

## NUREG 1021 Revision 10 Comments and Resolution

<b>FENOC</b>		
	Page xii ES 102 item E.10 should be E.9 and item E.11 should be item E.10.	Suggested changes have been made to the final NUREG-1021
	Page xix first item Form ES 602-1 Did not delete item 11 referencing double jeopardy rather deleted item 10 “Do questions in Section A take advantage of the simulator control room setting?” Not sure which deletion was intended.	The wrong line was deleted from Form ES 602-1. The original wording was restored and the double jeopardy wording has been removed.
	Page XX1 - In the ABBREVIATIONS section – The K/A project included more abbreviations than were originally in the catalogues or NUREG 1021. Should ensure final lists are close.	The abbreviations section of NUREG-1021 is a listing of abbreviations associated with the contents of NUREG-2012. It is not intended to include abbreviations from other NUREG documents. No change made,
	ES 102 page 6 of 6 - ANSI/ANS 3.5-2009, “Nuclear Power Plant Simulators for Use in Operator Training” – Does this force us to do SBT?	ES 102 states that licensees may continue to use previous versions of ANSI 3.5.  No changes made.
	ES 201, page 6 of 28 - ES 201 C.2.c – Will the changes affect the 2015 exams? (75 & 90 day submittals). What is the timeline for implementation?	The changes in submittal dates may affect the 2015 exams. However all dates are subject to changes based on communications with the associated Chief Examiner. ES 201 C.2.c provides additional guidance.
	ES 201 page 9 item j 4 <sup>th</sup> bullet has an A instead of “ mark	The change has been made.
	ES 201 page 16 item 3 has an A instead of “ mark	The change has been made.
	Docket number 52 also needs to be added to the following pages: <ul style="list-style-type: none"> <li>• ES 202 page 13</li> <li>• Form 303-1</li> <li>• Form 303-2</li> <li>• ES 501 pages 17, 18, 20, 21, 24, 25, 27, &amp; 28</li> <li>• Form 701-6</li> <li>• Form 601-3</li> <li>• Form 601-4</li> <li>• Form 601-5</li> <li>• Form 604-2</li> <li>• Form ES 702-1</li> <li>• Form ES 702-2</li> </ul>	It is not necessary to add Docket prefix 52 to the page and forms. Each applicant will be assigned and individual license number with the Docket prefix 55.  No changes made.
	ES 301 page 2 of 26 – Consider getting rid of Radiation Control, as this is mostly general employee training knowledge.	The Radiation Control section for Administrative JPMs will be retained as there are opportunities to test knowledge beyond General

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		Employee Training knowledge levels. In some cases, the Radiation Control JPM can be replaced with a Conduct of Operations JPM.  No changes made.
	ES 301 page 12 item D.3.i 2 <sup>nd</sup> paragraph - 45 days should be 60 days	ES 301 D 3.i.2 has been modified to align with the ES 201 timeline.
	Form ES 301-2 has three stray “ marks	The marks are not stray marks. The marks refer to the RO / SRO-I / SRO-U note.  No changes made.
	Form ES 301-4 – added total events – Nothing else describes this change. ES 301 should address the desired range for total events.	Total events and total malfunctions removed from Form ES 301-4.
	ES 302 doesn't have any rev. bars	Change bars have been added to ES 302.
	ES 302 page 3 of 12 – Will copies of video recordings be allowed to remain in position of facility?	Copies of the video will remain in the custody of the licensee unless requested by the NRC for review.
	ES 303 doesn't have any rev. bars	Change bars have been added to ES 303.
	ES 401 pages 29 & 30 – RX type was modified on the form but it does not need modified since new forms 401N - 7 and 401N – 8 have been created.	Suggested changes made to Forms 401-7 and 401-8.
	ES 401 page 1 section B first sentence – Shouldn't this be two separate sentences? The content of this section, ES 401, applies to existing (legacy) reactors. Existing (legacy) reactors are those reactors that were licensed as of January 1, 2013.	Second sentence deleted.
	ES 401 page 7 item d should contain the additional guidance provided in the SRO ONLY white paper.	SRO-only guidance added to ES 401 and ES 401N as Attachment 2.
	Form ES 401-2 1 <sup>st</sup> page has some Tier 3 total boxes missing	Verified Tier 3 boxes are on Form ES401-2.
	ES 501 doesn't have any rev. bars	Revision bars are in place.  No changes made.
	Page ES 601, Page 23 of 35 – Step 9 contains verbiage about video recording. If the NRC is not present for most of the weeks of the exam is it still permissible to record the exams provided that the recordings are	Page ES 601, Page 23 of 35 – Step 9 is consistent with added video recording guidance.  No changes made.

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	destroyed at the end of the exam week if no challenges exist?	
	Form ES 604-1 item 4 has a C instead of a full colon :	The change has been made.
	Form ES 604-1 item 12 moved from a qualitative attribute to a quantitative attribute	Agreed.  No changes made.
	Form ES 604-1 quantitative attributes should be aligned with IP 71111.11 Appendix C page C-4 Events/Scenario table.	Form ES 604-1 quantitative attributes has been verified to align with IP 71111.11 Appendix C page C-4, Events/Scenario table.
	Form ES 604-2 pages 17 & 18 has a C instead of a full colon :	The change has been made.
<b>Meyer</b>		
	<p>Include specific methods to change the random selection outcome for the K/As that are more important to the determination of the knowledge level of the examinees. This should include, but not be limited to communications to the lead examiner for concurrence and an alternate selection process that would pick an equal to or higher level K/A. Many exams randomly pick testing areas that are more trivial than important to safety.</p>	<p>The commenter is concerned that the knowledge and ability (K/A) statement random and systematic selection process results in “many exams [that] randomly pick testing areas that are more trivial than important to safety.” The commenter recommends an alternate selection process be permitted unique for each facility licensee based on the concurrence of the NRC chief examiner.</p> <p>Given that the K/A Catalogs and the “random and systematic” K/A selection process provide the basis for the development of content-valid written examinations and ensure compliance with the “uniform conditions” for licensing individuals as operators required in Section 107 of the AEA of 1954, the use of unique sample plan processes specific for each facility licensee would be inappropriate and inconsistent with the “uniform conditions” mandate for licensing examinations.</p> <p>However, as stated in Section D.1.b of ES 401, facility licensees can reject and replace K/As as they prepare the exam outline, pre-screen the entire K/A catalog to eliminate inapplicable K/A statements before beginning the random selection process, or take a combination of</p>

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		<p>these approaches when preparing the examination outline. Proper application of this allowance should and will eliminate any K/As that are “trivial” and not important to safety. Additionally, the industry is providing the NRC with an updated K/A catalog which should address this concern.</p> <p>No changes made.</p>
	<p>Candidate experience waivers are commonplace. The utility request for the waiver should be written from the senior license from the site or company, SVP or higher.</p>	<p>The commenter’s recommendation appears to be adequately addressed by Section C.1. b of ES 204 which requires the facility licensee’s <b>senior management</b> representative on-site to certify the final license application thereby substantiating the basis for the applicants’ waiver(s). That said, either the Site Vice-President or Plant Manager is typically the certifying senior management officials.</p> <p>Given that Part 55 of Title 10, Chapter I, of the Code of Federal Regulations (10 CFR 55) requires only a certification by an “authorized representative of the facility licensee,” to specifically require a Site Vice-President or Corporate Vice-President would be inappropriate.</p> <p>No changes made.</p>
	<p>There should also be a utility critique form of the NRC examiners submitted with every exam. This would include punctuality, ease of communication, and professional conduct as a minimum. This could improve the communications and exam process.</p>	<p>The commenter’s recommendation appears to be adequately addressed by Sections C.1.j and C.2.j of ES 201. The first encourages the facility licensee to communicate any significant concerns with the NRC’s chief examiner but if the concerns are not resolved, Section C.1.j recommends that the facility licensee contact NRC regional management or the chief of the NRR/NRO operator licensing program office for resolution. Furthermore, Section C.2.j requires NRC regional management approximately 7 days before the examination to “query the facility licensee management counterpart regarding the licensee’s</p>

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		views on the examination [including the examination process].”
		No changes made.
	Many times if the exam is broken up over a month period, the examinees can focus on certain sections of the exam. Allow 30 days for an exam to be administered between sections, written and operating.	Section C.2.h of ES 201 permits regional management to delay either part (written examination or operating test) of the examination for up to 30 days to substantively change the written examination or operating test to conform with NUREG-1021 examination standards or to address examination resource or logistical availability issues. However, the NRC does not believe that it is appropriate to delay one part of the NRC examination to allow for additional applicant preparation time <b>after</b> a facility licensee senior management has certified that the applicants have successfully completed the requirements to be licensed as an operator or senior operator.
		No changes made.
	Make the SRO Clarification Guidance part of the NUREG.	Agree.  “Clarification Guidance for SRO-only Questions” has been added to ES 401 and ES 401N as Attachment 2 with the qualification that it is not a regulatory requirement and its use is voluntary.
	Put additional guidance for NRC oversight based on exam performance over a 4 to 6 year period. This will ensure two classes in the operator license period (6 years) are not put on shift without evaluation of generic training weaknesses for that station. Training programs are not getting looked at when they have poor performance. INPO does not do in-depth reviews, and the NRC certainly does not.	The NRC does not agree with the commenter’s premise that “INPO does not do in-depth reviews.” The NRC’s monitoring of INPO’s accreditation activities indicate that facility licensee accredited training programs continue to meet the systems approach to training requirements contained in 10 CFR 50 and 55.  However, the NRC does look for evidence of training problems when reviewing information as directed by the ROP. If the NRC determines that performance-related operational events have training as a cause, the

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		<p>NRC may conduct a training inspection but that inspection will be in accordance with Inspection Procedure 41500, "Training and Qualification Effectiveness," not NUREG-1021.</p> <p>No changes made.</p>
<b>Leary</b>		
	<p>There was one item that came up during the NEI Exam Writer's conference that we wanted to make sure we communicated directly to you about. There was mention during the open discussions about incorporating the guidelines for distinguishing an SRO written exam question directly into the NUREG. If it looks like that is going to happen, maybe in response to someone else's comments, etc., then we'd like to take a closer look at that.</p> <p>There are a couple particular areas where we are concerned:</p> <p>The current guidance states that SRO only questions can be tied to "Facility operating limitations in the TS and their bases" and further defines that as "Knowledge of TS bases that are required to analyze TS required actions and terminology". It then excludes those questions that "can be answered solely based on knowledge of...the safety limits since ROs are typically required to know these items.</p> <p>NUREG 2103, K/A statement 2.2.19, changed "Knowledge of the bases in Technical Specification for limiting conditions for operations and safety limits" to "N/A" for RO candidates. The importance of this is "3.2" in NUREG 1122.</p> <p>In this same section, there are limitations based on Technical Specification "above the line" and below the line knowledge. The example cited in the older style LCO for ECCS</p>	<p>SRO-only guidance has been added as Attachment 2 to ES 401 and ES 401N.</p> <p>The guidance within NUREG-1021 that refers to Attachment 2 will stipulate that use of the new attachment is not required.</p> <p>If you develop a question that may appear to be in conflict with the SRO-only guidance, the question can still be acceptable. Just because the question may not align exactly with the SRO-only guidance is not a reason to conclude that the question is unsatisfactory. You would need to discuss this question with the Chief Examiner.</p>

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	<p>Accumulators (3.5.1) which included a minimum N2 pressure defining accumulator Operability. The “Improved” TS style of the AP1000 plant doesn’t follow this model.</p> <p>The other particular item we would like an opportunity for more discussion on would be the current clarification on “Assessment of Facility conditions and selection of appropriate procedures during normal, abnormal, and emergency situations”. Given that the current AP1000 EOP procedure set is different than the existing fleet in terms of fewer numbers, almost no ECAs, and the addition of SDPs, we would like to review this further. We are also concerned about instances in the industry where transitions based on Fold Out Page criterion we not allowed as SRO only questions because use of these is more significant integral to the overall EOP strategy for AP1000.</p>	
<b>Gauding</b>		
	<p>Form ES 301-4 (a) added new Target Quantitative Attribute, "Total Events". Events is not defined within the NUREG. It also is an artificial number, since the other required attributes, i.e., total malfunctions, malfunctions after EOP entry, etc., will fulfill the requirement to have "events". Additionally, the Total Events required is listed as 8-12, and seems high based on my past experience writing NRC exams.</p> <p>Recommend deleting the "Total Events" from the Quantitative Attributes on Form 301-4.</p>	Total events and total malfunctions removed from Form ES 301-4.
<b>Anonymous / DeVercelly</b>		
	ES 401N, Attachment 1, Item 2.b. 3 of 23 should be 4 of 26. Really just a math error	The change has been made to make ES 401N, Attachment 1 mathematically correct.
	Form ES 602-1 revised to remove Question 11 related to question “double jeopardy.” The remaining questions have been renumbered accordingly.	The wrong line was deleted from Form ES 602-1. The original wording was restored and the double jeopardy wording has been removed.

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	The conflict is that this question remains in Rev 10. What was removed is Question 10. What was the intent?	
	Additionally, in a number of places, intended footnotes did not show as superscripts in the text and or the text referenced a footnote that was not present.	Footnotes and superscripts have been verified.
	Form ES 401N-2, Tier 1 / Group 1 should be Tier 1/ Group 2.	Group number corrected.
<b>Arbour</b>		
	The changes for the use of video in ES 302 D.1.i were revised to encourage video recording of operating tests and to provide video recording handling instructions. This change is not annotated with revision bars in the body of the procedure	Revisions bars have been verified.
	Form ES 301-4 (a) added new Target Quantitative Attribute, "Total Events". Events are not defined within the NUREG Form ES 602-1 revised to remove Question 11 related to question "double jeopardy." The question concerning double jeopardy HAS NOT been removed from the copy provided for review.	The wrong line was deleted from Form ES 602-1. The original wording was restored and the double jeopardy wording has been removed.
	The minimum Qualitative Attributes for scenario guides outlined on form ES 604-1, does not match the scenario guide minimums found in IP 71111.11 Appendix C	Form ES 604-1 quantitative attributes has been verified to align with IP 71111.11 Appendix C page C-4, Events/Scenario table.
	Form ES 301-4 section 3 has a formatting issue within the second bullet.	Changes made.
	ES 401 page 9 section 4 has a formatting issue	Changes made.
	Multiple changes have been made to form ES 201-1 and the changes are not identified with revision bars. Included in the changes were the removal of [ ] and the { } which identified due dates applicable to facility developed exams and NRC developed exams. The use of brackets is still referenced at the bottom of the form	Revisions bars have been verified.
<b>Examiners Conference</b>		



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	Put the information from ES 600 series related to Critical Tasks into the ES 300 series so that it gets into Rev. 10.	This information has been added to ES 303.
	Remove the extra example added to ES 401 which talks about K/As that may be better tested on the operating test. I agree that it is not needed since there is already an allowance to replace a K/A if proper justification is submitted and the K/A catalog update is providing indicators for K/As that may be better tested on the operating exam.	It was agreed to leave the added example in ES 401, contrary to a suggestion to remove it by one examiner at the conference. This could still be a valid reason to replace a K/A, even with the update from the K/A catalog working group, and it still requires the Chief Examiner to approve or disapprove the K/A replacement.  No changes made.
	We may want to think about just putting in a hard time limit for the written examinations. I would support deleting the allowance for any time extensions. No one seems to like the unlimited use of time extensions.	It was agreed that a hard time limit would be a consideration for a future revision but at this time we will proceed with the change to align ES 202 with Appendix E to clarify that time extensions should be granted when the licensee asks or acknowledge that they are extending the test completion time.  No changes made.
	We need to decide on whether or not we want videotaping. I still think it is a good idea and propose that we leave it as "encouraging" the licensee to videotape so we can kind of pilot it until we do the Supplement to Rev.10	Guidance was added to encourage the use of videotaping and recording with specific guidance on handling the recordings for both the licensee and NRC.
<b>Otten</b>		
	ES 601 thru ES 604 are written for when the NRC writes a requalification exam. It would be more helpful if these were written similar to ES 301 and ES 401. This would allow for both the utility and the NRC to prepare requalification examinations to the same standard as well as improve the quality of facility developed exam across all regions.	ES 601 thru ES 604 are written to allow either the NRC or the facility to develop the requalification examination.  No changes made.
	ES 602 Attachment 1 would be a better fit as part of Appendix B. These	No changes made at this time. The examples in ES 602 can be

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	examples of open reference questions would be better suited as part of Appendix B to improve consistency of utility developed exams.	referenced at any time, however, this will be considered in the next revision to NUREG 1021.
	Form ES 604-1 Quantitative Attributes do not match the numbers in the IP 71111.11 inspection manual. Specifically, ES 604-1 gives ranges for each scenario and the scenario set for malfunctions, abnormal events and other items and Appendix C of the IP 71111.11 gives minimums for each scenario of these items. A utility could meet the items in ES 601-1 and not meet the requirements in IP 71111.11 App C.	ES 601 thru ES 604 were reviewed and modified to agree with IP 71111.11, "Licensed Operator Requalification Program and Licensed Operator Performance."
	Appendix C "Job Performance Measure Guidelines" could be improved if it contained examples similar to Appendix B "Written Examination Guidelines". Examples of good and flawed JPMs and examples of Alternate Path JPMs would improve the quality of JPM developed by utilities.	Will be considered for the next revision of NUREG-1021.
<b>Zozula</b>		
	<p>ES 302 D. Regulatory Guides. The entry on Regulatory Guide 1.33 states as follows:</p> <p><b>"3. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)" Revision 2, February 1978</b></p> <p>Appendix A to this RG contains a list of typical procedures for pressurized-water reactors and boiling-water reactors."</p> <p>Suggest this entry be revised to include the underlined addition as follows:</p> <p><b>"3. Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operation)" Revision 2, February 1978</b></p> <p>Appendix A to this RG contains a list of typical procedures for pressurized-water reactors and boiling-water reactors, but</p>	ES 102 D.3 revised to list the current revision of RG 1.33 and remove reference to Appendix A.

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	<p>does not capture the same list for Advanced Passive Reactors."</p> <p>A list of applicable Emergency Operating Procedures (EOPs) and Abnormal Operating Procedures (AOPs) applicable to operator skills, knowledge and abilities in Advanced Passive Reactors is delineated in NUREG-2103.</p>	
	<p>ES 302 D.I.i For exam purposes, these videos should stay in the possession of the utility until the completion of the examination process and that the utility will destroy the video at the end of the appeal should be considered to be appropriately added to the definition in Appendix F of the Draft NUREG.</p>	Agreed, changes made
	<p>Editorial Comment: Occurrences of repetitive typographical error as shown on page 9 of 28 of ES 201 and page 16 of 28 of ES 201 where the letter "A" occurs instead of a left-hand quote (") needs to be corrected. Additional occurrences of this typo should be searched for and corrected.</p>	Agreed, changes made
<b>Region II</b>		
ES 204 D.1	<p>The title of the waivers that can be approved should not be called "Routine Waivers". There is nothing routine about them. This was a topic of explanation in front of the Admin Law Judges at the recent Vogtle hearing.</p> <p>Change "Routine Waiver" to "Regionally Approved Waivers" throughout the NUREG.</p>	"Routine waivers" changed to "Waivers approved by the Regions."
ES 204 D.1.k	<p>New Paragraph (4) is not clearly written. During this review, we have had several Region II examiners try to interpret the paragraph and everyone has struggled. We have no idea what it means or is intended to mean.</p> <p>Either re-word the requirement or delete it. If the requirement is re-worded, please get numerous reviewers to provide input on the clarity of the statement.</p>	Added waiver criteria for applicants that passed the GFE more than 24 months before the date of the license application.

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<p>ES 301 B.1</p>	<p>The Emergency Procedures/Emergency Plan administrative topic issue remains. With the current proposed wording, an exam writer would read page 3 and believe that it is OK to write an A4 Admin JPM which tests EOP knowledge.</p> <p>The 3<sup>rd</sup> bullet (page 3 of 26) is still (remains) misleading. You cannot write an A4 Admin JPM on “emergency and abnormal” procedures unless it is specifically linked to the “emergency plan.” Contrast this bullet on page 3 with ES 301, Section D.3.a (page 10 of 26) which states, “For the ‘Emergency Procedures / Emergency Plan’ topic, only those KAs related to the emergency plan and implementing procedures [not those associated with the emergency operating procedures (EOPs)] are applicable to this category of the operating test.</p> <p>Mistakes in this area do happen and the requirements could easily be stated so that the requirement is fully understood by reading page 3. When I have seen errors made in this area, exam writers have read page 3 and then believed that they could write an EOP-related A4 Admin JPM. The exam writers do not continue to look for the answer after they have found (what they thought was) the answer to their question on page 3. If they continue to read until page 10 (page 11 in Rev 9) then they realize that the 3<sup>rd</sup> bullet on page 3 is misleading and contradictory to page 10 (page 11 in Rev 9).</p> <p>Delete the 3<sup>rd</sup> bullet on page 3 and use only the title “Emergency Plan” everywhere</p>	<p>Throughout: All references to “Emergency Procedures/Plan” have been changed to “Emergency Plan.”</p> <p>B.1, 5th paragraph, bullet 3, deleted “operating” from emergency operating procedures.</p>
<p>ES 301 D.3.d</p>	<p>“This topic is best covered in conjunction with the JPMs prepared for the in-plant systems walk-through. It is most appropriate to evaluate these subjects during the required entry into the radiologically controlled area (RCA).”</p>	<p>D.3.d, “Emergency Plan,” added test item variation guidance.</p>

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	<p>Most examiners do not agree with the above statement and this method is rarely used to test the A3 Admin JPMs.</p> <p>Suggest deleting this sentence because it conflicts with most examiners' opinion of how to best test this topic. At the very least, change the wording of the sentence to state that this is an acceptable method of testing this category of the administrative JPMs, but do not state that this is the "best" way to test.</p>	
all	<p>Do not refer to JPMs as the "walk-through" portion of the operating exam. Walk-throughs are no longer done. This is legacy terminology that no longer represents the administration of the JPMs. The JPMs should be consistently referred to as JPMs, not the walk-through. "Walk-through" only makes sense to examiners and trainers with the history to know that JPMs were the choice to replace what was historically the "walk-through" portion of the operating test. Using prior revisions of the NUREG, examiners would perform a walk-through evaluation consisting of questions asked to the applicant and answers evaluated by the examiner. In more recent revisions of the NUREG, applicants are provided discrete tasks and they are then evaluated on their performance of that task.</p> <p>Modify wording in all sections of the NUREG to refer to the JPMs as JPMs because walk-throughs are no longer performed.</p>	No changes made. Consensus was to leave the wording for JPMs as the "Walk-through" portion of the exam.
ES 301 D.1.a	<p>"Operating tests may not duplicate test items (simulator scenarios or JPMs) from the applicants' audit test (or tests if the applicant is retaking the examination) given at or near the end of the license training class."</p> <p>Does the concern pertain to having test items on the NRC exam that have been administered to the applicants at the</p>	No changes made. The intent was not to duplicate material that was on the audit exam only, not the practice tests that may be given between the audit exam and the NRC exam.

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	<p>end of the program? If a test item was administered to the applicant at the end of the program, regardless of whether it was on their audit exam, it would have the same impact on the NRC exam. It appears that the requirement, as stated, does not meet the intent of the requirement.</p> <p>If the intent is misunderstood, please provide an explanation of the intent, including an explanation of how an audit test item impacts an applicant's performance differently than a recently administered non-audit test item.</p> <p>Suggest wording the requirement to prevent duplication of test items from the audit exam, including any other program exam administered <u>after</u> the audit exam. This would appear to better marry the wording of the requirement with the intent of the requirement when looking at the impact recently administered test items could have on the NRC exam.</p> <p>For example,</p> <p>Operating tests shall not duplicate test items (scenarios or JPMs) from the applicants' audit test or practice quizzes/scenarios/JPMs administered after the audit test (or tests if the applicant is retaking the examination.).</p>	
ES 301 D.3.d	<p>"As discussed in Section D.1, ensure that the test does not become predictable by always performing a different variation of the same activity (e.g., repetitive emergency classifications with different events)."</p> <p>The above wording is confusing. Two different examiners can interpret this requirement in completely different ways. One could claim that "repetitive emergency classifications with different events" is acceptable because it is performing a different variation of the same activity. Someone else could claim that "repetitive emergency</p>	D.3.d, "Emergency Plan," added test item variation guidance.

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	<p>classifications with different events” is unacceptable because it is predictable in that the same activity is being performed.</p> <p>In practice, examiners routinely administer some version of an emergency classification to SRO applicants. Some variation of a classification is given on almost every exam.</p> <p>Regardless on your intent of the requirement, clarification is needed so that one and only one interpretation can be made.</p> <p>Suggest changing the wording to convey the point that “IF the same activity routinely appears on exams, THEN caution should be used to ensure that the details of the task are not predictable.”</p>	
ES 301 D.3.d	<p>“This topic is best evaluated by linking a JPM to a simulator transient that requires implementation of the emergency plan. Such a JPM can be conducted immediately following a simulator scenario or during the walk-through examination.”</p> <p>Very few examiners believe this is the “best” way to evaluate a classification JPM. Another issue is that on the first day of the simulator exam the SRO applicants may be surprised with the question after the scenario. The SROs on day two are then aware of the classification after their scenario. This can open the question of fairness and whether each SRO applicant was treated the same. Arguments can also be made that doing the classification JPM in this manner raises questions of exam security. All the SROs after the first day will know they are going to get a classification JPM.</p> <p>Suggest deleting the entire paragraph (preferably).</p>	D.3.d, “Emergency Plan,” added test item variation guidance.

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	Or (alternatively) suggest wording the sentence to state that one way to evaluate an event classification is to perform it in conjunction with a simulator scenario – but I would refrain from stating that it is the “best” way to do it.	
ES 301, Form ES 301-2	<p>Is there a reason why the NUREG does not require the RO to be administered an ESF JPM? This revision of the NUREG makes the welcome change to extend the requirement from only SRO-U applicants to ALL SRO applicants, but why not make the requirement for all operators? In practice exams will usually have the RO applicants take the ESF JPM anyway, but this may not happen if the class does not contain any SROs. From a consistency standpoint, there does not appear to be a good reason to not make this a requirement for the RO applicants as well.</p> <p>Suggest making the ESF JPM requirement the same for all license levels – including RO applicants.</p>	Form ES-301-2 added the requirement for an ESF JPM for all applicants.
ES 301 D.5.d	<p>Rev 10 contains the words “To order to maximize....”, Rev 9 contains the words “In order to maximize....”. It appears that Rev 10 was inadvertently changed because the change does not carry a change bar out to the side.</p> <p>Suggest correcting what is likely a typo.</p>	D.5.d, 2nd paragraph, revised to add reference to Attachment 2, to indicate that provided the failures can be properly evaluated, instrument or component failures after the major transient are acceptable.
ES 301 D.5.d	<p>The term “verifiable action” is used in the second paragraph (and throughout the NUREG) even though it is not included in the Glossary.</p> <p>Incorporate the new definition of “verifiable action” in the Appendix F Glossary.</p>	ES 301 F revised to include Attachment 2, “Verifiable Action Guidelines.
ES 301, Form ES 301-4	<p>Item 4 appears to be skipped in the checklist. Should item 5 be item 4 and so-on?</p> <p>Suggest correcting the numbering and ensuring that if the body of the NUREG</p>	Form ES-301-4: (a) added “or condition” to line 2 of Qualitative Attribute 3, (b) deleted Qualitative Attribute 4, (c) added new Qualitative Attribute 12, (d) renumbered Qualitative Attribute, (e) removed



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	refers to these items by number, that the text is corrected also.	“Total malfunctions” from Target Quantitative Attributes,(f) renumbered Target Quantitative Attributes, and (g) added Note to describe the asterisk (*) and pound (#) characters
ES 301, Form ES 301-5	<p>The (new) Item #4 at the bottom of the form has a typo (the word “the” is not necessary).</p> <p>Revise to say: For licensees that use the ATC operator primarily for monitoring plant parameters, the chief examiner may place the SRO-I applicants in either the ATC or BOP position to best evaluate the SRO-I in manipulating plant controls.</p>	Form ES-301-5 added Instruction 4 to allow placement of SRO-I applicants in either RO position to provide best evaluation manipulation of plant controls.
ES 302 C.2.a	<p>The 30 day window of divergence should be replaced with a one year window to be consistent with the waiver process.</p> <p>“Normally, the operating tests should be administered within 30 days before or after the written examinations. The regional office shall obtain concurrence from the NRR/NRO operator licensing program office if the examination dates diverge by more than 30 days.” On the other hand, an applicant’s passing performance on portions of the exam is good for an entire year (in the waiver process). This is an inconsistency that is difficult to defend. Specifically, if an applicant fails one portion of the exam (e.g., the dynamic simulator), but passes all other portions of the Operating Test and Written Exam with solid scores, then that applicant’s passing performance on those JPMs and Written Exam may be used for up to one year as a basis for a waiver in the licensing decision process. With the above quoted requirement, the NUREG presents an inconsistency that is not logical. After the applicant fails a portion of the exam, we are saying that their passed portions are now good for a year, not 30 days.</p>	No changes made. This is a good practice. Most examinations will be completed within 30 days. If more than 30 days is necessary, the licensee can ask for an extension.

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	<p>It is either important for the exam to be given within a 30 day window, or within a one year window. After the applicant has displayed weakness by failing a portion, we allow them to waive the passed portions for one year; yet prior to displaying weakness on any part of the exam, we require them to take the entire exam within 30 days. How can the impact on the quality of the licensing decision be explained when comparing these two situations? If taking the entire exam within a 30 day window is meaningful, then even re-take exams should require the entire exam be taken within 30 days.</p> <p>Suggest making one and only one requirement. Either make the requirement that all portions be taken within 30 days (thereby eliminating waivers) or make the requirement that all portions be taken within one year.</p>	
ES 302 D.1.d	<p>“For purposes of test integration and continuity, the chief examiner should generally schedule the same examiner to administer both the walk-through and simulator portions of the operating test to an applicant.”</p> <p>The above direction is rarely done. Region II station-keeps almost 100% of the time. The efficiency gains when using station-keeping are too significant to ignore.</p> <p>I think the above requirement is a carry-over from the old days when walk-throughs were actually performed. Now, examiners simply compare applicant performance on JPMs to the standard for acceptable performance on predefined critical steps.</p> <p>Suggest re-writing the entire paragraph to simplify and more closely represent what is actually done.</p> <p>“An acceptable method for administration of JPMs is to employ the station-keeping method, which stations</p>	D.1.d revised to clarify assignment of evaluators during administration of the licensing examination.

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	<p>an examiner at a location and that examiner then administers the same JPM to multiple applicants. This method may prove to be more efficient depending on class size and location of the JPMs. However, each applicant shall only have a single examiner assigned as their primary examiner-of-record for the dynamic simulator portion of the operating test.”</p>	
ES 302 D.1.g	<p>“The examiner should normally administer the systems walk-through and the simulator operating test first and attempt to concurrently evaluate as many of the planned administrative subjects as possible. The examiner should then evaluate the remaining administrative subjects in accordance with the approved outline.”</p> <p>The above guidance is poorly constructed and does not accurately describe the exam scheduling exercise. It is true that simulator scenarios are usually done first, but not always. All portions of the operating test are scheduled in such a way to maximize efficiency.</p> <p>Suggest the following:</p> <p>“The chief examiner constructs an efficient schedule with the goal of keeping all the examiners fully employed as often as possible. The schedule should also consider that simulator time (especially sites with only one simulator) is usually critical path. Therefore designing the schedule to keep the simulator running is usually a good practice. The schedule should also account for the availability of the examiners, which may differ depending on the travel needs of the examiner, etc. Any licensee conflicts also need to be taken into account (I.E. simulator availability, activities in the plant, availability of facility escorts, etc.).</p>	D.1.g revised to clarify scheduling of evaluators during administration of the licensing examination
ES 302 D.2.c	<p>“To facilitate photocopying, the applicant’s drawings should be restricted to one side of separate sheets</p>	No changes made. Paper size is a suggestion not a requirement.

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	<p>of 8.5-inch by 11-inch paper.”</p> <p>Does this really matter?</p> <p>Suggest deleting this.</p>	
ES 302 D.3.c	<p>“These revisions should be neatly written in ink so that the forms can be used in the final write-up of the simulator test, as discussed in ES 303.”</p> <p>This must be a carry-over item from years gone by before word processors. In the modern day of computers, if changes are noted during validation, the computer files (usually MS Word) are modified and the changes are submitted with the facility licensee’s Final Submittal.</p> <p>Suggest revising to state: “These revisions should be made and included with the licensee’s final submittal.”</p>	D.3.c revised to provide actions if the expected operator actions change as a result of the scenario validation runs and reviews and how to change Forms ES-D-1 and ES-D-2.
ES 302 D.3.f	<p>“The examiners should identify important plant parameters to be monitored during each simulator scenario.”</p> <p>Examiners should be reminded to note parameters to be retained during prep week. If the facility licensee has a standard data file that they use to record parameters, then the examiners should review that file during prep week and add to it parameters that would be beneficial to record.</p> <p>Suggest modifying the wording of this paragraph to capture the comment. Consider the following:</p> <p>“During the examiner’s on-site preparation, identify important plant parameters to be monitored during each simulator scenario. If the facility has a standard data file used to record simulator parameters, then the examiners should review this file as part of their on-site preparation and suggest recording additional parameters as needed. The chief examiner should then .....</p>	D.3.f revised to provide additional guidance during the pre-exam on-site preparation visit.

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ES 303 D.1.d	<p>“Conference call” is mentioned in the last sentence. A more generic term would be more appropriate. Why does the NUREG try to dictate the communication method being used? For example, why would a conference call be held if all the examiners were from the same office?</p> <p>Suggest changing “conference call” to “meeting”. This more generic term could mean a conference call, if appropriate, but it is also more inclusive of options like meeting face-to-face.</p>	D.1.d, second paragraph, changed conference call to meeting.
ES 303 D.2.b, D.3.d	<p>The documentation required to add-a-point-back is vague. The 4<sup>th</sup> bullet implies that the ES 303 write-up must explicitly list what correct activity warranted adding a point back (vs. simply saying that a point was added back because the applicant correctly performed “another” activity).</p> <p>Assuming the program office is going to make the policy determination that two errors within a rating factor NORMALLY would result in a score of “2” for that rating factor, please re-word the 4<sup>th</sup> bullet as:</p> <p>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 related to the same rating factor. In this case, circle an “RF Score” of “2” and list the scenario and event that the applicant correctly performed for the <u>same</u> competency rating factor.</p> <p>[This re-word should also be reflected in Section D.3.d, page 8 of 19.</p> <p>For example, an examiner may conclude that an applicant’s performance is acceptable despite exhibiting deficiencies that would normally result in an unsatisfactory grade (e.g., <u>committing three errors related to the same rating factor...</u>)</p>	<p>D.2.b, fourth bullet revised to provide additional guidance if an applicant makes two errors related to a rating factor.</p> <p>D.2.b, added fifth bullet to provide guidance if an applicant makes three errors related to a rating factor.</p> <p>D.2 is referenced in D.3.d.</p>

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<p>ES 303 D.2.b</p>	<p>See separate comment which discusses proposed wording on how to state the requirement for assigning a rating factor (RF) score when two errors are assigned to an RF. The purpose of this comment is to explain the impact of the policy decision to make the normal score a “2” when two errors are made within in same RF.</p> <p>For the vast majority of the RFs three or more opportunities to display competence within that RF are provided during the first two scenarios. Therefore, when an applicant is exposed to a third scenario, for the majority of the RFs, the additional opportunities can only lower the applicant’s score. For a slim minority of the RFs, being exposed to that third scenario may actually help justify a score of “2” for those RFs.</p> <p>In the past, applicants have asked during the Appendix E brief whether that third scenario would simply provide more opportunity for them to make mistakes, effectively making it a penalty. Correspondingly in the past, an accurate answer to their question was that the third scenario may provide an opportunity to raise their score because actions performed correctly could be credited to justify a higher score (“2” instead of a “1”) for that RF, which was an accurate statement because two errors did not automatically result in an RF score of “2”. Historically, with the Rev 9 wording in the NUREG, two errors would only result in a “2” if they did enough correctly to allow the examiner to <u>justify</u> an RF score of “2”, rather than a “1”. Now with the Program Offices’ interpretation being clarified in the NUREG, the honest answer would be to inform them that for the majority of the RFs, that third scenario will in fact be a penalty and cannot act to raise their score, but If additional errors are made, it may be used to further lower their</p>	<p>No changes made. Evaluating for future revision.</p>
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	<p>score.</p> <p>This presents a fairness issue when comparing the situation where one applicant is exposed to two scenarios and another applicant is exposed to those same two scenarios, plus one additional scenario. Because of the reality of the scoring mechanics, it alters the probability for passing the exam and presents an inequity between the two applicants used in this example.</p> <p>Suggest Program Office evaluate the impact of the third scenario on applicant scoring prior to clarifying NUREG.</p>	
<p>ES 401, ES 401</p> <p>C.1.f</p> <p>Form ES 401-6</p> <p>Form ES 401N-6</p>	<p>If the concern is that questions given late in the program can have an impact on the NRC exam and thus an impact on the licensing decision, then repeat questions should be restricted in a consistent manner regardless of whether the audit exam (and other exams given late in the program) was independently developed. For consistency and ease of interpretation, the requirement would better meet the intent if it simply restricted repeat questions from the audit exam and any program exam administered after the audit.</p> <p>Repeating questions late in the program have the same impact on the licensing decision whether the audit exam was developed independently or not.</p> <p>Delete various options that do not directly meet the intent of repeating questions on the NRC exam that were administered late in the program. Delete the various options like allowing the audit exam to be independently developed, etc. This will allow item 5 on the checklist (Form 401(N)-6) to be simplified.</p> <p>Suggest wording the requirement as:          "The NRC exam shall not contain repeat test items from the audit exam or any program exam administered after</p>	<p>No changes made. Consensus was to leave as written.</p>

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	the audit exam.”	
ES 401N E.2 and E.3	<p>(This comment also applies to ES 401)</p> <p>Based on Section E.3.b, the intent is for the Chief Examiner to perform a FULL 100 question detailed review. (See Item E.3.b) This whole section concerning a 30 question sample has misled examiners to think they only have to review 30 questions. Please clear this up.</p> <p>Revise entire Section E.2 and E.3 to say that the region may elect to return the entire exam to the licensee for rework if 6 or more of the first 30 questions reviewed are unacceptable. This is the intent.</p>	<p>E.2.b revised to provide guidance for review of NRC prepared written examinations.</p> <p>E.3.b revised to provide NRC supervisory review guidance following the written examination sampling review.</p>
ES 403 D.2.b	<p>“On each applicant’s original answer sheet, indicate in red pen or pencil which questions were answered incorrectly, note their correct answers, and indicate which questions (if any) were deleted.”</p> <p>What is the significance of red pen or pencil? Does the requirement mean “red pen” OR “red pencil” or does the requirement mean “red pen” or “any color pencil”?</p> <p>It is quite possible that this requirement had meaning at some point in the past, but has lost its meaning over time.</p> <p>Suggest deleting this requirement.</p>	.2.b, removed color and type of writing instrument to indicate incorrect answers.
App D, D.1.a	<p>More clarification is needed to ensure consistent application of critical tasks (CTs) with relationship to causing an unintentional reactor trip. Is an unintentional reactor trip ALWAYS safety significant? More clarification is needed to explain to examiners when and under what circumstances an unintentional reactor trip is to be considered a CT. Is an unintentional RPS trip at low power ALWAYS safety significant? Is an inadvertent manual actuation of the RPS safety significant? Is placing the wrong channel in trip</p>	<p>No changes made. The current wording is acceptable. More guidance may be added as a result of the Lessons Learned Task Force recommendations.</p>



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	<p>resulting in a reactor trip from full power safety significant even when none of the actual plant parameters exceeded an RPS trip setpoint?</p> <p>Suggest adding guidance to address the concern</p>	
App F	<p>Throughout the NUREG, the term “verifiable action” is undefined.</p> <p>Include the term “Verifiable Action”, including the definition developed by Tim Kolb in the Appendix F Glossary.</p>	<p>ES 301 F revised to include Attachment 2, “Verifiable Action Guidelines.</p> <p>Verifiable action not added to Appendix F.</p>
App E Part E.4	<p>“Members of the operating team or crew (whether applicants or surrogates) should perform peer checks in accordance with the facility licensee’s procedures and practices; non-crew members and NRC examiners will not perform this function. However, if you begin to make an error that is corrected by a peer checker, you will be held accountable for the consequences of the potential error without regard to mitigation by the crew.”</p> <p>During the Vogtle appeal/hearing, the applicant contended that the SRO was not performing a peer check when he corrected her on her PORV misoperation. The applicant used the plant specific definition to justify her position. She was incorrect that a peer check, as defined in plant procedures, was not being performed when the SRO told her to SHUT THAT VALVE. It is our belief that when the NUREG states that an applicant will be held responsible for mistakes when corrected by a peer check, the NUREG really intends to state that any time the applicant’s incorrect actions are corrected by someone else, they will be held accountable for the consequences of the errors.</p> <p>Re-word the requirement in the NUREG App E to steer away from the word “peer Check.” More generically, the words in the NUREG should simply state that any time the applicant’s</p>	<p>E.4, changed “peer checker” to “someone else.”</p>

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	incorrect action(s) are corrected by someone else, they will be held accountable for the consequences, or potential consequences, of the error(s).	
ES 201 C.1.b.	There is a typographical error in that the font changes when going from 10 CFR Part 50 to 10 CFR Part 52.	Font error corrected.
ES 201 C.1.j.	Last sentence in paragraph j. refers to NRO program office, and is a change from the previous revision; however, the change identification bar in the margin was omitted.	Change bars have been added to ES 201 C.i.j.
ES 201 C.2.c. last bullet	Expand the last bullet in this list of required topics for the now-“150 day” call to specifically include detailed discussions with the facility licensee regarding their intentions for re-take applicants and their intentions regarding potential waiver requests. During the recent ASLB hearing, R-II was accused of acting outside of procedural/process by discussing an applicant’s waiver status and the facility licensee’s plans before the 30-day submission of preliminary unsigned applications. We need to more clearly spell out the process of how the regional offices interact with the facility licensees regarding the facilities plans regarding waiver requests, especially waiver requests involving “routine” operating test waivers. Ensure that the facilities understand that operating test waivers are not automatic/rubber stamped, and may be denied.	C.2.c bulleted item 11 revised to include discussion of when to submit licensing examination waiver requests.
ES 201 C.2.h	Minor typographical error in that a space is missing between “ES 401” and the word “or,” please correct.	Added “or”
ES 201 C.2.j.	4 <sup>th</sup> bullet has a typographical error. Another issue: can we just delete this bullet? We don’t have a definition for “NRC-validated” question, and it is not rational to allow erroneous exam items on multiple tests just because the first NRC reviewer or author made a mistake that was not previously determined / caught. Recommend simply deleting the fourth bullet because it does not add value as discussed above.	Removed 4 <sup>th</sup> bullet.

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	Recommend deleting the 4 <sup>th</sup> bullet as no longer providing any value, also due to indeterminate nature of what an “NRC validated” question is.	
ES 201 C.2.e	Third paragraph under section C.2.e. states “Regional management should try to assign a sufficient number of examiners so that no examiner will have to administer more than four operating tests per week.” What does this statement mean in current usage, where every examiner is an examiner-of-record for one individual during simulator scenarios and then performs “station keeping” for efficiency reasons to administer the JPMs. Can this statement be clarified to make some kind of sense, e.g. “...so that no examiner will be assigned as examiner-of-record to more than four applicants per week...”? Otherwise, what is the meaning of this statement? It is confusing. What does “administer more than four operating tests per week” mean?	C.2.e revised to change when an NRC regional office will assign the required number of examiners to develop, prepare for, and administer the examination from 4 months to 5 months before the scheduled examination.
ES 201 D.1.a.	<p>During the recent ASLB hearing, Region II personnel were accused of violating this conflict-of-interest section by assigning examiners who were a part of an applicant’s initial operating examination to the same applicant’s re-take operating examination, although none of these examiners served as the applicant’s specific examiner of record. This case needs to be explicitly covered here—is it a conflict of interest to do this, or not? The IOLB program office needs to make a ruling in order to clarify the confusion regarding this requirement under these conditions. Is it a conflict or interest, or not? Recommendation provided:</p> <p>Recommend adding an additional sentence here that states: “The regional office shall not assign the examiner of record whose applicant was denied an operating test waiver to administer any part of that applicant’s retake operating test. Under these circumstances, other</p>	D.1.a revised to clarify which examiner and added an applicant that was denied an operating test waiver.

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	examiners (besides the examiner of record) who participated in the applicant's initial exam may be assigned to the applicant's retake operating test."	
ES 201 D.2.b.	Need to correct minor typographical error on "...Form ES 201-3, "Examination..."	Typographical error corrected.
ES 201 Form 201-1	<p>Need to add back the full brackets ( [ ] ) around the number 5 task description and the curved brackets ( { } ) around the number 7 task description, like in rev 9 supp 1, see note on the bottom of the form page: number 5 task applies only to examinations prepared by the NRC, number 7 task does not apply to examinations prepared by the NRC. Also add full brackets ( [ ] ) to target date for number 5 task, and add curved brackets ( { } ) to target dates for number 6, 7, and 8 tasks.</p> <p>Correct inadvertent deletions (?) to make the form resemble the rev 9 supp 1 version.</p>	Curved / full brackets added to Form ES 201-1
ES 201 Form ES 201-1	<p>Task description number 6 omits some of the required forms that are referenced in the ES 201 section text (C.1.e and f; C.3.d) and may cause confusion with the facility licensee as to what they need to submit. Recommend adding the missing QA forms to this task description to ensure consistency.</p> <p>Add Form 301-3 and Form 301-4 to the list of required forms in task description 6.</p>	Form 301-3 and Form 301-4 are not necessary for submission of the examination outline.
ES 201 Form ES 201-1	<p>Task description number 8 needs to include all required QA forms with the draft submittal, because many times the forms have changed from the previous outline submittals. Recommend adding the missing QA forms to this task description to ensure consistency.</p> <p>Add Forms 201-2, 301-1, and 301-2 to the list of required forms in task description 8.</p>	Forms 201-2, 301-1, and 301-2 added to description 8.
ES 201 Form ES 201-2	Font for task description 1.a is smaller than the rest of the form—minor	Font changed.

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	<p>typographical correction needed / recommended.</p> <p>Change font to match the rest of the form.</p>	
ES 201 Form ES 201-2	<p>We need to remove any reference to “IPE” in task description 4.a. The IPEs for every plant are now very out-of-date and may contain wrong information that has not been updated. It is sufficient to simply state “including PRA insights” for this item.</p> <p>Delete the phrase “...and IPE insights” from item 4.a. so that it reads “(including PRA insights)”.</p>	No change made as some plants may use the IPE.
App. D, C.2.h.	<p>Simulator Scenario Run Time—it is unrealistic in the current environment of emphasis on human performance error prevention techniques and verified communications to expect that scenarios can be designed to run “approximately 60 to 90 minutes.” 90 minutes should be the minimum expected time. Recommend modifying this section accordingly.</p> <p>Change this section’s first sentences to read as follows: “A scenario should be designed to run approximately 90 to 120 minutes.... The nominal run time of 90 minutes may not provide ....”</p>	No change made. Current wording was determined to be acceptable.
ES 302 D.1.i.	<p>Legal Issues with videotaping applicants—has this new change been approved by OGC/legal counsel? Do the applicants have to give consent to be recorded by the government; if so, does NRC Form 398 need to be modified? What actions are required if an applicant refuses to be recorded? This guidance also needs to include a requirement that the facility licensee destroys any copies of the operating test video that are not given to the chief examiner.</p> <p>Ensure legal issues and potential ramifications associated with videotaping are fully vetted with legal counsel</p>	Video recording guidelines reviewed by OGC.

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App. E Section E	Appendix E section E needs to be updated so that the applicants are officially briefed and notified that their operating tests will be videotaped and retained by the Chief Examiner.  Add new paragraph(s) to Appendix E as necessary.	Added video / audio recording guidance.
<b>Kellum</b>		
Appendix E. – B.3	Should we add the caveat ‘as long as the applicant is making progress?’	No change made. As there is no black and white time limit, requests for extensions should be granted upon facility request assuming an examination proctor is available.
Appendix E. – E.13	Should say ‘electronically recorded’ instead of ‘videotaped’	Videotaped changed to electronically.
Form ES-301-4	Prefer it to just say ‘Critical Tasks (2-3)’, the way it was.	EOP based retained for clarity. No change made.
ES-302- D.1.g	Use ‘engaged’ vice ‘employed’	Replaced engaged with employed.
ES-302- D.3.h	Replace ‘legacy’ as we have been directed not to use that term, we’ve been using operating	Replaced legacy with operating.
ES-402-D.2.b	Add ‘e’ to upgrade	The change has been made.
ES-402-D.4.d	Same comment as Appendix E – B.3 above	No change made. As there is no black and white time limit, requests for extensions should be granted upon facility request assuming an examination proctor is available.
<b>Licensed Operator Focus Group</b>		
ES-202: Page 8 2b:	then objective quality evidence must be supplied to confirm the duration an applicant was “in a position” as described above and not just the duration of the applicants overall service time.  Need more definition of what “objective quality evidence” is required.	The change has been made. The change describes what the evidence needs to show in the last sentence of the paragraph, i.e., “This evidence need only indicate the dates that the applicant was qualified in the position that is being evaluated for experience.”
ES-202 Page 11 2a(2)	The 2 years in a position equivalent to a licensed RO at a military reactor should be during the time the individual is qualified, proficient, and actively standing watch in the credited position.  What is “actively standing watch”? How proven by utility?	Revised the wording to clarify that the time should be in the position that is being evaluated for experience.

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<p>ES-204 Page 9 k4</p>	<p>The applicant has been a “full” participant in the Licensed Operator Requalification program, including satisfactory performance on the applicable annual and biennial requalification examinations for which the applicant is applying for. The participation must be continuous from 24 months following the date of the successful completion of the GFE exam up to the entrance in the associated Initial License class.</p> <p>Not clear. Unsure how to apply this statement. Under what situation would this be applied?</p>	<p>Revised the wording to make section clearer. The intent of this allowance is to give credit for being a participant in a requal program and not requiring the GFES exam to be taken again if the individual exceeded 24 months since the previous exam.</p>
<p>ES-301: Page 13 g</p>	<p>Forward the completed outline to the NRC chief examiner so that it is received by the date agreed upon with the NRC regional office at the time the examination arrangements were confirmed; the outline is normally due approximately 120 days before the scheduled examination date. Refer to ES-201 for additional instructions regarding the review and submittal of the examination outline.</p> <p>120 days a challenge. Recommend 90 days.</p>	<p>The change has been made.</p>
<p>ES-301: Page 16 c</p>	<p>Forward the completed walk-through test outline to the NRCs chief examiner so that it is received by the date agreed upon with the NRCs regional office at the time the examination arrangements were confirmed; the outlines are normally due approximately 120 days before the scheduled examination date. Refer to ES-201 for additional instructions regarding the review and submittal of examination outlines.</p> <p>Recommend 90 days instead of 120</p>	<p>The change has been made.</p>
<p>ES-301: Page 21 2b</p>	<p>The NRC examiner should review the operating tests as soon as possible after receipt so that supervisory approval can be obtained before the final review with the facility licensee, which is normally scheduled about 3 weeks before the administration date.</p>	<p>Changes have been made.</p>

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	OK with 3 weeks Also would like to see the 45 day final submittal increased to 60 days.	
ES-401: Page 5 Top	<p>Is the subject K/A more appropriately tested on the operating test? A K/A only associated with an “ability” is not a sufficient reason to reject the K/A in and of itself. The justification should include why the operating test is a better evaluation tool.</p> <p>If these questions can all be answered in the affirmative, then the subject K/A is probably appropriate for testing. The fact that a K/A does not have a corresponding facility learning objective</p> <p>Recommend rewording...the statement contradicts removing the KA if better for operating test.</p>	Paragraph has been reworded to ask if the K/A is more appropriately tested on the written test.
ES-401: Page 6 e	120 not good - propose 90 days	The change has been made.
ES-401: Page 15 under 4	<p>For Tier 3 (plant-wide generics) of the examination outline, randomly select K/As from Section 2 of the NRC K/A catalog so that each of the four K/A categories (i.e., Conduct of Operations, Equipment Control, Radiation Control, and Emergency Procedures/Plan has at least two items (one is allowed for Radiation Control).</p> <p>What is the origin of the descriptor to Rad Control?</p>	This allowance was made to prevent over-emphasis on the Rad Control area as compared to the other Generic areas.
<b>Joplin and LOFG</b>		
ES-201: Section C.1.h	<p>Facility licensees are encouraged to identify those bank items that were used on an NRC license examination at the facility since October 1995 because they will generally undergo less-rigorous review by the NRC.</p> <p>This sentence is redundant to the previous sentence. If I state the source of the question as required by sentence one, I am automatically complying with sentence two.</p> <p>LOFG: No changes needed. OK either</p>	No change made. The “source” as stated in the first sentence indicates the question is from the Bank, Modified or New. The sentence in question clarifies that further information as to whether the item was on a previous NRC exam will help the reviewer.



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	way.	
ES-201: Section C.2	<p>The dates that we work to in the NUREG are very restrictive. Over the years, the practice of developing and implementing exams has expanded to encompass a year or more but we are still submitting our final products six weeks out and then scrambling at the end of every exam to meet everyone's expectations.</p> <p>I would like to propose moving the 45 day submittal back to something like 90 days. This would give the NRC more time to perform their reviews, give the station more time to review the examiner's feedback and prepare adequate responses and rewrites, give the facility more time to re-validate the exams after the NRC review, etc. etc.</p> <p>When the 75 and 45 days were originally instituted, the writers of the NUREG evidently envisioned the NRC and facilities being able to pull together an exam in a month to six weeks. Refer to bullet number 5 on this page. "The need to have reference material necessary for the NRC to develop the examination delivered ... at least 75, but preferably 90, days before the scheduled examination date". I am fairly certain that no one believes that the NRC or a facility can produce a satisfactory exam starting 2.5 to three months prior to administration. Everything in the NUREG is based on this old mental model.</p> <p>Thus, I think the timelines for exams should be studied and expanded to reflect the actual workflow processes we all use.</p> <p>LOFG: Focus group proposes 90 day outline submittal and 60 day written submittal for facility developed exam. The above time line does not take into account multiple exams being developed.</p>	<p>The exam development schedule dates have been revised based on stakeholder input. Additionally, the NUREG allows the licensee to work with the Chief Examiner to propose alternate due dates as needed.</p>

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ES-201 Section C.2.e	The stakeholder questions why the NUREG limits the examiners from administering no more than 4 operating exams per week.	For personnel health the amount of time spent observing exams is limited by assigning more examiners.
ES-201: Section C.2.f	<p>“The regional office will evaluate each examination assignment to determine if some or all of the assigned examiners should make a separate preparatory site visit.”</p> <p>Align with current practice of always having a prep week.</p>	This does not remove the practice of having a Prep week. This allows the exam team to be limited to those individuals who are unfamiliar with the respective site. In most cases the entire exam team participates in prep week, which is the desired practice.
ES-201: Section C.2.j	<p>“Approximately 7 days before the examination the responsible supervisor shall query the facility licensee management counterpart regarding the licensee’s views on the examination.”</p> <p>This should be documented somewhere because I don’t believe it is being consistently applied.</p> <p>LOFG: This appears to be a commitment (shall) that may be better represented as an optional (should) query based on the NRC supervisor judgment.</p>	This is documented on Form ES-201-1 and remains as a “shall” statement.
ES-201: Section C.3.d	<p>Regarding the last sentence of the paragraph.</p> <p>LOFG: Sentence above this adequately covers this. The lined sentence adds no value...recommend delete.</p>	The referenced sentence has been deleted.
ES-201: Section C.3.f	<p>“The written examination sampling review (as described in Section E of ES-401 or ES-401N) should be completed within 1 week after receiving the examination, and the balance of quality reviews should be completed within 2 weeks after the written examinations and operating tests are received from the author or facility contact.”</p> <p>Align with current practice of three to four weeks.</p> <p>LOFG: Leave at 2 weeks but</p>	The time for review has been designated as 15 days and has been added to Form ES-201-1 as a line item which is due 45 days before the exams are scheduled to be administered.

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	recommend place on 120 ES201 time line.	
ES-201: Section D.2.b	<p>“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, quizzes, and remedial training programs, as well as the counseling of applicants concerning non-technical issues.”</p> <p>This directly contradicts the last bullet above. Can a manager on security review a course exam and give feedback on its content? I don't think that's the intent here.</p> <p>LOFG: OK with current wording</p>	No change made. The next sentence in the paragraph adequately discusses what the supervisor and managers can do.
ES-201: Att. 1	<p>“The license applicants should not be able to predict or narrow the possible scope or content of the licensing examination based on the facility licensee’s examination practices (other than those authorized by NUREG-1021, or in writing by the NRC).”</p> <p>This has to be clarified. "Narrow the possible scope" includes an almost endless variety of possibilities. There can be no overlap with the Audit exam, therefore, I can eliminate those 100 questions which theoretically narrows the infinite scope of the licensing exam questions. Just some examples of what is allowed would be a great help, particularly as these guidelines relate to Requal exams.</p> <p>LOFG: Focus group understands that NUREG authorizes definitive scope limitation due to audit exam overlap restrictions. Point valid above that scope is narrowed, but it is necessary</p>	Additional guidance has been added.
ES-501: Section E.3.a	“The NRC will evaluate the submitted written examination questions (RO and SRO questions shall be considered separately) using the guidance in Sections E.2-3 of ES-401...”	This has not been changed from the previous revision. The exams are evaluated separately because they are distinct portions of the exam. No change made. The acceptability range has not been revised as

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	<p>Why is this? It requires the same amount of work to fix the questions whether they are considered separately or together.</p> <p>Why can't the guidance be made more open to allow the chief to decide whether or not the exam met his/her expectation for quality?</p> <p>LOFG: Exams should remain separately evaluated. The 20% for the smaller 25 question SRO exam presents a larger challenge to SAT submittals. Recommend evaluating increasing the acceptable quality range for flawed questions on SRO exam. (Example: 30%) Bottom line, any issues will be corrected during the review process.</p>	suggested.
<b>Nuclear Energy Institute</b>		
ES-301 Form ES-301-4, p.24	<p>The addition of Target Qualitative Attributes "Total Events" of 8-12, without changes to other Attributes will add more "Normal" manipulations extending the scenarios without benefit.</p> <p><i>Change Total Malfunctions to 5-10</i>  <i>Change Malfunctions after EOP Entry to 1-4 (consistent with Requa! Exams on ES-604-1).</i>  <i>Change Abnormal Events to 2-5</i></p>	
ES-301 Form ES-301-5, p.25	<p>Instruction #4 is not clearly worded as intended. "...either the reactor operator position to ...</p> <p><i>Revise to "...either the ATC or BOP position to..."</i></p>	The change has been made
ES-301 Form ES-301-5, p.25	<p>Instruction #4 should be deleted as this would allow a chief examiner to require an SRO-Instant to examine in a position of limited training. Requiring additional training of the SRO Instant in the BOP position would be non-productive for the SRO position.</p>	

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	<i>Remove Instruction #4</i>	
ES-401, Page 4 of 32	<p>The list of generic K/As for Tiers 1 and 2 for both ROs and SROs includes 2.1.19, 2.1.27, 2.1.28, 2.1.30, 2.1.31, 2.2.3, 2.2.4, 2.2.12, 2.4.2, 2.4.3, 2.4.31 which do not have a corresponding 10 CFR 55.43 referenced in the current NUREG 1122. This issue exists in the current NUREG 1021.</p> <p>Add wording to exclude these K/As when randomly selecting generic K/As for Tiers 1 and 2 for SRO only questions.</p>	
ES-302, page 3 of 12, sec D.1.i  ES-601 att. 2. enc. 2, page 23 of 35	<p>The changes for the use of video in ES-302 D.1.i were revised to encourage video recording of operating tests and to provide video recording handling instructions.</p> <p><i>This change is not annotated with revision bars in the body of the procedure</i></p>	Revision bars added.
ES-302, page 3 of 12, D.1.i	<p>Potential exam security nightmare for stations wishing to use exam materials for future classes.</p> <p><i>Add some reference as to how the recordings would be controlled.</i></p>	
ES-301 Form ES-301-4(a), p.24 of 26	<p>Added new Target Quantitative Attribute, "Total Events".</p> <p><i>Events is not defined within the NUREG- provide definition in App F</i></p>	"Total Events" removed.
ES-301 Form ES-301-4(a) p.24 of 26	<p>Form is missing row 4. Do not know if this is an error carried forward.</p> <p><i>Evaluate renumbering the rows correctly.</i></p>	Rows have been numbered.
Form ES-602-1, Page 24 of 25	Revised to remove Question 11 related to question "double jeopardy."	The double jeopardy wording has been removed

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	<i>The question concerning double jeopardy HAS NOT been removed from the copy provided for review.</i>	
ES-602-1, Page 24 Of 25	<p>The question pertaining to double jeopardy is still there. "Do questions in Section A take advantage of the simulator control room setting?" was deleted.</p> <p><i>Replace and/or remove question(s) as necessary.</i></p>	The double jeopardy wording has been removed
ES-604 -1, Page 10 of 19	<p>The minimum Qualitative Attributes for scenario guides outlined on form ES-604-1, does not match the scenario guide minimums found in IP 71111.11 Appendix C.</p> <p><i>Align Quality Attributes in ES-604-1 with scenario guide minimums in 73111 Appendix C or provide a footnote to justify the difference.</i></p>	The minimum Qualitative Attributes are in agreement with IP 71111.11.
Form ES-301-4 section 3, Page 24 of 26	<p>Form ES-301-4 section 3 has a formatting issue within the second bullet.</p> <p><i>Correct extra character spacing between the words "conditions....that"</i></p>	Formatting issue corrected.
ES-401, page 9 of 32	<p>Section 4 has a formatting issue</p> <p>Align formatting consistent with rest of NUREG</p>	Formatting issue corrected.
ES-201-1 is page 25 of 28	<p>Multiple changes have been made to form ES-201-1 and the changes are not identified with revision bars. Included in the changes were the removal of [ ] and the { } which identified due dates applicable to facility developed exams and NRC developed exams. The use of brackets is still referenced at the bottom of the form.</p> <p><i>Update ES-201-1 form to reflect rev bars and remove the reference to</i></p>	Revision bars have been added, brackets have been modified.

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	<i>brackets in the verbiage at the bottom of the form.</i>	
ES-201, page 11, C.3.f, last line	<p>Poor wording, sentence makes no sense as written.</p> <p><i>Deleting the word "for" would make the sentence flow much better.</i></p>	The change has been made.
ES-202, page 8, C.2.b, 6th paragraph	<p>OQE (objective quality evidence) required to prove military experience is a little vague.</p> <p><i>Perhaps include examples (i.e., service record page 4, Evals / FitReps).</i></p>	
ES-204, page 6/7, D.1.k.4	<p>The last part of the first sentence can be grammatically improved.</p> <p><i>All of it makes sense except for the last part "...for which the applicant is applying for." Suggest either deleting that portion OR adding words (in bold) to make it read: "...examinations at the facility for which the applicant is applying."</i></p>	The sentence has been changed.
ES-201 attachment 1 other considerations #2 on page 17 of 28	<p>In other words, the facility licensee staff should not provide information to the applicants or licensed operators regarding examination content that would allow the test takers to either specifically or generally "predict" what test items will, or will not, be covered on the examination (e.g., the staff should not specify a certain exam bank to study if there is more than one version of the bank, or, the staff should not make general statements such as "Exam 8 will not overlap with Exam A.").</p> <p><i>This is not clear what is being addressed. Some facilities educate the students on how the KA catalogue is set up, how the JPM</i></p>	

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	<p><i>selection is setup per the NUREG, and what is in the ADMIN portion of the exam such as typical ADMIN JPMs given, that there will be one emergency planning JPM such as PARs or a classification. These seem to be called out here but is in the NUREG and available for public reading.</i></p> <p><i>Is the intent to limit this type of education of the students? Recommend clarification or removal of the wording added here.</i></p>	
ES-302, Page 3 of 12, D.1.i	<p>Video recording of the administration of operating tests is encouraged. The video recordings are to be turned over to the chief examiner and retained until the examination process, including appeals, is concluded at which time they shall be destroyed by the chief examiner.</p> <p><i>The word encouraged is too soft and can be interpreted differently. Does this mean required, or approved by chief examiner or by all students and/or the facility.</i></p> <p><i>Video recording will lend itself to more appeals, possible video editing issues, security and privacy issues and is not being controlled by NUREG 1021 as to how to treat these video recordings. (Whose permission is required to be obtained to record such as all students or the NRC or the facility or everyone), if all students in the video can be re-evaluated during the appeal process of one applicant and subsequently all applicants could fail as a result. Also some chiefs may elect to review the recording to evaluate the</i></p>	



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	<p><i>performance and provide a more critical evaluation than is currently done. I believe there are too many legal and privacy issues here to put this in the NUREG.</i></p>	
<p>ES-401, att 1, page 14 of 32, ES-401-1, Note 1, page 15 of 32, ES-401-2, Note: 1, page 20 of 32</p>	<p>Revised "to allow" one Tier 3 Radiation control KIA item to be replaced by another Tier 3 Category KIA.</p> <p>The wording "to allowed" is too general and provides the NRC with the opportunity to administer this differently between examiners and regions.</p> <p><i>Recommend the wording say "only one Radiation Control KIA is required. Select other Tier 3 category KIAs to fill the sample plan"</i></p> <p><i>The purpose of this allowance is to prevent oversampling the Tier 3 rad control KAs which there are only 10 available to be placed on an exam. If this is the true intent, then we should make it a requirement that 1 will be selected and no more per exam, 1 for RO and 1 for SRO exams. That would be a total of 2 Tier 3 rad control KAs per SRO exam.</i></p>	
<p>ES-302, D.1.i, page 3 of 12</p>	<p>"Video recording of the administration of operating tests is encouraged. The video recordings are to be turned over to the chief examiner and retained until the examination process, including appeals, is concluded at which time they shall be destroyed by the chief examiner"</p> <p><i>The rules of usage need to be more clearly stated and the tape should stay in the possession of the utility until the completion of</i></p>	

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	<p><i>the examination process and that the utility will destroy the video at the end of the appeal.</i></p> <p><i>The regulation needs to clearly say that the tape will only be used for appeals and that only the portion of the video that will be reviewed will be the portion that contains the basis for the appeal.</i></p>	
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