Preliminary List of Exceptions, Clarifications, and Additions to NEI 21-07, Revision 0-B, "Technology Inclusive Guidance for Non-Light Water Reactors: Safety Analysis Report for Applicants Utilizing the NEI 18-04 Methodology" (ADAMS Accession No. ML21343A292)
January 13, 2022

Note: 1) This document provides an update to a document that provided NRC staff's preliminary list of exceptions, clarifications, and additions, that was developed based on NEI 21-07, Revision 0 (see: ML21274A032)

2) The following color coding applies to the disposition column found in this table:

Issue resolved based on NEI 21-07, Revision 0-B proposed change

Issue resolved based on forthcoming staff change to TICAP DG

Issue resolved based on TICAP DG December 2, 2021 document

Issue not resolved - further discussion needed

NEI 21-07 Section Number ID	Topic	Discussion	Type	TICAP Response	Disposition
A.2	Background	Page 3 (last paragraph) - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that in addition to making a safety case, an applicant should also make a licensing case that focuses on compliance with applicable regulations and includes any exemptions, as necessary.	Clarification	No change proposed	Resolved – based on TICAP DG change found in December 2, 2021 version
A.3a	Supplemental information affecting first 8 chapters of the SAR outside the scope of Industry TICAP guidance	Page 3 Scope. The staff will continue to reference in its TICAP RG the guidance that is relevant to the first 8 chapters of the SAR (e.g., siting, fuel qualification, instrumentation and control Design Review Guide, ASME Section III Division 5). See supplemental information found in July 8, 2021 version of TICAP RG draft white paper https://www.nrc.gov/docs/ML2119/ML21190A014.pdf	Clarification and Addition	No change proposed	Resolved - based on NRC action to ensure all supplemental information has been added to the draft RG
A.3b	Scope	Page 4 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that that an affirmative safety case should include normal operation and that applicants should also make a licensing case with respect to compliance with regulations and include exemptions, as necessary. That is, the applicant must make the case for and claim compliance with or exemptions from specific regulations. The NRC will not just review the safety case and derive from it those regulations that are met in order to makes its findings.	Clarification	NEI 21-07 revised to address normal operation.	Resolved
B.2	SAR Outline	Page 7 (bottom) - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that an affirmative safety case should include normal operation as well as LBEs.	Clarification	Addressed via A.3b	Resolved
All	Italicized discussion contained in NEI 21-07 is not considered to be guidance.	Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper clarifying the meaning of the use of the regular text and text in italics throughout the SAR content guidance in Section C of NEI 21-07. Examples of text that the staff believes should be in regular font vice in italics can be found in the attachment to this document. This attachment contains background information on specific examples of where the staff believed the use of italicized text was inappropriate and whether industry made changes to remove the subject italicized text in NEI 21-07, Revision 0-B. The attachment is provided as	Clarification	Various	Resolved based on NRC position to be included in TICAP DG that all discussion in NEI 21-07 is guidance and not requirements, therefore NRC considers the italicized text to be guidance and is not

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		background. As discussed in the last column in this row the staff plans to address this issue as one item in the forthcoming revision to the TICAP DG.			limited to background and context only.
B.5	Scope and Two-Step Licensing (CP/OL)	Pages 4 and 10 - Clarification of several items should be made: (1) the requirement under 50.34(a)(4) for demonstration of an affirmative safety case that includes normal operation reflecting that the Licensing Modernization Project (LMP) does not address normal operation; (2) a licensing case also needs to be made by the applicant with respect to claims of compliance with or requests for exemption from regulations; and (3) the COL application scope includes Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) whereas the CP/OL scope does not. Clarification proposed that the LMP-based safety case shifts from compliance with prescriptive regulatory requirements to an approach that focuses on identification and performance of fundamental safety functions to address and satisfy associated regulatory requirements and provide reasonable assurance of adequate protection of public health and safety.	Clarification and Addition	Item (1) addressed via A.3b. Item (2) not addressed	Resolved based on NEI 21-07 revision and TICAP RG draft change found in December 2, 2021 document
B.6	Design Certification	Page 11 – Further discussion is needed in either NEI 21-07, Revision 1, or in the TICAP draft RG white paper to clarify that the SAR content developed through use of LMP is similar in scope only to the Tier 2 information required for a DC application. Guidance for Tier 1 information, including ITAAC, required for a DC application is neither contemplated by NEI 18-04 nor discussed in the TICAP guidance document. Also included a proposed change to page 11 (last paragraph) to reference Tier 2 Information	Clarification and Addition	NEI 21-07 revised	Resolved
1b	Licensing Basis Information	Page 15 – Clarify what language in Chapter 1 of a SAR will be included and maintained as part of the licensing basis, and what parts of the regulation those parts seek to fulfill.	Clarification	NEI 21-07 revised	Resolved
1.1.2	Intended Use of the Reactor	Page 16 – The NEI proposed text does not seem to fully address 10 CFR 50.34(a)(1)(ii)(A) regarding use of the reactor. Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to address the radioactive materials inventory portion of the regulation.	Addition	NEI 21-07 revised	Resolved based on NRC staff action to include discussion in TICAP DG that describes the need to address radioactive materials inventory in the SAR.
1.3.3	Defense in Depth	Page 20 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that DID adequacy is based on 3 elements; plant capability DID, programmatic DID, and risk-informed, performance-based (RIPB) DID. Applicants should address RIPB DID also and cite key examples for this DID element	Clarification and Addition	NEI 21-07 revised	Resolved
2a	Pre-licensing engagement	Page 20 – The highlighted sentence gives the incorrect perception that pre-licensing interactions affect the level of detail that should be provided within the docketed license application and related submittals (e.g., topical reports)	Clarification	NEI 21-07 revised	Resolved based on NEI 21-07 revision and NRC action to add a discussion to the TICAP DG that broadly recognized that separate licensing documents (e.g., topical reports) submitted during pre-licensing submittals as well as during application review may reduce the information that needs to be included in the SAR if IBR'd. White papers,

NEI 21-07 Section Number ID	Topic	Discussion	Type	TICAP Response	Disposition
					etc., not reviewed and approved by NRC will not reduce info in SAR. IBR'd info is part of SAR.
2.1	PRA discussion to be included in the SAR	Page 21– The fourth and fifth sentences in the first paragraph of Section 2.1 provide guidance and should therefore be in regular text. In order to reflect the Commission's affirmation in SRM-SECY-2015-002 regarding the need for probabilistic risk assessment (PRA) information for CP/OL applications for new reactors, they should be modified to read, "The PRA information included in the SAR should be at a summary level only as described below. It should include a description of the design-specific or plant-specific PRA, as appropriate, and its results."	Clarification	NEI 21-07 revised	Resolved
2.1.1a	Conformance (with any deviations) with the advanced non-LWR PRA standard, ASME/ANS RA-S-1.4-2021 NEI 20-09, Rev. 0 PRA peer review	Page 21 and 22 - Trial-use RG 1.247 to endorse the std is under development. NRC staff positions in RG 1.247, once issued, should be addressed along with the Std. NEI 20-09, Revision 1, has been submitted to the NRC for endorsement. Revision 1 should be cited instead of Revision 0.	Clarification	NEI 21-07 revised	Resolved based on NEI 21-07 revision and NRC action to reference RG 1.247 in trial use form in supplemental information in TICAP DG.
2.1.1b	Discussion of PRA information to be included in the SAR	Page 22 – Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper to cover the level of detail for the PRA information to be included in the SAR as follows: "This section should describe PRA assumptions, the identification of PRA-based insights, and an overview of the results and insights from importance, sensitivity, and uncertainty analyses. A pointer should be provided if the information is described in other Chapters (e.g., Chapter 3). Detailed information used in the PRA will not be included in the SAR but will be available for NRC audit."	Clarification and Addition	NEI 21-07 revised	Resolved
2.1.1c	Discussion of PRA info in SAR – Two-step licensing (CP application)	Page 22 – Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG with paper to clarify the basis for omitting peer review for PRA for a CP application as follows (italics are used to set off the clarification – final text should be in regular font): To be clear, consistent with the baseline for this guidance, to the extent that an applicant does not request any design finality as part of its CP application, no PRA peer review should be required at the CP application stage.	Clarification and Addition	NEI 21-07 revised	Resolved
2.1.2	Summary of Key PRA Results	Page 23 – The last bullet in this section states that SAR Chapters 6 and 7 are to address reliability and capability targets for SR and NSRST SSCs. Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper to address SR and NSRST human actions.	Clarification and Addition	NEI 21-07 revised	Resolved
3.3	Anticipated operational occurrences (AOOs) – clarification of discussion of AOOs in the SAR	Page 30 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that non-DBA LBEs as analyzed in the PRA should be summarized in the SAR.	Clarification	No change proposed	Not resolved. Needs further discussion
3.3.1	AOOs – key information regarding AOOs should be captured in the SAR	Page 31 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that a description of the models, site characteristics, and supporting data associated with the calculation of the mechanistic source terms and radiological consequences (to the extent such information is not provided in Section 2.2) should be included in the discussion of AOOs with a release in Section 3.3.1 of the SAR. The text stating that this information is only in plant records should be removed from NEI 21-07, Revision 1 or addressed by an exception in the TICAP draft RG white paper. The word "additional" is suggested as a modifier to the "information that should be provided for any	Clarification and Exception	No change proposed	Not resolved. Needs further discussion.

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		AOO with a release" in the sentence preceding the bulleted list to clarify that it is in addition to the narrative that should be provided for each AOO as listed in the same section. The exception to the statement regarding omission of the information and retention in plant records is appropriate because the safety case for the reactor is tied to appropriately identifying licensing basis events, including Anticipated Operational Occurrences (AOOs), Design Basis Events (DBEs), Design Basis Accidents (DBAs), and Beyond Design Basis Events (BDBEs). This type of information should be captured in the SAR to ensure that changes to the plant are appropriately assessed under the applicable change process (e.g., 10 CFR 50.59) reflecting their status as methods of evaluation used in establishing the design bases or in safety analyses.			
3.4.1	Design Basis Events (DBEs) - key information regarding DBEs should be captured in the SAR	Page 32 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document the need for a description of the models, site characteristics, and supporting data associated with the calculation of the mechanistic source terms and radiological consequences for DBEs with a release (to the extent such information is not provided in Section 2.2). The text stating that this information is only in plant records should be removed from NEI 21-07, Revision 1 or addressed by an exception in the TICAP draft RG white paper. The word "additional" is suggested as a modifier to the information that should be provided for the most limiting DBE that was used to map into each DBA to clarify that it is in addition to the narrative that should be provided for each DBE as listed in the same section. The exception to the statement regarding omission of the information and retention in plant records appropriate because the safety case for the reactor is tied to appropriately identifying licensing basis events, including Anticipated Operational Occurrences (AOOs), Design Basis Events (DBEs), Design Basis Accidents (DBAs), and Beyond Design Basis Events (BDBEs). This type of information should be captured in the SAR to ensure that changes to the plant are appropriately assessed under the applicable change process (e.g., 10 CFR 50.59) reflecting their status as methods of evaluation used in establishing the design bases or in safety analyses.	Clarification and Exception	No change proposed	Not resolved. Needs further discussion.
3.5.1	Beyond Design Basis Events (BDBEs) – key information regarding BDBEs should be captured in the SAR	Page 33 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document the need for a description of the models, site characteristics, and supporting data associated with the calculation of the mechanistic source terms and radiological consequences for BDBEs with a release (to the extent such information is not provided in Section 2.2). The text stating that this information is only in plant records should be removed from NEI 21-07, Revision 1 or addressed by an exception in the TICAP draft RG white paper. The word "additional" is suggested as a modifier to the information that should be provided for information provided for BDBEs with a release to clarify that it is in addition to the narrative that should be provided for each BDBE. The exception to the statement regarding omission of the information and retention in plant records appropriate because the safety case for the reactor is tied to appropriately identifying licensing basis events, including Anticipated Operational Occurrences (AOOs), Design Basis Events (DBEs), Design Basis Accidents (DBAs), and Beyond Design Basis Events (BDBEs). This type of information should be captured in the SAR to ensure that changes to the plant are appropriately assessed under the applicable change process (e.g.,	Clarification and Exception	No change proposed	Not resolved. Needs further discussion.

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		10 CFR 50.59) reflecting their status as methods of evaluation used in establishing the design bases or in safety analyses.			
4.1	Discussion of overall plant risk information found in the SAR	Page 36 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document the need for a discussion of the following items where different from the analysis performed under Chapter 3: • The site parameters (e.g., meteorology, off-site population distribution, EAB size) used in the analysis, • Assumptions on location of individual members of the public, • Source of dose (cloud shine, inhalation, ground shine), • The analysis method used, • Key assumptions (e.g., emergency preparedness measures, source terms, timing and duration of release, credit for medical treatment, early and latent fatality risk coefficients) used in the analysis, • Modes of operation (full power, low power & shutdown, refueling) considered in the analysis, • How multiple units on the site were considered, • Uncertainty/sensitivity analysis performed.	Addition	No change proposed	Not resolved. Need further discussion.
4.2.1	Guidance for DID evaluation	Page 38– Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document that "For SSCs that are relied upon to perform DID prevention and mitigation functions for risk-significant LBEs, and where not described elsewhere in the SAR, this section should describe the set of requirements related to the performance, reliability, and availability of the SSC functions that are relied upon to ensure the accomplishment of their tasks, as defined by the PRA or deterministic analysis. This description should include how that capability is ensured through testing, maintenance, inspection and performance monitoring. "	Clarification	No change proposed	Resolved
4.2.1.4	Prevention-Mitigation Balance	Page 41 – ADAMS ML numbers or hyperlinks to referenced documents and reports should be added to promote efficient user interface with this guidance document.	Clarification		Deferred. Can be added later.
4.2.2b	Guidance for programmatic DID added	Page 41 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document that "The applicant should provide the justification for where the design does not incorporate the programmatic capability attributes provided in NEI 18-04 Table 5-6." This text should be regular font.	Clarification	No change proposed	Resolved via withdrawal of comment by NRC.
4.2.2.2	Human Factors Considerations – SR SSC performance Monitoring	Page 42, Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper to state that an applicant should include the description of programs to assure human performance for risk-significant functions should address human factors considerations such as operating experience review, safety function review, human action task analysis, human system interface design, procedures, training, and verification and validation (V&V), human performance monitoring (where not described in Chapter 6).	Addition	No change proposed	Resolved based on staff action to add reference in TICAP DG to ARCAP Chapter 11 ISG to ensure holistic approach to HFE program
4.2.2.3	Human Factors Considerations – NSRST SSC performance monitoring	Page 43, Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper to state that an applicant should include the description of programs to assure human performance for safety-significant functions should address human factors considerations such as operating experience review, safety function review, human action task analysis, human system interface design, procedures, training and V&V, human performance monitoring (where not described in Chapter 7).	Addition	No change proposed	Resolved based on staff action to add reference in TICAP DG to ARCAP Chapter 11 ISG to ensure holistic approach to HFE program.
4.2.3b	Integrated defense in depth discussion in the SAR	Page 43 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document that an applicant should address the following to describe how the integrated DID analysis meets the standards in NEI 18-04: "The applicant should	Addition	NEI 21-07 revised. Some discussion at the 12/14/21 public meeting indicated that	Resolved based on staff action to add discussion in TICAP DG that describes the

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		summarize how the integrated DID process was applied in evaluating the overall adequacy of DID. The description should address how each of the decision guidelines listed in NEI 18-04, Section 5.9.3, was evaluated and the basis for an affirmative response. The criteria used in making the decisions (e.g., risk margins are sufficient, prevention/mitigation balance is sufficient, etc.) should be provided. If quantitative measures were used as part of the criteria, they should be provided. A description of how the results of the integrated DID process are documented and available for future DID decision-making and operations support should also be provided."		TICAP may reassess their position.	need to also include a summary of DID assessment, criteria, results, and the basis for the results, not just a reference to the process
4.2.3c	Added guidance to include a description of the change process to defense in depth discussion found in the SAR	Page 43 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document that an applicant should include a discussion of the change process associated with defense in depth analysis described in Section 4.2.3 of the NEI guidance document: "The change control process should be described addressing how the baseline DID evaluation will be re-evaluated, based on proposed changes, to determine which programmatic or plant capability attributes have been affected for each layer of defense. Changes that impact the definition and evaluation of LBEs, safety classification of SSCs, or risk significance of LBEs or SSCs should be assessed.	Clarification and Addition	NEI 21-07 revised	Resolved based on staff action to include reference in TICAP DG supplemental information to ongoing efforts to develop change control process that will include assessment of DID
5.3	Principal Design Criteria (PDC)	Page 45 and 46- considering whether following proposed addition is appropriate related to PDC guidance: "These LMP derived requirements may be considered together with generic applicable Advanced Reactor Design Criteria (ARDC) in formulating the principal design criteria for the license application. When considering the use of generic ARDC for this purpose, the LMP methodology does not include the application of the Single Failure Criterion (SFC) that is included in the ARDC language. In the LMP approach to formulating design requirements for SSCs, reliability and capability targets are used to inform the selection of special treatment requirements. This obviates the need to applying the SFC. Hence when ARDCs are considered in developing the principal design criteria, the SFC language should be removed." Last sentence, third paragraph proposed edits to be more consistent with stated NRC positions: However, the General Design Criteria and Advanced Reactor Design Criteria are intended to provide guidance in establishing the principal design criteria for non-LWR designs. Fourth paragraph proposed edits to be more consistent with stated NRC positions. Proposed revised paragraph	Note – staff still developing position and path forward regarding PDC guidance. It is unclear at this point as to whether an exception, clarification or addition (or a combination of these) will be included in the staff TICAP RG	TBD	Awaiting TICAP response to NRC's PDC position.
5.5.1	Non-Safety-Related SSCs performing risk significant functions discussion in the SAR	Page 48 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to document that information similar to that found in Tables 5-1 and 5-2 for safety-related SSCs should be provided for non-safety-related SSCs performing a risk-significant function.	Addition	TBD	Awaiting TICAP response to NRC's PDC position.
5.6a	Complimentary Design Criteria (CDC) discussion in the SAR	Page 50 – Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper regarding CDC information that should be provided in the SAR, similar to the comments provided in an August 13, 2021, email that was discussed during an August 17, 2021, public meeting (see: ML21225A565) This could include (a) the CDC are considered part of the affirmative safety case, since they specify safety criteria, (b) when they are defined at the functional level, they are considered equivalent to PDC and (c) when they are defined at the PRA Safety Function level, they are	Clarification and Addition	TBD	Awaiting TICAP response to NRC's PDC position.

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		considered subparts of a higher level PDC. In addition, the TICAP Guidance Document text should provide examples of both types of defined CDC. The staff notes that the expectations regarding discussion of the CDC information in the SAR could be influenced by the outcome of the staff's position regarding PDC.			
5.6b	CDC discussion in the SAR	Page 50 - Language should be added to clarify that NSRST SSCs may be included within the PDC rather than being limited to inclusion in the CDC.	Clarification	TBD	Awaiting TICAP response to NRC's PDC position.
5.6c	CDC discussion in SAR	Page 50 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that the importance and contribution of engineering criteria for the design will be considered under 10 CFR 50.35(a), as necessary, in the finding of reasonable assurance regardless of whether the NSRST SSCs are addressed by CDC. The focus is on the engineering criteria for the design rather than inclusion of SSCs as part of CDC or PDC. It is clear from the LMP process that NSRST SSCs are necessary for either PRA Safety Functions or DID. Inclusion of CDC may also bridge the gap between the NRC's expectation for an affirmative safety case and an LMP-based affirmative safety case which does not include normal operations (see comment in earlier Section A.3)	Clarification	TBD	Awaiting TICAP response to NRC's PDC position.
6.1.1b	Design Basis Hazard Level discussion in the SAR	Page 52 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that the SAR Should include discussion regarding the calculation methodology for DBHLS loads on the SSCs Calculation methodology has traditionally been part of the licensing basis. For example, where the methodology for combining loads is either ABSUM (absolute summation) or SRSS (square root of sum of the squares) can make a big difference for the design loads on SSCs. Also, there is a 50.59 question that specifically focuses on evaluation methodology. Not sure if this question will carry over to Part 53 but Part 50 and Part 52 applicants will need to consider it.	Clarification	No change proposed	Resolved based on staff action to include clarification in TICAP DG that discussion of non-PRA evaluation methodology needs to be included in SAR.
6.1.1c	Design Basis Hazard Level (DBHL) discussion in the SAR	Page 52 – Further discussion is necessary in either NEI 21-07, Revision 1, or in TICAP draft RG white paper to clarify that an applicant should summarize the basis for the DBHLs in the SAR.	Clarification and Addition	NEI 21-07 revised	Resolved
6.1.1d	Editorial correction to Table 6-1	Page 53 – verify that the table title and the second column heading should exclude the term "external."	Clarification	NEI 21-07 revised	Resolved
6.3/7.2	First-of-a-kind (FOAK) SR SSCs and NSRST SSCs	Page 58 and 61 – Text suggests incomplete V&V tests can be covered under special treatment at the submittal of a license application. Staff suggests an addition / revision to the text to include the timing of the NRC SER and the possibility of license conditions, consistent with 10 CFR 50.43(e).	Clarification and Addition	NEI 21-07 revised	Resolved
6.4.1a	Human Factors Considerations – SR SSCs	Page 58 – Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that where human actions perform required safety functions, the description of controls and displays should address human factors considerations such as operating experience review, safety function review, human action task analysis, human system interface design, and V&V.	Addition	NEI 21-07 revised	Resolved
7.3.1a	Human Factors Considerations – NSRST SSCs	Page 62 - Further discussion is needed in either NEI 21-07, Revision 1, or the TICAP draft RG white paper to clarify that where human actions perform PRA safety functions, the description of controls and displays should address human factors considerations such as operating experience review, safety function review, human action task analysis, human system interface design, and V&V.	Addition	NEI 21-07 revised	Resolved
6.4.1b and 7.3.1b	Human Reliability and Capability	Pages 58 and 62 - These sections list the design aspects of the various SR and NSRST SSCs, including human actions. Further discussion is needed in either NEI 21-07, Revision	Addition	NEI 21-07 revised	Resolved

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		1, or the TICAP draft RG white paper to clarify that the applicant should describe the measures to be taken to ensure that the human actions meet their reliability and capability targets assumed in the PRA. For the reliability and capability of equipment, these measures are called Special Treatment.			
Appendix B	Example LBE Descriptions	The staff does not plan to endorse Appendix B “Example Descriptions” of NEI 21-07 because the agency does not endorse examples provided in guidance documents due to the need for technical review and approval.	Clarification	No change proposed	Not resolved. NRC has action to consider whether statements can be added to the reference to the Appendix associated with endorsement of the appendix
Acronyms					
Editorials					

Background Information Regarding Use of Italicized Text

Note: The information in this table is provided for ease of reference and contains: a description of the original issue, whether NEI 21-07 Revision 0-B made changes, and whether the staff would have found these changes acceptable. As discussed in the master table above the staff intends to make a change in the TICAP DG that would address the use of italicized text in general.

NEI 21-07 Section Number	Topic	Issue	**Type**	**TICAP Response**	**NRC Feedback**
1a	Guidance in Introduction Section should be regular font.	Page 15 - The fourth, fifth, and sixth paragraphs of this section should be regular text since they provide instructions for the applicant regarding information to be included, formatting, and level of detail.	Addresses level of SAR detail expected.	No change proposed.	1.a – Use regular font on the 6th paragraph.
2b	Discussion of topical reports	Page 20 – topical reports approved by the NRC during pre-application engagement activities should be incorporated by reference into the SAR and not simply be listed as general references. Applicants should specifically identify documents IBR'd into the SAR. The staff also believes the sentence should be in regular text.		Change made to NEI 21-07 (Pg 21).	Resolved
3	Guidance regarding licensing basis events should be regular font	Page 26 - The third paragraph should be in regular font because it provides guidance regarding LBEs.	Addresses scope of LBE analyses.	No change proposed.	Make 3rd para regular font.
3.6	DBA guidance should be regular font.	Page 34 – The fourth paragraph in this section should be regular font because it provides guidance regarding the documentation of conservative deterministic DBA analyses that is generally modeled after accident analysis descriptions found in Chapter 15 of SARs for current LWRs.	Addresses scope of DBA SAR content	No change proposed.	Make 4th para regular font.
4.2a	Guidance regarding DID should be regular font.	Page 37- the final sentence in the first paragraph of Section 4.2 should be in regular font because it provides guidance.		Change made	Resolved
4.2b	Defense in depth discussion and clarification that some of the guidance should be in regular text	Page 37 – the second paragraph of Section 4.2 and the bulleted list immediately below it should be in regular font and not in italics since it provides guidance. The sixth bullet of this list should be modified to read, "Evaluation of single features that are risk significant to assure no overdependence on that feature …." The first sentence of the paragraph following these bullets in Section 4.2 should be revised to state: "Note that the information responsive to this bulleted list should be provided in either this chapter or in Chapters 3, 5, 6, 7, and 8."		No change proposed for first and third item. Change proposed for second item (i.e. 6th bullet comment	Page 37 – 2nd paragraph and bulleted list in 4.2b should be regular font. 6th bullet issue resolved First sentence after bullets – should be modified and regular font.
4.2.1	DID Plant Capability Summary	Page 38 – portion of 2nd paragraph should be in regular font	2nd sentence describes scope of evaluation	No change proposed	2nd sentence should be regular font.
4.2.1.2	DID guidance should be regular font.	Page 39 – The first paragraph in this section should be regular font because it provides guidance regarding the DID evaluation.		No change proposed	Resolved
4.2.2a	Defense in Depth Summary discussion in the SAR	Page 41 and 42, the second paragraph in Section 4.2.2, which starts with "Programmatic DID should be used ..." should be in regular font and not in italics since it provides guidance.		All but 1st sentence changed.	Resolved

NEI 21-07 Section Number	Topic	Issue	**Type**	**TICAP Response**	**NRC Feedback**
4.2.3b	Integrated defense in depth discussion in the SAR	Page 43, the following text should be in regular font and not in italics since it provides guidance: The baseline DID evaluation results in the SAR reflect the finalization of all DID adequacy evaluations. The evaluation in this section determines that incremental evaluations of DID outlined in NEI 18-04, Section 5.9.3, for plant capability are collectively complete, programmatic actions are appropriate to sustain identified safety significant performance requirements and residual risks are very low."		No change in font. One sentence added in regular font requiring the DID decision process be summarized	Font should be changed. Requires the basis for conclusions on DID adequacy (from the IDP) be documented in the SAR.
4.2.2.1	Evaluation of Significant Uncertainties	Page 42 – Further discussion in needed in either NEI 21-07, Revision 1 or the TICAP draft RG white paper to document that "The consideration of uncertainties may also identify some sources of uncertainty that may be safety significant and lead to specific actions for DID purposes. A summary of the sources of significant uncertainty should be describe in the SAR. The details of these analyses should be documented in plant records." This text should be in regular font		No change proposed	Resolved since subsequent regular text covers the issue.
4.2.3	Integrated DID evaluation	Page 43 - the following text should be in regular font and not in italics since it provides guidance: The baseline DID evaluation results in the SAR reflect the finalization of all DID adequacy evaluations. The evaluation in this section determines that incremental evaluations of DID outlined in NEI 18--04 Section 5.9.3 for plant capability are collectively complete, programmatic actions are appropriate to sustain identified safety significant performance requirements and residual risks are very low.		No change proposed	Same comment as 4.2.3b above
5.4	Safety Related Structures, Systems, and Components (SSC) description in the SAR	Page 46 - Section 5.4 first paragraph text should be in regular font vice in italics since it provides guidance. The staff will also revise the following text in the TICAP RG regarding Safety-related SSC discussion in the SAR: "The information reflected in Table 5-2, which describes combinations of SSCs that are provided in the design to fulfill each RSF and identifying whether each set of SSCs is available or not on each of the DBEs, should be included in the application."	Paragraph describes how to display info in the SAR.	No change proposed	Font and text should be changed as requested. The next to last sentence should be deleted.
6.1.1a	Design Basis Hazard Level discussion in the SAR	Page 52 - The following text should be in regular font vice in italics since it provides guidance: "Note that this guidance document uses the nomenclature of DBHL instead of the DBEHL term from NEI 18-04. While not discussed comprehensively in NEI 18-04, there is a need to consider not only hazards external to the plant (traditional external events) but also hazards external to the SSCs performing PRA Safety Functions – i.e., internal plant hazards such as internal fires, floods, turbine missiles, and high energy line breaks. To clarify the original intent of NEI 18-04 to address both categories of hazards, this guidance document uses the DBHL term instead of DBEHL." This appears to be a deviation from NEI 18-04 and if it is a deviation then it should be noted as such.	Paragraph relates to a departure from NEI 18-04 affecting LBE scope	No change proposed.	Font should be changed as requested, since it describes the scope of DBHLs.
6.1.2	Safety related design criteria	Page 55 - In the second paragraph, the following text should be regular font because it provides guidance: "For each of the RFDC, this section should identify a set of SRDC appropriate to the SR SSCs selected to perform the RSFs. These SRDC exclude Special Treatment Requirements, which are separately covered in Section 6.2. The RFDC, which are expressed in the form of functions and involve collections of SSCs and intrinsic capabilities of the plant, may be viewed as a bridge between the RSFs and the SRDC. The SRDC is more detailed requirements for specific SR SSCs in the performance of the RSF functions in specific DBAs. Examples of SRDC that were developed for the MHTGR are found in Appendix A of the LMP SSC report." It would be more helpful to a user of this guidance document to include some SRDC examples rather than just provide a reference to an external document.		Font of 1st and 2nd sentences changed as requested. Rest of paragraph not changed	Changes made by TICAP are acceptable since they describe the scope of SRDC info required

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7.1	Reliability and Capability Targets for NSRST SSCs	Page 60 – Text in first paragraph should be in regular text since it provides guidance		No change proposed.	OK as is. Sentence can be considered background.