclusion. The proposed grading changes would have the impact of increasing exam failure rates with no justifiable safety benefit, would create a higher likelihood of failing a competent applicant, and would have a negative economic impact on licensees without any corresponding improvement in public health and safety. As such, the proposed changes are not consistent with the NRC's conclusion that the existing process is of extremely high quality... the informal appeal process should not be terminated and replaced with a longer period to address exam comments... This proposal not only eliminates the LLRT's recommendations for enhancing the process but also could increase the number of formal appeals which would erase any savings generated by this proposal.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	General	Administration/ Logistics/ Procedure	Partially incorporated	The decision to revise NUREG-1021 was not solely based on the review team (LLRT) results. Those results were one factor, but another one was the fact that it had been some time since the NUREG had had a thorough review and update, and therefore the opportunity was taken to do so. Therefore, the revision to the NUREG was not limited to the ASLB decision or the LLRT results and instead was reviewed and assessed in whole to determine what needed to be updated since the last major revision (Rev. 9). As well, the ASLB did state that there was a consistency issue with the standard, so the NRC took the opportunity to look for other consistency issues not identified by the ASLB because they were not identified as part of that hearing. Also, Project AIM resulted in a decision by the Commission to terminate the informal staff review process and reduce the GFE offerings to twice a year and these are also included in the revision. Please see resolution to comment 15.III for more discussion on the termination of the informal staff review. Please note that the NRC is working on developing a pilot with industry to have an industry-authored, NRC-approved GFE exam for the June and December exam dates. Also, the informal staff review elimination will be deferred for one year to evaluate the impact of the other changes to the NUREG.	15	a
[in reference to the proposed changes calling it the "FAQ" document] Consider changing this to "OLPF Document" where "FAQ" appears. Document is generally known as the Operator Licensing Program Feedback document and the NRC has been consistent at emphasizing that it is NOT an FAQ.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	General	Administration/ Logistics/ Procedure	Incorporated	The document that contained the information being included here is titled "Operator Licensing Program Feedback" so changing the acronym to OLPF will improve consistency.	15	b
[in reference to the bottom of page xvi, C.3.i change] [Recommendation:] Should say "removed reference to questions since these are not pre-scripted." There are no pre-written questions for JPMs or scenarios to distribute.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	Change Log	Editing	Incorporated	NRC removed pre-scripted questions from JPMs and scenarios multiple revisions ago.	15	c
[in reference to the ES-301 D.5.a entry] [Recommendation:] Calling out the plant name, region and year is unnecessary.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	Change Log	Editing	Incorporated	Removing the reference to plant, region and year does not significantly alter the change.	15	d
[in reference to the ES-401 C.1.a entry] Description of what's in ES-401 doesn't match what's in ES-401. ES-401 only talks about written outlines.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	Change Log	Editing	Incorporated	ES-401 only relates to the written examination and outline. ES-301 relates to the operating test outline. Therefore, removing reference to outlines other than the written is warranted.	15	e
[in reference to the Form 403-1 entry] Should say "ES-403-1" vice "ES-401-3"	5/3/2016	Joseph Pollock	Nuclear Energy Institute	Change Log	Editing	Incorporated	Corrected typo.	15	f
[in reference to ES-201-1 and examination timeline] [Recommendation:] Overhaul the examination timeline to have target dates for activities start sooner. Also, split the exam submittal into two parts with the chief and station determining which will be delivered first. Allows the stations and chief examiners to plan work better. Currently, there is always a rush at the end of the process to get the exams, especially the written, reviewed, revalidated and approved prior to the exam dates. Expanding the timeline in the NUREG to align more closely with what stations and chief examiners are actually doing would improve exam quality and allow adequate time to find and fix issues without running out of time.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	The revised timeline adds approximately 6 weeks for exam preparation and 2 weeks to address comments on exams and get them approved. Splitting the exam submittals is left to the chief examiner's discretion. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	g
[in reference to Section C.1.f, the proposal that NRC Staff will prepare the written examination outline for both NRC and licensee developed examinations] [Recommendation:] Add option for NRC to decide who provides the outlines, decision from NRR "At the discretion of NRR/NRO operator licensing program office, either the NRC Staff or the facility licensees will prepare all written examination outlines, provided this is performed consistently across all regions." Provid[ing] an option for NRR office to decide to change whether or not the NRC will continue to develop written outlines without necessitating a revision to NUREG-1021.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Written exam outline guidance	Noted.	This change was made to address a regional inconsistency associated with sample plan generation. Because the commented National Exam Bank and associated automatic exam outline generator are not currently available for the NRC to review, the NRC has determined that no further change will be made based on this comment.	15	h
[in reference to C.1.h, and the added words "in any way" to the second bullet] C.1.h talks about items, both operating test and written exams. The section needs clarification. If the item is called "bank", why submit the original question? If it's designated as "modified", it makes sense to prove it's modified (which is a different category than bank when counting item types). If it's required "State the source of each item..." then why would they be "encouraged to identify items used...at the facility"? It's required already. [Recommendation:] Reword the section: In its examination submittal, the facility licensee or its contractor shall provide the following information for each proposed written or operating test item: • State the source of the item; bank for unmodified items from the facility's or any other bank, modified from the original or new. • If item is from a bank, state the bank and when it was used on an NRC license examination, if applicable. • For modified written items, include a copy of the original item.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Meaning of "in any way"	Partially incorporated.	Clarified second bullet to indicate that a change to a bank question requires submittal of the original in order for the NRC to determine if the new question meets the definition of modified or not. The original question must be submitted if a change is made, for the above reason and to evaluate the changes for introduction of psychometric flaws. The facility is encouraged to identify to the NRC if any item was used in an NRC examination at the facility, as those questions are considered NRC-validated and do not count towards unsatisfactory examination quality submittal (see ES-501 E.3.a). Also, if a bank item from an operating test was changed, the NRC also needs to be able to evaluate the changes to determine if it meets the definition of significantly modified in ES-301. Even if the bank item does not meet the definition of significantly modified, the NRC needs to be able to evaluate the changes to determine if those changes result in a psychometric flaw being introduced that was not in the original bank question. Please note that minor formatting changes do not require submittal of the original bank question. This was added as a footnote for clarity.	15	i
[in reference to Sections C.1.i and C.3.f, and the proposal for the facility review process for NRC-Prepared exams] Sixty (60) days is not sufficient to accomplish this paragraph. [Recommendation:] The date should be at T-150. This requirement is not documented on the ES-201-1 form. Given the time required to perform adequate validation and work hour restrictions on qualified Licensed Operators, sufficient time needs to be provided to ensure the facility has time to review the exams, provide them to qualified operators for validation, return the exams with comments, wait for needed changes and perform revalidation.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Examination timeline target dates	Partially incorporated	A target date of 75 days before the exam date for an NRC-developed exam to be sent to the facility has been added to the revised timeline. The industry proposed 11 month exam timeline could cause the NRC to be unable to administer all requested exams. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	j
[in reference to Sections C.1.i and Form ES-201-1, and the timeline for NRC-Prepared Exams] [Recommendation:] NRC-prepared examinations should either be specifically included on Form ES-201-1 or an additional Exam Prep checklist should be generated for NRC prepared exams... the due dates for many of these activities should be different than for a facility-prepared exam due to validation and extra steps necessary to review and revise the exams when NRC prepares them.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Incorporated	There are separate line items for NRC prepared exams with revised due dates on the revised timeline. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	k
[in reference to Section C.1.j and the designation of plant-referenced simulators for new reactors] This requirement is currently impossible to meet for new reactors since the NRC will not approve a simulator that is not plant-referenced. [Recommendation:] Resolve the designation of commission-approved simulators. Suggest using guidance and precedence found in NUREG-1262 that allowed the use of non-plant referenced simulators prior to the simulator certification process that became a requirement in the early 1990s.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Plant-referenced simulators	Noted.	No change required as the designation of commission approved simulators is in regulations: 10 CFR 55.46(b). Further clarification of commission approved simulators would have to be accomplished through rulemaking and is outside the scope of this NUREG change. Because the CFR provides allowance to use a commission approved simulator in lieu of a plant-referenced simulator, use of guidance in NUREG-1262 is not required.	15	l

[in reference to Section C.1k, and the proposal that exam comments should be reviewed by phone] [Recommendation:] State "These meetings will normally be conducted via telephone. Based upon a request by the facility or region, a face to face...." Communicate the preference without the need to incorporate branch chief approval, station concurrence. Additional administrative burden to establish such a formal process for how and when to meet to discuss comments.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Partially incorporated.	This NUREG change was added to explicitly allow and encourage the use of the telephone to enable review of the examination comments. The guidance to obtain station agreement for a face to face meeting is because the NRC cannot require the facility to come to the region without this agreement for this purpose. Also, the guidance on obtaining regional management agreement to a face to face meeting is primarily intended for meetings occurring at the facility, as the managers need to be involved from a budgetary perspective. Also, if the facility is coming to the regional office, the region management needs to be aware that they are coming. None of this guidance is intended to require a formal concurrence process, therefore the NRC is changing the terminology from concurrence to agreement. An e-mail would be sufficient to document the facility's agreement to a face to face.	15	m
[in reference to Section C.2.c Fifth bullet, "via cover letter" proposal] [Recommendation:] Change to "provided to the NRC as a formal submittal (including cover letter) for NRC review and approval." For clarity, the phrase "via cover letter" is not defined nor used elsewhere in this NUREG and seems ambiguous.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Clarification	Incorporated	Wording change merely provides clarification and does not change intent of the bulleted statement.	15	n
[in reference to Section C.2.d, the proposal "The regional offices should also keep the facility informed of the dates by which the region expects to provide its comments regarding the licensee's submittals"] [Recommendation:] "The regional offices should also keep the facility informed of the dates by which the region expects to provide its comments regarding the licensee's submittals." The NRC should set and respect deadlines for returning comments. The proposed expanded timeline provide enough time to thoroughly review and comment. All parties involved need to be held to deadlines.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Partially incorporated.	The NRC needs to keep the facility informed of dates and changes to dates by which the region plans to provide comments so the facility can schedule resources accordingly. However, the NUREG must still provide some flexibility in recognizing that those dates can change, particularly depending on the quality of the exam submittal, as an unsatisfactory exam submittal will require more time for review and comment than one that is satisfactory.	15	o
[in reference to Section C.2.h, second paragraph] [Recommendation:] Clarify the 30 day delay allowance...What exactly are the parameters for this 30 days? From where is it measured? The first day of the operating test? The last day? The originally scheduled day? Depending on how this is interpreted, the actual date could fluctuate by two weeks or more. From the final day of the operating test (or written) would be preferred.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Clarification	Noted.	No change required. The 30 day delay guidance provided in ES-201 C.2.h refers to the region's ability to delay a portion of the exam for up to 30 days. Based on the wording, this refers to a delay from the original schedule, when the extra time is needed for exam development or a scheduling conflict. With the change to the timeline which increases the length of time for review and approval before exam administration, any additional time required to review, approve, and administer an exam beyond 30 days of the original schedule should be a rare occurrence and can be approved through the headquarters office. Not listed in the comment, but believed to be related, is the 30 day guidance on divergence of the written exam and operating test located in ES-201 C.3.j, which allows divergence of the written exam and operating test up to 30 days unless headquarters concurrence is obtained to exceed that time. This time limit has to do with the time between the written examination and the operating test and is therefore applicable from the last day a portion of the exam is administered until the first day the other portion of the exam is administered. Again, the 30 day allowance can be exceeded with headquarters concurrence. Therefore, large class sizes could be accommodated if necessary.	15	p
[in reference to Section C.2.h] [Recommendation:] Expand to 90 days. Allow region to approve up to 90 based on split exams, large classes, and possibility of going to two GFE exams per year.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Examination timeline target dates	Noted.	No change required because the 30 day allowance can be exceeded with headquarters concurrence.	15	q
[in reference to Section C.2.j, the proposal "After the chief examiner has verified that the necessary changes and corrections have been made, the responsible supervisor will review..."] [Recommendation:] "After the chief examiner has verified that the necessary changes and corrections have been made, the chief examiner will return the exam to the facility for any facility-required final validation in order to ensure that revisions made during the review process have not negatively impacted the operational and discriminatory validity of the exam. Once the facility has performed final validation of the exam, the responsible NRC supervisor will review..." Many facilities require a final validation of the exam following the NRC/facility review and revision session. This final validation ensures that the product is fair and retains operational and discriminatory validity. During the review process, nearly all exam instruments have been changed to various degrees and, experience has shown, even seemingly insignificant changes can seriously impact the validity of the product. It is important to ensure no flaws were inadvertently created during the revision process.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Partially incorporated.	ES-201 C.2.j has been revised to allow a facility to re-validate the examination if desired before the responsible NRC supervisor's review and approval of the exam. This will result in the supervisor only having to review the finished product, instead of a potential to review it multiple times if the facility re-validation finds additional, unintended issues created during the revision process.	15	r
[in reference to Section C.2.i, "approximately 7 days..."] [Recommendation:] This should be at least 21 days. Seven days is not sufficient to address any potential issues. Having an additional 15 days to address potential issues and concerns would help ensure the facility and the NRC has addressed all concerns before the first day of the exams.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Examination timeline target dates	Incorporated	Two weeks have been added to the revised timeline to resolve issues and get the exams approved. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	s
[in reference to Section C.3.g] [Recommendation:] The second paragraph of C.3.g should be a duplicate of C.1.k to ensure the requirements are consistent.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Editing	Incorporated	ES-201 C.3.g was revised to make it more consistent with ES-201 C.1.k. However, because the two sections discuss NRC assigned examiners' and facility licensee's responsibilities, they are not duplicates. C.1.k has requirements associated with the facility review of an NRC prepared examination and discussion on the actions for the facility to take if there are concerns with the examination. Neither of those two items are NRC examiner responsibilities and therefore were not incorporated into C.3.g.	15	t
[in reference to Section C.3.j] [Recommendation:] Changed should to shall for surrogate use [to] Allow these decisions to be made at a regional level. Occasionally, the mix of candidates makes the use of surrogates more prudent. So long as the N+1 rule is adhered to, the branch chief should be able to approve the schedules.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Noted.	ES-201 C.3.j provides guidance on the use of surrogates. Provided that guidance is being met, consultation with the program office is not required. Consultation with the program office is only required if the chief examiner wants to use surrogate operators contrary to the provided guidance (which includes the N+1 rule).	15	u
[in reference to Sections D.1.b and D.1.c] [Recommendation:] Examiners should not be allowed to examine at facilities where they were regular employees or contractors for some period of time, recommend 5 years. If an examiner was an employee at a facility, it's an appearance of a conflict of interest.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Noted.	ES-201 D.1.c addresses any instance that might appear to be a conflict of interest. This allows the NRC the flexibility to review each potential conflict on a case by case basis, instead of providing strict guidance which might not be appropriate based on the circumstances. Therefore, no change is required.	15	v
[in reference to Section D.2.b, fourth bullet, "development of examination bank questions if the intent is to use them on the next NRC examination..."] [Recommendation:] Remove bullet as it adds confusion or clarify the intent of the item. "development of examination bank questions for any use other than the current NRC or Audit examinations. -questions for the facility's course banks may be developed but may not be added to common banks until the NRC exam has been administered." This item was added to address OLPF 401.32. The intent of the original question is not clear in the OLPF document since the referenced "instructor" may or may not be on exam security. As such, it cannot be determined what the context of the "use" referred to in the question is. As such, the proposed change is confusing and contradictory. Additionally, it is not clear what the "next" NRC exam is, does this mean the exam under development? It cannot, since development of questions for the exam under development is obviously an allowed activity. The outline for the "next" exam has not been drawn yet so any item developed outside the current sample plan may or may not fit onto the next exam.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Clarification	Partially incorporated.	ES-201 D.2.b fourth bullet has been revised to clarify that an instructor on examination security cannot write a question that is intended for use on the NRC examination under development and also add it to the common bank where it could be used on non-NRC examinations before NRC examination administration. This clarification then allows an instructor on examination security to write and add questions for the facility common bank provided these questions are not written for the NRC examination under development.	15	w

[in reference to Section D.2.b, "Supervisors and managers having knowledge of ... review of examinations, ..., as well as the counseling of applicants concerning"] [Recommendation:] Clarify guidance to ensure management can perform oversight functions without jeopardizing security. "Supervisors and managers <u>subject to an exam security agreement</u> may continue their general oversight of the training program for the license applicants, including the review of examinations, quizzes, and remedial training programs, as well as the counseling of applicants concerning non-technical issues. However, those supervisors and managers may only provide general feedback regarding quality of those examinations, quizzes, or programs and may not make specific comments regarding content of these in order to maintain the integrity of the licensing examination as defined in 10 CFR 55.49."	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Clarification	Noted.	The wording in question has been in the NUREG since before Revision 9. The key is that the supervisors and managers may not provide ANY (emphasis added) technical guidance, training or other direct feedback regarding the content of those examinations, quizzes, or programs in a manner that might compromise the integrity of the licensing examination as defined in 10 CFR 55.49. The NRC does not believe that the wording needs to be changed as this wording has been in place for more than 12 years and has gone through two NUREG revisions without requiring change. However, if a facility has a question about a specific instance, they may discuss that with their chief examiner. Please note that any individual having knowledge of examination content is subject to an exam security agreement.	15	x
[in reference to ES-201-1 Form] [Recommendation:] Add pre-submittal items to timeline, including dates for when they should be given to NRC and when NRC is expected to return them. (provided at T-120 with comments due back to facility at T-105)	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Administration/ Logistics/ Procedure	Incorporated	Pre-submittal dates for outlines have been added to the revised timeline, allowing for outlines to be reviewed prior to significant development of exam materials. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	y
[in reference to ES-201-1 Form, -120 item, Revised written exam outline due] [Recommendation:] Remove this line item, add the 401-4 form to the -90 day operating test outline block. This is not currently done in RII, which has provided the written outlines for several years. Before the written outline is provided, it is checked and approved by the NRC. The facility then reviews the outline when received and any changes made after this are made with the chief examiner's approval and documented on 401-4, Rejected KA list. The 401-4 should be submitted along with the written outlines as is done now with the understanding that the 401-4 will not be complete until the final exam is approved.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-201	Examination timeline target dates	Partially incorporated	Although it is true that an outline is generated by the NRC and changes to the outline are reviewed and approved by the chief examiner, a final outline submittal is required to enable the NRC to meet its obligations with respect to maintaining official records and providing the appropriate records to the public when possible. Therefore, the NRC needs a copy of the final outline with all the changes so that it can document what the examination contained and to document that part of the licensing process. Although the NRC generated the outline, the facility IS responsible for ensuring that the examination is appropriate for licensing operators at their facility and that the examination is in accordance with NUREG-1021 (ES-201 and exam approval letter). Therefore, to meet the NRC's legal obligations, a copy of the final outline must be submitted on the docket to the NRC. Please note that the exam outline quality checklist already provides a provision to differentiate between NRC and facility generated outlines. However, the NRC agrees that it is not necessary to submit the written outline individually and has therefore updated the timeline to show that the written outline shall be submitted with the draft examination.	15	z
[in reference to Section C.1.a, Paragraph 3, "Such excusals...must take place within 1 year of the date on which the applicant completed the original examination"] [Recommendation:] Leave sentence as it is in Rev 10, replacing "waiver" with "excusal". "Such excusals...must be requested within 1 year of the date on which the applicant completed the original examination." Shortens the time from denial to reapplication. The adjudication of an appeal may not be closed within the time frame to allow the licensee to apply and develop/approve exam materials within one year if the maximum times are used throughout the exam process.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Administration/ Logistics/ Procedure	Partially incorporated.	ES-202 C.1.a referenced sentence is deleted in order to make the section more consistent with the plain language of the regulation. The applicant can request excusal as allowed by 10 CFR 55.35. The restriction on only failing one part and re-taking the examination within one year of the original examination is only for excusals that the region can approve. If the excusal requested does not meet these restrictions, the applicant can still request the excusal, however the program office will have to be consulted.	15	aa
[in reference to Section C.1.a, Paragraph 3, "Although licensed operators can go up to 24 months between medical examinations..."] [Recommendation:] There should be an additional provision for SRO-Upgrade candidates that have a current RO license. Upgrade candidates are still maintaining the conditions of their licenses and reporting changes in accordance with this section, so they should not be required to have another physical within 60 days (as long as they have had a physical within 2 years). This reduces cost for the licensees while still meeting the legal requirements for physical condition.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Administration/ Logistics/ Procedure	Noted.	This comment is already covered by the last sentence of the 3rd paragraph of ES-202 C.1.a which states, "Licensed ROs or LSROs upgrading to an SRO license need not have an additional medical examination or waiver request , as long as their medical status as a licensed RO or LSRO is up to date at the time of application, including a complete medical examination within the past 24 months."	15	bb
[in reference to Section C.2.b, Paragraph 4] The word "in" is duplicated in the last sentence.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Editing	Incorporated	Typo correction.	15	cc
[in reference to Section C.2.c, preliminary application information] ES-201 C.1.m states "...facility licensee shall submit the license applications along with a...request [] that licensing examinations be administered." This occurs at 30 days. C.2.i states "Upon receiving preliminary...applications, approximately 30 days before..., the regional office shall...evaluate waiver and excusal requests...." Both of these entries state "30 days" while the Form 201-1 states "-60" days. The process for when and how to submit early, formal evaluation requests for waivers/excusals needs to be clearer and all relevant paragraphs in ES-201, 202 and 204 need to be aligned.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Clarification	Incorporated	Form ES-201-1 now includes entries for waiver/excusal request, preliminary applications and final applications for clarification. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	dd
[in reference to Section D.1.b.(1), "1 year onsite"] [Recommendation:] Should be 6 months to align with D.1.a.(1)	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Editing	Incorporated	The change to ES-202 D.1.a(1) was made to bring the NUREG consistent with current NANT (2010) guidelines. Therefore, D.1.b(1) also needs to be revised for consistency.	15	ee
[in reference to Sections D.1, .2 and .3, RO, SRO, and LSRO eligibility] [Recommendation:] Remove the sections for RO/SRO/LSRO eligibility, revise paragraph 2 to say "Follow NANT Guidelines as directed by pages 2 through 4 of this section." Repeating the NANT guidelines is unnecessary and redundant. If guidelines are adjusted, the NUREG will have to be revised to match.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-202	Administration/ Logistics/ Procedure	Noted.	Although the NUREG-1021 Revision 11 was revised to make it more consistent with current NANT guidelines, the NRC must ensure that the guidelines are equivalent to the NRC staff guidelines in Regulatory Guide 1.8, Revision 3 as discussed in section D of ES-202. Therefore, if these guidelines were to change substantially in the future, the NRC would need to review these NANT guidelines against RG 1.8 Revision 3 (or the current revision if further revised) to ensure that the new NANT guidelines are still equivalent. No change is needed.	15	ff
[in reference to Section C.2.b, last paragraph, "The region does not require written concurrence from NRR/NRO to deny an applicant's excusal or waiver request, but it should discuss..."] [Recommendation:] "...NRR/NRO to deny an applicant's excusal or waiver request, but it shall discuss its decision with the..." NRR/NRO needs to provide an oversight role to ensure regional consistency.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-204	Administration/ Logistics/ Procedure	Incorporated	The NRC agrees that the applicable program office needs to be aware of when waivers/excusals are denied to ensure waivers/excusals are being treated consistently across the regions.	15	gg
[in reference to Section D.1.i, experience and training guidelines] [Recommendation:] Delete to RG 1.8 and/or NANT guidelines. Redundant to guidance provided elsewhere.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-204	Administration/ Logistics/ Procedure	Noted.	This information is in ES-204, which provides guidance on what waivers/excusals the regional office can approve without program office approval. Therefore this information is not provided elsewhere in the standard as this is the only section that covers waivers/excusals the regional office can approve. However, in reviewing the comment, the NRC reviewer noted an inconsistency that D.1.i.(1) references to the year on-site experience for the RO instead of the updated 6 months of experience and this inconsistency has been corrected.	15	hh
[in reference to Section D.1.k, "If an applicant passed the GFE more than 24 months before the date of license application..."] [Recommendation:] "If an applicant passed the GFE more than 60 months before the date of license application..." Allow flexibility, GFE exam program has been stable for a number of years. There is no discernable risk from expanding the time limit on accepting past GFE exams.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-204	Administration/ Logistics/ Procedure	Noted.	The industry commented on NUREG-1021, Rev. 9, that the GFE should not be limited to 2 years and the NRC responded that this limitation was necessary to comply with the regulations (ADAMS Accession No. ML041240004). The NRC explained this statement in the public focus group meetings on NUREG-1021, Rev. 9. Summaries of three of these meetings are publicly available under ADAMS accession numbers ML022670055, ML030640883, and ML032521319. Since there are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes, no change is necessary. Please note that the NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	15	ii

[in reference to Section D.1.a, "Note that an SRO-instant applicant who passed the operating test, achieved a score of 80 percent on the RO portion of the written examination, 76 percent on the SRO-only questions, and 79 percent overall would not be eligible for an excusal from the RO portion because the overall 80-percent cut score was not achieved. However, an SRO-upgrade applicant who passed the operating test, achieved a score of 80 percent on the RO portion of the written examination, 76 percent on the SRO-only questions, and 79 percent overall would be eligible for a waiver of the RO portion provided the applicant meets the three requirements for a waiver specified in ES-204 D.1.j." [Recommendation:] "Any SRO applicant, upgrade or instant who scores 80% or higher on the RO portion of the licensing exam shall be eligible for an excusal for the RO portion of the exam if the score on the SRO portion of the exam is less than 70%..." There should not be an inconsistency between SRO-I and SRO-U. In the example provided in the proposed revision, one candidate is eligible for an excusal of the RO portion of the exam and the other is not. Neither achieved an 80% overall thus they should not be treated differently.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-204	Administration/ Logistics/ Procedure	Noted.	The section this comment refers to describes the restrictions on the allowance for the region to excuse/waive a portion of the examination. According to 10 CFR 50.35(b), "An applicant who has passed either the written examination or operating test and failed the other may request . . . to be excused from re-examination on the portions of the examination or test which the applicant has passed." In the example provided, both the SRO-I and the SRO-U failed the written examination overall and, therefore, cannot request an excusal from the written examination. However, if an SRO-U is currently licensed as an RO at a facility, that applicant can request a waiver of the RO portion of the examination in accordance with section D.1.j. These two applicants are treated differently in this particular instance because the SRO-U is currently licensed and can apply for a WAIVER that the SRO-I cannot. In neither case is the applicant eligible for an EXCUSAL. Therefore, both applicants are treated similarly for EXCUSALS, but are treated differently on the WAIVER due to the current license status of the applicant. No change is necessary.	15	jj
[Recommendation:] Delete ES-205, Add GFE Tier to NRC written exam. Recommend re-evaluation of GFES process. The required 10CFR55.41 items could be added to the final licensing exam, possibly as an additional tier to the written exam outline.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-205	Administration/ Logistics/ Procedure	Noted.	This comment is outside the scope of this NUREG-1021 change and cannot be incorporated without substantial and significant further review.	15	kk
[in reference to Section B., third paragraph] Change U.A Nuclear Regulatory Commission to U.S. Nuclear...	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Editing	Incorporated	Corrected typo introduced in Revision 11 draft.	15	ll
[in reference to Section B.1, last line, "The 'Administrative Topics' are administered in a one-on-one...format..."] [Recommendation:] Remove "one-on-one" since they can be administered in a group format. Align guidance with practice.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Administration/ Logistics/ Procedure	Incorporated	Current practice is to administer the majority of Administrative JPMs in a classroom setting, with one or two examiners administering the JPM to some number of applicants. This is usually in excess of a one-on-one format.	15	mm
[in reference to Section D.3.c., "All SRO Administrative JPMs must be written at the SRO level"] [Recommendation:] "A majority of SRO Administrative JPMs must be written at the SRO level." Mandating that all SRO admin JPMs be written at the SRO level eliminates testing any RO admin topics. Since RO tasks and duties are part of what SROs are being tested on, this requirement eliminates testing this aspect. Additionally, this adds additional work to exam preparation for little added benefit.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	SRO Administrative JPMs	Noted.	This change was made to address a regional inconsistency. Per ES-301, D.1.e, SRO applicants, "will be examined for the highest on-shift position for which the SRO's license is applicable." It also goes on to discuss how to differentiate the SRO operating test from that of an RO (no changes to this have been made in Revision 11). It states, "In directing licensed activities, the SRO must have a broader and more thorough knowledge of facility administrative controls and methods." Because of these two statements, the program office and the regions all determined that it was appropriate to require all the administrative JPMs to be evaluated at the SRO license level. Therefore, no change is necessary.	15	nn
[in reference to Section D.5.a, paragraph 2, the allowance to place SRO-I at new facilities at either BOP or ATC] [Recommendation:] Extend this allowance to all plants. This is not consistent with uniform conditions. . . Each candidate needs to demonstrate the ability to perform a variety of attributes on the Transient and Event Checklist (Form 301-5), as long as this requirement is met, they should be able to be at either position.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Administration/ Logistics/ Procedure	Noted.	This allowance for SRO-I applicants at new facilities to stand in either the balance of plant (BOP) or at the controls (ATC) positions is due to the fact that the ATC position might not provide sufficient opportunities to observe control manipulations sufficient to enable a valid licensing decision due to the fact that the ATC position is primarily providing parameter monitoring. For currently operating plants, both BOP and ATC positions give ample opportunity to evaluate SRO competency at control board manipulations, however, the NRC considers the "At the Controls" position to better align with the license to "Operate the Controls" of the facility and therefore the allowance is not necessary for current reactors and no change is required.	15	oo
[in reference to ES-301 Section D.5.b and ES-201-2, Item 4.d, et al, "every applicant shall be tested on at least one new or significantly modified scenario that he or she has not had the opportunity to rehearse or practice. 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 previous two NRC initial licensing operating exams.... The final product ...Events found.... If a facility encounters difficulty ... Additionally, ...Furthermore, any other scenarios..."] [Recommendation:] "every applicant shall be tested on new or significantly modified scenarios that he or she has not had the opportunity to rehearse or practice. A significant modification means that at least two events, malfunctions or initial conditions have been replaced or significantly altered such that operators will not recognize them from the previous two NRC initial licensing operating exams. 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). It is expected that all major events would be broadly sampled over the course of several exams, and that no major event will routinely be omitted without justification. Furthermore, any other scenarios that are extracted from the facility licensee's bank must be altered to the degree necessary to prevent the applicants from immediately recognizing the scenarios based on the initial conditions or other cues." The addition of percentage-based overlap requirements for scenarios is overburdening to exam development teams when the goal of "maintaining test integrity" can be accomplished through more effective, qualitative means. Application guidance can be provided for current, sufficient restrictions without the need to create additional requirements. Additionally, these restrictions may, in effect, make the exams more predictable by limiting the scope of what may be examined.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	15	pp
[in reference to Section D.5.d, the proposal that "A scenario must have at least two critical tasks"] [Recommendation:] Scenarios should be designed with at least two critical tasks. 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. 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."	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Critical Tasks guidance	Partially incorporated	Section was reworded to state that the Chief Examiner should ensure each scenario includes at least 2 pre-identified critical tasks and clarifies that that is a target and not an absolute minimum requirement. This was to clarify confusion from public comments on what the intent of that section was. Note that there is a provision in the NUREG to allow time compression, although not preferred, if it is desired to observe some task that would otherwise not be observable due to time constraints (See Appendix D, C.1.a).	15	qq
[in reference to ES-301-4, items 9 and 13 revisions] [Recommendation:] Remove revisions, replace with a qualitative check of the scenarios with the previous two NRC exams ensuring sufficient diversity. Line 9: As noted above, restricting non-major item use in this way is too restrictive and unnecessary. The chiefs can (and do) evaluate the current and previous exams and determine whether they are sufficiently diverse. Line 13: If it is desired to make this an actual criterion, it should be consistently applied to tech spec calls, events seen, and scenarios performed, etc. This check is already accounted for on the 301-5 forms and the quantitative attributes on the bottom of Form ES301-4 which makes line 13 redundant.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Administration/ Logistics/ Procedure	Partially incorporated	Form item 9 was revised to reflect change in overlap limitations as discussed in response to comment 15.qq. Form now states to check that all scenarios are either new or significantly modified. For Form 301-4 item 13 comment, Form 301-5 does NOT count the number of critical tasks performed by applicants, so the NRC added the words to the 301-4 form. The number of technical specification calls, events, major transients, etc., are on Form 301-5 and so do not need to be added to Form 301-4. However, based on other public comments, the NRC is revising item 13 to evaluate applicants on a similar number of critical tasks as possible.	15	rr

<p>[in reference to the proposed ES-301-7 form] [Recommendation:] Remove the forms. These forms are an unnecessary burden on the examiners and the facility, just extra administrative paperwork with little real value.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Administration/ Logistics/ Procedure	Noted.	All operating tests must be reviewed to ensure they meet quality standards and any comments must be resolved by the facility before the test can be administered. This form merely provides a consistent method of documenting that review and those comments and therefore should not be an increase in burden on the facility or a significant burden increase for examiners. These forms will improve consistency in documentation of operating test submittal quality and will provide the facility and examiners with a more objective, consistent method to determine submittal quality. This will improve regional consistency with respect to operating test review, comment, and determination of submittal quality, without any additional burden to the facility as it is the chief examiner's responsibility to complete these forms. The only facility responsibility is to resolve examiner's comments, which they would have to do no matter how those comments are documented.	15	ss
<p>[in reference to the proposed ES-301-7 form] There are several typographical errors on this page: <ul style="list-style-type: none"> Form ES 301-7 on Page 29 of 31 is missing the form title. Page 30 of 31 item 2.b the word "difference" should be "different" Page 30 of 31 does not allow for Non-EOP based critical tasks to be counted towards the scenario minimums, rather they must be EOP based. Page 31 of 31 Item 2 typo ..."JPM column Nol 5's" Page 31 of 31 Item 3 typo includes epsilon "€" symbol Page 31 of 31 Item 6 needs spacing corrected </p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-301	Editing	Incorporated	Entire form has been revised based on public and internal comment and typos corrected.	15	tt
<p>[in reference to Section D.3.h, proposal for examiners having to initial all charts] [Recommendation:] Remove the requirement for examiner to initial charts. Unnecessary burden, already takes an excessive amount of time between scenarios to reset the simulator.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-302	Administration/ Logistics/ Procedure	Noted.	Revision 11 to NUREG 1021 requires the examiner to initial charts for exam security purposes in order to ensure that no information from previous scenarios is available to the next scenario crew. Many charts have been replaced with digital charts that cannot be initialed, and it should not take an examiner very long to initial any remaining charts. If all the recorders are digital, then the only action required is to ensure that the next crew does not have access to any data from the previous crew's test, typically done by ensuring that all the recorders are reset. This can be done while the facility continues with other simulator reset actions like changing out/cleaning procedure pages, etc.	15	uu
<p>[in reference to Section D.3.n, "...applicant is asked to classify the event..."] This practice is not at all consistently applied. This is typically done via the Admin JPM. Also, the classification is often escalated throughout the scenario, so classification accuracy and questioning the candidate after the event may not provide a realistic assessment of the candidate's ability to perform the function.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-302	Administration/ Logistics/ Procedure	Partially incorporated.	Wording changed to clarify that event classification is not a required part of the scenario operating test. Event classification MAY occur as part of the Administrative portion of the walkthrough, but is not guaranteed to occur.	15	vv
<p>[in reference to Section D.1d, the proposed guidance to treat every missed TS entry as an individual performance deficiency] [Recommendation:] Either grade them as a group associated with a specific component/instrument failure in the D-1 form or limit the number of individual items that can be included in a given scenario. There are several issues with this: 1. Candidates on N+1 will have many more opportunities for failure than those who are not. 2. Events/failures with complex TS calls will greatly expand the list of tech specs which must be identified. 3. An SRO candidate performing as SRO during a complex scenario plus an N+1 could have 15-20 TS calls to make, with each mistake counted as a full-point deduction. Another candidate at the same facility who has more straightforward TS calls and no N+1 might only have two or three calls to make. Needless to say, this violates the concept of uniform conditions.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Tech Spec performance deficiency	Noted.	Per ES-303, D.2.b, the examiner must, "document and justify every deficiency." Also in ES-303, D.1.c, the examiner must, "label or highlight every action, response, note, or comment that may constitute a performance deficiency". ES-303, D.1.d has the examiner then, "code each deficiency" with the applicable rating factor(s). Therefore, the clarification provided specifically for the Technical Specifications is in accordance with how the rest of the examination is graded. In other words, if an individual makes multiple errors in response to a single malfunction, the individual would be graded on <u>each</u> specific error, and not on the malfunction overall. The argument about N+1 is also true for the number of opportunities for communication deficiencies or other deficient performance in response to the malfunctions, major transient, etc., and therefore, is not sufficient justification for changing grading of the Technical Specification. In response to the "unbalanced difficulty" argument made under item 3, the responsibility resides with both the examination author and the chief examiner to ensure that the difficulty between the scenarios is balanced such that each applicant is appropriately tested to approximately the same level of difficulty. Therefore, the examination author and chief examiner should ensure that no one individual on an examination has only two TS entries, while another has 15. This is true though for more than just TS entries. The chief examiner needs to ensure that these scenarios appropriately test each applicant's competency and thus ensure that the scenario sets balance the difficulty between the various applicant crew members. For item 2, the test cannot limit the applicable TS entries to be graded because that would limit the scope/content of the exam and is not allowed under 10 CFR Part 55.49 nor ES-201 Attachment 1. Therefore, because each deficiency <u>must</u> be graded on its own similar to deficiencies in response to a single malfunction and the NRC cannot limit the scope of the examination due to exam security considerations, no change shall	15	ww
<p>[in reference to Section D.1d, clarification that there is no limit to the number of rating factors for a single performance deficiency] [Recommendation:] Revert to Rev 10 wording, which allows only two rating factors to be impacted. Performance deficiency should be counted against rating factor which is most (relevant) and could potentially be assigned to a second factor for significant deficiencies with solid written justification. The LLRT recommended limiting an error to a single competency to promote consistency in grading among examiners. Leaving it open in an unlimited fashion, therefore, could promote inconsistency.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Limitation of number of rating factor assignments	Incorporated	After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.	15	xx
<p>[in reference to Section D.2.b, and elsewhere, the proposal to change the grading scale from 1-3 to 0-3] [Recommendation:] Leave grading scale at 1-3. Consider possible options for expanding the grading scale in the next revision to 1021, for example, expand the band on both ends to 0-4, for example. Given that there is broad agreement that the current grading scheme is adequate to determine between competent and non-competent operators, there is no justification to arbitrarily alter the grading scale downward without adjusting the pass criteria.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Grading practices	Noted.	The review team (ERT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and determined that a 0 - 3 scale with a 1.8 passing score was appropriate. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.	15	yy

[in reference to Section D.2.b, the proposal to eliminates the allowance to give points back for noncritical errors] [Recommendation:] Retain the wording from Revision 10 and the interim guidance. Since the ASLB review board hearing, no issues have been found while using this guidance. During a scenario, an applicant can be provided multiple opportunities to show competency in an area. Scenarios provide many more than the minimum number of opportunities and therefore can fail the applicant who is at the minimum standard...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.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Grading practices	Noted.	Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency. Therefore, an individual will not fail for merely having a few non-critical performance errors.	15	zz
[in reference to Section D.2.b, the proposal that a missed critical task (CT) would result in a 3 point reduction with a score of 0] [Recommendation:] 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.'" Revise other guidance in the NUREG to align with this comment. 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.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Critical Tasks guidance	Noted.	Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.	15	aaa
[in reference to Section D.2.b, statement that failing a CT does not automatically result in failure] [Recommendation:] Remove this statement. While this may be strictly true, it isn't generally true. Just remove it since it doesn't add any value to understanding the requirements.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-303	Critical Tasks guidance	Noted.	The NRC disagrees with this comment with respect to failing a critical task generally resulting in a failure. As stated above in the resolution to comment 15.aaa, a failure of a critical task will not mathematically result in an automatic failure of the operating test by itself. However, if an individual fails a critical task, it may become more likely that the aggregate of the failed critical task plus any other errors the individual makes in the same rating factor could result in a failure of the operating test, but it is by no means a generally true statement. Therefore a change to Revision 11 is not warranted.	15	bbb
[in reference to Sections C.1.a and D.1.e (also in ES-201), review and submit a revised outline] [Recommendation:] Remove the requirement for the facility to submit an outline that the NRC is responsible for generating. When the facility gets an outline, it is already approved by the NRC. If the facility wants to change it, as noted elsewhere in the NUREG, it is cleared through the chief. This "re-submittal" essentially makes the facility responsible for a product they did not create and do not "own."	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Written exam outline guidance	Noted.	Although it is true that an outline is generated by the NRC and changes to the outline are reviewed and approved by the chief examiner, a final outline submittal is required to enable the NRC to meet its obligations with respect to maintaining official records and providing the appropriate records to the public when possible. Therefore, the NRC needs a copy of the final outline with all the changes so that it can document what the examination contained and to document that part of the licensing process. Although the NRC generated the outline, the facility IS responsible for ensuring that the examination is appropriate for licensing operators at their facility and that the examination is in accordance with NUREG-1021 (ES-201 and exam approval letter). Therefore, to meet the NRC's legal obligations, a copy of the final outline must be submitted on the docket to the NRC. Please note that the exam outline quality checklist already provides a provision to differentiate between NRC and facility generated outlines. However, the NRC determined that it is not necessary to submit the written outline individually and has therefore updated the timeline to show that the written outline shall be submitted with the draft examination.	15	ccc
[in reference to Section D.1.b., next to last paragraph, specifying that all KAs will be requested from the chief examiner] [Recommendation:] Add an allowance for another chief to provide a KA if the chief is not available.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Administration/ Logistics/ Procedure	Incorporated	A chief examiner has other duties than just the examination he/she is assigned. Therefore, it makes sense to provide the facility with additional resources for K/A replacements. The NUREG has been revised to allow the facility to obtain K/A replacements from the chief examiner or his/her designee.	15	ddd
[in reference to Section D.1.b., List of "Associated" Generic KAs] [Recommendation:] Review the list against the upcoming KA catalog changes. Provide direction consistent with what will be in the catalogs. At least one of the KAs has been deleted.(2.4.9) Evaluate the list in light of pending changes to the KA catalogs and add words to account for changes to the lists. Several of the KAs on the list are "Operating Test Preferred" and several more will be designated "SRO-only". It would be best to account for this now and put direction into the NUREG about what to do with them.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	K/A guidance	Partially incorporated	The NRC has updated the NUREG to enable use of the new revision of the K/A catalog once it has been finalized and published for use. Until then, the NUREG has a provision allowing use of the current revision to the K/A catalogs.	15	eee
[in reference to Section D.2.f, Bullet 2, "...randomly select from among the available questions..."] [Recommendation:] Delete this bullet entirely. Randomly selecting among "available questions" is not necessary or desired since the KA has already been randomly selected and since there is always "an appropriate basis" for selecting a specific question as noted in the paragraph. Inevitably, one question will be a "best fit" for the KA and the test. The content validity concern is addressed by randomly selecting at the KA level.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	K/A guidance	Noted.	The reason for randomly selecting from available questions is to ensure the random, systematic process for the examination and to assist in examination security considerations. No change required.	15	fff
[in reference to Section D.2.f, Bullet 3, Information from OLPF 401-25] [Recommendation:] Remove the information. The clarification is unnecessary and confusing. "...without reference to a bank..." should be "without referring to a bank" and "not previously exposed at the facility" should be removed as this implies that you could take a bank question from somewhere else and , since it hasn't been "exposed at the facility", it's a new question. This is erroneous.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	K/A guidance	Partially incorporated.	NRC agrees with the comment that without reference to a bank should be revised. However, the intent of this statement in the NUREG is that if a question is written without referring to a bank AND is not exposed at the facility (i.e. not given as a weekly quiz item or in requal, etc.) then the item can be considered new. Due to the confusion, the sentence is being re-written to state that both requirements must be met to be considered new, not either. Therefore, if an individual writes a question (without referring to ANY bank) that somehow is the same as a bank question at another facility, and the question has not been used at this facility, it would be considered new.	15	ggg
[in reference to Section D.2.g, Optional distractor analysis] [Recommendation:] Make the provision of distractor analysis mandatory. The facility should be required to provide justification for answers and distractors to minimize problems with the technical and psychometric attributes of the questions.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Administration/ Logistics/ Procedure	Incorporated	The NRC originally made the distractor analysis optional in order to encourage facilities to write their own exams (for some facilities, they might not be able to meet the schedule if they have to provide distractor analysis on each question due to resource constraints, however, the NRC is extending the timeline so this may not be as much of a concern now). Making this mandatory could result in more facilities not wanting to write their exam and instead having the NRC do so. However, because it is industry itself requesting the change, the NRC does not see any reason to deny the change. Making an analysis of both the correct answer and the distractors mandatory will help improve the quality of those examinations where that analysis is not currently done.	15	hhh

[in reference to Section E.2.c, question sampling] [Recommendation:] Remove this option or expand it to allow the chief to sample fewer or sooner without being so prescriptive. Since the whole exam will be reviewed and the NRC and facility want to come to the same place with a fair and discriminatory exam, the chief should be allowed to sample, return for like-kind issues, pre-review as desired, return questions in batches so the facilities can be working on some questions while the rest are being reviewed, etc.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Administration/ Logistics/ Procedure	Noted.	The regional operator licensing branch chief must review and approve comments on the examination submittal before the chief examiner can provide those comments to the facility per ES-401 E.2.e. Therefore, the chief examiner cannot provide comments to the facility before this review occurs. However, the timeline is being revised to provide additional time to revise the examination based on the comments without unduly delaying administration. Therefore, because the timeline is being extended and the supervisor must review all comments before being provided to the licensee, no additional change is required.	15	iii
[in reference to ES-401-5, question history note] [Recommendation:] Remove "optional..." note due to change in ES-201 C.1.h.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Editing	Incorporated	This optional statement was removed from the form for consistency.	15	jjj
[in reference to ES-401-6, revision to step 7] [Recommendation:] Simply say "at least 50 percent of the ...SRO-only portion...are written at the C/A level" and leave it. The remainder is just information and doesn't enhance understanding.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Administration/ Logistics/ Procedure	Incorporated	The extra information in this form is also located in ES-401 D.2.(c) and therefore does not need to be included in the form itself. Reference to ES-401 D.2.(c) added to form instead. Note that due to public comments 8.j and 14.f, step 7 was revised to remove the percentage requirements and just use the actual number of questions.	15	kkk
[in reference to ES-401-8, Applicant Signature Block] [Recommendation:] Fix the alignment	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Editing	Incorporated	Corrected alignment issues.	15	lll
[in reference to ES-401-9, and elsewhere, Job Content Errors] [Recommendation:] Change "Errors" to "Flaws". Flaw is a more technically accurate and applicable word. Further, it separates this concept from the concept of candidate error.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Administration/ Logistics/ Procedure	Incorporated	Wording was originally changed for consistency. Based on this comment, the wording was changed back to flaw and made consistent throughout the form.	15	mmm
[in reference to Section E.2.e, first paragraph, "Upon supervisory approval, generally at least 21 days before the examinations are scheduled to be given..."] [Recommendation:] "Upon supervisory approval, generally at least 45 days before the examinations are scheduled to be given; the chief examiner will review the written examinations with the facility licensee in accordance with ES-201. At least 10 days prior to the review meeting, form 401-9 will be supplied to the utility." Align guidance with practice. Encourage examiner consistency since the actual 401-9 forms are not always provided to the facilities. Ten days allows sufficient time for the facility to review the comments and properly prepare for the meeting.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401	Examination timeline target dates	Partially incorporated	Although an early review of Form ES-401-9 was not included, the exam review with the utility was moved back to 35 days before the exam to increase the time for the utility to incorporate comments. If too much time is added to each exam, the NRC may not be able to administer all requested exams due to resources. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	15	nnn
[Recommendation:] Incorporate 401N guidance into 401. Having two nearly identical attachments, with duplicate forms, SRO-only guidance, etc. seems ill-advised since most changes to one have to be applied to both, risk of referring to the wrong section, etc.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401N	Administration/ Logistics/ Procedure	Noted.	Incorporation of ES-401N into ES-401 is outside the scope of this revision.	15	ooo
[in reference to Section B, administration of written] [Recommendation:] Last sentence should read "Generally, written exams are administered by the facility licensee in accordance with ..." Align guidance with practice, it doesn't matter who writes the exam, the facility generally administers it.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-402	Administration/ Logistics/ Procedure	Partially incorporated.	Clarified the wording that the facilities generally administer the written examinations, but added wording to indicate that the regional office may choose to administer if it so desires. This is more consistent with current practice.	15	ppp
[in reference to Section C.1.g, added regulation information] [Recommendation:] Remove the added words or make their intent clear. The words that were added don't add clarity. What is the connection between "notice of hearing" and the facility sending a letter to withdraw applications? If there is an important point that needs to be made with respect to the withdrawal letter, the added material should be rewritten so that it is understandable.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-402	Clarification	Incorporated	Reference to 10 CFR 2.107(a) was deleted.	15	qqq
[in reference to Section D.1.a, first paragraph] [Recommendation:] Change paragraph to match practice. No changes are made to the key or the exam without the chief's express consent. D.1.a implies that the facility is making decisions regarding the acceptability of the post-exam comments or recommendations and adjusting the key based on these comments during the grading process. In reality, it doesn't happen this way.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-403	Administration/ Logistics/ Procedure	Partially incorporated	Changed the wording to "Do not recommend deleting any question or changing any answer...". The rest of the paragraph does not need changing, as the NRC needs to receive any pen and ink changes to the master examination that occurred during administration (i.e. adding clarifying information to a stem, correcting a typo, etc). Also, the facility provides recommendations for deleting questions and/or changing the answer key, so no change is necessary with that statement either. The second paragraph allows a grader to discuss a proposed change with the chief examiner before proceeding with the grading process, which can help reduce grade changes, so no change is necessary for that paragraph either.	15	rrr
[in reference to Section D.1.b, Bullet 5] the incorrect form of "its" is used	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-403	Editing	Incorporated	Corrected a typo from before Rev. 10.	15	sss
[in reference to Section C.1.a, "The facility licensee shall refrain from communicating results of the written examination with the NRC until the operating examination has been administered to each applicant"] [Recommendation:] The facility licensee shall refrain from communicating results of the written examination with the NRC exam team until the operating examination has been administered to each applicant. Any issues which arise with the written exam prior to the completion of the operating test should be reported to and discussed with the regional branch chief. Facilities need to have an NRC person to call if there are issues which need to be discussed and resolved.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	If there is an issue with the written examination (i.e. examination security issue, question flaw, etc.) the facility is expected to communicate that with the chief examiner. The intent of this statement is just to prevent the facility from providing pass/fail information on the applicant's performance to the examiners to prevent any bias while the examiners administer the operating test. The facility can still discuss question flaws, administration issues, etc. with the chief examiner as necessary.	15	ttt
[in reference to Section C.1.b, the proposed change from "should" to "shall"] [Recommendation:] Remove section C.1.b Will there ever be a time when C.1.b would really be applicable? It would not be possible to have an exam with no involvement from the facility due to direction elsewhere in the NUREG. It looks like the only real difference in intent between Section a and Section b is with respect to submitting applicant comments. Just make it required, since the facility always would send comments anyway, and remove C.1.b.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	The difference is that C.1.b requires the facility to send less information as they would not have the seating charts, questions asked by the applicant, etc if they did not administer the exam (for written examinations). It is true that the facility will likely have at least an opportunity to comment on an NRC-developed written exam, however, the NRC staff does not believe it is prudent to delete this section from the standard without further review, which is outside the scope of this revision.	15	uuu
[in reference to Section C.2.c, second paragraph, "...the regional office should ask the facility to explain..."] [Recommendation:] Remove this section or at least this sentence. The NRC reviews and approves the examinations that are proposed by the facility. Once approved, the NRC "owns" the examination. Since the level of involvement by the NRC is so significant, both parties are responsible for the quality of the content and both parties should have to answer why there are so many post-exam changes. Further, these questions shouldn't count against the facility in the 20% tally for the same reason.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	The facility licensee may be the examination author and the technical expert for the initial license examination. Therefore, although the NRC reviews and approves the examination, this does not absolve the facility of their responsibilities to the examination. The changes listed in ES-403 D.1.b are typically ones that the NRC would expect the facility to identify. For example, as the NRC does not have the technical depth and breadth of knowledge on each facility that the facility has, the NRC relies upon the facility to identify technical errors. Also, the NRC does not know the specific vernacular in use at each site, so the facility should also identify any wording issues that could confuse the applicants. Therefore, no change is necessary. Also, the reference note in ES-501 allows the NRC to adjust the 20% threshold as necessary, so if the NRC determines that the post-exam answer key change was not the fault of the licensee, the NRC can choose to raise the 20% threshold accordingly.	15	vvv
[in reference to Section D.2, review requirements] [Recommendation:] Preclude reviews completed by the same person. This seems to contradict D.3.a of this ES. It is important to maintain independence. No one can independently check their own work.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Incorporated	The intent of this section was to allow the chief examiner to provide both the quality review and the supervisory review if another NRC examiner graded the examination. This was not clearly stated however, so this provision was deleted from ES-501 D.2. However, nothing precludes the chief examiner from grading the examination, another NRC examiner performing the quality review, and the chief examiner then performing the supervisory review. This allowance has been clarified.	15	www

[in reference to Section D.3.h, clarification regarding applicants who take part of an exam] [Recommendation:] Change to ""If an applicant takes any part of a licensing exam and subsequently withdraws the application prior to exam completion, the applicant will receive a denial letter."	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Clarification	Incorporated	Sentence edited for clarity. Additional information and guidance provided on withdrawals.	15	xxx
[in reference to Section E.1.b, third bullet, "a copy of all JPMs..."] [Recommendation:] "a copy of the actual, marked-up JPMs..." Sending clean, unmarked copies of the JPMs does not help the applicant understand their performance deficiency. This has been inconsistently applied in the past.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	The current guidance is similar to the guidance for ES-D-1 and ES-D-2. If an applicant fails the scenario portion, they receive the as-run ES-D-1 and ES-D-2, but without the examiner notes. The same holds true for JPMs. The applicant will receive a copy of the as-run JPM, but without the examiner notes. There was also a copy and paste error, which has been corrected. Please note that the operating test grading is based on information that is already contained in the ES-303 forms, which the applicant receives and therefore a copy of the examiner's notes is not needed	15	yyy
[in reference to Section E.1.b, fourth bullet, "written...JPM..."] [Recommendation:] This sentence combines two ideas, it should be fixed. As noted above, copies of actual JPM administered should be returned.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Editing	Incorporated	This is a copy-paste error that has been corrected.	15	zzz
[in reference to Section E.2, "If an applicant requests...destroying..."] [Recommendation:] Remove or re-evaluate this. NRC should not be destroying exam-related material until appeals/hearings are complete or the time allowed to request them is past.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	The information in question is the facility reference material used to prepare for the examinations. This is not exam-related material. This provision is for the return or destruction of facility reference material as requested by the facility. There is a provision for the region to consult with their regional counsel (lawyer) prior to taking any action to ensure that this is allowable. This paragraph does not apply to original materials such as examination administration materials (aka examiner notes), but only to facility reference materials (P&ID, conduct of ops procedures, technical specifications etc.).	15	aaaa
[in reference to Section E.3.a, evaluation of the acceptability of test material] [Recommendation:] Reduce administrative burden by limiting these activities to a bare minimum which communicates the needed information to the utility to fix future submittals. It should not be necessary for the chief examiner to check, evaluate, calculate, fill out forms and generate paperwork simply to say "The exam did or did not meet our quality expectations when submitted." Just allow them the latitude to make that determination with the branch chief's approval and eliminate all of this overhead which doesn't improve the exam or make the process more effective or efficient.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Administration/ Logistics/ Procedure	Noted.	The quantitative attributes that the chief examiner uses allows him/her to calculate the percentage of unsatisfactory items on each portion of the examination, which he/she can then compare to the acceptance criteria of 20%. This helps to improve examiner and regional consistency when it comes to examination submittal acceptability. If the determination was made simply with branch chief approval, as suggested, the regions could become inconsistent in determining quality acceptance, and this would result in facilities receiving inconsistent feedback on the quality and acceptability of their examination submittals. Therefore, this evaluation will continue to be performed to ensure that a chief examiner's determination of acceptability is scrutable and consistent.	15	bbbb
[in reference to ES-501, Attachment 6, "two new sample letters"] Attachment 6 only has one letter.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Editing	Incorporated	Because the elimination of the informal staff review was deferred for a year to evaluate the cumulative impacts of other NUREG-1021 changes, Attachment 6 was revised to include 2 sample letters and ES-501 updated accordingly.	15	cccc
[in reference to ES-501-1, Line 7] Should line 7 mention preliminary results letters? Clarification.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Clarification	Incorporated	Line 7 changed to say "licenses and preliminary results letters mailed." At this point in the process the NRC does not issue denial letters and those denial letters would be issued after the preliminary results are finalized.	15	dddd
[in reference to Section C, Scope - The SAT approach allows the NRC to conduct requalification examinations that are fundamentally consistent with existing facility-developed programs] The SAT approach allows the NRC to conduct requalification examinations that are fundamentally consistent with existing facility-developed programs. The NRC will consider such facility programs as acceptable and will follow licensee requalification procedures, not ES-601 – 604, for the conduct of examination activities. Facility requalification training programs which follow the uniform conditions outlined in NANT guidelines are considered in compliance with 10 CFR 55.59 for the use of SAT- based processes and NRC should therefore consider the content of ES-601 – 604 as not applicable.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-601	Administration/ Logistics/ Procedure	Noted.	The SAT approach specified in ES-601 refers to the development of NUREG sections ES-601-ES-604 and not the licensee's SAT based process. Licensees are not required to follow the ES-600 series for requalification programs unless they have committed to it. The only other time that the ES-600 series is performed is if there is a reason to do so, as specified in ES-601 B. In those cases, the requalification program itself could be called into question. This is covered by ES-601 in the following statement: "The NRC will consider preferentially using the facility's requalification examination structure or methodology if it is different from that described herein, provided that it complies with 10 CFR 55.59 'Requalification,' and <i>is free of significant flaws</i> ." (emphasis added). Therefore, the NRC cannot have a blanket statement stating that the NRC considers all SAT programs acceptable and will follow their procedures. The whole purpose of the ES-600 series is when the NRC has evidence of an issue with the training program, which could call into question the efficacy of the training program itself. That is why the statement above is in the ES-600 series. No change is necessary.	15	eeee
[in reference to Section B.3, linked critical step performance with verifiable actions] [Recommendation:] Remove this link. The statement "In general, critical steps should consist of verifiable actions." is true but misleading. There are a variety of critical steps which are NOT verifiable actions but should still be used as the basis for JPM failure... If it is desired to put a link to verifiable actions in here, then the discussion needs to be more robust and contain some examples of critical steps which are NOT verifiable actions.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	App C	Critical Tasks guidance	Partially incorporated	JPM critical step guidance in App. C and ES-301 Attachment 2 has been updated to explain that not all critical steps need to be verifiable actions, and to provide an example. However, the NRC added that no JPM should consist solely of non-verifiable actions. Therefore, although a JPM can have critical steps that are not verifiable (such as phone calls), a JPM that only consists of those type of actions (i.e., the applicant only makes phone calls and does not physically operate plant components) would not be considered satisfactory.	15	ffff
[in reference to Section C.1, scenario overlap attribute] [Recommendation:] Remove. As noted previously, this should be done differently, preferably as a qualitative check by the facility/chief to verify overlap does not impact exam fairness/predictability.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	App D	Administration/ Logistics/ Procedure	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation	15	gggg
[in reference to Section C.2,] the new "Note:" stating "An unintentional RPS or ESF actuation does not equate to a failure to perform a CT" [Recommendation:] This section needs to be re-written for clarity. It is not at all clear what we are intended to do with this information. It might equate and it might not. Saying "does not equate" does not mean "may or may not". It is then directly contradicted by the following underlined paragraph: "the critical aspect of an unintentional...RPS or ESF actuation is to ensure that they do not occur..." Further, the following paragraph describes a concept of Overall CTs which will require predicting how many of these theoretical RPS/ESF actuations will be prevented by proper operation of the control boards? For the examiner, it adds a layer of complexity and subjectivity that seems undesirable.	5/3/2016	Joseph Pollock	Nuclear Energy Institute	App D	Critical Tasks guidance	Partially incorporated	The note in question was deleted to remove the conflict with the main body of the Appendix. However, be aware that per Appendix E, the exam team must determine the impact of an inaction or incorrect action on the part of an applicant even if corrected by a team member as related to a critical task. The Appendix D note was an attempt to clarify the Appendix E guidance, but since it instead caused additional confusion, the NRC is removing the Appendix D note and instead continuing to evaluate per the criteria in Appendix E.	15	hhhh

<p>[in reference to Section D.1.c, bullet at top of page D-16, added details for elements of critical task performance standard] "If an applicant neglects to take an action or takes an incorrect action during the performance of a critical task and is subsequently corrected by a team member, the examination team will determine the impact of that lack of action or incorrect action on the scenario and its impact on the critical task. The measurable performance standardcrew."</p> <p>Example: If, during the period of time that ESFAS pumps are required to be running to meet the critical task, an applicant takes an incorrect action and it corrected ... This section asks examiners to predict what action someone may have taken in the future and whether or not this previously corrected latent error could have impacted the outcome of the scenario. In this case, if not bounded in some way, the examiners are now relying on something that didn't actually happen and, therefore, cannot accurately project what may have happened without the crew intervention. It cannot be known with certainty what someone would have done or which of their own errors they would have corrected if that other candidate was just a little slower. There is too much subjectivity to make a licensing decision unless the action/inaction takes place during the actual performance of the CT.</p> <p>In the given example, there is no performance feedback. If the pump wasn't required until 30 minutes after the correction, the performer is deprived of performance feedback (which is required for a CT) from the plant. There was never any indication to the performer that his action/inaction had caused the plant to degrade since the condition where it matters hasn't happened yet. For this reason alone, these cannot be assigned as CTs unless they occur during CT performance.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	App D	Critical Tasks guidance	Noted.	<p>Although the applicants participate in the scenario portion of the operating test as a crew, each individual must be evaluated on their own performance. Due to both scheduling and personnel resource considerations, it is not practical for the NRC to examine each applicant individually with the rest of the crew complement made of surrogates in order to remove the possibility of a crew correcting the applicant's error. However, each error must be evaluated. It is impossible to write a standard that can cover every situation and every possible permutation in a prescriptive manner, and thus the examiner's judgment must be relied upon to some extent. As every applicant error must be evaluated in the grading process, the examiner has to use their judgment to determine the impact of such an error as if the other members of the crew had not corrected it. In the example provided, there is performance feedback indicating the loss of the ESFAS pumps (through light indication on the panels, an alarm annunciation, etc.) that was used by the rest of the crew to identify the error that occurred and to correct it. Therefore, there is performance feedback for the incorrect action, however short it may be, and therefore does still meet the definition of a critical task, provided it also meets the other attributes.</p>	15	iiii
<p>[in reference to Section D.2, clarification regarding event classifications] [Recommendation:] State "EP classifications are not Critical Tasks because they do not provide performance feedback to the performer." Clarification is confusing.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	App D	Clarification	Partially incorporated	<p>Appendix D, Section D.2 was reworded to clarify that EP classifications only meet 3 of the 4 requirements to be a Critical Task and therefore do not meet the definition. Also, it was clarified that EP classifications are often performed during Administrative JPMs.</p>	15	jjjj
<p>[in reference to to SECY-16-0009 (and the corresponding SRM) which addresses ES-205, reducing the Generic Fundamentals Examination offerings to two per year] While this initiative offers a reduction in cost for the development and implementation of GFE for the NRC there are several unintended consequences, to both the NRC and the industry. These consequences include necessitating license program start dates that decrease from 4 times per year to 2 times per year based on coordination with GFE exam dates. This would result in a compression of final NRC exam dates, affecting both NRC resources and utility resources since license classes will now conclude at the same approximate time twice a year vs. the current 4 times a year. This can add additional cost to the industry as there will be less opportunity to share resources across the industry and individual fleets for certification examination support which will increase the amount of overtime required by station personnel or will increase use of contractors to support the development of NRC exams... there are several alternative solutions to the current method for meeting CFR requirements for license candidate fundamental knowledge evaluation. Any of the following options or a combination of the options could provide a better solution to reducing overall cost and at the same time ensuring the high standards to educate and qualify licensed operators for the ultimate goal of protecting the health and safety of the general public. [Recommendations:] (1) Eliminate the stand-alone GFE and include a representative sample of generic fundamental knowledge as part of the NRC license written examination. (2) Add generic fundamentals as part of the education requirement for eligibility to enter a license program and sample generic fundamental knowledge as part of the NRC license written examination. (3) Develop an on-demand examination for GFE maintained by either the NRC or the industry.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-205	GFE	Partially incorporated	<p>Proposed alternatives are outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.</p>	15	kkkk
<p>[in reference to SECY-16-0009 (and the corresponding SRM) which addresses ES-501/502, eliminating the Informal Appeal Process] This proposal not only eliminates the LLRT's recommendations for enhancing the appeal process but, in our estimation, would increase the number of formal appeals which would erase any savings generated by this proposed cost-savings initiative... The proposed revision to NUREG 1021 would require a candidate's further challenge of a regional appeal decision to be reviewed by the Atomic Safety and Licensing Board (ASLB). This change creates two issues: (1) Headquarters will no longer "backstop" regional appeal decisions through their current informal review. Headquarters staff that have the appropriate examiner qualifications and technical knowledge will no longer be included in the review of regional decisions. Headquarters decisions that currently result in overturning regional decisions will be eliminated, potentially resulting in further perpetuation of candidate appeals. (2) The limited amount of time and resources expended by headquarters personnel will increase markedly under the new proposal as regional and headquarters staff will now be involved in the ASLB review process through preparation and testimony to provide technical and examiner expertise to the board.</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-501	Informal Staff Review	Partially incorporated	<p>No data is provided for the NEI's estimation of the increase in the number of formal appeals and therefore cannot be further evaluated. The proposed extension of the post-exam comment period and the requirement to include all applicants' comments with a facility position enables the region to better determine if answer key changes are necessary. This is a portion of what the current informal staff reviews performed, and would be eliminated with the proposed change. Because the commenter did not provide any additional, specific data to support the contention that this will markedly increase the time and resources expended by headquarters personnel, this contention cannot be considered. Regarding the first contention, headquarters is required to oversee regional implementation of the examination process, which it will still do through examination audits, in-office reviews and assessments, periodic phone calls, training, and through policy interpretation. This was considered during the Project AIM effort and it was determined that these mechanisms are satisfactory to ensure headquarters oversight of the operator licensing program. However, based on the number and significance of the other changes to NUREG-1021, the elimination of the informal staff review process has been deferred and will be re-evaluated at a later date.</p>	15	llll
<p>[in reference to all of the above ES-401 comments] Applicable comments to ES-401 should be applied to ES-401N</p>	5/3/2016	Joseph Pollock	Nuclear Energy Institute	ES-401N	Administration/ Logistics/ Procedure	Incorporated	<p>Applicable ES-401 comments have been applied to ES-401N.</p>	15	mmmm
<p>[in reference to ES-401 C.1.a entry] Description of what's in ES-401 doesn't match what's in ES-401. ES-401 only talks about written outlines.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	Change Log	Editing	Incorporated	<p>ES-401 only relates to the written examination and outline. ES-301 relates to the operating test outline. Therefore, removing reference to outlines other than for the written examination is warranted.</p>	16	a
<p>[in reference to Form 403-1 entry] Should say "ES-403-1" vice "ES-401-3"</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	Change Log	Editing	Incorporated	<p>Corrected typo.</p>	16	b
<p>[in reference to Chapter ES-201, Form ES-201-1 and throughout, examination timeline target dates] [Recommendation:] Overhaul the Examination timeline to have target dates for activities start sooner. Also, split the exam submittal into two parts with the chief and station determining which will be delivered first. Further, add the pre-submittal items to the timeline so there is enough time to make course corrections based on this early feedback... Currently, there is always a rush at the end of the process to get the exams, especially the written, reviewed, revalidated and approved prior to the exam dates... It is not desirable to have the written exam still undergoing review and approval when the operating test starts.. It also detrimentally impacts exam quality.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	<p>Six weeks were added for exam preparation and two weeks added to address problems with exam submittals and to get the exams approved. Pre-submittal dates were also added. Splitting the exam submittal is left to the chief examiner's discretion. As submitted, the industry proposed timeline could cause NRC to be unable to administer all requested exams due to resource constraints. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.</p>	16	c
<p>[in reference to Section C.1.k., communication of examination comments] [Recommendation:] Exam comments should be reviewed by phone. State "These meetings will normally be conducted via telephone. Based upon a request by the facility or region, a face to face...." Additional admin burden to establish such a formal process for how and when to meet to discuss comments.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	<p>This NUREG change was added to explicitly allow and encourage the use of the telephone to enable review of the examination comments. The guidance to obtain station agreement for a face to face meeting is because the NRC cannot require the facility to come to the region without this agreement for this purpose. Also, the guidance on obtaining regional management agreement to a face to face meeting is primarily intended for meetings occurring at the facility, as the managers need to be involved from a budgetary perspective. Also, if the facility is coming to the regional office, the region management needs to be aware that they are coming. None of this guidance is intended to require a formal concurrence process, therefore the NRC is changing the terminology from concurrence to agreement. An e-mail would be sufficient to document the facility's agreement to a face to face.</p>	16	d

[in reference to Section C.2.d., "The regional offices should also keep the facility informed of the dates by which the region expects to provide its comments regarding the licensee's submittals"] [Recommendation:] "The regional offices shall also keep the facility informed of the dates by which the region will provide its comments regarding the licensee's submittals as documented on Form ES-201-1" The NRC should set and respect deadlines for returning comments... All parties involved need to be held to deadlines.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	The NRC needs to keep the facility informed of dates and changes to dates by which the region plans to provide comments so the facility can schedule resources accordingly. However, the NUREG must still provide some flexibility in recognizing that those dates can change, particularly depending on the quality of the exam submittal, as an unsatisfactory exam submittal will require more time for review and comment than one that is satisfactory.	16	e
[in reference to Section C.2.h, "...30 days to allow additional time for examination development or to address other scheduling concerns"] [Recommendation:] Expand to 90 days. Allow region to approve up to 90 based on split exams, large classes, possibility of going to two GFE exams per year.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Examination timeline target dates	Noted.	No change required. Please see response to comment 15.p above.	16	f
[in reference to Section C.2.j, "After the chief examiner has verified that the necessary changes and corrections have been made, the responsible supervisor will review..."] [Recommendation:] "After the chief examiner has verified that the necessary changes and corrections have been made, the chief examiner will return the exam to the facility for any facility-required final validation in order to ensure that revisions made during the review process have not negatively impacted the operational and discriminatory validity of the exam. Once the facility has performed final validation of the exam, the responsible NRC supervisor will review...". Many facilities require a final validation of the exam following the [NRC/facility] review and revision session. This final validation ensures that the product is fair and retains operational and discriminatory validity. During the review process, nearly all exam instruments have been changed to various degrees and, experience has shown, even seemingly insignificant changes can seriously impact the validity of the product. It is important to ensure no flaws were inadvertently created during the revision process.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Administration/ Logistics/ Procedure	Partially incorporated	ES-201 C.2.j has been revised to allow a facility to re-validate the examination if desired before the responsible NRC supervisor's review and approval of the exam. This will result in the supervisor only having to review the finished product, instead of a potential to review it multiple times if the facility re-validation finds additional, unintended issues created during the revision process.	16	g
[in reference to Section C.2.i, "approximately 7 days..."] [Recommendation:] This should be at least 21 days. Seven days is not sufficient to address any potential issues. Having an additional 15 days to address potential issues and concerns would help ensure the facility and the NRC has addressed all concerns before the first day of the exams.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Examination timeline target dates	Incorporated	Two weeks have been added to the revised timeline to resolve issues and get the exams approved. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	16	h
[in reference to Section C.3.g] [Recommendation:] The second paragraph of C.3.g should be a duplicate of C.1.k to ensure the requirements are consistent.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Editing	Incorporated	ES-201 C.3.g was revised to make it more consistent with ES-201 C.1.k. However, because the two sections discuss NRC assigned examiners' and facility licensee's responsibilities, they are not duplicates. C.1.k has requirements associated with the facility review of an NRC prepared examination and discussion on the actions for the facility to take if there are concerns with the examination. Neither of those two items are NRC examiner responsibilities and therefore were not incorporated into C.3.g.	16	i
[in reference to Section D.2.b, 4th bullet, "development of examination bank questions if the intent is to use them on the next NRC examination - If questions are simply being developed to expand the size of the question bank, then they would be treated as any other bank item and subject to the other criteria in NUREG-1021 (e.g., repetition from the audit exam)."] [Recommendation:] Remove bullet as it adds confusion or clarify the intent of the item: "development of examination bank questions for any use other than the current NRC or Audit examinations. -Questions for the facility's course banks may be developed but may not be added to common banks until the NRC exam has been administered." This item was added to address OLPF 401.32. The intent of the original question is not clear in the OLPF document since the referenced "instructor" may or may not be on exam security... As such, the proposed change is confusing and contradictory. Additionally, it is not clear what the "next" NRC exam is, does this mean the exam under development? It cannot, since development of questions for the exam under development is obviously an allowed activity. The outline for the "next" exam has not been drawn yet so any item developed outside the current sample plan may or may not fit onto the next exam.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Clarification	Partially incorporated	ES-201 D.2.b fourth bullet has been revised to clarify that an instructor on examination security cannot write a question that is intended for use on the NRC examination under development and also add it to the common bank where it could be used on non-NRC examinations before NRC examination administration. This clarification then allows an instructor on examination security to write and add questions for the facility common bank provided these questions are not written for the NRC examination under development.	16	j
[in reference to Section D.2.b, "Supervisors and managers having knowledge of the examination content may continue their general oversight of the training program for the license applicants, including the review of examinations..."] [Recommendation:] "Supervisors and managers subject to an exam security agreement may continue their general oversight of the training program for the license applicants, including the review of examinations..." Clarify guidance to ensure management can perform oversight functions without jeopardizing security.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Clarification	Noted.	The wording in question has been in the NUREG since before Revision 9. The key is that the supervisors and managers may not provide ANY (emphasis added) technical guidance, training or other direct feedback regarding the content of those examinations, quizzes, or programs in a manner that might compromise the integrity of the licensing examination as defined in 10 CFR 55.49. The NRC does not believe that the wording needs to be changed as this wording has been in place for more than 12 years and has gone through two NUREG revisions without requiring change. However, if a facility has a question about a specific instance, they may discuss that with their chief examiner. Please note that any individual having knowledge of examination content is subject to an exam security agreement, so no wording change needed.	16	k
[in reference to ES-201-1 Form] [Recommendation:] Add pre-submittal items to timeline, including dates for when they should be given to NRC and when NRC is expected to return them. (provided at T-120 with comments due back to facility at T-105). [This] Ensure[s] that this practice is consistently applied across the regions/chiefs.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Administration/ Logistics/ Procedure	Incorporated	Pre-submittal dates for outlines have been added to the revised timeline, allowing for outlines to be reviewed prior to significant development of exam materials. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis.	16	l
[in reference to ES-201-1 Form, -120 item, Revised written exam outline due] [Recommendation:] Remove this line item, add the 401-4 form to the -90 day operating test outline block. This is not currently done in RII, which has provided the written outlines for several years. Before the written outline is provided, it is checked and approved by the NRC. The facility then reviews the outline when received and any changes made after this are made with the chief examiner's approval and documented on 401-4, Rejected KA list. The 401-4 should be submitted along with the written outlines as is done now with the understanding that the 401-4 will not be complete until the final exam is approved.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-201	Examination timeline target dates	Partially incorporated	Although it is true that an outline is generated by the NRC and changes to the outline are reviewed and approved by the chief examiner, a final outline submittal is required to enable the NRC to meet its obligations with respect to maintaining official records and providing the appropriate records to the public when possible. Therefore, the NRC needs a copy of the final outline with all the changes so that it can document what the examination contained and to document that part of the licensing process. Although the NRC generated the outline, the facility IS responsible for ensuring that the examination is appropriate for licensing operators at their facility and that the examination is in accordance with NUREG-1021 (ES-201 and exam approval letter). Therefore, to meet the NRC's legal obligations, a copy of the final outline must be submitted on the docket to the NRC. Please note that the exam outline quality checklist already provides a provision to differentiate between NRC and facility generated outlines. However, the NRC agrees that it is not necessary to submit the written outline individually and has therefore updated the timeline to show that the written outline shall be submitted with the draft examination.	16	m
[in reference to Section C.2.b, Paragraph 4] The word "in" is duplicated in the last sentence.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-202	Editing	Incorporated	Typo correction.	16	n
[in reference to Section D.1.b(1), "1-year onsite"] [Recommendation:] Should be 6 months to align with D.1.a.(1)	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-202	Editing	Incorporated	The change to ES-202 D.1.a(1) was made to bring the NUREG consistent with current NANT (2010) guidelines. Therefore, D.1.b(1) also needs to be revised for consistency.	16	o
[in reference to Section C.2.b, last paragraph, "The region does not require written concurrence from NRR/NRO to deny an applicant's excusal or waiver request, but it should discuss..."] [Recommendation:] "...NRR/NRO to deny an applicant's excusal or waiver request, but it shall discuss its decision with the..." NRR/NRO needs to provide an oversight role to ensure regional consistency.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-204	Administration/ Logistics/ Procedure	Incorporated	The NRC agrees that the applicable program office needs to be aware of when waivers/excuses are denied to ensure waivers/excuses are being treated consistently across the regions.	16	p
[in reference to Section B.1, last line, "The 'Administrative Topics' are administered in a one-on-one...format..."] [Recommendation:] Remove "one-on-one" since they can be administered in a group format. Align guidance with practice.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	Administration/ Logistics/ Procedure	Incorporated	Current practice is to administer the majority of Administrative JPMs in a classroom setting, with one or two examiners administering the JPM to some number of applicants. This is usually in excess of a one-on-one format.	16	q

[in reference to Section D.3.c., "All SRO Administrative JPMs must be written at the SRO level"] [Recommendation:] "A majority of SRO Administrative JPMs must be written at the SRO level." Mandating that all SRO admin JPMs be written at the SRO level eliminates testing any RO admin topics. Since RO tasks and duties are part of what SROs are being tested on, this requirement eliminates testing this aspect. Additionally, this adds additional work to exam preparation for little added benefit.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	SRO Administrative JPMs	Noted.	This change was made to address a regional inconsistency. Per ES-301, D.1.e, SRO applicants, "will be examined for the highest on-shift position for which the SRO's license is applicable." It also goes on to discuss how to differentiate the SRO operating test from that of an RO (no changes to this have been made in Revision 11). It states, "In directing licensed activities, the SRO must have a broader and more thorough knowledge of facility administrative controls and methods." Because of these two statements, the program office and the regions all determined that it was appropriate to require all the administrative JPMs be evaluated at the SRO license level. Therefore, no change is necessary.	16	r
[in reference to Section D.5.a, paragraph 2, the allowance to place SRO-I at new facilities at either BOP or ATC] [Recommendation:] Extend this allowance to all plants. This is not consistent with uniform conditions... Each candidate needs to demonstrate the ability to perform a variety of attributes on the Transient and Event Checklist (Form 301-5), as long as this requirement is met, they should be able to be at either position.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	Administration/ Logistics/ Procedure	Noted.	This allowance for SRO-I applicants at new facilities to stand in either the balance of plant (BOP) or at the controls (ATC) positions is due to the fact that the ATC position might not provide sufficient opportunities to observe control manipulations sufficient to enable a valid licensing decision due to the fact that the ATC position is primarily providing parameter monitoring. For currently operating plants, both BOP and ATC positions give ample opportunity to evaluate SRO competency at control board manipulations, however, the NRC considers the "At the Controls" position to better align with the license to "Operate the Controls" of the facility and therefore the allowance is not necessary for current reactors and no change is required.	16	s
[in reference to ES-301 Section D.5.b and ES-201-2, Item 4.d, et al, "every applicant shall be tested on at least one new or significantly modified scenario that he or she has not had the opportunity to rehearse or practice. 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 previous two NRC initial licensing operating exams.... The final product ...Events found.... If a facility encounters difficulty ... Additionally, ...Furthermore, any other scenarios..."] [Recommendation:] "every applicant shall be tested on new or significantly modified scenarios that he or she has not had the opportunity to rehearse or practice. A significant modification means that at least two events, malfunctions or initial conditions have been replaced or significantly altered such that operators will not recognize them from the previous two NRC initial licensing operating exams. 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). It is expected that all major events would be broadly sampled over the course of several exams, and that no major event will routinely be omitted without justification. Furthermore, any other scenarios that are extracted from the facility licensee's bank must be altered to the degree necessary to prevent the applicants from immediately recognizing the scenarios based on the initial conditions or other cues." The addition of percentage-based overlap requirements for scenarios is overburdening to exam development teams when the goal of "maintaining test integrity" can be accomplished through more effective, qualitative means. Application guidance can be provided for current, sufficient restrictions without the need to create additional requirements. Additionally, these restrictions may, in effect, make the exams more predictable by limiting the scope of what may be examined.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	16	t
[in reference to ES-301-4, items 9 and 13 revisions] [Recommendation:] Remove revisions, replace with a qualitative check of the scenarios with the previous two NRC exams ensuring sufficient diversity. Line 9: As noted above, restricting non-major item use in this way is too restrictive and unnecessary. The chiefs can (and do) evaluate the current and previous exams and determine whether they are sufficiently diverse. Line 13: If it is desired to make this an actual criterion, it should be consistently applied to tech spec calls, events seen, and scenarios performed, etc. This check is already accounted for on the 301-5 forms and the quantitative attributes on the bottom of Form ES301-4 which makes line 13 redundant.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	Administration/ Logistics/ Procedure	Partially incorporated	Form item 9 was revised to reflect change in overlap limitations as discussed in response to comment 16.t. The form now states to check that all scenarios are either new or significantly modified. For the Form 301-4 item 13 comment, Form 301-5 does NOT count the number of CTs performed by applicants, so the NRC added the words to the 301-4 form. The number of TS calls, events, major transients, etc., are on Form 301-5 and so do not need to be added to Form 301-4. However, based on other public comments, the NRC is revising item 13 to evaluate applicants on a similar number of CTs as possible.	16	u
[in reference to the proposed ES-301-7 form] [Recommendation:] Remove the forms. These forms are an unnecessary burden on the examiners and the facility, just extra administrative paperwork with little real value.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-301	Administration/ Logistics/ Procedure	Noted.	All operating tests must be reviewed to ensure they meet quality standards and any comments must be resolved by the facility before the test can be administered. This form merely provides a consistent method of documenting that review and those comments and therefore should not be an increase in burden on the facility or a significant burden increase for examiners. These forms will improve consistency in documentation of operating test submittal quality and will provide the facility and examiners with a more objective, consistent method to determine submittal quality. This will improve regional consistency with respect to operating test review, comment, and determination of submittal quality, without any additional burden to the facility as it is the chief examiner's responsibility to complete these forms. The only facility responsibility is to resolve examiner's comments, which they would have to do no matter how those comments are documented.	16	v
[in reference to Section D.3.h, proposal for examiners having to initial all charts] [Recommendation:] Remove the requirement for examiner to initial charts. Unnecessary burden, already takes an excessive amount of time between scenarios to reset the simulator.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-302	Administration/ Logistics/ Procedure	Noted.	Revision 11 to NUREG 1021 requires the examiner to initial charts for exam security purposes in order to ensure that no information from previous scenarios is available to the next scenario crew. Many charts have been replaced with digital charts that cannot be initialed, and it should not take an examiner very long to initial any remaining charts. If all the recorders are digital, then the only action required is to ensure that the next crew does not have access to any data from the previous crew's test, typically done by ensuring that all the recorders are reset. This can be done while the facility continues with other simulator reset actions like changing out/cleaning procedure pages, etc.	16	w
[in reference to Section D.3.n, "...applicant is asked to classify the event..."] This practice is not at all consistently applied. This is typically done via the Admin JPM. Also, the classification is often escalated throughout the scenario, so classification accuracy and questioning the candidate after the event may not provide a realistic assessment of the candidate's ability to perform the function.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-302	Administration/ Logistics/ Procedure	Partially incorporated.	Wording changed to clarify that event classification is not a required part of the scenario operating test. Event classification MAY occur as part of the Administrative portion of the walkthrough, but is not guaranteed to occur.	16	x

<p>[in reference to Section D.1d, the proposed guidance to treat every missed TS entry as an individual performance deficiency] [Recommendation:] Either grade them as a group associated with a specific component/instrument failure in the D-1 form or limit the number of individual items that can be included in a given scenario. There are several issues with this:</p> <ol style="list-style-type: none"> 1. Candidates on N+1 will have many more opportunities for failure than those who are not. 2. Events/failures with complex TS calls will greatly expand the list of tech specs which must be identified. 3. An SRO candidate performing as SRO during a complex scenario plus an N+1 could have 15-20 TS calls to make, with each mistake counted as a full-point deduction. Another candidate at the same facility who has more straightforward TS calls and no N+1 might only have two or three calls to make. Needless to say, this violates the concept of uniform conditions. 	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-303	Tech Spec performance deficiency	Noted.	<p>Per ES-303, D.2.b, the examiner must, "document and justify every deficiency." Also in ES-303, D.1.c, the examiner must, "label or highlight every action, response, note, or comment that may constitute a performance deficiency". ES-303, D.1.d has the examiner then "code each deficiency" with the applicable rating factor(s). Therefore, the clarification provided specifically for the Technical Specifications is in accordance with how the rest of the examination is graded. In other words, if an individual makes multiple errors in response to a single malfunction, the individual would be graded on <u>each</u> specific error, and not on the malfunction overall. This is the basis of the simulator scenario portion of the operating test, in that each applicant enters the test with an assumed level of competence (score of "3") and the grade is then adjusted when the applicant has deficient performance that could call into question that competence. Since this is the method by which we grade malfunction responses and communications, it is not appropriate to treat Technical Specification performance deficiencies any differently, however, additional guidance was previously added regarding "carrying forward" an error pertaining to the recognition and compliance rating factors and therefore no change will be made to the NUREG. For the proposed recommendation to only evaluate the "most-limiting" Technical Specification, this would not be in accordance with examination security requirements of 10 CFR Part 55.49, nor of NUREG-1021 ES-201 Attachment 1, which states that "license applicants should not be able to predict or narrow the possible scope or content of the licensing examination." Limiting evaluation of the Technical Specifications as requested would violate this and therefore, no change will be made to the NUREG.</p>	16	y
<p>[in reference to Section D.1d, clarification that there is no limit to the number of rating factors for a single performance deficiency] [Recommendation:] Revert to Rev 10 wording, which allows only two rating factors to be impacted. Performance deficiency should be counted against rating factor which is most (relevant) and could potentially be assigned to a second factor for significant deficiencies with solid written justification. The LLRT recommended limiting an error to a single competency to promote consistency in grading among examiners. <u>Leaving it open in an unlimited fashion, therefore, could promote inconsistency.</u></p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-303	Limitation of number of rating factor assignments	Partially incorporated.	<p>After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.</p>	16	z
<p>[in reference to Section B.3, linked critical step performance with verifiable actions] [Recommendation:] Remove this link. The statement "In general, critical steps should consist of verifiable actions." is true but misleading. There are a variety of critical steps which are NOT verifiable actions but should still be used as the basis for JPM failure... If it is desired to put a link to verifiable actions in here, then the discussion needs to be more robust and contain some examples of critical steps which are NOT verifiable actions.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	App C	Critical Tasks guidance	Partially incorporated	<p>JPM critical step guidance in App. C and ES-301 Attachment 2 has been updated to explain that not all critical steps need be verifiable actions, and provided an example. However, the NRC added that no JPM should consist solely of non-verifiable actions. Therefore, although a JPM can have critical steps that are not verifiable (such as phone calls), a JPM that only consists of those type of actions (i.e., the applicant only makes phone calls and does not physically operate plant components) would not be considered satisfactory.</p>	16	z
<p>[in reference to Section D.2.b, and elsewhere, the proposal to change the grading scale from 1-3 to 0-3] [Recommendation:] Leave grading scale at 1-3. Consider possible options for expanding the grading scale in the next revision to 1021, for example, expand the band on both ends to 0-4, for example. Given that there is broad agreement that the current grading scheme is adequate to determine between competent and non-competent operators, there is no justification to arbitrarily alter the grading scale downward without adjusting the pass criteria.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-303	Grading practices	Noted.	<p>The LLRT made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. A range of 0 - 4 was considered, however, this would require additional events and malfunctions (individual must be able to fail and therefore would require 3 opportunities instead of the current 2). This would result in longer scenarios with a greater number of events, which is undesirable from a development and administration standpoint and therefore will not be implemented. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and determined that a 0 - 3 scale with a 1.8 passing score was appropriate. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.</p>	16	aa
<p>[in reference to Section D.2.b, the proposal to eliminates the allowance to give points back for noncritical errors] [Recommendation:] Retain the wording from Revision 10 and the interim guidance. Since the ASLB review board hearing, no issues have been found while using this guidance. During a scenario, an applicant can be provided multiple opportunities to show competency in an area. Scenarios provide many more than the minimum number of opportunities and therefore can fail the applicant who is at the minimum standard...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>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-303	Grading practices	Noted.	<p>Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but does not mean the individual will fail unless he/she has errors in the other rating factors in that competency. See reply to comment 16aa for discussion on the change to the numerical rating factor scores.</p>	16	bb
<p>[in reference to Section D.2.b, the proposal that a missed critical task (CT) would result in a 3 point reduction with a score of 0] [Recommendation:] 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.'" Revise other guidance in the NUREG to align with this comment. 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>	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-303	Critical Tasks guidance	Noted.	<p>Making a critical task failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.</p>	16	cc

[in reference to Sections C.1.a and D.1.e (also in ES-201), review and submit a revised outline] [Recommendation:] Remove the requirement for the facility to submit an outline that the NRC is responsible for generating. When the facility gets an outline, it is already approved by the NRC. If the facility wants to change it, as noted elsewhere in the NUREG, it is cleared through the chief. This "re-submittal" essentially makes the facility responsible for a product they did not create and do not "own."	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Written exam outline guidance	Noted.	Although it is true that an outline is generated by the NRC and changes to the outline are reviewed and approved by the chief examiner, a final outline submittal is required to enable the NRC to meet its obligations with respect to maintaining official records and providing the appropriate records to the public when possible. Therefore, the NRC needs a copy of the final outline with all the changes so that it can document what the examination contained and to document that part of the licensing process. Although the NRC generated the outline, the facility IS responsible for ensuring that the examination is appropriate for licensing operators at their facility and that the examination is in accordance with NUREG-1021 (ES-201 and exam approval letter). Therefore, to meet the NRC's legal obligations, a copy of the final outline must be submitted on the docket to the NRC. Please note that the exam outline quality checklist already provides a provision to differentiate between NRC and facility generated outlines. However, the NRC determined that it is not necessary to submit the written outline individually and has therefore updated the timeline to show that the written outline shall be submitted with the draft examination.	16	dd
[in reference to Section D.1.b., next to last paragraph, specifying that all KAs will be requested from the chief examiner] [Recommendation:] Add an allowance for another chief to provide a KA if the chief is not available.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Administration/ Logistics/ Procedure	Incorporated	A chief examiner has other duties than just the examination he/she is assigned. Therefore, it makes sense to provide the facility with additional resources for K/A replacements. The NUREG has been revised to allow the facility to obtain K/A replacements from the chief examiner or his/her designee.	16	ee
[in reference to Section D.2.f, Bullet 2, "...randomly select from among the available questions..."] [Recommendation:] Delete this bullet entirely. Randomly selecting among "available questions" is not necessary or desired since the KA has already been randomly selected and since there is always "an appropriate basis" for selecting a specific question as noted in the paragraph. Inevitably, one question will be a "best fit" for the KA and the test. The content validity concern is addressed by randomly selecting at the KA level.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	K/A guidance	Noted.	The reason for randomly selecting from available questions is to ensure the random, systematic process for the examination and to assist in examination security considerations. Therefore, no change is required.	16	ff
[in reference to Section D.2.f, Bullet 3, Information from OLPF 401-25] [Recommendation:] Remove the information. The clarification is unnecessary and confusing. "...without reference to a bank..." should be "without referring to a bank" and "not previously exposed at the facility" should be removed as this implies that you could take a bank question from somewhere else and , since it hasn't been "exposed at the facility", it's a new question. This is erroneous.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	K/A guidance	Partially incorporated.	NRC agrees with comment that without reference to a bank should be revised. However, the intent of this statement in the NUREG is that if a question is written without referring to a bank AND is not exposed at the facility (i.e. not given as a weekly quiz item or in requal, etc.) then the item can be considered new. Due to the confusion, the sentence is being re-written to state that both requirements must be met to be considered new, not either. Therefore, if an individual writes a question (without referring to ANY bank) that somehow is the same as a bank question at another facility, and the question has not been used at this facility, it would be considered new.	16	gg
[in reference to Section D.2.g, Optional distractor analysis] [Recommendation:] Make the provision of distractor analysis mandatory. The facility should be required to provide justification for answers and distractors to minimize problems with the technical and psychometric attributes of the questions.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Administration/ Logistics/ Procedure	Incorporated	The NRC originally made the distractor analysis optional in order to encourage facilities to write their own exams (for some facilities, they might not be able to meet the schedule if they have to provide distractor analysis on each question due to resource constraints, however, the NRC has extended the timeline so this may not be as much of a concern now). Making this mandatory could result in more facilities not wanting to write their exam and instead having the NRC do so. However, because it is industry itself requesting the change, the NRC does not see any reason to deny the change. Making an analysis of both the correct answer and the distractors will help improve the quality of those examinations where that analysis is not currently done.	16	hh
[in reference to Section E.2.c, question sampling] [Recommendation:] Remove this option or expand it to allow the chief to sample fewer or sooner without being so prescriptive. Since the whole exam will be reviewed and the NRC and facility want to come to the same place with a fair and discriminatory exam, the chief should be allowed to sample, return for like-kind issues, pre-review as desired, return questions in batches so the facilities can be working on some questions while the rest are being reviewed, etc.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Administration/ Logistics/ Procedure	Noted.	The regional operator licensing branch chief must review and approve comments on the examination submittal before the chief examiner can provide those comments to the facility per ES-401 E.2.e. Therefore, the chief examiner cannot provide comments to the facility before this review occurs. However, the timeline is being revised to provide additional time to revise the examination based on the comments without unduly delaying administration. Therefore, because the timeline is being extended and the supervisor must review all comments before being provided to the licensee, no additional change is required.	16	ii
[in reference to ES-401-5, question history note] [Recommendation:] Remove "optional..." note due to change in ES-201 C.1.h.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Editing	Incorporated	This optional statement was removed from the form for consistency.	16	jj
[in reference to ES-401-6, revision to step 7] [Recommendation:] Simply say "at least 50 percent of the ...SRO-only portion...are written at the C/A level" and leave it. The remainder is just information and doesn't enhance understanding.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Administration/ Logistics/ Procedure	Incorporated	The extra information in this form is also located in ES-401 D.2.(c) and therefore does not need to be included in the form itself. Reference to ES-401 D.2.(c) added to the form instead. Note that due to public comments 8.j and 14.f, step 7 was revised to remove the percentage requirements and just use the actual number of questions.	16	kk
[in reference to ES-401-8, Applicant Signature Block] [Recommendation:] Fix the alignment	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Editing	Incorporated	Corrected alignment issues.	16	ll
[in reference to ES-401-9, and elsewhere, Job Content Errors] [Recommendation:] Change "Errors" to "Flaws". Flaw is a more technically accurate and applicable word. Further, it separates this concept from the concept of candidate error.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Administration/ Logistics/ Procedure	Incorporated	Wording was originally changed for consistency. Based on this comment, the wording was changed back to flaw and made consistent throughout the form.	16	mm
[in reference to Section E.2.e, first paragraph, "Upon supervisory approval, generally at least 21 days before the examinations are scheduled to be given..."] [Recommendation:] "Upon supervisory approval, generally at least 45 days before the examinations are scheduled to be given; the chief examiner will review the written examinations with the facility licensee in accordance with ES-201. <u>At least 10 days prior to the review meeting, form 401-9 will be supplied to the utility.</u> " Align guidance with practice. Encourage examiner consistency since the actual 401-9 forms are not always provided to the facilities. Ten days allows sufficient time for the facility to review the comments and properly prepare for the meeting.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-401	Examination timeline target dates	Partially incorporated	Although an early review of Form ES-401-9 was not included, the exam review with the utility was moved back to 35 days before the exam to increase the time for the utility to incorporate comments. If too much time is added to each exam, the NRC may not be able to administer all requested exams due to resources. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.	16	nn
[in reference to Section B, administration of written] [Recommendation:] Last sentence should read "Generally, written exams are administered by the facility licensee in accordance with ..." Align guidance with practice, it doesn't matter who writes the exam, the facility generally administers it.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-402	Administration/ Logistics/ Procedure	Partially incorporated.	Clarified the wording that the facilities generally administer the written examinations, but added wording to indicate that the regional office may choose to administer if it so desires. This is more consistent with current practice.	16	oo
[in reference to Section C.1.g, added regulation information] [Recommendation:] Remove the added words or make their intent clear. The words that were added don't add clarity. What is the connection between "notice of hearing" and the facility sending a letter to withdraw applications? If there is an important point that needs to be made with respect to the withdrawal letter, the added material should be rewritten so that it is understandable.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-402	Clarification	Incorporated	Reference to 10 CFR 2.107(a) was deleted.	16	pp

[in reference to Section D.1.a, first paragraph] [Recommendation:] Change paragraph to match practice. No changes are made to the key or the exam without the chief's express consent. D.1.a implies that the facility is making decisions regarding the acceptability of the post-exam comments or recommendations and adjusting the key based on these comments during the grading process. In reality, it doesn't happen this way.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-403	Administration/ Logistics/ Procedure	Partially incorporated	Changed the wording to "Do not recommend deleting any question or changing any answer...". The rest of the paragraph does not need changing, as the NRC needs to receive any pen and ink changes to the master examination that occurred during administration (i.e. adding clarifying information to a stem, correcting a typo, etc). Also, the facility provides recommendations for deleting questions and/or changing the answer key, so no change is necessary with that statement either. The second paragraph allows a grader to discuss a proposed change with the chief examiner before proceeding with the grading process, which can help reduce grade changes.	16	qq
[in reference to Section D.1.b, Bullet 5] the incorrect form of "its" is used	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-403	Editing	Incorporated	Corrected a typo from before Rev. 10.	16	rr
[in reference to Section C.1.a, "The facility licensee shall refrain from communicating results of the written examination with the NRC until the operating examination has been administered to each applicant"] [Recommendation:] The facility licensee shall refrain from communicating results of the written examination with the NRC exam team until the operating examination has been administered to each applicant. Any issues which arise with the written exam prior to the completion of the operating test should be reported to and discussed with the regional branch chief. Facilities need to have an NRC person to call if there are issues which need to be discussed and resolved.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Administration/ Logistics/ Procedure	Noted.	If there is an issue with the written examination (i.e. examination security issue, question flaw, etc.) the facility is expected to communicate that with the chief examiner. The intent of this statement is just to prevent the facility from providing pass/fail information on the applicant's performance to the examiners to prevent any bias while the examiners administer the operating test. The facility can still discuss question flaws, administration issues, etc. with the chief examiner as necessary.	16	ss
[in reference to Section C.1.b, the proposed change from "should" to "shall"] [Recommendation:] Remove section C.1.b Will there ever be a time when C.1.b would really be applicable? It would not be possible to have an exam with no involvement from the facility due to direction elsewhere in the NUREG. It looks like the only real difference in intent between Section a and Section b is with respect to submitting applicant comments. Just make it required, since the facility always would send comments anyway, and remove C.1.b.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Administration/ Logistics/ Procedure	Noted.	The difference is that C.1.b requires the facility to send less information as they would not have the seating charts, questions asked by the applicant, etc if they did not administer the exam (for written examinations). It is true that the facility will likely have at least an opportunity to comment on an NRC-developed written exam, however, the NRC staff does not believe it is prudent to delete this section from the standard without further review, which is outside the scope of this revision.	16	tt
[in reference to Section C.2.c, second paragraph, "...the regional office should ask the facility to explain..."] [Recommendation:] Remove this section or at least this sentence. The NRC reviews and approves the examinations that are proposed by the facility. Once approved, the NRC "owns" the examination. Since the level of involvement by the NRC is so significant, both parties are responsible for the quality of the content and both parties should have to answer why there are so many post-exam changes. Further, these questions shouldn't count against the facility in the 20% tally for the same reason.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Administration/ Logistics/ Procedure	Noted.	The facility licensee may be the examination author and is the technical expert for the initial license examination. Therefore, although the NRC reviews and approves the examination, this does not absolve the facility of their responsibilities to the examination. The changes listed in ES-403 D.1.b are typically ones that the NRC would expect the facility to identify. For example, as the NRC does not have the technical depth and breadth of knowledge on each facility that the facility has, the NRC relies upon the facility to identify technical errors. Also, the NRC does not know the specific vernacular in use at each site, so the facility should also identify any wording issues that could confuse the applicants. Therefore, no change is necessary. Also, the reference note in ES-501 allows the NRC to adjust the 20% threshold as necessary, so if the NRC determines that the post-exam answer key change was not the fault of the licensee, the NRC can choose to raise the 20% threshold accordingly.	16	uu
[in reference to Section D.2, review requirements] [Recommendation:] Preclude reviews completed by the same person. This seems to contradict D.3.a of this ES. It is important to maintain independence. No one can independently check their own work.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Administration/ Logistics/ Procedure	Incorporated	The intent of this section was to allow the chief examiner to provide both the quality review and the supervisory review if another NRC examiner graded the examination. This was not clearly stated however, so this provision was deleted from ES-501 D.2. However, nothing precludes the chief examiner from grading the examination, another NRC examiner performing the quality review, and the chief examiner then performing the supervisory review. This allowance has been clarified.	16	vv
[in reference to Section D.3.h, clarification regarding applicants who take part of an exam] [Recommendation:] Change to ""If an applicant takes any part of a licensing exam and subsequently withdraws the application prior to exam completion, the applicant will receive a denial letter."	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Clarification	Incorporated	Sentence edited for clarity. Additional information and guidance provided on withdrawals.	16	ww
[in reference to Section E.1.b, fourth bullet, "written...JPM..."] [Recommendation:] This sentence combines two ideas, it should be fixed. As noted above, copies of actual JPM administered should be returned.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Editing	Partially incorporated	The current guidance is similar to the guidance for ES-D-1 and ES-D-2. If an applicant fails the scenario portion, they receive the as-run ES-D-1 and ES-D-2, but without the examiner notes. The same holds true for JPMs. The applicant will receive a copy of the as-run JPM, but without the examiner notes. There was also a copy and paste error, which has been corrected. Please note that the operating test grading is based on information that is already contained in the ES-303 forms, which the applicant receives and therefore a copy of the examiner's notes is not needed.	16	xx
[in reference to Section E.3.a, evaluation of the acceptability of test material] [Recommendation:] Reduce administrative burden by limiting these activities to a bare minimum which communicates the needed information to the utility to fix future submittals. It should not be necessary for the chief examiner to check, evaluate, calculate, fill out forms and generate paperwork simply to say "The exam did or did not meet our quality expectations when submitted." Just allow them the latitude to make that determination with the branch chief's approval and eliminate all of this overhead which doesn't improve the exam or make the process more effective or efficient.	5/4/2016	Russell Joplin	Tennessee Valley Authority	ES-501	Administration/ Logistics/ Procedure	Noted.	The quantitative attributes that the chief examiner uses allows him/her to calculate the percentage of unsatisfactory items on each portion of the examination, which he/she can then compare to the acceptance criteria of 20%. This helps to improve examiner and regional consistency when it comes to examination submittal acceptability. If the determination was made simply with branch chief approval, as suggested, the regions could become inconsistent in determining quality acceptance, and this would result in facilities receiving inconsistent feedback on the quality and acceptability of their examination submittals. Therefore, this evaluation will continue to be performed to ensure that a chief examiner's determination of acceptability is scrutable and consistent.	16	yy
[in reference to Section C.1, scenario overlap attribute] [Recommendation:] Remove. As noted previously, this should be done differently, preferably as a qualitative check by the facility/chief to verify overlap does not impact exam fairness/predictability.	5/4/2016	Russell Joplin	Tennessee Valley Authority	App D	Administration/ Logistics/ Procedure	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation.	16	aaa
[in reference to Section C.2.], the new "Note:" stating "An unintentional RPS or ESF actuation does not equate to a failure to perform a CT" [Recommendation:] This section needs to be re-written for clarity. It is not at all clear what we are intended to do with this information. It might equate and it might not. Saying "does not equate" does not mean "may or may not". It is then directly contradicted by the following underlined paragraph: "the critical aspect of an unintentional...RPS or ESF actuation is to ensure that they do not occur..." Further, the following paragraph describes a concept of Overall CTs which will require predicting how many of these theoretical RPS/ESF actuations will be prevented by proper operation of the control boards? For the examiner, it adds a layer of complexity and subjectivity that seems undesirable.	5/4/2016	Russell Joplin	Tennessee Valley Authority	App D	Critical Tasks guidance	Partially incorporated	The note in question was deleted to remove the conflict with the main body of the Appendix. However, be aware that per Appendix E, the exam team must determine the impact of an inaction or incorrect action on the part of an applicant even if corrected by a team member as related to a critical task. The Appendix D note was an attempt to clarify the Appendix E guidance, but since it instead caused additional confusion, the NRC is removing the Appendix D note and instead continuing to evaluate per the criteria in Appendix E.	16	bbb

<p>[in reference to Section D.1.c, bullet at top of page D-16, added details for elements of critical task performance standard] "If an applicant neglects to take an action or takes an incorrect action during the performance of a critical task and is subsequently corrected by a team member, the examination team will determine the impact of that lack of action or incorrect action on the scenario and its impact on the critical task. The measurable performance standardcrew."</p> <p>Example: If, during the period of time that ESFAS pumps are required to be running to meet the critical task, an applicant takes an incorrect action and it corrected ... This section asks examiners to predict what action someone may have taken in the future and whether or not this previously corrected latent error could have impacted the outcome of the scenario. In this case, if not bounded in some way, the examiners are now relying on something that didn't actually happen and, therefore, cannot accurately project what may have happened without the crew intervention. It cannot be known with certainty what someone would have done or which of their own errors they would have corrected if that other candidate was just a little slower. There is too much subjectivity to make a licensing decision unless the action/inaction takes place during the actual performance of the CT.</p> <p>In the given example, there is no performance feedback. If the pump wasn't required until 30 minutes after the correction, the performer is deprived of performance feedback (which is required for a CT) from the plant. There was never any indication to the performer that his action/inaction had caused the plant to degrade since the condition where it matters hasn't happened yet. For this reason alone, these cannot be assigned as CTs unless they occur during CT performance.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	App D	Critical Tasks guidance	Noted.	<p>Although the applicants participate in the scenario portion of the operating test as a crew, each individual must be evaluated on their own performance. Due to both scheduling and personnel resource considerations, it is not practical for the NRC to examine each applicant individually with the rest of the crew complement made of surrogates in order to remove the possibility of a crew correcting the applicant's error. However, each error must be evaluated. It is impossible to write a standard that can cover every situation and every possible permutation in a prescriptive manner, and thus the examiner's judgment must be relied upon to some extent. As every applicant error must be evaluated in the grading process, the examiner has to use their judgment to determine the impact of such an error as if the other members of the crew had not corrected it. In the example provided, there is performance feedback indicating the loss of the ESFAS pumps (through light indication on the panels, an alarm annunciation, etc.) that was used by the rest of the crew to identify the error that occurred and to correct it. Therefore, there is performance feedback for the incorrect action, however short it may be, and therefore does still meet the definition of a critical task, provided it also meets the other attributes.</p>	16	ccc
<p>[in reference to Section D.2, clarification regarding event classifications] [Recommendation:] State "EP classifications are not Critical Tasks because they do not provide performance feedback to the performer." Clarification is confusing.</p>	5/4/2016	Russell Joplin	Tennessee Valley Authority	App D	Clarification	Partially incorporated	<p>Appendix D, Section D.2 was reworded to clarify that EP classifications only meet 3 of the 4 requirements to be a Critical Task and therefore do not meet the definition. Also, it was clarified that EP classifications are often performed during Administrative JPMs.</p>	16	ddd
<p>[in reference to Section D.1.d, the proposal that there are no limits to the number of rating factors that can be assigned to a single performance deficiency] Multiple potential issues: opens up the grading process to greater examiner subjectivity, double jeopardy, and potentially more appeals. A non-critical performance deficiency shall be documented in one competency and a single rating factor. If it is necessary to document the error in a second competency or rating factor, the basis must be documented appropriately.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-303	Limitation of number of rating factor assignments	Partially incorporated	<p>After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.</p>	17	a
<p>[in reference to Section D.2.b, and elsewhere, the proposal to change the grading scale from 1-3 to 0-3] [Recommendations:] (1) Leave grading scale at 1-3. (2) Add to the scale evenly to both sides of the passing scale. Multiple issues with this proposed change. For example: expands the grading scale and this by itself makes the grading more subjective, it only expanded the grading scale to the negative side of the passing grade (< 1.8) so this will automatically result in more operational examination failures. Given that there is broad agreement that the current grading scheme is adequate to determine between competent and non-competent operators, there is no justification to arbitrarily alter the grading scale downward without adjusting the pass criteria. Currently both the NRC and the Industry has stated there are no safety issues with any individuals currently holding licenses. So why the need to raise the requirements for passing the exam?</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-303	Grading practices	Noted.	<p>The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and determined that a 0 - 3 scale with a 1.8 passing score was appropriate. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.</p>	17	b
<p>[in reference to Section D.2.b, proposed elimination of "point back" allowance] This allowance was necessary to give an examiner the ability to give a candidate back a point who made a few minor performance deficiencies (non-critical error) but provided evidence to the examiner that the candidate is competent in the given rating factor/competency. [Recommendations:] (1) Retain the wording from revision 10 and/or the interim guidance. (2) If necessary provide additional guidance in the NUREG on how to implement giving a point back. For example: If a candidate has many opportunities (>7) to demonstrate competence in a competency/rating factor during the operational examinations and the examiner has adequate examples that the candidate has competence in the competency/rating factor then the examiner may give a point back in the rating factor.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-303	Grading practices	Noted.	<p>Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency.</p>	17	c
<p>[in reference to Section D.2.b, proposed change of missed CT results in score of 0] Depending on other changes a 2 or 3 point deduction may be appropriate. In most cases a 2 point deduction would also be accompanied by other non-critical errors in the rating factor or competency so a failing grade would result. [Recommendations:] (1) Leave the current deduction for a missed critical task at 2 points. (2) Have two choices for deduction of points for a critical task. Normally a 2 point deduction but in the case when a candidate's actions result in core damage or a significant increase to the safety and health of the public then a deduction of 3 points is required.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-303	Critical Tasks guidance	Noted.	<p>Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. The revision to the NUREG was initiated in order to improve consistency. Changing the grading of a critical task to either a 2 or 3 point deduction would lead to an increase in inconsistency in how that change would be applied. Based on the pilot program which re-graded current operating tests to the new revision requirements and only resulted in a 1.6-3.1% increase in a failure rate, the NRC does not consider the increase significant enough to warrant a change to Revision 11.</p>	17	d
<p>[in reference to Section C.1.f, the proposal that NRC will generate written exam outlines] Currently there is an initiative to develop a National Exam Bank of written questions that the industry will maintain. This exam bank will also include an automatic exam outline generator. Once the project is complete, the draft wording will prevent allowing the NRC or Utility from using the automatic exam outline generator in concert with the National Exam Bank. [Recommendation:] Provide an option for NRR office to decide to change whether or not the NRC will continue to develop written outlines without necessitating a revision to NUREG- 1021.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-201	Written exam outline guidance	Noted.	<p>This change was made to address a regional inconsistency associated with sample plan generation. Because the commented National Exam Bank and associated automatic exam outline generator are not currently available for the NRC to review, the NRC has determined that no further change will be made based on this comment.</p>	17	e
<p>[in reference to Section D.2.f, bullet 2, "... randomly select from among the available questions..."] Randomly selecting among the available questions is not necessary in that the K/A has already been randomly selected during the outline generation process. The K/A selection process maintains the randomness of the exam and ensures the exam is not predictable. [Recommendation:] Delete this bullet entirely.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-401	K/A guidance	Noted.	<p>The reason for randomly selecting from available questions is to ensure the random, systematic process for the examination and to assist in examination security considerations. Therefore, no change is required.</p>	17	f

<p>[in reference to the proposal that the GFE offering being reduced from 4x/year to 2x/year] . While this initiative offers a reduction in cost for the development and implementation of GFE for the NRC there are several unintended consequences, to both the NRC and the industry. These unintended consequences include necessitating license program start dates from 4 times per year to 2 times per year based on NRC GFE exam dates. This would result in a compression of final NRC exam dates, affecting both NRC resources and utility resources. This can add additional cost to the industry as there will be less opportunity to share resources across the industry and individual fleets which will increase the amount of overtime required by station personnel or will increase use of contractors to support the development of NRC exams. [Recommendations:] Any of these options, allowing several options or a combination of the options, could be a better solution to reduce overall cost and at the same time ensuring the high standards to educate and qualify license operators will remain in place for the ultimate goal of protecting the health and safety of the general public. (1) Eliminate the stand alone GFE and include a representative sample of generic fundamental knowledge's as part of the NRC license written exam. (2) Add generic fundamentals as part of the education requirement for eligibility to enter a license program and sample generic fundamental knowledge as part of the NRC license written exam. (3) Develop an on-demand examination for GFE maintained by either the NRC or the industry.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-205	GFE	Partially incorporated	Proposed alternatives are outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	17	g
<p>[in reference to the proposed elimination of the informal review process] this informal review adds important oversight and peer checking of regional appeals decisions and its elimination will not reduce costs but instead increase them... there are numerous examples in which a regional appeal decision is overturned during subsequent headquarters review. This often happens in review of written exam question appeals, and such decisions can appropriately reverse a candidate's failing grade. The proposed revision to NUREG 1021 would require a candidate's further challenge of a regional appeal decision to be reviewed by the Atomic Safety and Licensing Board (ASLB). This change creates two issues: (1) Headquarters will no longer "backstop" regional appeal decisions through their current informal review. Headquarters staff that have the appropriate examiner qualifications and technical knowledge will no longer be included in the review of regional decisions. Headquarters decisions that currently result in overturning regional decisions will be eliminated, potentially resulting in further perpetuation of candidate appeals. (2) The limited amount of time and resources expended by headquarters personnel will increase markedly under the new proposal as regional and headquarters staff will now be involved in the ASLB review process through preparation and testimony to provide technical and examiner expertise to the board. [Recommendation:] instead of eliminating the informal headquarters review of regional decisions on candidate appeals, the informal process be formalized and included in NUREG 1021 Rev. 11 ES-501 and 502 for the reasons stated above.</p>	5/4/2016	Larry Nicholson	Florida Power & Light Company and NextEra Energy	ES-501	Informal Staff Review	Partially incorporated	screening criteria was to evaluate processes that the NRC was doing that were not required by regulation and it was determined that the informal staff review met that screening criteria. The Commission approved the elimination of the informal staff review process provided that additional actions were taken to strengthen the post exam comment process. In this case, by extending the post exam comment period and requiring inclusion of all applicants' comments with a corresponding facility position, the region will be better able to make a quality determination of post exam comments and any necessary answer key changes without requiring additional headquarters involvement. However, the regions can solicit input from the program office upon request and these requests will be supported on a high priority basis. Headquarters will still maintain program oversight through exam audits, in-office reviews and assessments, training, periodic discussion, and policy interpretation. Based on the number and significance of the other changes to NUREG-1021, the elimination of the informal staff review process has been deferred and will be re-evaluated at a later date. Due to the deferral of the informal staff review elimination, a change will not be made to ES-501 and ES-502, however, internal procedures have been revised as recommended by the review team (LLRT).	17	h
<p>[in reference to the proposed changes to the grading] [we] cannot support the proposed changes to the grading of the operating examination. We do not see sufficient justification for these changes to warrant the NRC's own predictions of substantially higher failure rates.</p>	5/5/2016	Kenneth Fredrickson	STARS Alliance LLC	ES-303	Grading practices	Noted.	The NRC does not predict substantially higher failure rates. A pilot effort was performed and determined that a change was needed to the technical specification competency to account for the identified over-emphasis in that area and altered the rating factors in that competency to address the identified over-emphasis. The NRC predicts the failure rate to increase 1.6-3.1%, which is not substantially higher. The NRC did multiple reviews and pilots of the grading changes and believes that these changes are necessary to address the concerns about examiner and regional consistency and to provide a more reliable, scrutable examination grade.	18	a
<p>We can certainly see how the proposed changes to include greater independence in the appeal process are warranted in light of the findings by the Atomic Safety and Licensing Board (ASLB). However, it appears that these proposed changes will be eliminated with the proposed Project AIM initiative to terminate the informal appeal process. Therefore, we are not in favor of eliminating the informal appeal process and replacing it with a longer period to address exam comments.</p>	5/5/2016	Kenneth Fredrickson	STARS Alliance LLC	ES-501	Informal Staff Review	Partially incorporated	The purpose of Project AIM initiative to streamline agency tasks, one of the screening criteria was to evaluate processes that the NRC was doing that were not required by regulation and it was determined that the informal staff review met that screening criteria. The Commission approved the elimination of the informal staff review process provided that additional actions were taken to strengthen the post exam comment process. In this case, by extending the post exam comment period and requiring inclusion of all applicants' comments with a corresponding facility position, the region will be better able to make a quality determination of post exam comments and any necessary answer key changes without requiring additional headquarters involvement. However, the regions can solicit input from the program office upon request and these requests will be supported on a high priority basis. Headquarters will still maintain program oversight through exam audits, in-office reviews and assessments, training, periodic discussion, and policy interpretation. Based on the number and significance of the other changes to NUREG-1021, the elimination of the informal staff review process has been deferred and will be re-evaluated at a later date.	18	b
<p>STARS endorses the comments submitted by the Nuclear Energy Institute (NEI) in their letter written on behalf of the nuclear energy industry (Letter from Nuclear Energy Institute (NEI) to Ms. Cindy Bladley, Office of Administration, "Industry Comments on Draft Revision 11 of NUREG-1021, Operator licensing Examination Standards for Power Reactors, 81 Fed. Reg. 6301; Docket No. NRC-2016-0006," dated May 3, 2016). STARS, like NEI, agrees with the NRC's conclusion from the Operator Lessons Learned Review Team (LLRT) Report referenced in the NEI letter that "the license operator examination process is an extremely high quality process that has been demonstrated over time to successfully evaluate and discriminate the level of competency of operator license applicants" and, we would add, with great integrity. We also agree with NEI that the proposed changes have not been limited to those needed to address the specific concerns arising from the ASLB reversal. The proposed changes to the grading of the operating exam will not, as suggested, result in greater consistency in grading of the exam but will actually result in greater subjectivity, and, therefore, variability in grading this portion of the exam.</p>	5/5/2016	Kenneth Fredrickson	STARS Alliance LLC	General	General	Noted.	Please see NEI comments 15.a through 15.mmm for resolution.	18	c
<p>[in reference to the proposed changes to the frequency in which the GFE will be administered] The STARS sites are supportive of the proposal by NEI for the industry to administer the Generic Fundamentals Examinations.</p>	5/5/2016	Kenneth Fredrickson	STARS Alliance LLC	ES-205	GFE	Partially incorporated	Proposed alternative is outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	18	d
<p>the reduction of administration of GFES exams to twice a year will result in utilities all scheduling their license exams in the same time frame, as all programs run approximately the same amount of time. With reduced staff, the regions will not be able to support the utilities exam needs. [Recommendations:] (1) allowing utilities to randomly generate a GFES exam as needed. The bank is sufficiently large to support this. (2) develop an on-line exam. Give utilities a log in and have the candidates take a randomly generated exam that is generated at log in...</p>	5/5/2016	Ron Fortier	Pacific Gas & Electric Company	ES-205	GFE	Noted.	Proposed alternative is outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	19	a
<p>The process of establishing exam dates for licensed operator examinations requires a significant degree of flexibility. In response to the annual submissions of NRC Form 536 to project exam dates, the NRC regional office sometimes responds with alternative dates that differ significantly from the dates requested. Because utilities have to schedule class and exam dates around outages and must account for overlap between classes, reducing the GFE offerings to two significantly hampers the ability of the utility to sequence and schedule instruction properly. Recommend retaining the four annual GFE offerings that are currently provided.</p>	5/5/2016	Anonymous	V.C. Summer Nuclear Station	ES-205	GFE	Partially incorporated	Due to budgetary considerations, the NRC can no longer offer 4 GFE examinations per year. However, there are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	20	a

<p>[In reference to the statement, "The testing industry endorsed this approach to the development of content valid licensing examinations in the 1985 revision of the "Standards for Educational and Psychological Testing" published by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education."] This standard, though artfully crafted 31 years ago, was not intended to be beyond reproach. As a result, it has been updated and improved many times, the last and most recent version being published in 2014. Notably this revision has significant changes from the 1985 version in the areas of content validity, determination of cut scores and workplace testing and [credentiailling] (the specific area that these type tests are governed). Recommendations: the NRC should perform a detailed review of "Standards for Educational and Psychological Testing (2014)" and make appropriate changes to NU REG 1021 to bring it in line with the most recent standard practices. This should include significant emphasis on the importance of content validity and revisions to the process to ensure that examiner practices, like inappropriate removal of valid questions on "low level of difficulty" are guarded against...</p>	5/6/2016	Michael Petersen	Xcel Energy	App A	Administration/ Logistics/ Procedure	Noted.	Comment is outside the scope of the revision. However, please note that the excerpt quoted was in relation to the use of K/As and a job task analysis to ensure that there is a link to job duties. In order to meet the uniform conditions provision of the Atomic Energy Act of 1954, the NRC must use the K/A catalogs to ensure that this provision can be met, although the NUREG does allow a facility to reject a K/A with sufficient justification. The K/A catalogs have had and continue to have industry input to ensure that the K/As remain content valid for the initial license examination. The other important aspect of the K/A catalogs is that, with the outlines provided in ES-401, they ensure that the representative sampling of the required items in 10 CFR 55.41, 55.43, and 55.45 is met.	21	a
<p>The changes to ES-301 and Appendix D that are associated with scenario overlap limitations are inappropriate and fail to reasonably account for the finite number of appropriate scenario malfunctions and failures. Specifically, the changes in requirements for scenario event overlap would require that a significantly broader set of malfunctions and major events be utilized in subsequent operating tests. Because of the finite number of major events (a handful) and limited number of malfunctions that are appropriate for use on an NRC examination, once these are exhausted (which occurs on exams now) events and malfunctions which have low PRA or are not appropriate for evaluation will have to be utilized. Using these low probability events or events that do not lend themselves to good evaluations further lowers the discriminatory ability of the exam and will result in inappropriate license decisions. Recommendation: the NRC should leave the current overlap requirements in place.</p>	5/6/2016	Michael Petersen	Xcel Energy	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	21	b
<p>[In reference to proposed changes to specific grading practices that potentially oppose the <i>uniform conditions</i> requirements] It is clear from [NUREG 1021 Section ES-303 guidance] that any significant variance in the attributes of the exams are unacceptable. Considering that the NRC is currently struggling in many areas with consistency not only among examiners in each region but significant differences between regions, any additional allowance for examiner judgment in the process only serves to exacerbate the already unacceptable subjectivity. This increase in subjectivity, as stated above, "... will jeopardize the validity of the NRC's licensing decisions." The following changes can be addressed together as their impact on the process and reasons for being unacceptable are the same; (a) ...expand the grading scale from 1-3 to 0-3. (b) ...remove the "points back" methodology... (c) ...expand the scope of grading for SRO applicants to include every missed TS entry as an individual performance deficiency. (d) ...no limit to the number of rating factors that can be assigned to a single performance deficiency. [These] changes all serve to provide more latitude to the NRC examiners to subjectively grade applicants in a manner that will ONLY result in additional failures... See Public Comment Submission #21 for more details.</p>	5/6/2016	Michael Petersen	Xcel Energy	ES-303	Grading practices	Partially incorporated	Neither changing the grading scale nor removal of the point back will increase examiner subjectivity. Every deficiency must be documented and appropriately categorized. Based on that categorization (which will always have some level of subjectivity) the grading then becomes objective. Each non-critical error (defined in the scenario guide) is one point off (except for Communications). There is no need for the examiner to evaluate if the individual performed another action correctly to restore a point back (which is not always consistently applied now). A critical error (defined in the scenario guide or identified post-scenario using the NUREG-1021 guidance) takes the score to a 0. In neither of these cases is subjectivity increased. For item C, this was a clarification to explain confusion related to technical specification (TS) grading. Per NUREG 1021 D.1 and D.2, every performance deficiency must be documented and graded. Just as an applicant can have, and can be graded on, numerous errors in response to a single event or malfunction, so too can they have multiple errors for one event related to TS entries. Therefore no change is required. This change does not increase subjectivity, but instead increases consistency between regions and examiners to ensure that all applicants are graded uniformly. Finally, the NRC re-evaluated the allowable number of rating factors assigned to a single performance deficiency and has decided to limit it to no more than 2 rating factors. This will reduce any introduced subjectivity when no limits were proposed for Rev. 11. No further change is necessary.	21	c(1)
<p>The above changes are inappropriate for the following reasons; • Allowing more latitude in the subjectivity of the grades provided by the NRC examiners is in direct opposition to NUREG 1021 Appendix A and thus Section 107 of the Atomic Energy Act of 1954... In this case, the external attributes of the examinations, the grading criteria, would be allowed to vary significantly depending on NRC examiner judgement. This added subjectively, inappropriately and excessively challenges the ability of the NRC to make appropriate licensing decisions. • The NRC has acknowledged that using the new grading methodology for the Simulator Operator Test would have resulted in additional license denials for currently licensed individuals. The NRC has not provided any justification why the previous methodology was unacceptable and in need of change. There has been no change to any regulations that would predicate increasing the difficulty of the performance standard... • The NRC has not provided any data that shows that initial licensed operator performance has been deficient in any way or any individuals previously licensed by the NRC were inappropriately determined to be competent. In fact, it appears by most metrics that operator performance throughout the industry has improved... • Standard 2.7 of Standards for Educational and Psychological Testing (2014) states; "When subjective judgement enters into test scoring, evidence should be provided on both interrater consistency in scoring and within-examinee consistency over repeated measurements..." Clearly subjective judgement is a source of measurement error and increasing the subjectivity and thus the measurement error is not only a poor practice but in direct opposition to the uniform conditions requirement and results in less reliable license decisions. Recommendations: (1) the NRC should discard the above noted changes related to changing the Simulator Operating Test grading and maintain the current (Rev. 10) methodology. (2) the NRC should provide data and justification for why the current testing methodology is unacceptable for determination of initial license competency and requires changing... (3) the NRC should provide data supporting the licensed operator performance has either degraded over time or shown a sharp decline which would predicate a change to the examination practices.</p>	5/6/2016	Michael Petersen	Xcel Energy	ES-303	Grading practices	Noted.	See above response to question 21.c(1) for comment resolution on the claimed addition of subjectivity based on the proposed examination grading changes. The NRC is not saying that the previous method was "unacceptable" but took the opportunity to review and revise the examination process, which had not been done in over ten years. The intent of the proposed changes is not to make the licensing examination more "difficult" but to instead increase examiner and regional consistency and address inconsistencies in the examination process (e.g., "double counting" correct performance by giving a point back). The NRC is not revising this standard based on deficiencies noted in operator performance. As stated above, the NRC took the opportunity to revise a process based on the additional experience that has been developed in the last 12 years since the last substantive revision (Revision 9) was issued. Again, see the above comment resolution basis for reasons why the proposed changes do NOT increase subjectivity, but instead improve objectivity and consistency in making licensing decisions. Therefore, no change or additional justification is needed in response to this comment.	21	c(2)

<p>[in reference to proposed changes to ES-301 and Appendix D related to critical tasks] [the proposed changes] are fundamentally flawed. The following statements from NUREG 1021 Rev.11, Draft Appendix D are examples; "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 active of initiating the actuation is not a CT. There may be times that either an individual or the crew "create" a new critical task. As will be discussed in Section D, the critical aspect of an unintentional or unnecessary RPS or ESF actuation is to ensure that they do not occur. Therefore, if an unintended protection action does occur during a scenario, or would have occurred, but different applicant prevented it (as described in Appendix E), CT criteria has been met. For example, if an unintended reactor trip or ESF actuation occurs, the CT to "take action during an event to prevent a reactor trip or ESF actuation" was not met." These changes equate to giving the examiner more opportunity to subjectively create opportunities to downgrade candidates on events that in their opinion should have been performed differently. These decisions will be made AFTER the scenario is complete and thus allow the examiner to create failure criteria that would otherwise have little or no basis... A fair use of this practice would be to make every RPS or ESF manual actuation a critical task, however, this does not meet the definition of a critical task, nor does the new proposed methodology. Recommendation: the NRC should remove the above noted changes related to critical tasks and return to the previous methodology. <u>See Public Comment Submission #21 for more details.</u></p>	5/6/2016	Michael Petersen	Xcel Energy	ES-301	Critical Tasks guidance	Partially incorporated	<p>Firstly, the unintended RPS or ESF actuation as a critical task (CT) guidance is already in the current revision of NUREG 1021, but is inconsistently applied. Therefore, there is no increase in subjectivity. Also, an unintended RPS or ESF actuation does have safety significance from a PRA and ROP perspective, as it creates an initiating event (in PRA space, the initiating event probability goes to 1, leading to an increase in the ΔCDF for that accident sequence). This raises risk. Also, initiating events are tracked by performance indicators, which can result in increased oversight, indicating the safety significance. There is no way to completely remove all subjectivity from examinations as no standard can be completely prescriptive and still cover every possible permutation or situation. There must be some reliance, therefore, on examiner judgement. However, due to the conflict between the Note and the main body of the NUREG, the subject Note was deleted. Although the change was intended to further clarify what is meant by a CT (since there had been confusion from the industry provided as informal feedback to the examiners), this change actually further increased the confusion and so the subject paragraph was also deleted. Please note that the guidance in Appendix E regarding grading of an error that is corrected by the other members of the crew is still applicable.</p>	21	d
<p>The first incorrect assumption of NUREG 1021 is based around the concept of content validity. NUREG 1021 uses the K/A catalogs to determine and limit the content for the initial examinations. The incorrect belief is that; NUREG 1021 assumes that the initial license candidates will be trained using training programs that include the content of the K/A catalogs and little more. It also assumes that those training programs have not changed or expanded to include training on topics significantly beyond that which is listed in the K/A catalogs. This is based on an outdated belief that utilities would find it acceptable to have failures on the licensing examination and thus would not implement changes to the training programs to improve performance. The entirety of this assumption is incorrect... because of the high cost of preparing license candidates to take the NRC exam, it is no longer acceptable (and has not been for many years) to have more than isolated failures on the initial licensing exams...Because of this the training feedback process has increased course content to a level such that courses that several years ago could be completed in 8-10 months are now taking 18-24 months...doubling the course length has not doubled the license applicant scores... Recommendation: the NRC should change the NUREG 1021 methodology for determining exam difficulty to use methodologies recommended in Standards for Educational and Psychological Testing (2014) which rely more heavily on incumbent performance on examinations and less on developer and examiner judgement. This would include removing recommendations on performance ranges for individual item difficulty, " ... with individual item difficulty estimated to fall in the 70- to 90-percent difficulty range ... " The new methodology should acknowledge that current training programs are designed to ensure applicant success and that candidate performance greater than 90% on written exams is not only acceptable, but expected. <u>See Public Comment Submission #21 for more details.</u></p>	5/6/2016	Michael Petersen	Xcel Energy	General	Administration/ Logistics/ Procedure	Noted.	<p>The NUREG explicitly mentions that a failure to train on a K/A is not sufficient justification for removing that K/A statement from an examination, thereby acknowledging the fact that facilities may or may not train to the K/A catalog. The NUREG also provides a provision to eliminate non-applicable K/A statements (with sufficient justification) because it acknowledges that it is based on a generic job task analysis which might not be applicable at a specific facility. The NRC does not have the depth and breadth of knowledge at each facility to be able to evaluate and ensure content validity on a case by case basis, hence the K/A catalogs, which have industry input to ensure the content validity. Without the K/A catalog, the NRC cannot reasonably meet the Atomic Energy Act referenced elsewhere by this commenter to ensure uniform conditions. The NRC's primary objective is to ensure public health and safety by making valid, consistent licensing determinations which are based on content valid tests and examinations. The current examination process to use the K/A catalogs to determine content validity has been determined to be a highly reliable process, therefore, no changes are required based on this comment.</p>	21	e(1)
<p>The second incorrect assumption of NUREG 1021 is related to the benchmark of competence for currently licensed operators; NUREG 1021 incorrectly assumes that currently licensed operators perform at below the level of competence and thus their performance on an initial license exam should be at or below the cut score of 80%. This wrong assumption is based on the flawed idea that currently licensed operators are trained to the content of the K/ A catalog and little more and that somehow, unlike every other profession, licensed operators become "dumber" once they are initially qualified and spend time performing actual job duties. In reality, currently licensed operators are initially trained well beyond the level of competence and the continuing training program extends that knowledge... there have been few if any events in the industry for years that rise to the level of a shortfall in competence by currently licensed operators... Recommendation: the NRC should change the NU REG 1021 methodology for determining exam difficulty to use methodologies recommended in Standards for Educational and Psychological Testing (2014) which rely more heavily on incumbent performance on examinations and less on developer and examiner judgement. Cautionary statements should be included in NUREG 1021 that highlight that low validation performance on Initial exams by incumbent operators that are currently qualified and proficient are indicative of significant flaws in the exam content. <u>See Public Comment Submission #21 for more details.</u></p>	5/6/2016	Michael Petersen	Xcel Energy	General	Administration/ Logistics/ Procedure	Noted.	<p>See OLPF 401.42 for a discussion on why the initial licensing process is explicitly designed to be more challenging than requalification. The assumption is not as the commenter stated, that currently licensed operators perform below the level of competence, but instead that they have already demonstrated initial competency and that ongoing training and testing is thus more review like in nature. The NRC does not assume that operators are merely trained to the content of the K/A catalogs as discussed in the above comment 21.e(1). Again, the OLPF stated this as its basis for the reasoning behind the different testing methodologies between initial licensing and requalification. Initial operators have to demonstrate to the NRC that they have the baseline body of knowledge required to be licensed. Individuals who are licensed have already demonstrated this and therefore, the requalification testing methodology is on maintaining the body of knowledge instead of having to demonstrate that they have acquired it. Because the requalification testing program is different than the initial licensing examination, performance by licensed operators (although useful in determining if there are valid psychometric flaws, job specific, or technical issues with an initial license examination) are not the sole consideration in the determination of whether a question is flawed or not. Instead, the NRC uses psychometric principles to determine if there are flaws. Current licensed operator performance on a question can be used to inform the level of difficulty of a question, but as stated above and in OLPF 401.42, the testing methodologies are different and so that must also be considered. No change to the NUREG is required based on this comment.</p>	21	e(2)
<p>The most recent change to the number of offerings of the Generic/Fundamentals Examination creates unreasonable hardship on the utilities to align the licensed operator initial training programs with the limited number of administrations. Recommendation: the NRC should change the Generic Fundamentals Examination process to more closely align with the current NRC initial examination process where-by the utilities develop and administer the GFE on an as needed basis, under the oversight, guidance and approval of the NRC.</p>	5/6/2016	Michael Petersen	Xcel Energy	ES-205	GFE	Partially incorporated	<p>Proposed alternative is outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.</p>	21	f

<p>Based on the NEI/NRC Operator Licensing Workshop in Tampa this year, the NRC is unduly raising the difficulty of the exams for initial licensing and requalification exams. For instance, the NRC's [buzzword] at the Workshop was, ["adequate] mental activity." This is not [] an accepted academic principle or foundation that is a substitute for simple cognition. This is an example of the NRC adopting a way of doing business prior to due regulatory process.</p> <p>The other incident of unacceptable standard injection into the licensing process was when green findings were issued due to using computers during the exam process. The operators use the computer in the control room on a daily basis. The way we test need to match the way we do business in the control room. Not being able to put the title of the procedure in the question is also a poor practice. The only way to exam on specific decision points in a procedure is to give the name of the procedure and the step the examinee is performing in that procedure. [If] an examinee is put at a particular point in the procedure, you can assess the specific knowledge of that step. Assessing if the examinee knows what procedure is in, unnecessarily adds a layer the question that is not required or needed. One concept, one question. Most every plant has heard that the questions now have to be attorney proof. The distractions have to be so plausible, it increases the possibility of a question with two correct answers. There is no longer room for reason.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	General	LOD	Noted.	<p>For comment 1, the NRC initial license exam process is based on using Bloom's Taxonomy to evaluate the level of knowledge of its test items, which includes a determination of the number and type of mental steps necessary to process the given data and arrive at the correct answer, as discussed in NUREG-1021 Appendix A. This, perhaps, is the basis for the "buzzword" the commenter states was in use at the Operator Licensing Workshop. For comment 2, the NRC believes that the commenter is discussing a requalification examination. The NRC, in both NUREG-1021 and in the Operator Licensing Program Feedback, discusses at length the reason that an initial license examination is closed reference (no computers). Also, although not required, it is encouraged in initial license examinations to include the procedure in question in the stem (see App. B, C.1.c). For requalification exams, because they are open reference, it is required that the questions not be "direct look up", which means that the individual can just look up the correct answer without testing the individual's knowledge (also App. B, C.1.c). Therefore, test questions must be written that ensure that the individual's knowledge is being assessed and doing so is more difficult than writing a closed reference question. Also, NUREG-1021 600 series only applies to NRC administered requalification examinations or if a facility has specifically committed to these sections. Otherwise, they are NOT inspected to the requirements therein and are instead inspected to the facility's programs and the regulations. The NRC thus uses Inspection Procedure 71111.11 to inspect the requalification program, including examinations. Therefore, the comments about requalification exam requirements are outside the scope of the NUREG revision.</p>	22	a
<p>The NRC is proposing shifting the grading scale, for initial dynamic evaluations from a rating factor This downward shifting of the grading scale without adding a number at the positive end of scale (4). This alone will increase the failure rate, as indicated by an NRC conducted study.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-303	Grading practices	Noted.	<p>The LLRT made the recommendation for a 0-3 point scale in order to promote consistency as well as improve the discriminatory level of the operating test. This will help with a more scrutable examination process, which assumes a minimum level of competency at the start of the operating test (i.e., score of "3"). If an applicant makes multiple errors in a rating factor, under the current guidance, that individual still receives a minimum score of "1", which may not truly reflect the individual's performance. Under the new guidance, if the applicant makes 3 or more errors in a rating factor (other than those in the Communications competency), that individual will receive a score of "0" and receive no credit for that rating factor. However, receiving a score of "0" in a rating factor, in and of itself, will not result in a failure in the simulator exam, even if a "0" is received in multiple competencies. The LLRT did not recommend increasing the scale to a 0-4. Upon review, the NRC has determined that increasing the grading scale to 0-4 would require additional observations of actions in each rating factor to determine competency (the applicant has to have enough opportunities to result in a failing grade if they are not competent). This would result in an increase in either the number or duration of scenarios, which is not desired. During the initial review of the effects of the revised grading scale, the NRC identified an 8 to 12% increase in the failure rate, and took action to alter the rating factors in the Technical Specification competency for SROs in response to an over-emphasis in this area. Following this change, the NRC conducted a pilot review using the revised grading scale of 0-3 of all exams conducted from November 2014 to December 2015 which indicated an increase in the failure rate from 1.6 to 3.1%, depending on the license level. As a result, the NRC has determined that a grading scale of 0-3 is appropriate for making license determinations, and there is no need for further action regarding this comment. Please note that the LLRT was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and that experience was used to determine the appropriate grading scale and passing score.</p>	22	b
<p>The NRC is considering no limit on the number of rating factors for a single performance deficiency. This will only promote more inconsistency. The correct and fair standard would be one performance deficiency, one rating in one competency.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-303	Limitation of number of rating factor assignments	Partially incorporated	<p>After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.</p>	22	c

<p>[in reference to the proposed Technical Specification performance deficiency grading guidance] Some scenarios will present themselves with more opportunities to fail. One scenario may have 5 T.S. calls, whereas another may contain 12 to 15 T.S. calls. Uniform conditions for the examination process will suffer.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-303	Tech Spec performance deficiency	Noted.	<p>While true that the AEA requires uniform conditions for license examinations, this requirement must be tempered by the realities and constraints of the examination process. It is impossible to have 100% uniform conditions from applicant to applicant. There will always be some differences. The goal is to balance the need for uniform conditions with the restraints of the examination process. The public comments discuss the lack of uniform conditions between scenarios, in that one could have the bare minimum of technical specification (TS) calls (2) and another could have many more, depending on the complexity of the malfunction/event. This, however, is also true for component malfunctions and other events. Although a certain number are required, each malfunction can vary greatly in complexity. Some might only require an applicant to start a single pump, or open/close a single valve. Therefore, for that malfunction, the applicant has one action that could result in an error. However, the malfunction or event might be far more complex, requiring more than a dozen actions, providing the opportunity for the applicant to make multiple errors. The NUREG is clear that each error (performance deficiency) must be documented and evaluated accordingly. That means that just as a malfunction is not graded as a single entity (an applicant can make multiple errors when responding to an event), the same is also true for TS evaluation. Also, the responsibility resides with both the examination author and the chief examiner to ensure that the difficulty between the scenarios is balanced such that each applicant is appropriately tested to approximately the same level of difficulty. Therefore, the examination author and chief examiner should ensure that no one individual on an examination has only two TS entries, while another has 15. This is true though for more than just TS entries. The chief examiner needs to ensure that these scenarios appropriately test each applicant's competency and thus ensure that the scenario sets balance the difficulty between the various applicant crew members. No change to the NUREG is necessary.</p>	22	d
<p>[in reference to the proposed guidance that all SRO Administrative JPMs to be SRO level] The adverse impact is that there are SROs that actually perform as ROs. The RO level of knowledge that the SROs perform at the RO level will remain, possibly untested. The will increase the burden for the utilities to create already difficult administrative SRO JPMs.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-301	SRO Administrative JPMs	Noted.	<p>This change was made to address a regional inconsistency. Per ES-301, D.1.e, SRO applicants, "will be examined for the highest on-shift position for which the SRO's license is applicable." It also goes on to discuss how to differentiate the SRO operating test from that of an RO (no changes to this have been made in Revision 11). It states, "In directing licensed activities, the SRO must have a broader and more thorough knowledge of facility administrative controls and methods." Because of these two statements, the program office and the regions all determined that it was appropriate to require all the administrative JPMs to be evaluated at the SRO license level. Therefore, no change is necessary.</p>	22	e
<p>Each scenario under the proposed NUREG must have at least two critical tasks. The current NUREG revision allows the NRC Chief Examiner to determine that only one critical task is adequate if there is enough complexity for a proper evaluation. The current rule states, "The quantitative attribute target tangles 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." Therefore the current limitations are adequate, and the proposed changes would reduce flexibility in the determination of examination adequacy.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-303	Critical Tasks guidance	Partially incorporated	<p>Section was reworded to state that the Chief Examiner should ensure each scenario includes at least 2 pre-identified critical tasks and clarifies that that is a target and not an absolute minimum requirement. This was to clarify confusion from public comments on what the intent of that section was. Note that there is a provision in the NUREG to allow time compression, although not preferred, if it is desired to observe some task that would otherwise not be observable due to time constraints (such as a critical task that takes some time to develop) (See Appendix D, C.1.a).</p>	22	f
<p>The requirement of an upgrade to take another physical within the boundaries of their current physical examination requirements while holding a license is an unreasonable burden.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-202	Administration/ Logistics/ Procedure	Noted.	<p>This comment is already covered by the last sentence of the 3rd paragraph of ES-202 C.1.a which states, "Licensed ROs or LSROs upgrading to an SRO license need not have an additional medical examination or waiver request, as long as their medical status as a licensed RO or LSRO is up to date at the time of application, including a complete medical examination within the past 24 months."</p>	22	g
<p>[Recommendation:] Leave the grading criteria the same for an upgrade and an instant SRO pertaining to an RO/SRO exam average.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-303	Grading practices	Noted.	<p>The NRC is unsure what the commenter means by this statement, however, the only time an SRO-U would require a different written examination score than an SRO-I is if the SRO-U has requested, and been granted, a waiver of the RO portion of the written examination. In that specific case, because the SRO-U did not take the RO portion of the examination, he/she would be required to achieve a minimum score of 80 on the SRO-only portion in order to pass. If the applicant instead took the entire examination, he/she would require a minimum score of 80 overall, with a minimum of 70 on the SRO-only portion. However, this has been the grading policy since before Revision 10 and is not a change in Revision 11. Therefore, the NRC, in the absence of additional clarifying information on what the intent of this comment is, must determine that no change is necessary to the NUREG.</p>	22	h
<p>[Recommendation:] Have the utilities develop the GFE exams.'</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-205	GFE	Partially incorporated	<p>Per 10 CFR 55.40(b)(4), "Power reactor facility licensees must receive Commission approval of their proposed written examinations and operating tests." The GFE is part of the written examination. Therefore to allow utilities to develop the GFE without Commission approval would require rulemaking and is outside the scope of this revision. Please note that the NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.</p>	22	i
<p>[Recommendation:] Expand time frames for exam milestones.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-201	Examination timeline target dates	Incorporated	<p>Although the industry requested an 11 month timeline, the NRC is instead adopting an 8 month timeline, adding 6 weeks for exam preparation and 2 weeks to resolve any exam comments and get the exams approved. If the NRC had incorporated the industry requested timeline, the NRC may not be able to administer all requested exams due to resource constraints. Please note that all timeline dates are targets and can be adjusted on a case-by-case basis with the chief examiner for the specific exam.</p>	22	j

<p>[Recommendation:] Build in 2 to 3 days for the NRC Chief Examiner to meet one-on-one with exam groups at plants prior to initiation of exam development to gain common ground on NRC Examiner standards and expectations.</p>	5/6/2016	Robert Meyer	Professional Reactor Operator Society	ES-201	Administration/ Logistics/ Procedure	Noted.	NRC expectations are contained within NUREG-1021 and are discussed during the initial phone call between the chief examiner and the facility (see ES-201, "Initial Operator Licensing Examination Process," Section C.2.c). The facility can and should ask the chief examiner during that call or at any time during the exam development process if there are any questions regarding the NUREG requirements for exam development. The NRC does not have the resources to travel to each facility for 2-3 days prior to exam development. Also note that the chief examiner is required to discuss requirements for proctoring the written exam if the facility will be administering it.	22	k
<p>[in reference to ES-301 Section D.5.b, Page 15 of 31, and Appendix D Section C.1.f, Pages D-7 and D-8] The new 50% overlap requirement will likely result in less operationally challenging exams. Current scenarios are developed containing a complexity of events to discriminate between a competent and incompetent operator. The new overlap requirement will lead to use of malfunctions and events that are less discriminating. Most simulators have hundreds of malfunctions but a small percentage actually leads to observable discriminatory actions. There are also a very small number of major events...The overlap limitation will also lead to longer than 2 hour scenarios as the path to all but a limited number of contingency procedures and functional restoration guidelines coupled with the minimum number of opportunities for each position takes significantly more time. This requirement will also challenge validation resources at each station as more time will be required to validate the scenarios with current licensed operators, which in turn challenges the work hour rule regulations. [Recommendation:] This requirement should be excluded from the revision as it will only serve to fatigue the applicants during administration and the examination writers during development. It will also challenge federal work hour rule regulations for validation purposes. With strained validation prior to NRC on site validation this change will also likely lead to more changes during the on-site validation.</p>	5/5/2016	Kenneth Peters	Luminant Generation Company LLC	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements. Major event language was moved to only Appendix D and altered to state that the examination author should change the major event, the initial conditions, and/or the subsequent malfunctions to alter the course of action in the EOPs. This allows the author more flexibility in addressing any overlap considerations with major events in the previous two operating tests.	23	a
<p>[in reference to Section D.1.d, Page 3 of 9, the proposed TS grading guidelines] New method of grading TS evaluation opportunities will result in unbalance difficulty between exams. Under current guidelines each event can only have 1 TS evaluation for a design target of 2, as that not all Technical Specification component failures are not equal, the new requirement will result in some applicants having significantly more opportunities to fail. [Recommendation:] This requirement should be excluded from the revision OR add clarification that a single event that requires 2 TS action statements to be entered will meet minimum design criteria. While this solution will not completely eliminate the concern, it makes it much more manageable when designing quality exams.</p>	5/5/2016	Kenneth Peters	Luminant Generation Company LLC	ES-303	Tech Spec performance deficiency	Noted.	The responsibility resides with both the examination author and the chief examiner to ensure that the difficulty between the scenarios is balanced such that each applicant is appropriately tested to approximately the same level of difficulty. Therefore, the examination author and chief examiner should ensure that no one individual on an examination has only two technical specification (TS) entries, while another has 15. This is true though for more than just TS entries. The chief examiner needs to ensure that these scenarios appropriately test each applicant's competency and thus ensure that the scenario sets balance the difficulty between the various applicant crew members. The NUREG is clear in ES-303 D.1 and D.2 that each error (performance deficiency) must be documented and evaluated accordingly. Therefore, the clarification was added to ensure that it was understood that TS entries are treated equivalently to malfunctions and communications in that an individual can make more than one error and will be evaluated on each error and not singly on the malfunction or communication. This is not a new requirement, but is instead a clarification to ensure consistent grading is applied per the already applicable NUREG requirement. With only a single event, if the applicant does not recognize the applicability of TSs, the applicant would automatically fail that competency (the 6.a would be weighted at a 1.0 with a score of 1 or 0, depending on the number of missed TS entries) and would not have the opportunity to demonstrate capability in the competency as they might with another opportunity. An individual who did not recognize applicability of 2 TS entries in one event, but made 2 TS calls on a second event, would receive a score of 1 in 6.a, but would receive scores of 3 in 6.b and 6.c, resulting in a final competency score of 2.4 (0.3 * 1 + 0.3 * 3 + 0.4 * 3 = 2.4), resulting in a passing score. Therefore, the NRC will not be incorporating this recommendation.	23	b
<p>[in reference to Section D.2.b, Pages 5 & 6 of 19, the proposed change to the grading scale from 1-3 to 0-3] Changing the lowest rating factor from 1 to 0 is unnecessary and will require facilities to expend resources aligning current practices and procedures to the change. NRC examiners and the NUREG already recognizes that sometimes the grading does not match the performance and judgment is required for a licensing decision. See ES-303 Section 2, Page 1-19 Lines 4-8 for further details. This change will expend significant resources for what experience has shown is less than a 1% occurrence. [Recommendation:] Retain the guidance in NUREG 1021, Revision 10 and make it a practice of using the guidance in ES-303 Section 2, Page 1-19 Lines 4-8 to resolve conflicts between the calculated grade and the judgment of the examiner. Ensure that Forms ES-303-1, ES-303-3, and ES-303-4 are not revised with the 0, 1, 2, 3 grading scales.</p>	5/5/2016	Kenneth Peters	Luminant Generation Company LLC	ES-303	Grading practices	Noted.	The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and determined that a 0 - 3 scale with a 1.8 passing score was appropriate. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRQ applicant failure rates.	23	c
<p>[in reference to Section D.2.b, Page 5 of 19, the proposed change to eliminate the "point back" guidance] This allowance was necessary to provide a candidate who is competent but makes just a few errors to be penalized without relief. During a scenario an applicant can have multiple chances to show competency in an area. Some scenarios provide more than the expected three chances 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 ability. Due to the number ratings being revised to a more stringent criteria, this is even more important to the rating of the candidate than in previous exams. [Recommendation:] Retain the guidance in NUREG 1021, Revision 10.</p>	5/5/2016	Kenneth Peters	Luminant Generation Company LLC	ES-303	Grading practices	Noted.	Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency. Therefore, an individual will not fail for merely having a few non-critical performance errors.	23	d

<p>[In reference to Section D.2.b, Page 6 of 19, the proposed change to make a missed CT a 3-point reduction] This appears to over penalize 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. [Recommendation:] Retain the guidance in NUREG 1021, Revision 10 with regard to critical errors.</p>	5/5/2016	Kenneth Peters	Luminant Generation Company LLC	ES-303	Critical Tasks guidance	Noted.	Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.	23	e
<p>As stated in the LLRT report, the NUREG-1021 draft Revision 11 recommendations: "... should be viewed as enhancements to promote consistency across the regions." Exelon is concerned that a number of the approximately 200 changes to the examiner standards may not be viewed as enhancements, but could be considered significantly impactful changes to the examiner standards... Exelon also [recommends] the NRC to hold additional stakeholder meetings to discuss resolution of industry comments on the proposed revision to NUREG-1021 pertaining to operator licensing standards. This will promote alignment and effective resolution of the industry's comments while ensuring there is no undue burden on candidates, examination preparers, or examiners.</p>	5/6/2016	James Barstow	Exelon Corp.	General	General	Noted.	Numerous public meetings were conducted with the industry to discuss the changes to the standard. Also, the NRC did not just review and revise this NUREG to the review team (LLRT) recommendations, but also took the opportunity to revise and update the NUREG since a substantive revision has not occurred in over 10 years (not including Revision 10's addition of new reactor provisions). Although the NRC does not feel that additional stakeholder meetings are required to receive additional public input and all industry comments that were submitted as part of the public comment period will be provided with written resolution from the NRC, the NRC held a public meeting to provide a current status of the NUREG-1021 Revision 11 changes and comment resolution on August 30, 2016.	24	a
<p>[In reference to Section Section D.2.b] The new grading criteria that change the lowest rating factor from a "1" to a "0" will require expense and resources in aligning current practices and procedures to align with the change. This is not considered an enhancement and introduces changes to what was already an accepted practice in previous revisions of the examine'r standards. The proposed grading changes could create a higher likelihood of failing a competent applicant, and could have a negative economic impact on licensees without any corresponding improvement in public health and safety. Exelon recommends maintaining the current grading criteria... make it a practice of using the guidance in ES-303 Section 2, Page 1-19 Lines 4-8 to resolve conflicts between what the grade is the judgment of the examiner.</p>	5/6/2016	James Barstow	Exelon Corp.	ES-303	Grading practices	Noted.	The review team (LLRT) made this recommendation in order to promote consistency as well as improve the discriminatory level of the operating examination. This will help with a more scrutable examination process. The examination process assumes a minimum level of competency at the start of an examination (i.e. score of '3'). If an applicant is unable to get any action in a rating factor performed correctly under the current guidance, that individual still receives a score of '1', which does not allow for a true determination of the individual's performance. In other words, if an applicant is unable to perform the actions correctly, that individual should be able to receive a score of '0', which indicates that they are not able to perform the actions in that rating factor. Please note that the review team was composed of six staff members from NRC headquarters and all four of the NRC's regions with a combined almost 200 years of experience in the nuclear field and 67 years of operator licensing experience and determined that a 0 - 3 scale with a 1.8 passing score was appropriate. In addition, a pilot grading program was performed and indicated a 1.6% increase in RO applicant failure rates and a 3.1% increase in SRO applicant failure rates.	24	b
<p>[In reference to Section Section D.2.b] The new grading criteria with respect to a missed critical task would result in a three-point deduction with a score of "0." Exelon believes that this is not a fair evaluation of the applicant. Revision 1 O to NUREG-1021 had a decrease of two points for this issue, and since a "0" has more consequences on the overall grade, [Recommend:] consideration should be given to maintain a two-point deduction. If the applicant has more issues past one critical error, they will appear and be graded in other areas, which would then lead to an accurate assessment of the applicant.</p>	5/6/2016	James Barstow	Exelon Corp.	ES-303	Critical Tasks guidance	Noted.	Making a CT failure a 0 properly weights the safety significance of a failure to meet a critical task. A critical task, by definition, is safety significant and must be weighted accordingly. With the new scale of 0-3, this equates to a score of 0 (equivalent to the score of '1' in current guidance which is the lowest currently allowable score). However, this does not mathematically result in an automatic failure of the operating test; an individual may fail a single critical task but perform all other actions correctly and can still pass the test. Therefore, no change to Revision 11 is necessary.	24	c
<p>The new grading criteria allows for non-critical errors to result in point reductions in more than one area. This results in higher impact to students for non-critical errors and could increase the failure rate. Exelon recommends to only allow for non-critical errors to impact one area that is most applicable to the error</p>	5/6/2016	James Barstow	Exelon Corp.	ES-303	Limitation of number of rating factor assignments	Partially incorporated	After further review, the NRC decided to limit assignment to no more than 2 rating factors to a single performance deficiency. The NUREG was also clarified to state that sufficient justification is required for any and all rating factors assigned to a performance deficiency.	24	d
<p>The new grading criteria would eliminate the allowance for the examiner to give points back for non-critical errors. Exelon believes this allowance was necessary, and provides the examiner a better overall picture of the candidate's ability during the operating examination. Exelon recommends maintaining this allowance... retaining the wording from Revision 10. <u>See Public Comment Submission #24, Table 1 of the attachment, for more details.</u></p>	5/6/2016	James Barstow	Exelon Corp.	ES-303	Grading practices	Noted.	Applicants come into the examination with an assumed level of competence (i.e. score of '3'). The examiners then look for deficiencies that call into question this assumption. The current practice means that an applicant need only correctly perform tasks in a single rating factor 1 out of 3 times (non-critical) to pass. This basically "double counts" the correct performance and thus overweights the correct performance, which was already assumed at the beginning of the process. Therefore, this practice is being discontinued in order to eliminate this "double counting" of correct performance of a task and to bring the process back into alignment with the intent of the examination process. An individual who has two errors in one rating factor (other than communications) will receive a score of 1 in that rating factor, but that does not mean the individual will fail unless he/she has errors in the other rating factors in that competency.	24	e
<p>Exelon is concerned with the new 50% overlap requirement. Current simulator examinations are designed to have sufficient complexity to allow a complete evaluation. Excluding 50% of all previously developed events from the last two [NRC] examinations would lead to the inclusion of more events with a lower safety significance, importance, or operational validity being submitted for the examination. Exelon recommends not introducing this new overlap requirement.</p>	5/6/2016	James Barstow	Exelon Corp.	ES-301	50% limit of events from previous two exams	Partially incorporated	Based on both public and internal comment, the NRC re-reviewed the scenario overlap guidance and edited it to instead require that every scenario is either new or significantly modified. The NRC also altered the definition of what is meant by significantly modified to require at least two events that were not used on the previous 2 NRC initial license operating tests. ES-301-4 was updated to reflect this change. The NRC has removed any reference to a specific percentage scenario overlap limitation. Please note that due to the limited nature of reactivity manipulations, they have been explicitly excluded from overlap requirements.	24	f
<p>[In reference to the proposed change to GFE offerings from 4/year to 2/year] While this initiative offers a reduction in cost for the development and implementation of GFE for the [NRC] there are several unintended consequences that may need to be considered, for both the [NRC] and the industry. For example: • A reduction from four to two GFEs per year will unduly challenge stations to start initial license classes that may not be [synchronized] with strategic starting dates based on station needs and priorities. • Since initial license classes would commence twice per year, it stands to reason that they will conclude during two quarters of a given year. This will likely result in a compression of final NRG exam dates, affecting both NRC resources and licensee resources... [Recommendations:] (1) Eliminate the standalone Generic Fundamental Exam (GFE) and include a sample of generic fundamental knowledges as part of the NRC license final written exam, (2) Add generic fundamentals as part of the education requirement for eligibility to enter a license program and sample fundamental knowledge as part of the final [NRC] license exam, (3) Develop an on-demand examination for GFE maintained by either the NRC or the industry. <u>See Public Comment Submission #24, Table 2 of the attachment, for more details.</u></p>	5/6/2016	James Barstow	Exelon Corp.	ES-205	GFE	Partially incorporated	Proposed alternative is outside the scope of this revision. There are options if an applicant is unable to meet the 24 month GFE requirement, as ES-204 describes. The NRC is working with industry to pilot an industry-authored, NRC-approved GFE for June and December exams.	24	g

[in reference to the proposed elimination of the informal review process] Under draft Revision 11 of the NUREG, [NRC] headquarters will no longer be able to intervene and overturn an NRG regional decision of an operating license appeal, in that continued appeals will go straight to the Atomic Safety and Licensing Board (ASLB). Exelon believes this revision adds additional work and time to what was previously an acceptable and efficient process.	5/6/2016	James Barstow	Exelon Corp.	ES-501	Informal Staff Review	Partially incorporated	As part of the Project AIM initiative to streamline agency tasks, one of the screening criteria was to evaluate processes that the NRC was doing that were not required by regulation and it was determined that the informal staff review met that screening criteria. The Commission approved the elimination of the informal staff review process provided that additional actions were taken to strengthen the post exam comment process. In this case, by extending the post exam comment period and requiring inclusion of all applicants' comments with a corresponding facility position, the region will be better able to make a quality determination of post exam comments and any necessary answer key changes without requiring additional headquarters involvement. However, the regions can solicit input from the program office upon request and these requests will be supported on a high priority basis. Headquarters will still maintain program oversight through exam audits, in-office reviews and assessments, training, periodic discussion, and policy interpretation. Based on the number and significance of the other changes to NUREG-1021, the elimination of the informal staff review process has been deferred and will be re-evaluated at a later date.	24	h
[in reference to Section 1.d, Page 3 of 9, beginning on Line 8] Exelon believes the new method of grading Technical Specification (TS) evaluation opportunities will result in unbalance difficulty between exams. Under the current guidelines each event can only have one TS evaluation for a design target of two. With the new requirement some applicants could end up with double or more of others. Exelon recommends keeping the Revision 10 design criteria OR add clarification that a single event that requires two TS action statements to be entered will meet minimum design criteria. While this solution will not completely eliminate the concern, it makes it much more manageable when designing quality exams.	5/6/2016	James Barstow	Exelon Corp.	ES-303	Tech Spec performance deficiency	Noted.	The responsibility resides with both the examination author and the chief examiner to ensure that the difficulty between the scenarios is balanced such that each applicant is appropriately tested to approximately the same level of difficulty. Therefore, the examination author and chief examiner should ensure that no one individual on an examination has only two technical specification (TS) entries, while another has 15. This is true though for more than just TS entries. The chief examiner needs to ensure that these scenarios appropriately test each applicant's competency and thus ensure that the scenario sets balance the difficulty between the various applicant crew members. The NUREG is clear in ES-303 D.1 and D.2 that each error (performance deficiency) must be documented and evaluated accordingly. Therefore, the clarification was added to ensure that it was understood that TS entries are treated equivalently to malfunctions and communications in that an individual can make more than one error and will be evaluated on each error and not singly on the malfunction or communication. This is not a new requirement, but is instead a clarification to ensure consistent grading is applied per the already applicable NUREG requirement. With only a single event, if the applicant does not recognize the applicability of TSs, the applicant would automatically fail that competency (the 6.a would be weighted at a 1.0 with a score of 1 or 0, depending on the number of missed TS entries) and would not have the opportunity to demonstrate capability in the competency as they might with another opportunity. An individual who did not recognize applicability of 2 TS entries in one event, but made 2 TS calls on a second event, would receive a score of 1 in 6.a, but would receive scores of 3 in 6.b and 6.c, resulting in a final competency score of 2.4 (0.3 * 1 + 0.3 * 3 + 0.4 * 3 = 2.4), resulting in a passing score. Therefore, the NRC will not be incorporating this recommendation.	24	i
[in reference to Section E.2] Considering the workload of [NRC] chief examiners, the practice of "The chief examiner shall consolidate the comments from all [NRC] reviewers and submit one set of comments to the author or facility contact." Can cause significant delays in the sites receiving the 401-9 comments. These delays often challenge our procedures and processes. [Recommendation:] Change exam review feedback to allow partial 401-9's to be provided to the sites to allow the exam team to begin processing them sooner.	5/6/2016	James Barstow	Exelon Corp.	ES-401	Administration/ Logistics/ Procedure	Noted.	The regional operator licensing branch chief must review and approve comments on the examination submittal before the chief examiner can provide those comments to the facility per ES-401 E.2.e. Therefore, the chief examiner cannot provide comments to the facility before this review occurs. However, the timeline is being revised to provide additional time to revise the examination based on the comments without unduly delaying administration. Therefore, because the timeline is being extended and the supervisor must review all comments before being provided to the licensee, no additional change is required.	24	j
[in reference to paragraph h, the 2nd bullet, on Page 4 of 31, the use of "in any way"] "in any way" was added to require submission of the original question anytime a refer to typos, editorial changes, and changing the fonts? What is the actual goal of this change because it seems to add unnecessary administrative burden to the process.	5/6/2016	James Barstow	Exelon Corp.	ES-201	Meaning of "in any way"	Noted.	The NRC needs to evaluate changes to bank questions both to determine if the changes meet the definition of significantly modified (whether coded that way or not by the facility) as well as to determine if the changes to the question (including typo correction) result in any psychometric/job content flaws that were not in the original question. This information is used by the NRC in determining initial submittal quality. However, the NRC does not consider a formatting change to require a submittal of the original question. This was added as a footnote for clarity.	24	k
[in reference Page 11 of 13, the proposed statement that emergency event classification is not required] As stated in Appendix D, Section D.2 (Page D-17), emergency event classification is not required by NUREG-1021 to be part of the simulator scenario. The additional sentences added to ES-302, Section D.3.n, seem to suggest otherwise. Exelon is requesting further clarification concerning the wording in ES-302.	5/6/2016	James Barstow	Exelon Corp.	ES-302	Clarification	Incorporated	Wording changed to clarify that event classification is not a required part of the scenario operating test. Event classification MAY occur as part of the Administrative portion of the walkthrough, but is not guaranteed to occur.	24	l
[in reference to the wording on Page 4 of 50] The last bullet states: "Is the KIA more appropriately tested on the written examination rather than the operating test?" Exelon recommends that it might be better stated as: "Is the KIA more appropriately tested on the operating test rather than the written examination?" This section lists reasons to consider rejecting a KIA from the written exam so this change would make more sense and would also make the first sentence agree with the last sentence in that paragraph (i.e., The justification should include one or more reasons why the operating test is a better evaluation tool.).	5/6/2016	James Barstow	Exelon Corp.	ES-401	Editing	Partially incorporated	The next paragraph states that if all answers to the above questions are 'yes', then the K/A is appropriate for testing on the written examination. The NRC agrees that the wording is a bit awkward, but the question is worded that way specifically to obtain a 'yes' answer if the K/A should be tested on the written instead of the operating test. If it was reworded as described by the commenter, then the next paragraph statement would no longer be true. However, the statement was revised to provide clarity.	24	m
[in reference to Page 6 of 50] Under Paragraph e, the last sentence states: "The [NRC] must receive the revised outline along with Form ES-401-4 by the date agreed upon when the examination arrangements were confirmed (normally approximately 90 days before the scheduled exam date)." Form ES-201-1, Item #7 requires the revised written exam outlines to be submitted 120 days before the scheduled exam date. Exelon recommends changing the description in ES-401 to "120 days" to align with Form ES-201-1.	5/6/2016	James Barstow	Exelon Corp.	ES-401	Editing	Noted.	The entire Form 201-1 was revised based on a public comment submittal of a proposed new timeline. Changes to the main body of NUREG-1021 were made to make it consistent with the ES-201-1 changes.	24	n
[in reference to Page 9 of 50] Under Paragraph 4.a it states: "Format the examinations using a one-question-per-page layout by placing one complete question on each page. 11 Exelon is requesting further clarification on how this would apply to questions that contain imbedded references (e.g., flowchart, drawing, etc.) that take up more than a single page.	5/6/2016	James Barstow	Exelon Corp.	ES-401	Clarification	Incorporated	Per change page xxiv, the intent of the revision was to ensure that only one question was listed on a page (no more than one question per page). It is okay for a question to take more than one page if there are embedded references. Statement was revised to clarify that the facility should have one complete question per page, if possible.	24	o
[in reference to Page 48 of 50 in ES-401 and 51 of 53 in ES-401N] Form ES-401-8 Instructions. Exelon recommends that the last sentence should state: "You have 9 hours to complete the combined examination ..." to match the change in Appendix E (page E-1)	5/6/2016	James Barstow	Exelon Corp.	ES-401	Editing	Incorporated	The SRO has 9 hours to complete a combined RO/SRO written examination and therefore the form was revised to reflect this.	24	p
[in reference to Page 5 of 7] Under Paragraph 4.d. Exelon recommends that the first sentence state: "...and 9 hours for the combined RO/SRO exam..." to match the change in Appendix E (page E-1).	5/6/2016	James Barstow	Exelon Corp.	ES-402	Editing	Incorporated	The SRO has 9 hours to complete a combined RO/SRO written examination and therefore the sentence was revised to reflect this.	24	q
[in reference to Page D-10] Under Paragraph g, last sentence: the word "shall" was added to require use of at least one EOP contingency procedure in each scenario set. Exelon recommends that this new requirement should be incorporated into Form ES-301-4, "Target Quantitative Attributes" (per scenario), Item #5.	5/6/2016	James Barstow	Exelon Corp.	ES-301	Editing	Incorporated	The form was revised to clarify the need to have at least one EOP contingency procedure per scenario set.	24	r

[in reference to Paragraph j] [Recommendation:] the last sentence of the Note should state: "The action of initiating the actuation is not a CT."	5/6/2016	James Barstow	Exelon Corp.	App D	Editing	Deleted	The Note in question was deleted due to resolution of other public comment (24.t)	24	s
[in reference to Paragraph j] the note indicates an unintentional RPS or ESF actuation may be a CT if it results in something significant (plant degradation, alters mitigation strategy). The paragraph that follows says if an unintended RPS or ESF actuation occurs (but could have been prevented) then the CT criteria have been met. The note and the paragraph that follows seem to conflict with each other; therefore, Exelon is requesting further clarification.	5/6/2016	James Barstow	Exelon Corp.	App D	Critical Tasks guidance	Incorporated	The note in question was deleted to remove the conflict with the main body of the Appendix. However, be aware that per Appendix E, the exam team must determine the impact of an inaction or incorrect action on the part of an applicant even if corrected by a team member as related to a critical task. The Appendix D note was an attempt to clarify the Appendix E guidance, but since it instead caused additional confusion, the NRC is removing the Appendix D note and instead continuing to evaluate per the criteria in Appendix E.	24	t
[in reference to Paragraph j] the last sentence of the 2nd to last paragraph indicates that each scenario must have at least 2 CTs. Form ES-301-4 requires at least 2 EOP-based CTs. ES-301, Page 15 of 31, Paragraph d also states each scenario must have at least 2 CTs. Exelon requests further clarification and consistency in the description.	5/6/2016	James Barstow	Exelon Corp.	App D	Critical Tasks guidance	Incorporated	Appendix D, ES-301-4 and ES-301 have been updated to indicate that each scenario should include at least 2 pre-identified critical tasks. Reference to EOP-based critical tasks has been removed.	24	u
[in reference to Page D-15] The first paragraph on Page D-15 (which was added on Revision 11) appears to be redundant to the last paragraph of Section D.1.c on Page D-16.	5/6/2016	James Barstow	Exelon Corp.	App D	Editing	Incorporated	The two paragraphs basically restate almost the same information and were combined into one paragraph to reduce redundancy.	24	v
Regarding implementation of Revision 11, will there be a 6-month implementation window as was the case for Revision 107 How will this be applied when considering exam development versus exam administration? (It is important to note that exam development typically starts at least 6-9 months prior to the administration date.) When will the 6-month clock start? For example, will the new simulator scenario grading criteria apply to an exam that begins development 6 months or longer after Revision 11 becomes effective or will the new criteria apply to an exam that is administered 6 months or longer after Revision 11 becomes effective? Exelon would appreciate further clarification regarding implementation of Revision 11.	5/6/2016	James Barstow	Exelon Corp.	General	Administration/ Logistics/ Procedure	Noted.	Per 10 CFR 55.40(a), "The Commission shall use the criteria in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," in effect six months before the examination date to prepare." Therefore, once the NUREG revision is issued, six months from that date is when the new revision must be used. Also, the operator licensing web page at http://www.nrc.gov/reactors/operator-licensing/regs-guides-comm.html , will state when the new revision is applicable to exams. It currently states that revision 10 is effective for all exams after July 2, 2015. The NRC plans to do the same thing for revision 11, to ensure there is no confusion about when the changes take effect.	24	w