

NRC STAFF Response to Comments Received on Draft NUREG-1520

Table of Contents

Abstract, Introduction, Glossary, Acronyms and Abbreviations

Chapter 1 - Facility and Process Description

Chapter 2 - Organization and Administration

Chapter 3 - Integrated Safety Analysis

Chapter 4 - Radiation Protection

Chapter 5 - Nuclear Criticality Safety

Chapter 6 - Chemical Process Safety

Chapter 7 - Fire Safety

Chapter 8.0 - Emergency Management

Chapter 9 - Environmental Protection

Chapter 10 - Decommissioning

Chapter 11 - General

Chapter 11 - QA

Chapter 11 - Configuration Management

Chapter 11 - Maintenance

Chapter 11- Training and Qualifications

Chapter 11 - Procedures

Chapter 11 - Audits and Assessments

Chapter 11 - Incident Investigation

Chapter 11 - Records Management

Response to Comments - SRP Abstract, Introduction, Glossary, Acronyms and Abbreviations

Comment No.	Source	Comment	Disposition
Ab-1	NEI	First sentence of second paragraph should be modified to clarify that the ISA is not part of the license application.	Agree in part. Abstract summarizes what the SRP is, in general terms; does not focus on what is or is not in a license application. The latter is covered in the Introduction.
Ab-2	NRC	Last full line second paragraph needs clarification	The abstract has been rewritten and clarified.
Int-1	NEI	Should clearly differentiate between the ISA and ISA Summary and explain how each is to be used	This comment is treated primarily in Chapter 3, ISA. The Introduction addresses staff review of the complete Safety Program Description.
Int-2	NEI	Should explicitly state that listed acceptance criteria are for higher-risk accident sequences and not necessarily appropriate for all accident sequences assessed in ISA.	Material addressing this comment is found in Chapter 3, ISA.
Int-3	NEI	Reviewer should be told to focus on examination of performance indicators rather than on specific details of how a performance goal will be achieved.	No change planned. To meet a “reasonable assurance” standard, NRC review of applicant’s Safety Program Description must include an examination of how the applicant proposes to achieve the performance requirements of 70.61, and other parts of the rule.
Int-4	NEI	Use of “reasonable assurance” terminology should be extended throughout the SRP.	This has been done as appropriate.
Int-5	NEI	Shorten some sections, relegate detailed information on acceptance criteria to individual chapters	Agree in part. Information on acceptance criteria in the Introduction is generic to all chapters. Some revision was made to either delete or move some discussion to the ISA Chapter.

Response to Comments - SRP Abstract, Introduction, Glossary, Acronyms and Abbreviations

Comment No.	Source	Comment	Disposition
Int-6	NEI	Use terms consistently, make correct reference to defined terms, delete confusing and incorrect references to ISA and ISA Summary, delete from Glossary terms no longer used in rule or SRP, add terms where definitions may be important to the reviewer.	This was done.
Int-7	NEI	NEI provided a proposed rewrite with extensive revision	The Introduction has been extensively revised, consistent with general comment dispositions above.
GI-1	NRC	Definitions already in 70.4 should not be repeated in the SRP Glossary.	Agree. Terms included in the SRP Glossary that are defined in 70.4 are referenced to that section.
GI-2	NEI	Suggest that “controlled area” and “defense in depth” should be in Glossary.	Agree in part. The term “controlled area” in the Glossary is referenced to 10 CFR 20.1003
GI-3	NRC	Modify definition of “active engineered controls”	The definition has been modified to improve precision and clarity.
GI-4	NRC	Modify definition of “accident sequence” to clarify that, by definition, sequence has a defined consequence that is arrived at with some (controlled) likelihood.	The definition has been modified to improve precision and clarity.
GI-5	NEI	Suggest that a definition of the broader term “administrative control” be provided, with clarification of the two types of administrative controls	“Administrative control” is defined as a human action. Further, “augmented administrative control” and “simple administrative control” are also defined in the Glossary.
GI-6	NEI	Suggest modifying definition of Baseline Design Criteria to delete “and assurance measures” and	The definition has been modified to delete “assurance measures” and add “management

Response to Comments - SRP Abstract, Introduction, Glossary, Acronyms and Abbreviations

Comment No.	Source	Comment	Disposition
		add “for new facilities”	measures.”
GI-7	NEI	Comment that the definition of Configuration Management should identify it as a management measure.	This definition has been referred to 10 CFR 70.4.
GI-8	NEI	Comment that the definition of “control” could be eliminated.	Only “safety control” is defined.
GI-9	NEI	Regarding the definition of “consequences of concern”, suggest that specific parts of 70.61 be referenced.	This definition has been eliminated in favor of direct reference to paragraphs 70.61 (b), or (c).
GI-10	NEI	Comment that definition of “credible event” needs clarification and should be non-quantitative.	This definition is deleted from Glossary, and has a quantitative basis as defined in Chapter 3, section 3.4.3.2, item 7.
GI-11	NEI	Comment that definition of critical mass of SNM does not match that in 70.4.	The term is referenced to 70.4 for definition.
GI-12	NEI	Definition of “deviation from safe operating condition” is not correct.	This term is no longer used, and has been removed from the Glossary.
GI-13	NEI	Suggest minor changes to three definitions involving double contingency, and suggest deleting one of these terms as redundant..	Only the term “double contingency protection” has been retained and defined in the Glossary.
GI-14	NEI	Definition of “integrated safety analysis” does not match 70.4.	This term is referenced to the definition in 10 CFR 70.4.
GI-15	NEI	Definition of “integrated safety analysis summary”	This term is referenced to the definition in 10 CFR

Response to Comments - SRP Abstract, Introduction, Glossary, Acronyms and Abbreviations

Comment No.	Source	Comment	Disposition
		does not match 70.4	70.4.
GI-16	NEI	Definition of “item relied on for safety” does not match 70.4.	This term is referenced to the definition in 10 CFR 70.4.
GI-17	NEI	Definition of “management measures” does not match 70.4.	This term is referenced to the definition in 10 CFR 70.4.
GI-18	NEI	Remove the term “Preliminary PHA” because the proposed rule no longer requires a Preliminary PHA.	This term has been deleted.
GI-19	NEI	Delete from the definition of “Preventive control” the phrase “of any magnitude”	The phrase was deleted.
GI-20	NEI	Modify definition of “Safety control”	This term has been defined to be equivalent to “item relied on for safety”, as used in the SRP. See the definition for IROFS in the Glossary.
GI-21	NRC	Modify the term “simple-administrative controls” and its definition.	This definition was modified.

Response to Comments - SRP Abstract, Introduction, Glossary, Acronyms and Abbreviations

Comment No.	Source	Comment	Disposition
GI-22	NEI	Definition of “unacceptable performance deficiencies” does not match that in 70.4.	This term is referenced to the definition in 10 CFR 70.4.
GI-23	NRC	Eliminate the terms “Uncontrolled outcome” and “Unmitigated consequences” from the Glossary.	The terms have been eliminated from the Glossary. They are found only in Chapter 3, ISA, where they are adequately defined.
Acro-24	NEI	Need to make language consistent - “Integrated Safety Assessment” is shown in list - will NRC use “assessment” or “analysis”?	The list has been modified to show “Integrated Safety Analysis”, consistent with proposed rule language.

Response to Comments - Chapter 1 - Facility and Process Description

Comment No.	Source	Comment	Disposition
1.1-1	NEI	Recommend that facility and process description be limited to a narrative discussion satisfying the general objective.	Chapter 1 has been rewritten. The structure and content is largely congruent with the NEI recommendations.
1.1-2	NEI	Proposes a rewrite of section 1.1 with changes in text at various paragraphs.	See disposition of comment 1.1-1.
1.2-1	NEI	Asserts that the acceptance criteria requesting "...a description of each activity or process in which SNM will be used is excessive and inappropriate for inclusion in the institutional information chapter. Only a summary, non-technical narrative description of SNM processes is required."	The staff has clarified that a summary, non-technical narrative description is adequate in this chapter.
1.2-2	NEI	States that 1.2.4.3(1) incorrectly "...requires demonstration '...that there is no controlling foreign interest'." Also states that there is no requirement in the Part 70 rule to describe "...primary ownership and relationships to other components of the same ownership."	Staff has clarified that a controlling foreign interest need only be identified. Regarding ownership and relationships to other components, 70.23(a) requires that applicant "...appears to be financially qualified to engage in the proposed activities...", and 70.22(a)(8) states that "...the Commission may request the applicant to submit information with respect to his financial qualifications." Staff believes that information of the type requested is relevant to the assessment of financial qualifications.
1.2-3	NEI	NEI proposes a rewrite of this section 1.2 with changes in text at various paragraphs.	Staff has incorporated most of proposed revisions.

Response to Comments - Chapter 1 - Facility and Process Description

Comment No.	Source	Comment	Disposition
1.3-1	NEI	Resolve language that sometimes calls for information from the ISA Summary, and sometimes from the ISA.	Staff has resolved such occurrences to show that information will be based on information from the ISA Summary.
1.3.2	NEI	Object to inclusion of design basis information in this section. Should be discussed and justified only in ISA Summary.	Disagree with first objection, agree with second. Design basis information, in summary form and content, is to be included in Chapter 1 of the application (thus addressed in Chapter 1 of the SRP) for purposes of management level review by those NRC or public personnel who have a legitimate interest in the applicant's safety program fundamentals but who do not have the need or responsibility for the formal review and safety findings. The information in this chapter is to be only the "bottom line" bases, the results derived from the discussion and justification found in the ISA Summary.
1.3.3	NEI	NEI proposed a rewrite of section 1.3 with changes in text at various paragraphs.	Staff has made appropriate changes for this purpose and to accomplish the changes explicitly discussed in comments 1.3.1, 1.3.2 above

Response to Comments - Chapter 2 - Organization and Administration

Comment No.	Source	Comment	Disposition
2.1	NEI	Recommends that interchangeable use of “management systems and structures” and “management measures” be corrected and that the term “management policies” be used for programs and policies implemented at the corporate level	Chapter 2 has been rewritten. The structure and content is largely congruent with the NEI recommendations.
2.2	NEI	Specification of safety significant management positions in 2.3 for which qualification criteria are required should be left for specification by the license applicant. The requirement that a corporate officer be responsible for Health, Safety and the Environment (HS&E) activities is overly prescriptive.	Agree that corporate management is responsible for all facility operations, not just HS&E. SRP has been modified. However, NRC is interested primarily in HS&E, and wants to ensure that the applicant commits to accepting corporate responsibility for HS&E management. 70.22(a)(6) and 70.23(a)(2) require NRC staff to make findings that require staff knowledge of the applicant’s training and qualification specifications for key safety management positions. The positions identified in the SRP (i.e., plant manager, operations manager, shift supervisor, and HS&E managers (or similar positions)) represent positions fundamentally important to the management of the safety program. Alternatives to the acceptance criteria can be proposed for consideration by the NRC.
2.3	NEI	Proposes a rewrite of sections 2.1 to 2.7 with changes to text at various paragraphs.	Agree with most proposed revisions and will modify text to accommodate. However, SRP will continue to specify a minimum list of positions for which training and qualification requirements should be specified by applicant.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.1	NEI	“Exclusion of the results of the ISA from a facility’s licensing basis makes redundant to the license reviewer a majority of the content of the June, 1999 revision of draft SRP Chapter 3.”	Disagree. Even though it is not formally referenced in the license issued by NRC, the ISA summary is part of the licensing basis. According to the revised rule, it must “contain information that demonstrates the licensee’s compliance with the performance requirements of 70.61.” Staff notes that although the ISA Summary is not incorporated in the license by reference, it still contains binding commitments by the licensee.
3.2	NEI	“Rather than conduct a detailed review of the complete ISA, the license reviewer will now review the docketed ISA Summary.”	Agree in part. The license reviewer is not expected to review the complete ISA. However, the license reviewer will complement the review of the ISA summary with selective review of the ISA documentation at the site. See also disposition of comment 3.4 below.
3.3	NEI	“...the detailed guidance on establishing qualitative standards for the likelihood and consequence of an accident sequence, should be excluded. However, this guidance is valuable and should be considered for incorporation into NUREG-1513.”	Agree in part. Staff acknowledges that part of the current discussion in the original draft SRP was detailed and tutorial in nature. This discussion has been condensed to focus on stating clear acceptance criteria. Regarding the placement of these standards into NUREG-1513; the guidance in the SRP Chapter 3, and in Appendix A, is stated as acceptance criteria, and is full of references to compliance with the rule. Thus the material does not fit easily into the context of NUREG-1513.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.4.	NEI	“NEI recommends that Chapter 3 be restructured into two principal sections: ISA Commitments and ISA Summary.”	Agree in part. Staff believes that a restructuring of the discussion into two parts, ISA Commitments and ISA Results, is warranted. The staff plans to review not only the ISA summary, but also selected portions of the ISA documentation (maintained at the site), as necessary, to reach informed and independent conclusions needed to have reasonable assurance that the licensee will establish and maintain a safety program that will satisfy the performance requirements of 10 CFR70.61. See also the disposition of comment 3.7.
3.5.	NEI	“NEI notes that Appendix A details an approach for quantitative risk evaluation of an ISA and NEI recommends that a second appendix, Appendix B, be developed that outlines a comparable <i>qualitative</i> approach for risk evaluation. NEI also recommends that the Appendices A and B be removed from the SRP and included instead in NUREG-1513.	Staff believes that Appendix A is characterized more accurately as a semi-quantitative risk evaluation. For example, it is significantly more qualitative than a Probabilistic risk assessment (PRA). Guidance for a purely qualitative definition of likelihood has been included in the SRP. A concrete example has not been provided as Appendix B, partly because Appendix A indicates the same type of grouping of accidents by the characteristics of IROFS. Even a “qualitative” approach like double contingency contains the word “unlikely”; a term that is possessed to varying quantitative degrees. Appendix A has been retained in the SRP, with a modified introduction, because it is needed to illustrate the characteristics of an acceptable approach. As written, the text does not fit well into NUREG-1513.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.6.	NEI	"The SRP contains numerous errors in terminology"	Agree in part. Staff has reviewed the use of terminology and has corrected inconsistencies. In addition, the text has been subject to a thorough review by a technical editor.
3.7.	NEI	NEI recommends that Chapter 3 of the SRP be entitled "Integrated Safety Analysis (ISA) Commitments and ISA Summary."	Disagree. Chapter 3 is appropriately titled. As NEI acknowledges in its submittal (Section 3.1, first paragraph): <p>"The purpose of this review is to establish reasonable assurance that the... licensee will establish and maintain a safety program that will satisfy the performance requirements of 10 CFR 70.61".</p> <p>Clearly, it is the performance of the ISA, as part of the safety program, that provides assurance of adequate safety. The NRC Staff reviews this ISA process by examining the results of the ISA which are summarized in the ISA summary. The Staff may also review additional documentation of the ISA kept at the facility, if needed.</p>
3.8.	NEI	NEI recommends that Chapter 3 be significantly condensed through removal of a majority of the detailed guidance on conducting an ISA.	Agree in part. As noted in response to comment 3.3 above, staff acknowledges that part of the current discussion in the SRP is "tutorial" in nature; this discussion has been condensed to focus on establishing appropriate acceptance criteria.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.9	NEI	NEI recommends that Chapter 3 should be structured to allow license applicants to commit to performance indicators rather than to specific detailed procedures explaining how a performance goal will be achieved.	Disagree in part. At the September 14 public meeting, in response to NRC staff request for clarification of the meaning of “performance indicators”, NEI suggested that this term be considered as meaning “performance requirements.” With this substitution, the NEI suggestion is basically to rely on general commitments to satisfy the performance requirements of the rule. As noted in comments 3.4 and 3.7 above, to attain reasonable assurance that the performance requirements will be met, the Staff needs a description of equipment and procedures by which the applicant proposes to meet them. However, only <u>sufficient</u> detail is needed to attain such assurance.
3.10.	NEI	Proposes a rewrite of Chapter 3 with suggested text at various paragraphs.	Agree in part. Staff has reviewed the suggested word changes and will adopt them where appropriate.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.11	DOE	The thrust of the comments is that the approach developed in SRP is deficient in a number of respects (specifics follow); DOE appears to be recommending a probabilistic safety analysis using failure rate data of a high degree of applicability.	Agree in part. NRC staff concurs with the comments that a fully detailed, systematic, probabilistic safety analysis (PSA) is an acceptable and desirable type of analysis that meets the proposed regulation. Such quantitative methods can be more objective and technically defensible than qualitative methods. However, the validation of failure rate data applicable to Part 70 licensees is an area that needs development. Generic component failure rate data, while available, would need to be adjusted based on an applicant's operating conditions and applied management measures to assure availability and reliability. Qualitative methods of control evaluation, such as double contingency, appear to have been successful in this industry. The indexing method of Appendix A has been applied in the fuel cycle industry, and is used successfully elsewhere. Hence, staff believes that quantitative methods, though superior, are not strictly necessary to demonstrate compliance.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.12	DOE	The likelihood index, which is a summation of preventive and mitigation control failure rates, does not consider the interdependency of these controls, nor does it reflect actual performance of these controls under the expected operating conditions.	Agree in part. As noted in response to comment 3.11, a quantitative PSA that takes into account the interdependency of controls is an acceptable and desirable approach. However, the semi-quantitative approach developed in the SRP is an improvement over decisions based solely on “expert judgement” that does not employ any measurement indices. The example method in Appendix A does account for the effect on risk of the <u>conditional</u> failure of one control of a two control system. Compared to reactors, there are relatively few interdependent hardware controls. The major interdependencies are in executing administrative controls. Regarding the “performance of ...controls under the expected operating conditions,” staff’s view is that any evaluation of likelihood must consider all conditions of operation.
3.13	DOE	The criteria [used to perform the ISA] are subjective and open to arbitrary interpretation by a reviewer.	Agree in part. While compliance with qualitative criteria may be somewhat subjective, they are less so than a single overall judgement that an accident sequence is “highly unlikely.” The indexing method of a semi-quantitative ISA has, in fact, been applied in one fuel cycle facility to a wide variety of processes. The assignment of failure rates is achieved by expert judgement of the analysts, based in part on actual experience with the equipment analyzed in the specific environment of that plant. The SRP has been modified to caution staff reviewers against arbitrary interpretations of failure rates.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.14	DOE	Without comprehensive and valid equipment failure data, the performance-based, risk-informed approach cannot be implemented in a meaningful fashion.	Disagree. As noted in response to 3.11 and 3.13 above, qualitative methods can implement the rule's approach. While quantitative data specific to a particular plant environment may not exist in compiled form, a considerable amount of generic data exists for components that can be adjusted to specific applications. The semi-quantitative approach described in the SRP calls for estimating failure rates by qualitative characteristics, where data are not available. Given that the compilation of "comprehensive and valid equipment failure data" is primarily a plant-specific activity to be undertaken by an applicant, staff does not see an alternative that is more valid than the one proposed in the SRP.
3.15	DOE	Systems interactions and support system failures are not considered in the proposed indexing method of Appendix A.	In the methods outlined in the SRP, support system failures should be considered as another event(s) in an individual accident sequence. Generally, fuel cycle process safety systems lack the interactions that are found in highly integrated complex devices such as reactors. When interaction of safety controls is an issue, the independence of controls can be evaluated by a specific common cause analysis. The need for such common cause analysis is addressed in SRP Chapter 3.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.16	DOE	DOE objects to the allocation of the safety performance goals, in particular their equal allocation. DOE states that a MOX facility could be allocated a greater share of the 10^{-2} per year frequency of high consequence accidents allocated to the whole industry.	Disagree. The quantitative goal referred to are used only as guidelines for use in limited situations. The SRP text has been modified to recognize this. However, staff believes that accident frequencies should be consistent with the rule and with Commission safety goals. To do so, the SRP allocates a total frequency of high consequence events equally among accidents identified. The text has been modified to indicate that this is just one approach that may have to be adjusted dependent on the risk profile of a particular plant. However, allocation of different frequencies to different plants has difficulties. Applicants can propose alternative goals in their definitions of likelihood terms in the ISA Summary. The staff will evaluate proposed goals and definitions based on reasonable interpretations of the rule's requirements.
3.17	DOE	"The data used to set the safety performance goal numbers are insufficient and statistically insignificant."	Disagree. The goal accident frequency for high consequence events is not based on data. It is the value consistent with the Commission goal of no criticality accidents. The goal frequency for intermediate consequence events is likewise chosen to be consistent with the Commission goal of no increase in reportable abnormal occurrences. Although there are few such abnormal occurrences data points, statistical significance is not relevant. The Commission's goal is reasonable and is relative to the actual number, no matter how few.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.18	DOE	“The bases for duration index numbers appears to be selected arbitrarily... The data and the methodology for assigning of index numbers also should be provided.”	Disagree. By comparison to many of the other indexed quantities, duration indices have an objective basis. The basis is the observed duration of failures of items relied on for safety. Such items should have surveillance intervals that establish the duration of failures.
3.19	DOE	“The ISA process includes the use of several tables to assess the risk from potential accidents... The process steps are...very hard to follow... A logic diagram or procedure should be included...”	Agree in part. For accident sequences involving multiple failures the indexing method described in Appendix A requires careful reading of the instructions in the Appendix. For such complex situations, a better method is to use fully quantitative methods with formal reliability equations. Such complex sequences are best displayed with fault trees or similar logic diagrams. A recommendation to use such techniques is included in the SRP text.
3.20	DOE	“The minimal set of assurance measures for items relied on for safety appears to be selected arbitrarily, and there is no logic or basis to support it. The rule calls for the assurance measures to be selected based on the importance of the item to safety.”	Disagree. There is a logical basis for the minimal assurance measures. The primary minimum measure is change control, also called configuration management. The reason this should always be provided for IROFS is that there is a universal failure mode for IROFS; namely, that any item can be removed or rendered ineffective by human action. Thus it is always necessary to exercise change control over IROFS. The exact nature of procedures used for change control may be graded according to the importance of the item to safety and its vulnerability to unauthorized change.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.21	DOE	“The discussion appearing in this section [Appendix A] contains virtually no firm guidance as to how to quantitatively justify category assignments. It does, however, contain logical flaws and must be rewritten.”	Agree in part. The particular example method given in Appendix A is not intended to imply that a full quantitative justification be given for assignments. However, correct category assignment in ISA does depend on recognizing the actual record of failures for the type of equipment being categorized, even when data that has not been formally collected and analyzed. Formal PSA is an acceptable alternative. Any method of reliability analysis is vulnerable to being applied illogically, particularly less formal methods like that of Appendix A. For this reason the staff will review applicant methods, criteria, and their application to processes.
3.22	DOE	Risk management cannot be the acceptance of a likelihood, but of a consequence. If a consequence is too large to be accepted, then the design must reduce its likelihood such that its occurrence can be viewed as <i>virtually impossible</i> .	Disagree in part. Risk (defined as consequence x likelihood) management is the acceptability of neither consequence or likelihood alone. It is the acceptability of the product of consequence x likelihood. Staff agrees that very high consequence events may need to be either precluded or reduced to extremely low frequency to be acceptable. The performance requirements consequence categories of section 70.61 recognize that there is a qualitative difference between lethal and non-lethal events.

Response to Comments - Chapter 3 - Integrated Safety Analysis

Comment No.	Source	Comment	Disposition
3.23	BWXT	BWXT believes there is minimal value in including detailed tabulations of all accident sequences and all IROFS. ... BWXT believes that an appropriate detailed discussion of major accident sequences...would be more beneficial...	Disagree in part. Agree that listing of each individual <u>accident</u> may not always be necessary. The current version of the SRP Chapter 3 acceptance criteria for item 10, on types of accident sequences, discusses how the list of all accidents might be condensed, yet still achieve the requirement to demonstrate that <u>all</u> accidents comply with 70.61. On the other hand, the staff view concerning <u>IROFS</u> is that the list must be complete, though the level of detail need only be sufficient to evaluate compliance with 70.61. That is, the description of IROFS may be at a system level, provided that all features needed to assure reliability are mentioned. The draft SRP has been modified to address this point.
3.24	BWXT	The discussion of likelihood in 3.4.3.2-7 is a slippery slope to evaluation in probabilistic terms. This is not needed. If appropriately applied, double contingency will result in achieving 'highly unlikely'.	Agree. Staff has modified 3.4.3.2-7 and the start of Appendix A to clarify that the stating of quantitative likelihood guidelines does not imply that applicant is expected or required to provide definitions and evaluations in quantitative probabilistic terms.

Response to Comments - Chapter 4 - Radiation Protection

Comment No.	Source	Comment	Disposition
4.1	NEI	The proposed regulatory Acceptance Criteria are overly prescriptive and far exceed the regulatory authority granted to the NRC in 10 CFR Parts 19, 20, and 70. The Acceptance Criteria are weighted towards ensuring compliance with NRC regulatory guidelines, ANSI standards, and NCRP reports. NEI recommends that the Acceptance Criteria sections of the SRP be simplified to include only those actual regulatory requirements that are directly and specifically linked to a rulemaking, be goal-oriented, and be written with a minimum of prescriptive detail. NEI also recommended structural changes to streamline Chapter 4.	Agree in part. The Acceptance Criteria have been modified to remove some of the specific and prescriptive language. The acceptance criteria retained is needed for several reasons including: (1) to describe a way that is acceptable to the NRC in meeting its regulatory requirements, (2) to help less experienced reviewers, and (3) to maintain uniformity and consistency among the reviewers. Chapter 4 has been completely restructured in accordance with NEI's structural streamlining recommendations.
4.2	NEI	Chapter 4, "Radiation Protection" should be revised to emphasize the role of the ISA as the cornerstone for designing the radiation protection program to the ISA.	Disagree. NRC believes that the design of the radiation protection program should be primarily based on the regulatory requirements in Part 20 and that the ISA should be reviewed, but not be the cornerstone for designing the radiation protection program.
4.3	NEI	Other than existing licensees, applicants will not be able to provide much of the information required in the present Chapter 4.	Disagree. Presently, licensees have in their license applications the majority of the information in the present Chapter 4. NRC does not believe that new applicants will be unable to provide this information.

Response to Comments - Chapter 4 - Radiation Protection

Comment No.	Source	Comment	Disposition
4.4	NEI	Chapter 4 should not require licensees to do trend analyses as part of the ALARA review since there is no regulatory requirement.	Disagree. Presently, most licenses do trend analysis of contamination levels, employee exposures, effluent releases, etc. during their annual radiation safety reviews or ALARA reviews and NRC believes licensees should continue to do these reviews. As is generally the case, alternative analyses can be proposed by the applicant or licensee.
4.5	NEI	Chapter 4 imposes specific design requirements for ventilation systems, regardless of the safety significance of such equipment in differing areas of the facility.	Agree. Chapter 4 has been revised and the specific design requirements for ventilation systems have been removed.
4.6	NEI	NEI recommends that only the principal regulatory citation(s) for each area in Chapter 4 be listed.	Agree. Chapter 4 has been revised per NEI's recommendation.
4.7	NEI	Inconsistent terminology is used in Chapter 4. For example, the terms "radiation safety program" and "radiaton protection program" are use interchangeably. NEI recommends using the latter term, i.e., radiation protection program.	Agree. Chapter 4 has been revised per NEI's recommendation.
4.8	NEI	NEI recommends adding an additional area of review entitled "Additional Program Commitments" which includes commitments to maintain radiation program records, reporting exposures in excess of Part 20 limits, etc.	Agree. Chapter 4 has been revised per NEI's recommendation.

Response to Comments - Chapter 4 - Radiation Protection

Comment No.	Source	Comment	Disposition
4.9	NEI	The role of the ISA in designing the Radiation Protection Program is still not fully recognized.	Agree. The "Purpose of the Review" section of SRP Chapter 4 has been modified to allow insights gained in performing the ISA to be used in designing the radiation protection program. Other recommended changes were also inserted in the revised SRP.
4.10	NEI	The Educational Requirements for the Radiation Safety Officer (RSO) is too Prescriptive. The staff should consider modifying the education requirements to be consistent with the level of detail for those identified in Chapter 5 for Criticality Safety.	Agree. The staff modified the training requirements for the RSO to be consistent with chapter 5.
4.11	NEI	Several suggested minor changes in the SRP to be consistent with current industry practice. These changes would either have no impact on safety or were administrative changes.	Agree. The recommended changes were incorporated into the SRP.
4.12	NEI	Specification of QA Measures should be deferred to SRP chapter 11.	Agree.
4.13	NEI	Section 4.4.7.3(13) imposes a new requirements of leak-testing of sealed sources.	Disagree. The section incorporates a current standard license requirement.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

Comment No.	Source	Comment	Disposition
5.1	NEI	The expressed willingness of the NRC to accept an applicant's commitment to either industry-accepted or ANSI standards, rather than to require lengthy discourses in the application on how a particular procedure will be met, is another commendable improvement.	Agree in part. Standards are often vague. A description in sufficient detail to show that the applicant's practices meet the standard is often needed, in addition to a commitment. This has been clarified in revised text.
5.2	NEI	Our remaining concerns with draft SRP Chapter 5 focus on the need for a clearer definition of the scope of the reviewer's assessment and, in particular, to prevent duplicate reviews of the ISA, ISA Summary (Chapter 3) and Organization and Administration (Chapter 2) as they apply to NCS.	Agree in part. The SRP has been more clearly written so as not to require duplicative reviews. Criticality reviewer must coordinate with other reviewers. Review of ISA Summary is a totally separate task but technical reviewers will assist as needed in its review.
5.3	NEI	As written, the scope of the reviewer's assessment remains too broad and duplicative.	Disagree in part. The intent is that the scope be only the NCS program. Text has been clarified to reflect this.
5.4	NEI	Chapter 5 should focus the reviewer even more on an assessment of the applicant's commitments to design and implement an NCS program, and not on the details of how the program will be implemented.	Disagree in part. The focus should be on both general commitments and how the commitments will be met. Thus, the focus is on whether the content and level of detail of the committed practice is adequate, as well as on whether or not it is a commitment.
5.5	NEI	On several occasions, NEI has excerpted language from the draft SRP for the AVLIS facility (draft NUREG-1701) where such language is more clearly and succinctly expressed than in draft NUREG-1520.	Agree. This language has been reflected in the revised chapter as appropriate.
5.6	NEI	NEI has recommended clarification and tightening up of the draft language throughout the Chapter 5.	Specific aspects of the SRP which public comments have indicated are not sufficiently clear, have been clarified.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.7	NEI	Many of NEI's comments have been prompted by the need to more closely tie the NCS program to the ISA. The two are inextricably linked.	Agree in part. The NCS program is linked to the ISA and ISA Summary. However there are other parts of the regulation retained from the existing rule (i.e., other than Subpart H) that address criticality safety. The SRP must address all parts of the regulation.
5.8	NEI	[In §5.3(2) ('Areas of Review')], the reviewer must review, but not approve, the facility's proposed organization and administration (SRP Chapter 2) to understand how the NCS program fits into the overall plant management.	Agree in part. Approval by the NCS reviewer is done in SRP Chapter 2 as a Secondary Reviewer.
5.9	NEI	[In §5.3(3) ('Areas of Review')] the reviewer must be directed to review for familiarity, but not to approve, the results of the ISA (as summarized in the ISA Summary) pertaining to NCS-related processes.	Agree in part. The reviewer for Chapter 5 reviews NCS programmatic requirements, and may help review the adequacy of controls specified for selected accident sequences reported in the ISA Summary. There will be a criticality specialist reviewer for the ISA, but this is a separate task, and may be a different individual. SRP text has been clarified.
5.10	NEI	Several instances remain where the SRP accepts an applicant's commitment to an ANSI standard, but then seeks even broader commitments. For example, the second paragraph of §5.4 states that an applicant's commitments to adhere to an NRC-endorsed standard constitute "...an acceptable NCS program...". But the guidance then requests "...more specific commitments in the application..." Such specific commitments should not be necessary.	Disagree in part. The intent of the use of the phrase "more specific commitments" is that many of the requirements statements in the ANSI standards are at a very high level, hence lack specificity. For these general requirements, an actual description of how the applicant's practices actually meet the language of the standard is what is needed. The level of detail varies, but can be the same or less than current licenses. The text of the SRP has been clarified.
5.11	NEI	ANSI/ANS 8 series standards are sufficiently detailed that such additional commitments should not be necessary.	Disagree in part. The ANSI/ANS-8 series standards contain a minimal set of requirements on which it was possible to reach consensus. A few additional requirements are occasionally needed for health, safety, and environment issues beyond the consensus standards.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.12	NEI	Inclusion of such additional information in the safety demonstration section of the license would be more appropriate.	Disagree. Based on the new rule, there is no separate demonstration section of the license.
5.13	NEI	<p>There are several instances in which draft SRP Chapter 5 requires commitment to a principle or condition that is already contained in an ANSI/ANS 8 standard. There is, therefore, no need for re-commitment to something already embraced in the standard. Such duplicative statements should be removed. For example:</p> <ul style="list-style-type: none"> (i) §5.4.3.2(2b) is part of ANSI/ANS-8.1 and is not needed (<i>"The applicant commits to provide instruction in the Training program regarding the use of Process Variables as NCS controls"</i>) (ii) §5.4.3.3.2(1) is a statement of practice rather than an acceptance criterion and should be deleted (<i>"Although the applicant may use a single NCS control to maintain the values of two or more Controlled Parameters, this use constitutes only one component necessary for Double Contingency Protection"</i>) (iii) §5.4.3.3.2(7) and (8): These two statements are contained in ANSI/ANS-8 and need not be repeated in this section of Chapter 5 	Disagree. Some standards are sufficiently specific that commitment in the application to the standard in total is acceptably enforceable. For the general standards, such as the overall standard ANSI/ANS 8.1, the training standard, the administrative standard, and the emergency response standard, the requirements are very general. Hence it is necessary that the application contain descriptions of practices that demonstrate compliance with each of the individual general requirements statements of such standards. Items (i) and (ii) provide guidance to the reviewer concerning two problematic areas of specific standards. For instance, double contingency is interpreted differently by different individuals, hence an acceptable application should give the applicant's interpretation and commitments.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.14	NEI	On nineteen occasions the SRP requires the applicant to "... <i>commit to the requirements</i> ..." of an ANSI/ANS-8 standard. Such an all-encompassing, blanket commitment to adhere to every detail of the standard is unnecessarily broad. Specific elements of a standard may not be appropriate for every license applicant and may not be required for a facility operation based upon the results of the ISA.	Agree in part. The introduction to the SRP chapter has been clarified that commitments to standards need only be made when applicable and necessary, and may be qualified as needed. However, applicants should directly address how they would deviate from the "shoulds" and "shalls" in each standard with which the applicant proposes to comply. Reviewers must be able to determine what the applicant does and does not adopt in a referenced standard.
5.15	NEI	NEI recommends, therefore, that the SRP language be revised to cite a specific ANSI/ANS (or comparable industry standard) as guidance to the applicant in preparing license commitments.	Agree. The SRP has cited specific ANSI/ANS consensus standards, and has been reviewed to assure that specificity is maintained throughout.
5.16	NEI	The applicant should not, however, be inextricably bound to adhere to every detailed provision and element of the standard, but rather only to its broad principles and to those detailed elements dictated by the results of the ISA to be important for minimizing risks to human health and safety and the environment. In other words, an applicant's commitments should be <i>consistent with</i> the guidance provided in the standard (or regulatory guide).	Disagree in part. Applicants are not inextricably bound to adhere to every requirement in the standards. However, to comply with a standard, an applicant's program must adhere to every element of the standard that is a requirement (a shall), unless directed by the Regulatory Guides to be different. If the applicant's program so complies, it will, in general, be accepted by the reviewer. Most of the words in standards requirement statements are necessary. When literal compliance is not needed in a particular case, the reasons should be explained. See also disposition of comment 5.14.
5.17	NEI	NEI provided a complete proposed rewrite of SRP Ch.5.	Staff assessed the suggested revisions and incorporated those revisions that were appropriate, as modified by the staff for consistency and adequacy.
5.18	NEI	Consistency in the use of capitalized words in the SRP, references, etc.	Agree. Changes have been made to ensure consistency throughout the SRP and with the rule.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.19	NRC Staff	Added to §5.3, revised §5.3.1, and revised §5.4.3.1 to explicitly identify the management of the NCS program.	Clarification has been made to remove ambiguity and to allow for insertion of some of NEI's revisions.
5.20	NRC Staff	Added to §5.4 that both commitments and descriptions on how the commitments will be met are necessary.	Clarification has been made to remove ambiguity about the interpretation of the Acceptance Criteria.
5.21	NRC Staff	Added to §5.4 that the use of standards are necessary but not sufficient and non-use of the standards requires explanation.	Clarification has been made to remove ambiguity about the interpretation of the use of standards.
5.22	NRC Staff	Added to revised §5.4.3.2 that requirements apply to NCS staff as well.	Correction. This was inadvertently omitted from the previous version of the SRP.
5.23	NRC Staff	In revised §5.4.3.3, changed to corrective actions function.	Has been revised for consistency.
5.24	NRC Staff	[Comment deleted because the added text was removed from the chapter and replaced by text suggested by NEI.]	[Comment deleted because the added text was removed from the chapter and replaced by text suggested by NEI.]
5.25	BWXT	The wording in [§5.4] implies that the licensee will commit to comply with the recommendations ("shoulds") in ANSI standards. This is inappropriate since the recommendations are not intended to be requirements. The basic tenet of the ANSI standards is that recommendations are suggestions. Elevating these suggestions to requirements by requiring compliance to them is in direct opposition to the intent of the consensus standard process.	Agree in part. Standards are consensus documents and, as such, the final determination of whether something is a "shall" or "should" depends on the consensus making body. In consensus documents, "shalls" are "requirements," peers see no reason not to do it, while "shoulds" are "recommendations," peers are biased towards doing it. "Shoulds" are not "suggestions." Regulations are not consensus documents and, as such, may have different final determinations from the consensus documents. See disposition of comment 5.14.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.26	BWXT and NEI	[§5.4.3.4.1(6)] requires that the administrative margin of sub-criticality be large compared to the uncertainty in calculating k-effective. There is no technical basis for this requirement. The uncertainty in calculating k-effective and the administrative margin both are included in the acceptability of a calculational result. The relative magnitude of their values is irrelevant.	Agree in part. The value of the uncertainty and the value of the margin are included in the acceptability of a calculational result. However, the value of the uncertainty should not be as large or larger than the value of the margin.
5.27	BWXT	[§5.4.3.4.1(7)] implies that the licensee must submit a license amendment each time the licensee's validation report(s) is revised since the date and revision number of the report must be included in the application. Requiring the listing by date and revision number of the validation report would not allow timely updating of the validation report when new data needs to be incorporated.	Clarification. Having the date and revision number in the application will provide NRC with the current safety basis information. Text has been changed to clarify that changes in a validation report requires notification of the change to NRC. This should not affect the timely updating of the validation report.
5.28	BWXT and NEI	[§5.4.3.4.1(11)(f)] is similar to [§5.4.3.4.1(6)]. Please refer to the discussion above.	See disposition of comment 5.26.
5.29	BWXT	[§5.4.3.4.6(1)(b)] requires the licensee to use Appendix A to ANSI/ANS 8.1. This is inappropriate since an appendix is not part of a standard, as explicitly stated in the appendix to an ANSI standard. Appendices are used in a standard to provide examples, not necessarily even suggested practices. Elevating these examples to requirements by requiring compliance to them is in direct opposition to the intent of the consensus standard process.	Disagree. The SRP does not require the use of Appendix A of ANSI/ANS 8.1. The use of Appendix A by an applicant is acceptable to NRC.
5.30	BWXT	[§5.4.3.4.6(3)(a)] requires that the applicant commit to meet the likelihood criteria in SRP Chapter 3. The likelihood criteria in Chapter 3 requires the licensee to commit to define likelihood in numerical probabilistic terms.	Agree in part. The applicant needs to meet the performance requirements in the rule. However, the likelihood criteria in Chapter 3 does not require the applicant to perform a probabilistic risk assessment.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.31	BWXT	<p>[§5.4.3.4.6(3)(b)] requires that the applicant commit to meet the likelihood criteria in a manner consistent with ANSI/ANS 8.1. Please note that the fuel facilities licensed under 10CFR70 have never been evaluated in probabilistic terms, instead they have been appropriately evaluated in a manner consistent with the ANSI/ANS 8.1 and the double contingency principle. The SRP essentially requires the use of probabilistic methods to determine if the double contingency principle is affirmed. On the surface this may appear to support NRC's stated goals. However, BWXT believes and is supported by NCS industry experience (see letter dated December 1, 1998 from Cecil Parks, ANS Nuclear Criticality Safety Division Chair to C. Paperiello) that data bases simply do not exist to support probabilities for IROFS failures in fuel cycle facilities, and this course of action will divert attention away from operational safety.</p>	Agree in part. The applicant needs to meet the performance requirements in the rule. See disposition of comment 5.30.
5.32	NEI	New sub-chapters on license commitments have been added.	Disagree. No new license commitments were added to the draft of the SRP.
5.33	NEI	Problems remain with license applicant commitments to ANSI Standards. "Shoulds" are only recommendations and were never intended to be "shalls" in an ANSI/ANS standard.	See disposition of comments 5.14, 5.25, and 5.29.
5.34	NEI	There are varying and inconsistent degrees of detail called for in the contents of the ISA Summary and NCS program description in the license application.	Agree. The detail depends on the subject matter.
5.35	NEI	Some attempt has been made to shorten Chapter 5, but in many cases the guidance has become too open-ended and broad to ensure consistency in license application reviews.	See disposition of comments 5.3 and 5.4.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.36	NEI	NEI encourages the editor of Chapter 5 to consult draft NUREG-1718, which is the latest SRP that has been prepared using NUREG-1520 as a model.	Agree. This language has been reflected in the revised chapter as appropriate. In addition, note that NUREG-1718 will be used by one new applicant, while NUREG-1520 will be used by multiple applicants, some of whom are already licensees. As such, the two documents serve different purposes and will necessarily be different in certain ways.
5.37	NEI	The SRP should clarify that the NCS review will be based on material presented in the license application <u>and</u> on information placed on the docket (ISA Summary).	No clarification is necessary. That thought is clearly identified in SRP Chapter 1.0, which provides the background for all the SRP chapters.
5.38	NEI	§5.3.4 (referring to the ISA) stipulates that specific controls relied on to provide reasonable assurance that an inadvertent nuclear criticality will not occur are to be specified in the ISA Summary.	Agree in part. If an item is needed for safety in order to meet the performance requirements in the rule, then it should be identified as an IROFS in the ISA Summary. Note that the statement in this comment cannot be located in §5.3.4 or in any other part of Chapter 5.0.
5.39	NEI	§5.4.3.4.2 seeks designation (and description) of such controlled parameters in the license application. NEI recommends that the more generally controlled parameters be described in the ISA Summary.	Disagree. The license application is the current and appropriate location for the descriptions of controlled parameters because the descriptions are the programmatic approach of how the applicant will use the controlled parameters. The ISA Summary shows how, in a particular process, a particular controlled parameter was used.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.40	NEI	The introduction should provide some general statements linking NCS with the ISA. Specifically, it should state that the criticality safety evaluations provide the information needed to establish controls and that such criticality controls are incorporated into the ISA Summary as IROFS. Specific controls used for criticality safety should be fully documented in the criticality safety evaluations and the ISA, but only the controlled parameter should be mentioned in the ISA Summary document. Only IROFS should be mentioned in the ISA Summary.	Agree in part. Text has been added to clarify that detailed NCS information for processes should be in the criticality safety evaluation, ISA, and, in order to meet the performance requirements of the rule, in the ISA Summary. However, the description of the controlled parameters is NCS programmatic information and should remain in the license application. See disposition of comment 5.39.
5.41	NEI	This chapter has been written to address treatment of nuclear criticality events -- which are high-consequence events (10CFR70.62(b)). However, not all provisions in Chapter 5 (e.g., management measures) need to have this highest level of robustness or comprehensiveness applied. We recommend addition of a sentence in the chapter introduction to address this concern: “...Management measures may be graded in accordance with 10CFR70.62(d) based on the results of the ISA...” NEI does not support the approach in Chapter 5 that requires a licensee to defend why the highest level of assurance or a particular industry standard is not being used; an applicant must describe why a selected approach will provide reasonable assurance that a performance objective will be satisfied.	Disagree. The SRP chapter does allow for using graded measures of NCS. However, to provide guidance to the reviewer, the SRP includes specific as well as general guidance. Note that this comment appears to be in response to Section 6.4.3.2 of NUREG-1718.
5.42	NEI	NEI provided specific word change revisions to parts of Chapter 5.	Staff assessed the suggested revisions and incorporated those revisions that were appropriate, as modified by the staff for consistency and adequacy.
5.43	NRC Staff	Removed contradictory text in §5.4.3.4.2(5).	Has been revised for consistency.
5.44	NRC Staff	Revised text by using specific rule language where NEI asked.	Has been revised for consistency and to avoid confusion.

Response to Comments - Chapter 5 - Nuclear Criticality Safety

5.45	NRC Staff	Moved discussion on double contingency protection to §5.4.3.4.4.	Has been revised and moved for consistency and to avoid confusion.
5.46	NRC Staff	Added text to §5.4.3.4.7 in response comment 5.36.	Has been revised for consistency.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.1	NEI	"...Chapter 6.0 requires clarification and editing to be consistent with modifications made to 10 CFR Part 70."	Agree. Changes were made to maintain consistency with language in 10 CFR Part 70.
6.2	NEI	"...There are confusing and inconsistent references to the ISA and ISA Summary. The review must consistently state that the chemical safety review will address the accident sequences described in the ISA Summary. The inconsistent use of terms must be clarified and the contents of the ISA Summary must be clearly defined in 10 CFR Part 70.65."	Agree in part. Inconsistent references to ISA and ISA Summary were corrected. Note: Chemical process safety reviews consider the ISA Summary and other ISA documentation as needed to determine that safety is being provided.
6.3	NEI	"10 CFR Part 70.62(a) permits but no longer mandates, use of a graded approach to safety. Language in the SRP (6.5.2.2, paragraph 2) still indicates that grading is required and that the reviewer must assess the grading method. This inconsistency between the rule and the SRP must be corrected."	Agree. The use of graded approach to safety is not mandatory and the paragraph was revised.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.4(a)	NEI	(a) Several inconsistencies between the SRP and Rule remain. For example, the draft SRP requires adherence to baseline design criteria for "...new facilities or new processes.... (6.3(8)) or for " new facilities or new processes at existing facilities..." (6.4.3.3). To comply with 10 CFR 70.64(a), the correct requirement should read "... new facilities or new processes at existing facilities that require a license amendment under 70.72..."	Agree. NEI revisions were done.
6.4(b)	NEI	(b) The requirement of 6.3, Item 2 for a " quantitative interpretation of the qualitative chemical risk levels..." is obscure and may prompt confusion on behalf of the reviewer. The NRC has previously stated on numerous occasions that use of quantitative analysis (such as Probabilistic Risk Analysis) is inappropriate for fuel cycle facilities. The quantitative interpretation required in 6.3 should not, therefore, be sought.	Agree in part. The NRC is not requiring a Probabilistic Risk Analysis. However, the level of risk and how it is determined or ranked is pertinent to the safety review. No changes were made.
6.5	NEI	In several sections of Chapter 6, NEI has adopted language from the draft SRP for the AVLIS facility where such language is more clearly and succinctly expressed than in draft NUREG 1520	Agree. Language used in MOX and Part 70 SRP's were used to provide consistency and clarity.
6.6	NEI	Specific comments provided in a redline/strikeout version of chapter 6.0	Specific comments were considered and revised as necessary to address NEI's General Comments provided above.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.7	BWXT	“It is unclear from Chapter 6 of this SRP whether a “standard license application” would be expected to contain a specific chapter entitled “Chemical Process Safety”. It appears as though there is latitude, however, since this SRP is also a SFCG, this should be explicitly clarified.	Agree. The staff prefers a separate chapter describing the chemical process safety function. A separate chapter would allow for an effective and efficient review of the chemical process safety function. Revised section 6.3, second sentence.
6.8	NEI	<u>Consistency of Terminology:</u> “Special Nuclear Material” (SNM) is variously referred to as “licensed material” or “radioactive material” or “licensed radioactive material” throughout this chapter. The NRC-OSHA MoU refers to “radioactive material”. Consistency in this terminology is needed. Although, strictly speaking, the correct term in 10 CFR 70 is 'SNM', we recommend use of the simpler “licensed material” terminology.	Agree. For consistency in the SRP, the term “licensed material” will be used to represent the terms “radioactive material” or “licensed radioactive material”. Revisions were made throughout this Chapter.
6.9	NEI	<u>SRP Chapter Structure:</u> There are often discrepancies between the 'Areas of Review' and 'Acceptance Criteria' in NUREG-1520. In Chapter 6, for example, there are no clear acceptance criteria specified for areas of review 7, 8 and 10.	Agree. Section 6.4.3, “Acceptance Criteria”, was revised to correct these deficiencies. Revised section 6.4.3, second paragraph, and section 6.4.3.1(b), last sentence.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.10	NEI	<p><u>Specific Comment:</u> SRP Requirements: Chapter 6 text occasionally references "SRP requirements". The SRP does not contain requirements and can not impose requirements. It can only provide guidance. This term "requirements" must be corrected. <u>Section 6.3 "Areas of Review":</u> 3rd sentence, paragraph 1: replace the last few words to read: "...ISA Summary that meets the requirements of §70.65..."</p>	Agree. Last sentence was revised to include 70.65.
6.11	NEI	<p><u>Specific Comment:</u> <u>Section 6.3 "Areas of Review" Specific areas... #1:</u> 3rd sentence is not necessary (the entire Chapter 6 addresses licensed material and hazardous chemicals incident to its processing.) Redundant. Recommend deletion.</p>	Agree. The sentence was deleted.
6.12	NEI	<p><u>Specific Comment:</u> <u>Section 6.3 "Areas of Review" Specific areas... #5:</u> End of sentence, for consistency in terminology replace the last few words to read: "...and availability of IROFS (chemical process safety)..."</p>	Agree. The sentence was revised.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.13	NEI	<p>Section 6.4.3.2, "IROFS and Management Measures" Paragraph 1 and especially 5th - 8th sentences [new text]: discussion of management measures in paragraph 1 seems redundant as the same issues are discussed in sections (b) and (c) of §6.4.3.2. The new sentences should focus on grading of IROFS and defer consideration of management measures and their grading to later paragraph (c). Suggest revising the new sentences as follows:</p> <p>"If the applicant has elected to apply a graded approach to safety in accordance with 10 CFR 70.62(a), the reviewer should establish that the grading of IROFS is appropriate and sufficient to protect against chemical process risks. For example, the applicant should consider reliance on passive controls over active systems and consider defense-in-depth <u>in accordance with 10 CFR 70.64(b)</u>. To reduce common mode failures, the applicant should favor design features that use independent sources of motive force for items such as control actuators, jet pumps, eductors, and ejectors. Fail-safe controls are preferred unless safety concerns preclude this approach."</p> <p>Management measures to assure the availability and reliability of such IROFS, when they are required to perform their safety functions, must also be described. Management measures may be graded commensurate with risk."</p>	Agree. To eliminate redundancy, the fifth, sixth, ninth and tenth sentences were revised.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.14	NEI	<u>Section 6.4.3.2, "IROFS and Management Measures"</u> In section 6.4.3.2(c), the reviewer should not be expected to review detailed procedures, but rather commitments to establish such written procedures, policies, etc.	Disagree. The intent of 6.4.3.2(c) is to inform the applicant that the license reviewer needs a brief description of applicable IROFS procedure contents. This is stated in 6.4.3.2(c)(i) and (ii) with the following words "procedures... should be briefly described". The reviewer may review procedures if it is necessary. However, it would be more efficient and effective, if the applicant would provide a description of the procedure contents.
6.15	NEI	<u>Section 6.4.3.3, "Requirements for New Facilities or New Processes at Existing Facilities"</u> 6.4.3.3(a), 2 nd sentence: for consistency in terminology, revise to read: "...defense-in-depth of the chemical <u>process safety</u> design..."	Agree. Sentence was revised to provide consistency.
6.16	NEI	<u>Section 6.5.2, "Safety Evaluation"</u> Paragraph 1, 3 rd sentence: for consistency in terminology, revise to read: "...that the chemical <u>process safety</u> approach is consistent..."	Agree. The sentence was revised to provide consistency.
6.17	NEI	<u>Section 6.5.2, "Safety Evaluation"</u> Paragraph 3: This marks the first occasion for introducing the term 'Safety Evaluation Report' and the acronym SER. The sentence should be revised to read: "...The primary Reviewer will prepare a <u>Safety Evaluation Report</u> (SER) for the Licensing Project Manager in support of the licensing action...." Commas are not needed in this sentence. Delete them.	Agree. The sentence was revised to provide a consistent format.
6.18	NEI	<u>Section 6.5.2.2, "IROFS and Management Measures"</u> Paragraph 2, 1 st sentence: 'are' should be 'is'	Agree. The sentence was revised to correct the grammar.

Response to Comments - Chapter 6 - Chemical Process Safety

Comment No.	Source	Comment	Disposition
6.19	NEI	<u>Section 6.6, "Evaluation Findings"</u> Last paragraph of suggested text, line 3: 'provide' should be 'provides'	Agree. The sentence was revised to correct the grammar.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.1	NEI	“...requirement to commit to the requirements of NFPA Standard 801 (and others) be deleted and be replaced by an applicant’s commitment to design, implement and maintain fire protection measures consistent with the guidance of appropriate, nationally-accepted, industry standards.”	Disagree. NRC policy directs the use of consensus standards where practicable for documents such as the SRP. NFPA provides criteria that is acceptable to the staff, however, alternate criteria can be used if justified. Reworded to clarify.
7.2	NEI	The need to have a Fire Brigade consistent with NFPA 600 cannot be justified, especially if an offsite, professional fire service is relied upon to provide full manual firefighting capability.	Disagree. Applicant may need a fire brigade meeting NFPA 600 criteria if significant fire risks are present. NFPA provides criteria that is acceptable to the staff, however, alternate criteria can be used if justified. Reworded to clarify.
7.3	NEI	Remove the need for a Plant or Fire Safety Review Committee.	Disagree. This is a basic NRC position on fire protection. Reworded to clarify that a Plant Safety review committee can be substituted for a fire safety review committee.
7.4	NEI	Remove: “diked areas and run-off water containment is required (§7.4.3.3), even if the ISA does not indicate need for such structures”	Agree in part. This is not a new criteria; NFPA has criteria for the control of contaminated firefighting water. The risks should be identified and if significant, controlled. Applicant may justify not providing such structures on the basis of ISA results. Reworded to clarify.
7.5	NEI	Remove: Physical Security Concerns §7.4.3.3(iii). This addresses protection of workers from the effects of fires - an area not lying within NRC jurisdiction.	Disagree. The NRC is concerned with worker safety as described in the rule; §70.64(a)(6)(ii) pertains to employee evacuation. Physical security for SNM (within NRC regulatory jurisdiction) is actually enhanced by pre-planned and understood worker egress provisions. Reworded to clarify.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.6	NEI	"Fire Hazards Analysis (§7.4.3.2) should be constrained to radiological safety considerations. To the first sentence of §7.4.3.2 should be added the words "...as related to radiological safety."	Agree. Reworded to clarify.
7.7	NEI	Recommend deletion of section 7.4.3.4. It discusses the potential impact on fire safety of hazardous chemicals used at fuel cycle facilities. This section appears to regulate purely chemical hazards and fire hazards that may have no impact on radiological safety.	Agree in part. Revise section to limit review to potential impact on radiological safety and hazardous chemicals derived from licensed materials.
7.8	NEI	Change Chapter 7 to address the two elements: "(i) organization of firefighting capability, installation and maintenance of fire protection features and systems (including items relied on for safety), fire training, etc. and (ii) revisions of the facility's ISA pertaining to fire protection resulting from facility and operational changes, improvements in fire protection technology, etc."	Disagree. The comment infers a format based on only two elements. The current format more broadly covers items needed to assure the safety of the worker, the public, and the environment.
7.9	NEI	"The SRP should allow the applicant to commit to performance indicators and not seek specific details as to how compliance with a particular indicator will be achieved."	Disagree. At the September 14 public meeting, in response to NRC staff request for clarification of the meaning of "performance indicators", NEI suggested that this term be considered as meaning "performance requirement." With this substitution, the NEI suggestion is to rely on general commitments to satisfy the performance requirements. The staff needs to reach informed and independent conclusions of the adequacy of the licensee program. The SRP provides the details to conduct a license review and the details needed to assure safety.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.10	NEI	The SRP must clearly state that the design of the Fire Protection Program is based upon the results of the ISA. For example, the results of the ISA will determine which areas of the plant require non-aqueous fire suppression systems, which processes require fire detection and alarm systems and what should be the minimum required capabilities of site firefighting forces.	Agree in part. The relationship between the ISA and fire safety will be clearly stated in §7.4.3 and §7.4.3.2. The ISA Summary reports on individual accident sequences, including the likelihood of initiating and subsequent events. The FHA is the fundamental tool for predicting the type and severity of possible fires in a defined facility environment. The ISA team will use the FHA as required input to the ISA process for a facility.
7.11	NEI	Replace §7.1, PURPOSE OF REVIEW with: The purpose of this review is to determine with reasonable assurance that the applicant has designed a facility that provides for adequate protection against fires and explosions that could affect the safety of licensed materials and thus present an increased radiological risk. The review should also establish that the radiological consequences from fires have been considered and that suitable safety controls will be instituted to protect the workers, the public and the environment from them.	Agree.
7.12	NEI	Add to §7.1, PURPOSE OF REVIEW: Design of a fire protection program is based upon the results of the Integrated Safety Analysis (ISA). The ISA, as summarized in the ISA Summary, was evaluated in SRP Chapter 3 (<i>Integrated Safety Analysis (ISA) Commitments and ISA Summary</i>). The ISA evaluated and ranked the risks posed by potential accident sequences for which fire or explosions could be the initiating event and assessed the adequacy of items relied on for safety (and complementary management measures) to ensure that fires or explosions could not threaten neither the integrity of licensed material nor the	Agree in part. See comment 7.10. Section revised to clarify the relationship between the FHA and ISA. The purpose of the Chapter 7 review will be in part to review the applicant's evaluation of fire hazards. Hazard evaluation is a fundamental part of completing an ISA, and the fire protection specialist reviewing Chapter 7 will assist the Chapter 3 ISA reviewer in establishing reasonable assurance that significant fire hazards have been identified and accounted for in the ISA Summary.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		health and safety of workers or the public. SRP Chapter 7 encompasses review of the applicant's commitments to design and implement a corporate fire protection program and to examine the applicant's proposed performance indicators. The focus of the review is, therefore, on commitments and performance indicators rather than on specific details on how a commitment or performance indicator will be met.	
7.13	NEI	§7.2 RESPONSIBILITY FOR REVIEW: Keep the Fire Protection Engineer as the primary reviewer, make the Licensing Project Manager the secondary reviewer, and change the rest to supporting reviewers.	Disagree. NRC's position is that the order of responsibility for the technical review is adequate.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.14	NEI	Replace §7.3 AREAS OF REVIEW intro with: 10 CFR 70.62(a) requires a licensee to develop, implement and maintain a safety program that will provide reasonable assurance of public health and safety and of the environment from the fire and explosion hazards of processing licensed material during normal operations, anticipated operational occurrences and credible accidents. The reviewer should first consult the ISA Summary (SRP Chapter 3) to identify those facility operations analyzed in the ISA to have a fire or explosion potential and to gain familiarity with the items relied on for safety (and complementary management measures) that are proposed to prevent or mitigate any resulting chemical or radiological risks. The fire protection program must address these process-specific risks as well as general fire prevention and fire safety management issues. Although a separate fire safety program is not required by 10 CFR 70, an applicant should provide commitments pertaining to fire safety in the following areas:	Agree. Since the determination of “reasonable assurance” is one made by the NRC reviewer, it is appropriate to include this term in the SRP. Incorporated comment material.
7.15	NEI	In §7.3, AREAS OF REVIEW: Replace what general items licensee shall demonstrate with detailed commitments in the following areas: Organization and Conduct of Operations, Fire Protection Features and Systems, ISA and Fire Hazard Analysis, Firefighting Capability	Disagree. The current structure is considered adequate. The detailed commitments acceptable to staff are contained within the Industry Standards referenced with each Section.
7.16	NEI	In §7.4, ACCEPTANCE CRITERIA, delete intro sentence because it is redundant.	Disagree: Needed for section introduction.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.17	NEI	Replace §7.4.1, Regulatory Requirements with: 10 CFR 70.62(a) requires an applicant to establish a safety program that will provide for adequate protection against fires and explosions. 10 CFR 70.64 specifies a baseline design criterion for fire protection and requires facilities to be designed on a defense-in-depth basis. 10 CFR 70 provides general performance requirements for the facility.	Disagree: 7.4.1 as currently stated more accurately and comprehensively reflects regulatory requirements.
7.18	NEI	<p>Add the following references to §7.4.2, Regulatory Guidance:</p> <p>Fed. Reg. 57 (No. 154) 35607-35613, <i>"Guidance on Fire Protection for Fuel Cycle Facilities,"</i> 1992</p> <p>NFPA Standard 801, <i>"Standards for Facilities Handling Radioactive Material,"</i> National Fire Protection Association, Inc.</p>	Agree in part. Reference to NFPA 801 was added, but the branch technical position guidance has been incorporated in the SRP text.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.19	NEI	Section 7.4.3, Regulatory Acceptance Criteria, is non-specific and should be re-written. It is not a Chapter 7 task to review the acceptability of the ISA Summary. Replace first two paragraphs with: "An applicant's commitments on fire protection will be considered acceptable if they provide reasonable assurance that the following review criteria are adequately addressed and satisfied. The applicant may incorporate some or all of the requested information by reference to other sections of the application such as the Facility and Process Description (SRP Chapter 1.1) or the ISA Summary (SRP Chapter 3). Either approach is acceptable, so long as the information is adequately cross-referenced."	Agree in part. Section 7.4.3 is an introduction to the specific acceptance criteria in five following subsections. It is the task of the fire protection reviewer to review the ISA Summary to assist the ISA reviewer in certain aspects of the review. See disposition of comment 7.12. This section cross references other SRP Chapters for the fire protection reviewer to review. Consideration was given to including some of the comment text regarding "reasonable assurance", and incorporating material by reference, in section 7.4.3.
7.20	NEI	Change "Nationally recognized codes and standards are used to assure fire safety." to "Nationally recognized codes and standards may be used to assure fire safety."	Disagree. See comment 7.1. Section 7.4.3 is directed to reviewers - NRC will use the standards to evaluate whether applicants have assured safety. Applicants may propose alternative criteria which NRC will evaluate using the standards to test the proposed alternatives.
7.21	NEI	Add sentence to §7.4.3, third paragraph: "Specified standards will normally be considered as acceptable means of meeting the acceptance criteria."	Agree. Added proposed sentence.
7.22	NEI	Change §7.4.3.1 title from: "Fire Safety Management Measures" to "Organization and Conduct of Operations." "...to minimize confusion with the 10 CFR 70.62(d) meaning assigned to the term ' <i>management measures</i> ', NEI recommends that this chapter be renamed ' <i>Organization and Conduct of Operations</i> '"	Disagree. See Comment 7-15. NRC believes the text of 7.4.3.1 clearly differentiates between fire safety management measures and the management measures of Chapter 11 of the SRP.
7.23	NEI	Replace §7.4.3.1 with: The organization and conduct of	Disagree. The replacement is deficient in the requirement for a

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		<p>operations should be considered acceptable if the following commitments are provided: (1) the applicant commits to establish and maintain an organization responsible for plant fire safety (2) the applicant commits to appoint fire safety personnel and to identify the authority and responsibility of each position (3) the applicant commits to establish organizational relations amongst the individual positions responsible for fire protection and other line managers (e.g. emergency response) (4) the applicant commits to specify minimum experience and qualifications for all positions involved in fire protection functions and activities that affect plant fire safety (5) the applicant commits to develop and implement fire prevention and protection programs and to coordinate their execution with the facility's emergency response plans (6) the applicant commits to provide fire safety training to plant operations and maintenance personnel. The applicant commits to train specialized fire protection and firefighting training (if appropriate) to the facility's emergency response personnel (7) the applicant commits to develop and implement administrative procedures for the management of combustible materials that could initiate accident sequences and impact plant conditions that could affect the safety of radioactive materials, fire prevention and fire protection programs (8) the applicant commits to review, revise and improve, when appropriate, the facility fire prevention and fire protection programs to reflect changes to the ISA, new technologies or new operational procedures (9) the applicant commits to report and investigate fire incidents, to refer them to the facility's corrective action program,</p>	<p>review committee, senior level management attention to fire safety, and criteria to base the level of experience and qualification of personnel.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		and to document corrective actions that are implemented (10) the applicant commits to report to the NRC, in accordance with the requirements of 10 CFR 70.74, any accident or abnormal or safety-significant event resulting from a fire or explosion	
7.24	NEI	Change §7.4.3.2 title from 'Fire Risk Analysis' to 'Fire Hazard Analysis.'	Disagree. See Comment 7-15. This section contains discussion on both fire hazards analysis and ISAs.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.25	NEI	<p>The studies and tasks outlined in the following paragraph were conducted as part of the ISA. Fire Hazard Analysis (FHA) need not be considered a separate safety study, but as one component of the ISA process. The paragraph is incorrect in stating that only high-risk accident sequences involving a fire or explosion risk are evaluated. Delete this paragraph as redundant. Replace §7.4.3.2 with: The fire hazard analysis capability should be considered acceptable if the following commitments are provided: (1) the applicant commits to support revision of the facility ISA by conducting analysis of any accident sequences that have fire or explosion risks and to modify, if necessary, items relied on for safety and management measures, (2) the applicant commits to support the facility change process by assessing fire safety impacts of facility and process design modifications that may impact fire safety, (3) the applicant commits to revise plant fire protection measures to incorporate any significant changes or modifications to the facility or processes as a result of revisions to the facility ISA, (4) the applicant commits to review and update, as necessary, the fire analysis capability and to document that fire protection measures are adequate to ensure plant fire safety, (5) the applicant commits to ensure that fire protection measures, items relied on for safety, any safety grading of such items commensurate with fire or explosion risk and management measures continue to be adequate to ensure safe facility operation, (6) the applicant commits to ensure that both the fire protection program and the requirements for placement and reliability of fire protection measures are consistent</p>	<p>Disagree. Replacement of §7.4.3.2 would eliminate the criteria for conducting FHAs and the interconnection between the ISA and FHA.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.26	NEI	<p>Replace the title and first paragraph of §7.4.3.3, Facility Design with: “Fire Protection Features and Systems: An applicant’s commitments to design and construct a facility with adequate fire protection features and systems should be considered acceptable if the following criteria are met: (1) the applicant commits to design new facilities in accordance with the baseline design criteria specified in 10 CFR 70.64(a) and the defense-in-depth requirement of 10 CFR 70.64(b), (2) the applicant commits to design the facility consistent with the guidance provided in NFPA 801 or other appropriate nationally recognized fire codes and standards, (3) the applicant commits to install a fire-alarm system in areas determined in the ISA to have a significant risk of fire or explosion, (4) the applicant commits to incorporate in the facility design an adequate and reliable water supply system, (5) the applicant commits to install in areas of the plant determined in the ISA to have a significant fire loading (or the potential for significant loading) automatic fire suppression systems, (6) the applicant commits to regularly inspect, test and maintain fire protection equipment in accordance with appropriate NFPA or other industry standards, (7) the applicant commits to document in the application the fire safety considerations used in the general facility design of the licensed facilities. Specific issues that should be addressed include: “</p>	<p>Agree in part. Facility design section was a discussion of the fire protection features which limit or prevent fire damage. This includes items such as; building construction, fire areas, electrical installation, life safety, ventilation, drainage, and lightning protection.</p> <p>Since there is no mention elsewhere in the draft SRP, Chapter 7.0 that addressees new facility design and construction requirements, added new paragraph to Section 7.4.3.3: “<u>Design of New Facilities</u>: New facilities should be designed and constructed in accordance with the baseline design criteria specified in 10 CFR 70.64(a), the defense-in-depth requirements of 10 CFR 70.64(b), and consistent with the guidance provided in NFPA 801 or other appropriate nationally recognized fire protection codes and standards.”</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.27	NEI	Under Criticality Concerns, change: "An adequate application should address the methodology used for extinguishing fires in water exclusion areas." to "The applicant should address methods for extinguishing fires in water exclusion areas."	Agree in part. Incorporated wording to the extent that it improves the clarity of this section.
7.28	NEI	Under Criticality Concerns, this sentence is not an Acceptance Criteria and should be deleted: "The staff's fire safety and criticality specialist will review for adequacy."	Disagree. Sentence is needed to indicate who should review.
7.29	NEI	Under Environmental Concerns, change: "Thousands of gallons of fire water can be contaminated with nuclear material during a fire event. Diked areas and drainage of process facilities need to be properly sized to accommodate this run-off. The amount of runoff can be calculated using guidance in NFPA 801. An adequate application documents fire water run-off containment." to "The plant physical design should provide for containment and drainage in areas of the plant where a credible risk of large spills of flammable or combustible liquids exists. The design should also include provision for the drainage and hold-up of contaminated fire water following a fire."	Disagree. The reference to industry standards provide further guidance to the reviewer and is encouraged by NRC policy. See also comment 7.4.
7.30	NEI	Under Environmental Concerns, this sentence is not an Acceptance Criteria and should be deleted: "The staff's fire safety and environmental specialists will review for adequacy."	Disagree. Sentence indicates who should review.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.31	NEI	Change the Physical Security Concerns section, from; “Buildings and facilities should be designed to provide safe egress in the event of a fire, chemical, or radiological emergency. Physical security of SNM may inadvertently institute controls that delay worker egress and fire fighter access. Physical security procedures need to allow off-site fire departments quick and efficient access to the fire emergency. NFPA 801 specifies design features acceptable to the NRC and an adequate application documents the criteria used for worker egress and procedures for firefighter access. “ to “Building layout should provide a safe means of egress for plant personnel in the event of a fire. Physical security of SNM may delay worker egress and fire fighter access during fire events. Physical security procedures need to allow off-site fire departments quick and efficient access to the fire emergency.	Disagree. The reference to industry standards provide further guidance to the reviewer and is encouraged by NRC policy. See also comment 7.5.
7.32	NEI	Under Physical Security Concerns, this sentence is not an Acceptance Criteria and should be deleted: “The staff’s fire safety and physical security specialists will review for adequacy.	Disagree. Sentence indicates who should review worker egress and firefighter access concerns.
7.33	NEI	Section 7.4.3.4 appears to regulate purely chemical hazards and fire hazards that may have no impact on radiological safety. Assessment by the NRC of a facility’s fire protection program should be consistent with the 1988 NRC-OSHA MOU – and specifically with clause (iii) that directs NRC review to prevention of fires or explosions the results of which could affect the safety of radioactive materials and thereby present an increased	Disagree. This section follows the intent of the NRC-OSHA MOU and pertains to fire safety of chemicals which could cause, or exacerbate, a fire which, in turn, could cause a release of radiological material.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		radiation risk. A facility's fire protection program for hazardous chemicals need not be assessed by the NRC. Consideration of the impacts of fires and explosions involving hazardous chemicals, including those produced from radioactive materials, was addressed in the ISA and appropriate safety controls were identified for installation in the plant. Delete this Section.	
7.34	NEI	<p>Replace §7.4.3.5 with: Fire Fighting Capability and Emergency Response</p> <p>The applicant's commitments to establish manual fire fighting capability should be considered acceptable if the following criteria are met: (1) the applicant commits to establish a manual fire fighting capability that is staffed by a well-trained and fully equipped onsite fire emergency response team, by qualified offsite resources, or by a coordinated combination of the two approaches, as is appropriate for the facility, (2) the applicant commits to coordinate and provide liaison with offsite fire fighting resources and to establish a clear line of authority at the fire scene when reliance is placed on offsite response, (3) the applicant commits to enter into a formal agreement (or memorandum of understanding) that documents the assistance to be provided by the offsite organization(s) and that describes the minimum fire fighting manpower and equipment to be provided during fire emergencies and the estimated response time, (4) if the facility will rely on offsite fire fighting resources, the applicant commits to undertake periodic training with such offsite fire emergency response team in such areas as facility</p>	Disagree. NRC policy encourages the use of Industry Standards such as NFPA 600, "Industrial Fire Brigades" instead of NRC specific criteria. The criteria suggested by NEI does not provide the details needed to evaluate an application thoroughly.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		access, plant layout, emergency egress routes, ventilation systems, fire hydrants, items relied on for safety related to fire prevention, etc., (5) if the facility will rely on manual fire fighting capability provided by onsite fire emergency personnel, the applicant commits to establish, equip and train the personnel to provide the required services, (6) the applicant commits to develop a fire emergency response plan as part of the facility's Emergency Preparedness Plan (SRP Chapter 8) for each area determined in the ISA to be important to plant fire safety. Such plans should identify, for example, access and egress routes, radiological hazards, automatic and manually operated fire suppression measures, locations of items relied on for safety, special procedures for fire	
7.35	NEI	Proposed revisions to this §7.5 are mainly stylistic and are designed to ensure consistency amongst all SRP chapters. Replace §7.5.1 Acceptance Review with: "The primary reviewer should evaluate the application to determine whether it addresses the "Areas of Review" in Section 7.3. If significant deficiencies are identified, the applicant should be requested to submit additional material prior to the start of the safety evaluation.'	Disagree. The proposed change limits the course of action to requesting additional information, and does not address the course of action of returning an application for insufficient information.
7.36	NEI	Revisions to §7.5 are mainly stylistic and are designed to ensure consistency amongst all SRP chapters. Replace §7.5.2 Safety Evaluation with: "The primary reviewer shall perform a safety evaluation against the Acceptance Criteria in Section 7.4 including the applicant's commitments to design, implement and maintain each element of the fire protection program. The reviewers	Agree in part. Rewording was considered to the extent that it improved the clarity of this section.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		may consult with the supporting reviewers and NRC inspection staff to identify and resolve any issues related to the licensing review and to ensure that descriptions in the fire safety section are consistent with descriptions in other sections of the application that may interface with fire safety. Commitments and provisions made in the applicant's fire safety section should be in accordance with other sections of the SRP. For example, the supporting nuclear criticality safety reviewer should establish that the applicant's program provides reasonable assurance that a water-based suppression system will not adversely affect criticality safety. The primary reviewer will prepare a Safety Evaluation Report (SER) for the Licensing Project Manager in support of licensing action."	
7.37	NEI	Revisions to this §7.6 are mainly stylistic and are designed to ensure consistency amongst all SRP chapters. Replace §7.6 EVALUATION FINDINGS, first two paragraph with: "The staff will write an SER addressing each topic reviewed and explain why the NRC staff has reasonable assurance that the applicant's facility will be designed and constructed in accordance with appropriate standards and that the fire protection program will be adequate to protect the health and safety of the workers and public and the environment. License conditions may be proposed to impose requirements where the application is deficient. The following kinds of statements and conclusions will be included in the staff's SER:	Agree in part. Rewording was considered to the extent that it improved the clarity of this section. However, specifics of the fire protection program and references to industry standards in this section will be retained.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		The applicant has committed to an acceptable Fire Protection Program based upon the results of the ISA and that meets the acceptance criteria of SRP Chapter 7. Fire safety measures address significant fire hazards, suitable fire protection features are proposed as items relied on for safety to control these hazards and the applicant commits to maintain such controls and management measures to ensure the overall adequacy of facility fire safety. In addition, the applicant has provided commitments and information relating to the fire safety organization and conduct of operations, fire protection measures and manual fire fighting capability.”	
7.38	NEI	Delete §7.6 EVALUATION FINDINGS, third paragraph.	Disagree. Loss of this paragraph would weaken the SER example due to the loss of detail and the criteria contained within the Industry Standard.
7.39	NEI	Replace §7.6 EVALUATION FINDINGS, fourth paragraph with: “The staff concludes that the applicant’s capabilities meet or exceed the guidance provide in SRP Chapter 7. The staff concludes that the applicant’s proposed equipment, facilities and procedures provide a reasonable level of assurance that adequate fire protection will be provided and maintained for those items relied on for safety to meet the safety performance requirements and baseline design criteria of 10 CFR 70.”	Agree. Incorporated suggested language.
7.40	NEI	Reference 29 CFR 1910 is never cited in SRP Chapter 7. Delete as it is really not applicable to the topic.	Agree.
7.41	NEI	Add to §7.7 REFERENCES: Fed. Reg. 57 (No. 154) 35607-35613, “ <i>Guidance on Fire Protection for Fuel</i>	Disagree. This guidance is being replaced by the SRP for fuel cycle facilities.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
		<i>Cycle Facilities</i> ,” 1992	
7.42	NEI	Add the following to §7.7 REFERENCES: NFPA Standard 801, “ <i>Standards for Facilities Handling Radioactive Material</i> ”, National Fire Protection Association, Inc.	Agree in part. This reference is covered under the overall NFPA reference.
7.43	NEI	The reference “Uranium Oxide Fires at Fuel Cycle Facilities” is never cited in SRP Chapter 7. Delete, as it is really not applicable to the topic in Chapter 7.	Disagree. This Information Notice provides lesson learned from a fires at fuel cycle facilities to NRC reviewers. References are not used as acceptance criteria, or even regulatory guidance, but provide background information to reviewers and the industry.
7.44	NEI	The reference “Evaluation and Reporting of Fires and Unplanned Chemical Reaction Events at Fuel Cycle Facilities” is never cited in SRP Chapter 7. The reporting requirements for the revised 10 CFR 70 differ from those in this Reg. Guide. Consult 10 CFR 70.74].	Agree.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.45	NEI	<u>Adoption of Industry Standards</u> : frequent references are made to National Fire Protection Association (NFPA) codes. NEI recommends addition of clarification in §7.4.3 (' <i>Regulatory Acceptance Criteria</i> '), for example, that such codes are only guidance, that their provisions do not constitute the only threshold against which an applicant's fire safety program will be judged 'acceptable' and that blanket endorsement of an entire standard should not be expected. Guidance should be provided to a reviewer as to what constitutes acceptable endorsement of an industry code. The repetitious statements throughout Chapter 7 on endorsement or adoption of industry codes (e.g. §7.4.3.1-7.4.3.5) should be deleted for simplicity and clarity.	Agree in part. Guidance to the reviewer on the use of Industry Standards added to the Introductory Chapter of the SRP.
7.46	NEI	<u>Hazardous Chemicals</u> : treatment of hazardous chemicals within the fire safety program is not always consistent with the NRC-OSHA Memorandum of Understanding. References to ' <i>hazardous materials</i> ' or ' <i>hazardous chemicals</i> ' often require some qualification (e.g. "... <i>hazardous chemicals incident to the processing of licensed material ...</i> ")	Disagree. Could not find any specific inconsistencies.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.47	NEI	<p><i>Prescriptiveness vs. Commitments:</i> some improvement has been incorporated into Chapter 7 by directing the reviewer to examine a license applicant's commitments rather than detailed programmatic information. Although this approach is now adopted in §7.3, it is ignored for the balance of the chapter. The text in '<i>Evaluation Findings</i>' (§7.6), for example, remains overly prescriptive and should be rewritten to be consistent with the other modifications made to the chapter and other SRP chapters. Chapter 7 is often inconsistent with other SRP chapters on the level of detailed information sought for inclusion in the license application. The SRP should clarify that the fire safety program review will be based on material presented in the license application <u>and</u> on information placed on the docket (ISA Summary). The SRP should state that the fire safety evaluations will provide the information needed to perform the ISA, and thus, IROFS, and that such IROFS are incorporated into the ISA Summary.</p>	<p>Disagree. The text in section 7.6 is an example of a proposed safety evaluation report and not criteria to be reviewed against. It is understood that FHA information will be incorporated into the ISA and that IROFS are incorporated into the ISA summary. However, more information than the ISA summary will be needed to judge an adequate level of facility fire safety.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.48	NEI	<i>FHA and ISA Chronology</i> : The guidance implies that the Fire Hazards Analysis (FHA) will be conducted prior to, and serve as input to, the ISA (see, for example, §7.4.3.2, ¶2). Licensees who have already prepared their ISAs have generally conducted both simultaneously. The FHA-ISA effort is an iterative process. The SRP should not dictate the order in which the FHA and ISA are to be performed. So long as a systematic effort has been undertaken -- whether as a FHA or as a ISA -- to identify and analyze potential fire hazards and to develop methods to prevent or mitigate their occurrence and consequences, the safety objective has been met.	Disagree. NEI should interpret the SRP wording to mean it would be more efficient to conduct the FHA prior to the ISA, but is not a requirement.
7.49	NEI	<i>§7.1('Purpose of Review')</i> : NEI still recommends adding some language to §7.1 that provides an overview of the fire safety review and how the reviewer should proceed. For example, the SRP should more clearly lay out the expectations for reviewing the FHA and ISA Summary. We also suggest that §7.3 ('Areas of Review') be clarified by identifying the four principal areas of review as: (1) Organization and Conduct of Operations, (2) Fire Protection Features and Systems, (3) Manual Firefighting Capability, and (4) Fire Hazards Analysis (FHA). These areas were proposed by NEI and have been adopted in NUREG-1718. The areas of review in the revised §7.3 are somewhat repetitious (e.g. 'Facility Design' and 'Fire Protection Systems' overlap, and 'Process Fire Safety' and Facility Design' are repetitious.)	Disagree. Utilized the exact wording provided by NEI during the last series of comments, see Comment 7.11. Also, reformatting Section 7.3 into four sub-sections would lose some detail between the existing five sub-sections, such as process fire safety, some facility design features, and the overlap between environmental, criticality safety, and physical protection.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.50	NEI	<p><u>§7.3 ('Areas of Review -- Facility Design')</u>: (1) 'fire area' is an undefined term. 'life safety' refers to NFPA Standard 101 (Life Safety Code) and should be replaced by a term that does not imply required compliance with this NFPA standard (e.g. 'safe means of egress for plant personnel'). (2) last sentence of ¶1 states that a separate fire safety program is not required, yet §7.6 states that an acceptable 'Fire Protection Program' has been proposed. Inconsistent guidance. (3) suggest clarifying 'building construction' to read 'building construction features'</p>	<p>(1) Disagree. Fire area and life safety are common terms among fire safety professionals and are appropriate to use in the SRP.</p> <p>(2) Disagree. Section 7.6 is an example of one acceptable way to write a safety evaluation report. If a licensee decides to have a program, it should be reflected in the reviewer's SER.</p> <p>(3) Disagree.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.51	NEI	<p><u>§7.4.3 ('Regulatory Acceptance Criteria')</u>: (1) the words '<i>in part</i>' have been inserted. The SRP should explain what criteria <u>in entirety</u> (rather than <u>in part</u>) will be used to evaluate the applicant's fire safety commitments and measures. (2) last sentence in ¶2 explains how the license application will be reviewed and is not an 'acceptance criterion'. Suggest relocating this sentence to §7.5 ('Review Procedures') for consistency with other SRP chapters. (3) first sentence in ¶3 ("<i>...nationally recognized codes and standards are used by the reviewer to measure reasonable assurance of fire safety...</i>"). The implication of this sentence is that the national codes establish the base line against which an application will be judged. This is incorrect. While industry codes and standards may contain useful information that the reviewer may consult, reference to codes and standards should not become license commitments when they were never intended to be such. The applicant may extract pertinent provisions from industry codes and standards and place those commitments in the license application.</p> <p>throughout ¶7.4.3, repeated references are made to NFPA 801 as "<i>...an acceptable standard for fire safety management measures, conducting FHAs, fire safety design criteria and the design, installation, testing and maintenance of fire protection systems...</i>" Rather than repeating this statement in every sub-section of ¶7.4.3, it could be better stated once in §7.4.3 where the role of industry standards and codes is discussed.</p>	<p>(1) Agree. Removed "in part."</p> <p>(2) Disagree. Sentence is for clarification for the reviewer to review the entire application for information regarding the acceptance criteria.</p> <p>(3) Industry Standards are a very good license commitment and demonstrate a quality safety program that has been agreed upon by a consensus of industry, academic, and government officials. It is true that Industry standards are not required criteria, but the reviewer should use industry standards to judge the facility's fire safety.</p> <p>References to NFPA in each section directs the reviewer to detailed criteria pertinent to that section.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.52	NEI	<p><u>§7.4.3.1('Fire Safety Management Measures') : (1) delete last 2 sentences: second to last is moved to §7.4.3 and the last is moved to §7.5 as a review procedure to reduce repetitiousness and redundancy (2) first sentence of last paragraph ("...The Standard for Fire Protection for Facilities...") should be deleted to remove the implication that NFPA 801 must be adhered to. Modify the second sentence in this paragraph to read: "...An adequate application documents the fire safety management measures, <u>that include, for example, fire prevention, inspection, testing and maintenance of fire protection systems, emergency response organization qualifications, drills and training and pre-fire plans, in sufficient detail...</u>"</u></p>	Disagree. Language in the criteria is necessary for the reviewer to reference detailed criteria. It is noted that NFPA 801 is only one acceptable standard and that the licensee may use any other standard, as appropriate.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.53	NEI	<p><u>§7.4.3.2 ('Fire Risk Analysis')</u> : (1) for consistency with the Rule and complementary SRPs, re-title this section '<i>Fire Hazards Analysis (FHA)</i>'. This chapter focuses on fire safety based upon the results of the FHA; the risk analysis is performed as a Chapter 3 (ISA) undertaking. (2) 2nd sentence, ¶1: replace '<i>would</i>' by '<i>could</i>' or '<i>could possibly</i>' to reflect reality. A fire could, but not necessarily would, release licensed material -- consult the ISA Summary for the evaluation (3) last sentence, ¶1: delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy (4) 1st sentence of ¶2: '<i>intermediate event</i>' is an undefined term. The first two sentences of this paragraph are appropriate for SRP Chapter 3 (i.e. explaining how the ISA is conducted), but not in Chapter 7. Combine and simplify these 2 sentences to read: "...<i>The results of the FHA are used to conduct the ISA...</i>" (5) last sentence in section: delete. Idea moved to §7.5 to reduce repetitiousness and redundancy</p>	<p>(1) Agree.</p> <p>(2) Agree.</p> <p>(3) Disagree. Last sentence identifies which reviewer will conduct that part of the review.</p> <p>(4) Agree in part. Removed the undefined term "intermediate events." But kept the sentences to provide information to the fire safety reviewer of the ISA process.</p> <p>(5) Disagree. Last sentence identifies which reviewer will conduct that part of the review.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.54	NEI	<p>7.4.3.3 ('Facility Design'): (1) 1st sentence, ¶1: 'fire area' is an undefined term. Replace 'life safety' by a non-NFPA 101 term such as 'safe means of egress for plant personnel' (2) 2nd sentence, ¶1: the meaning of the last part of the sentence is not clear: "...or facilities that impose an exposure threat to radioactive facilities..." What does this mean? (3) 3rd sentence, ¶1: delete, as the guidance on how to use industry standards and codes has been fully explained in §7.4.3. (provides consistency with other SRP chapters.) (4) 4th sentence, ¶1: delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy (5) last sentence, ¶2: delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy (6) last sentence, ¶3: delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy (7) 4 ('Physical Security Concerns'):</p> <p>'chemical event' is an undefined term. (8) 2nd sentence, ¶4: this sentence makes no sense. How can physical security initiate a control? The sentence could (perhaps) be rewritten as follows: "...Physical security requirements for SNM may inadvertently delay worker egress and fire fighter access..." Otherwise, delete it. (9) 5th sentence, ¶4: delete, as the guidance on how to use industry standards and codes has been fully explained in §7.4.3. (provides consistency with other SRP chapters.) (10) 6th sentence, ¶4 delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy</p>	<p>(1) Disagree. Fire area and life safety are common terms among fire safety professionals and are appropriate to use in the SRP.</p> <p>(2) Fire safety professionals understand the meaning of an exposure fire threat. It means a fire hazard close to or attached to a facility of concern, that if the fire hazard is burned may cause damage to the facility of concern.</p> <p>(3) Disagree. Reworded to add relevance to criteria.</p> <p>(4) Disagree. Informs which reviewer will do the review.</p> <p>(5) Disagree. Informs which reviewers will do the review.</p> <p>(6) Disagree. Informs which reviewers will do the review.</p> <p>(7) Disagree. Chemical events of concern are defined in Chapter 6 of the SRP.</p> <p>(8) Agree. Reworded for clarity.</p> <p>(9) Disagree. Reworded to add relevance to criteria.</p> <p>(10) Disagree. Informs which reviewers will do the review.</p>

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.55	NEI	<u>§7.4.3.4 ('Process Fire Safety')</u> (1) 1 st sentence, ¶1: 'radiological area' is an undefined term. (2) 2 nd sentence, ¶1: 'fire area' is an undefined term. This sentence needs clarification. How can a 'fire area' itself threaten radiological material? (3) 3 rd and 4 th sentences, ¶1: delete, as the guidance on how to use industry standards and codes has been fully explained in §7.4.3. (provides consistency with other SRP chapters.) (4) 5 th sentence, ¶1 delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy	(1) Areas containing radiological material. (2) Agree. Reworded for clarity. (3) Disagree. Reference to detailed criteria. (4) Disagree. Informs which reviewers will do the review.
7.56	NEI	<u>§7.4.3.5 ('Fire Protection and Emergency Response')</u> (1) 1 st sentence, ¶1: the emergency response organizations are fully described in SRP Chapter 9. More narrowly express this requirement to 'emergency response organizations supporting fire protection'? (2) 2 nd sentence, ¶1: This sentence needs clarification. How can an 'area' cause an 'exposure hazard to a radiological area'? (3) 5 th & 6 th sentences, ¶1: delete, as the guidance on how to use industry standards and codes has been fully explained in §7.4.3. (provides consistency with other SRP chapters.) (4) ¶2: there is no equivalent regulatory requirement to 10 CFR 50, Appendix R(III)(H) that requires a fire brigade. 2 nd & 3 rd sentences should be deleted. (5) 6 th sentence, ¶2: delete. Idea moved to §7.5 as a review procedure to reduce repetitiousness and redundancy	(1) Agree. Reworded for clarity. (2) Agree. Reworded for clarity. (3) Disagree. Reference to detailed criteria. (4) Disagree. The ISA may deem a fire brigade or fire department necessary for mitigation of fire events. (5) Disagree. Informs which reviewer will do the review.

Response to Comment - Chapter 7 - Fire Safety

Comment No.	Source	Comment	Disposition
7.57	NEI	<p><u>§7.5.1 ('Review Procedures -- Acceptance Review')</u> As recommended throughout comments on the Acceptance Criteria, this section of Chapter 7 should expand upon the staff review assignments summarized in §7.2. For example, the staff <i>'fire safety specialist'</i> will review certain aspects of the fire safety measures or commitments. Such assignments constitute an integral component of the <i>'Review Procedures'</i> and not of the <i>'Acceptance Criteria'</i>.</p>	Disagree. The acceptance criteria identified which reviewers will conduct each sub-section.
7.58	NEI	<p><u>§7.6 ('Evaluation Findings')</u> The sample language proposed in §7.6 to report the <i>'Evaluation Findings'</i> has not been significantly modified from the June 1999 version of the SRP (except for ¶3 that was adopted from NEI's letter). While we understand this language is just an <u>example</u>, its implications and prescriptiveness may inadvertently direct the staff reviewer to inappropriate expectations for the application. Specific objections: (1) <i>'...fire protection program established...'</i>: no regulatory requirement (2) <i>'...in accordance with applicable NFPA codes and standards...'</i> and <i>'...conducted risk analysis in accordance with NFPA 801...'</i>: should permit use of equivalent codes and standards (3) <i>'...identified a fire brigade meeting NFPA 600...'</i>: too prescriptive as a fire brigade may not be required by the ISA Summary. NEI recommends reconsideration of the example language in its letter of August 27th, 1999 to avoid these prescriptive words.</p>	Disagree. Example is not meant to reflect regulatory requirements, but serve as an acceptable safety evaluation report.

Response to Comment - Chapter 8.0 - Emergency Management

Comment No.	Source	Comment	Disposition
8.1	NEI	Persistence of language in Chapter 8 that can still be construed to grant NRC regulatory oversight of hazardous material releases that have no impact on nuclear or radiological safety.	Agree. References to hazardous materials have been deleted except for the requirement to identify the quantities and location of hazardous materials and the requirement to monitor hazardous material directly related to the use of license material.
8.2	NEI	Section 8.4.3.2.11(1) implies that fire, police, medical and other emergency personnel must have the same formal training as onsite personnel.	Disagree. However, minor changes have been made to 8.4.3.2.11 to clarify that special instructions and orientation tours are sufficient for fire, police, and medical personnel.
8.3	NEI	Section 8.4.3.2.14(3) implies that offsite response organizations must review all changes to the emergency plan, even those that are determined not to reduce the effectiveness of the plan.	Agree. Clarification has been added that only those changes that decrease the effectiveness of the plan needs to be reviewed by offsite organization's.
8.4	NEI	On numerous occasions SRP chapter 8 prescribes detailed descriptions of the facility and processes, accidents and mitigation of accidents that have already been described in other parts of the application. The licensee should only have to reference this material rather than include it in the Emergency plan.	Disagree. The Emergency plan is intended to be a self-contained document.
8.5	NEI	Concepts applicable only to nuclear reactor licenses persist in chapter 8, for example, the use of the terms SAR and FEMA. These terms should be deleted.	Agree. References to FEMA and SAR have been deleted.
8.6	NEI	NEI is concerned with numerous instances in which chapter 8 of the SRP requires an analysis or directs an action that is specified neither in the Rule nor in Regulatory Guide 3.67.	Disagree. The staff considers chapter 8 to be consistent with Regulatory Guide 3.67.

Response to Comment - Chapter 8.0 - Emergency Management

Comment No.	Source	Comment	Disposition
8.7	NEI	NEI has recommended several changes to Chapter 8 to draw attention to an applicant's commitment and suggested format changes.	Disagree. The staff considers the current structure of the SRP Chapter 8 to be appropriate. The NEI proposal would result in much more general applicant commitments, inconsistent with Regulatory Guide 3.67.
8.8	NRC staff	Section 8.3.1(6) should be modified to delete the last sentence, because the information is requested in another section of the SRP.	Agree. Has been modified.
8.9	NRC staff	Section 8.3.1(7) is not required in this section of the SRP and should be deleted.	Agree. Has been deleted.
8.10	NRC staff	"Emergency Management program" should be replaced with "Emergency Plan" to be consistent with part 70. Other changes were recommended to correct grammatical errors.	Agree. Emergency Management program has been replaced with Emergency Plan.
8.11	NRC staff	Section 8.4.3.2.3(4) should be modified to include how projected doses are calculated.	Agree. Has been modified.
8.12	NEI	The SRP should include a statement that Emergency plans may be revised and implemented without NRC approval under certain circumstances.	Agree. The requested regulatory information has been inserted into the SRP
8.13	BWXT and NEI	NEI and BWXT questioned the need for the detail in this chapter since a standard and format guide already exists (Regulatory Guide 3.67).	Agree in part. A statement has been added to the SRP that applicant may use RG3.67 in preparing their Emergency Plan. However the details in chapter 8 are still needed to assist less experienced License reviewers.
8.14	NEI	NEI recommended various changes to the SRP regarding references to chemical releases to be consistent with NRC-OSHA MOU.	Agree.

Response to Comment - Chapter 8.0 - Emergency Management

8.15	NEI	Information in the ISA summary has not been fully recognized in the development of Emergency plan	Agree in part. Additional references to the ISA Summary has been included into the SRP.
8.16	NEI	NEI suggested various areas of the SRP chapter where applicants commitments should be sufficient to meet the regulations.	Agree in part. Additional areas where the applicant can commit to an action has been incorporated into the SRP chapter 8. However, detailed information is still required in order for the plan to meet it intended function.
8.17	NEI	NEI pointed out the inconsistency use terminology such as License Material radioactive material And SNM and recommended only one term be used	Agree in part. However the regulations use different term for various reason and the staff must s be consistent with the regulations.
8.18	NEI	NEI pointed out that the Training requirement for non-licensee responders may still infer formal training rather than orientation and familiarization tours.	Agree in part. Additional clarification has been added.

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.1	NEI	Draft SRP Chapter 9 can be significantly simplified by directing the reviewer to solely evaluate environmental protection measures. Information on preparation of an EA FONSI, or EIS should be deleted.	Disagree. The only way for a reviewer to determine if a licensing action requires an EIS, EA or categorical exclusion is to review the submission (letter or environmental report) as well as the environmental protection measures.
9.2	NEI	While 10 CFR 51.60 (b)(1)(i) generally requires preparation of an Environmental Report for the possession and use of special nuclear material, the NRC Branch chief may elect to invoke the categorical exclusion provision of 10 CFR 51.22(c)(xiii). This provision excuses facilities that manufacture or process special nuclear material from the requirement to submit an Environmental Report.	Disagree. This is a misinterpretation of the regulations. First, the citation should be 51.22(c) (14)(xiii). Second, the referenced section of the regulations does not apply to fuel cycle facilities. Fuel facilities are specially called out in 51.22(c)(11) where categorical exclusions are listed specifically for fuel facilities. Third, all sections contained in 51.22(c) list licensing actions for which the NRC is excused from completing an environmental assessment (EA) or environmental impact statement (EIS). This regulation does not free licensees from the requirement of 10 CFR 51.60 to submit an environmental report (ER).
9.3	NEI	NEI believes that staff assessment of an ER (if required) lies outside the scope of SRP Chapter 9.	Disagree. The SRP, as stated previously, is for both the licensee and NRC staff use. It is essential that the environmental reviewer consider the information in both the license application and environmental report when doing the environmental review in order to find that the proposed action does not significantly impact the public health and safety or harm the environment.

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.4	NEI	A separate document should be prepared that guides the staff in assessing an ER and using it in NEPA implementation.	Agree. A separate document (the Environmental SRP) is being prepared by the newly formed Environmental Review Team. Text in this SRP chapter will be modified to reference the new guidance when it is published. Until that time, the information currently described in this SRP is necessary in order for a reviewer to determine if further information is needed from the applicant, or if a categorical exclusion applies.
9.5	NEI	"The reviewer should not be expected to again evaluate the applicant's ISA (and ISA commitments) for such evaluation was performed as a Chapter 3 task."	Disagree. Chapter 9 does not direct the reviewer to fully evaluate and approve the ISA. The reviewer is directed to review the sections of the ISA and the ISA summary which are relevant to environmental protection (see Section 9.5.2). This review is coordinated with the ISA Chapter primary reviewer.
9.6	NEI	"Draft Chapter 9 does not correctly implement the NRC-OSHA MOU."	Disagree. Chapter 9 does not implement the NRC-OSHA MOU, but provides guidance on Part 51, the implementing regulations for NEPA for the NRC. Since Part 51 requires the NRC to evaluate ALL types of impacts (10 CFR 51.22 states that in order for an applicant to justify categorical exclusion "no significant change in the types or significant increase in the amounts of any effluents that may be released offsite" must be demonstrated), the NRC staff will need information related to non-radiological materials and effluents.

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.7	NEI	Chapter 9 is too prescriptive in its Acceptance Criteria. Examples: requiring the applicant to provide detailed description of monitoring measures, to identify all effluent discharge locations, to specify sample collection and analysis methods and frequencies, to outline lab QA/QC programs.	Disagree. Chapter 9 provides guidance to applicants and licensees to implement the requirements related to public doses, effluent monitoring, and environmental protection spelled out in 10 CFR Part 20. Part 20 requirements are applicable for normal operations and apply regardless of the outcome of an applicant's ISA. The comment is incorrect in stating that the effluent monitoring or other environmental measurement parameters should be based on the applicant's ISA results or summary. In addition, the acceptance criteria outlined in Chapter 9 cite criteria contained in Regulatory Guides 4.16 and 4.15. These are the regulatory guides which are currently applied to all fuel facility licensees.

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.8	NEI	Chapter 9 is too prescriptive in its Acceptance Criteria. Example: Prescribing the minimum detectable concentration to be 5%, or the action level to be 10% of 10 CFR 20 App B value	<p>The NEI paraphrase of an acceptance criteria is incomplete. The remaining portion of the criteria which NEI did not cite states that a higher MDC is acceptable if the effluents being measured are known to be higher than 5% of the Part 20 limit. This allows licensees to propose other justified criteria and is therefore <u>not</u> overly prescriptive. 9.4.4.4(a)(7) in the July 16, 1999 draft SRP is as follows:</p> <p>“The minimum detectable concentration (MDC) for sample analyses is not more than 5 percent of the concentration limits listed in Table 2 of Appendix B to 10 CFR Part 20. If the actual concentrations of radio nuclides in samples are known to be higher than 5 percent of the 10 CFR Part 20 limits, the analysis methods need only be adequate enough to measure the actual concentration. However, in such cases, the MDC is low enough to accommodate fluctuations in the concentrations of the effluent and the uncertainty of the MDC.”</p>

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.9	NEI	Chapter 9 is too prescriptive in its Acceptance Criteria. Example: requirements for continuous air sampling in areas where SNM is not handled or processed 9.4.2.2 (a)(2).	Disagree. See answer to comment 9-7. Again a portion of the acceptance criteria was not cited by NEI. The SRP criteria states: "Effluents are sampled unless the applicant has established, by periodic sampling or other means, that radioactivity in the effluent is insignificant and will remain so. In such cases, the effluent is sampled at least quarterly to confirm that effluents are not significant."

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.10	NEI	Chapter 9 is too prescriptive in its Acceptance Criteria. Example: requirement to participate in round-robin programs to ensure accuracy in environmental measurements. 9.4.2.2(b)(4)	<p>Agree in Part: Again, the comment paraphrased the criterion incorrectly. The SRP criteria is as follows: "Monitoring procedures employ acceptable analytical methods and instrumentation to be used. The applicant commits to a program of instrument maintenance and calibration appropriate to the instrumentation, as well as participation in round-robin measurement comparisons <i>if the applicant proposes use of its own analytical laboratory for analysis of environmental samples.</i>" Emphasis added.</p> <p>To reduce confusion the SRP chapter has been revised to include the statement: "If the applicant proposes to use its own analytical laboratory for the analysis of environmental samples, the applicant commits to provide third-party verification of the laboratory's methods such as may be obtained by participation in a round-robin measurement program."</p>
9.11	NEI	There is no need for the applicant to address 'Minimization of Contamination' in both Ch9 and Ch10.	Disagree. Waste minimization is an issue which bears consideration during all phases of licensing. A Decommissioning Funding Plan is required concurrent with the initial license application. In order to fully review the DFP, the waste minimization commitments should also be considered.

Response to Comments - Chapter 9 - Environmental Protection

Comment No.	Source	Comment	Disposition
9.12	NEI	The Waste Minimization provision referenced in 9.4.2.1(4) is stated incorrectly.	Agree. Text has been edited to reference 10 CFR 20.1406 for “new” facilities. However, existing facilities requesting a license amendment to include a new process or an expansion of existing operations must provide for waste minimization.
9.13	NEI	The content of Ch9 should parallel that of other SRP Chapters.	Agree. Section 9.5 and 9.6 has been edited to parallel other SRP chapters.
9.14	NEI	The substance of Ch9 should be recast in terms of license commitments as opposed to the details of how environmental protection measures will be implemented.	Disagree. NRC is not interested in generalized commitments only, but reviewers need some detail concerning how the applicant will meet the commitments.
9.15	NEI	Specific comments which implement the general comments.	The specific comments on simplification and reorganization of this chapter have been considered during the revisions to this chapter.

Response to Comments - Chapter 10 - Decommissioning

Comment No.	Source	Comment	Disposition
10.1	NEI	Chapter 10 should only be used as guidance on evaluating the Decommissioning Funding Plan, not the Decommissioning Plan.	Agree in part.. As stated previously, this SRP is for both the industry and the staff use. DP is addressed in this chapter to provide guidance to the license reviewer on necessary licensing actions associated with the receipt and approval/rejection of a DP.
10.2	NEI	The sections "Areas of Review", "Regulatory Acceptance Criteria", and "Regulatory Guidance" need to be added.	Agree. These sections will be added to this chapter.
10.3	NEI	The only potential issue of concern is the acceptability of guidance on decommissioning that will be included in the new, but as yet, unpublished NUREG guide entitled <i>NMSS Decommissioning Program Standard Review Plan.</i> Industry looks forward to receiving this new guidance document when it is completed.	No changes required
10.4	NEI	Acronyms should be defined when they are first used in the chapter. Three such definitions are recommended: (i) §10.1 (1 st sentence, 2 nd paragraph): <u>Decommissioning Plan (DP)</u> (ii) §10.5 (1 st sentence, 2 nd paragraph): <u>Request for Additional Information (RAI)</u> (iii) §10.6 (2 nd sentence, 1 st paragraph): <u>Safety Evaluation Report (SER)</u>	Agree. These changes have been made.

Response to Comments - Chapter 10 - Decommissioning

10.5	NEI	<p><u><i>\$10.1 ('Purpose of Review'):</i></u></p> <p>(i) A DP is not required in all cases under 10 CFR 70.38(g). This provision specifies submittal of a DP only if required by license condition or if procedures and activities necessary to carry out D&D of the site have not been previously approved by the NRC and these procedures could cause an increase in potential health and safety impacts to worker or the public. 1st sentence should be revised to read: "...<i>Before the initiation of decommissioning actions, the licensee must submit a DP to the NRC for approval, if required by 10 CFR 70.38(g)...</i>"</p>	Agree. Changes have been made.
10.6	NEI	<p>(ii) 2nd sentence: for consistency, add reference to public protection: "...procedures to protect workers, the public and the environment..."</p>	Agree. Changes have been made.
10.7	NEI	<p>(iii) recommend breaking the 2nd sentence into two shorter sentences (each of which expresses a different idea): "...It must provide sufficient information to allow..."</p>	Agree. Changes have been made.
10.8	NEI	<p>(iv) 5th sentence: for consistency revise this sentence to read: "...procedures, and commits to the protection of the health and safety of workers, the public and the environment during decommissioning..."</p>	Agree. Changes have been made.
10.9	NEI	<p>(v) recommend including a general statement in the introduction that Chapter 10 provides guidance for evaluation of both DFPs and DPs.</p>	No changes were made. It is clear in the introductory paragraph that this chapter covers DFPs and DPs.

Response to Comments - Chapter 11 - General

Comment No.	Source	Comment	Disposition
11.1 General	NEI	Programs that are not suitable for fuel cycle facilities and which are not mandated by 10 CFR 70 should be deleted from the SRP.	Agree. However, all of the management measures addressed in Ch. 11 are mandated by the Part 70 definition (§70.4) of management measures.
11.2 General	NEI	The prescriptiveness in discussion of certain management measures must be addressed.	Disagree. An SRP should be more detailed than a rule otherwise it would not be useful to an NRC reviewer. Detail in an SRP assures more consistency and uniformity among reviewers. Regardless of how detailed an SRP is, it is still only guidance.
11.3 General	NEI	Acceptance criteria and any examples provided to the staff reviewer must be carefully selected and be tailored to the facility risks that the items relied on for safety are designed to prevent or mitigate. Want to assure that SRP acceptance criteria do not become defacto minimum acceptable standards.	Agree. Acceptance criteria and examples provided to the staff reviewer have been reviewed to ensure that they are tailored to the facility risks that the items relied on for safety are designed to prevent or mitigate.
11.4 General	NEI	Document control, corrective action, and other topics need only be addressed once in Chapter 11.	Disagree. Some duplication is warranted to inform reviewers of differing disciplines without the necessity for extensive cross-referencing.
11.5 General	NEI	Selection of specific management measures should be left to the discretion of the applicant.	Disagree. The §70.4 definition of "Management Measures" states; "Management measures include configuration management, maintenance, training and qualifications, procedures, audits and assessments, incident investigations, records management, and other quality assurance elements."
11.6 General	NEI	The 'shalls' (regarding the grading of management measures) should be edited to read 'may.'	Agree. This has been done.

Response to Comments - Chapter 11 - General

Comment No.	Source	Comment	Disposition
11.7 General	NEI	Greater uniformity in the approach to evaluate an applicant's management measures is required. Some sections direct reviewer to examine commitments (11.5.2.5), other sections seek compliance with prescriptive detailed requirements (11.5.2.2)	Disagree. Each of the referenced sections direct the reviewer to confirm that the applicant's submitted material is consistent with specified acceptance criteria.
11.8 General	NEI	Terminology is frequently incorrectly used or defined. Editorial issues must be addressed in a thorough evaluation of this chapter (11).	Agree. Examples provided are revised as appropriate. Exceptions are appropriate use of terms such as safety function. An effort has been made to eliminate the editorial issues.
11.9 General	NEI	Repetitive requirements. SRP seems to require reviewer to perform an analysis required by an earlier chapter of the application (for example, ISA).	Reviewers review analyses performed by applicants/licensees and perform analyses only when required for confirmation purposes. In some cases, a Chapter 11 reviewer may review a given analysis from a perspective that is different from that of the reviewer of an earlier chapter of the SRP.
11.10 General		There are several usages where "Provide reasonable assurance" should replace "ensure."	Agree. "Provide reasonable assurance" has replaced "ensure" as appropriate.
11.11 General		Several (cited) references are inappropriate and should not be cited in NUREG-1520.	Disagree. References are listed for general but pertinent background information to augment a reviewer's knowledge of NRC work that has been done that may be relevant to the technical issues under review. References are listed separately from Regulatory Guidance, and are not intended to define or promote any specific NRC position to be taken by a reviewer.

Response to Comments - Chapter 11 - General

Comment No.	Source	Comment	Disposition
11.12 General		Some additional consolidation of Chapter 11 should be undertaken.	Agree. The guidance given reviewers to seek additional information from the applicant, when required, was consolidated into 11.5.1 and 11.5.2.
11.13 General		Reactor-like requirements should be deleted from Chapter 11.	Agree. See response to 11-1 and 11-3 above.
11.14 General		With respect to §11.3.2(4) - This section implies that every change will require a change in the ISA, and that NRC would expect to see changed pages to the documents.	Agree in part. §11.3.1(4) was revised to show that only “as appropriate” changes are expected. However, the CM sections in chapter 11 are the appropriate sections to discuss management of change, particularly document control, of the ISA Summary and ISA. The ISA chapter describes what the ISA Summary is and how to produce it from an ISA, not how to maintain its accuracy over time given expected design changes.
11.15 General		Chapter 11 should be restructured in terms of a licensee’s commitments to select, design, implement, and revise (as needed) appropriate management measures.	Disagree. Management measures are specified in Part 70 and licensees do not have the authority to select them. However, the last paragraph of SRP Section 11.3.8 (and elsewhere in the SRP) guides the staff reviewer to determine the applicant's commitment to overall QA.

Response to Comments - Chapter 11 - QA

Comment No.	Source	Comment	Disposition
11.1-QA	NEI	Separate treatment of QA in Chapter 11 is not required. Inclusion of a separate QA sub-section of the management measures SRP chapter appears to be repetitive and redundant.	Disagree. The §70.4 definition of “Management Measures” states; “Management measures include configuration management, maintenance, training and qualifications, procedures, audits and assessments, incident investigations, records management, and other quality assurance elements.” §70.62(d) requires each applicant or licensee to establish management measures. SRP Chapter 11 appropriately addresses each specified management measure, including quality assurance.
11.2-QA	NEI	Assurance of the reliability and availability of items relied on for safety is provided by a combination of management measures and not solely by QA.	Agree. SRP Chapter 11 addresses all of the management measures listed in §70.4.
11.3-QA	NEI	Although 10 CFR 70 does not require a licensee to establish a formal QA program (analogous to Part 50), this term is used repeatedly in the QA ‘Acceptance Criteria’ (§11.4.3.1) section. .	Partially agree. A “QA program” is an acceptable, efficient way of describing how “other quality assurance elements” (required by the rule), are implemented.
11.4-QA	NEI	Reference is also made to the QA Organization (e.g. §11.4.3.6).	“QA Organization” has been eliminated from SRP Chapter 11.
11.5-QA	NEI	Comparison of the 19 NQA-1-type QA criteria in §11.4.3.1 with the Chapter 11 management measures and components of a license application indicates that all but three QA criteria are already addressed either in the application or as a management measure.	Agree. However, the acceptance criteria differ. Where appropriate, the SRP guides the QA reviewer to refer to the appropriate SRP chapter that also addresses the management measure being reviewed.
11.6-QA	NEI	“The applicant's customers and the NRC, under 10 CFR Part 50, may impose product-related QA criteria” should be deleted (implied).	Disagree. The statement is a reminder to reviewers of the potential for conflicting QA commitments that might require investigation as part of the review.

Response to Comments - Chapter 11 - QA

Comment No.	Source	Comment	Disposition
11.7-QA	NEI	QA grading should not just parallel maintenance.	Agree. The same risk grading scheme should be applied across all management measures, i.e., a given IROF established as having risk level A should be risk level A for QA, configuration management, maintenance, and all other management measures. The attribute of risk level is inherent to a particular IROFS by virtue of its required performance in accident sequences. The risk importance is independent of management measures applied to assure its reliability and availability.
11.8-QA	NEI	What is the safety justification to conduct periodic “QA programmatic audits” if the applicant is fulfilling its ISA commitments?	The ISA summary commitment extends only to the application of a QA management measure to a particular IROF. The audit commitment provides assurance that the QA management measure is maintained competent.

Response to Comments - Chapter 11 - Configuration Management

Comment No.	Source	Comment	Disposition
11.1-CM	NEI	The example "The reviewer looks for evidence that the applicant has considered systems interaction..." should be deleted	Disagree. In 11.5.2.1 (Review Procedures) for CM, the reviewer is directed to look for reasonable assurance that design reconstitution has been adequately addressed by the applicant. Since CM starts with a known design basis, its importance to CM should be obvious. The fact that an adequate ISA could not be performed without an accurate design basis establishes the responsibility for NRC to review what applicant has done to assure the accuracy of the design basis.
11.2-CM	NEI	Section 11.3.2 remains far too prescriptive.	Disagree. However, wording that implies procedure review was deleted from 11.3.1.
11.3-CM	NEI	Draft 11.3.2 Item 4 requires an existing licensee to conduct a design reconstitution to ensure that the facility's configuration is consistent with as-built documentation. The commitment of resources to perform the calculations, analyses, updates of engineering drawings and specifications would be excessive and unnecessary and would not result in a significant benefit to safety. The long track record of safe operation of fuel cycle facilities has convincingly demonstrated that their original design configurations were acceptable and that reconstitution is not necessary. To conduct a thorough ISA on an existing facility, a licensee will, by necessity, have had to use "as-built" designs. As this management measure will not have come into force until after the ISA is completed, inclusion of a design reconstitution requirement appears to be redundant.	Disagree. 1. The SRP contains no requirements. 2.While IROFS identified by an ISA Summary may not be identified for some time to come, every licensee has equipment already identified to the NRC as important to safe operation and has claimed to have effective configuration control in their plant. A long track record of "safe" operation does not justify a set of design records, whether public or private, that do not accurately reflect either the design safety requirements or the as-built configuration that is being operated. The reviewer is instructed to look for evidence of "...design reconstitution that has been done for the purpose of the application." This means that the licensee is expected to have done whatever reconstitution was necessary to establish the current safety basis. The reviewer is to look for evidence that the licensee recognized the necessity to at least consider whether any reconstitution was necessary, and then to do what was necessary. 3. The SRP is instruction to reviewers on what to look for in an application and the necessity to include this information in the SRP is independent of the timing of

Response to Comments - Chapter 11 - Configuration Management

Comment No.	Source	Comment	Disposition
			actual performance by a licensee - it is dependent on when the SRP needs to be published.
11.4-CM	NEI	The CM function should only be applied to existing facilities once the ISA Summary has been completed and those safety-significant items relied on for safety have been properly identified.	Disagree. See NRC response to 11.3-CM above.
11.5-CM	NEI	§11.1 should not contain instances in which a safety review and analysis of a change to an item relied on for safety is required by the CM function. [Note that the SRP does not contain “requirements”]	Disagree. The CM function is established to provide a systematic assurance that activities like safety analyses and identification of IROFS for proposed changes are completed, that such activities are properly recorded, and that the effects of the changes are accurately transferred into all other appropriate plant activities. The CM function does not define how a safety review is performed or define how safety importance is assigned. Sections 11.3.1, Item 4 “Change Control”, 11.4.3.1, Item 4 “Change Control”, and 11.5.2.1, Item 4 “Change Control” properly state the SRP positions for the CM function.
11.6-CM	NEI	§11.5.2.2 should not require examination of interfaces between CM and “... <i>external organizations and functions</i> ...” [Note that the SRP does not contain “requirements”]	Disagree. The reviewer is directed to assure that the CM function is in fact coordinated with other management measures with which it shares data, or from which it obtains data, such as maintenance records, or training and qualification records. This is consistent with the purpose of the CM function of coordinating the safety requirements (established by engineering design), the as-built physical configuration, and current facility records of the first two. Minor revisions to selected sections are made to reinforce and clarify these points.

Response to Comments - Chapter 11 - Configuration Management

Comment No.	Source	Comment	Disposition
11.7-CM	NEI	There should not be redundancy nor excessive repetition of CM requirements in SRP Chapter 11. [Note that the SRP does not contain “requirements”]	Agree in part. Some repetition is considered necessary for clarity and emphasis. The Chapter 11 sections on CM have been revised to improve the clarity and to eliminate unnecessary repetition.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.1 Maint.	NEI	<u>Prescriptive and Programmatic Language</u> Individual sections of draft SRP Chapter contain very prescriptive statements...., For example, section 11.4.3.2 allows little latitude in designing monitoring, preventive maintenance and corrective maintenance programs	Disagree. Section 11.4.3.2 describes aspects of a maintenance function considered necessary for items relied on for safety. Applicant may propose reduction or elimination of some criteria for certain IROFS based on risk results of the ISA. SRP is written to inform reviewers and industry of what is important to ensuring availability and reliability of those IROFS for which failure is required to be "highly unlikely."
11.2 Maint.	NEI	<u>Technical Editing</u> Draft SRP Chapter 11 lacks consistency in the detail of guidance provided to the reviewer in Section 11.3 "Areas of Review"...Review of the maintenance program is addressed in only two paragraphs. Greater uniformity in the approach to evaluate an applicant's management measures is required.	Disagree. Areas of Review introduce the topics that are further addressed in Section 11.4.3, "Regulatory Acceptance Criteria." Section 11.3.2 content is considered adequate to meet this objective. However, to provide the requested uniformity, additional detail was added.
11.3 Maint.	NEI	<u>Miscellaneous:</u> <u>Item 7. Technical and Regulatory References</u> NRC Inspection Procedures 88062,88025 and 40 CFR Part 68 are all inappropriate to reference to a reviewer of a Part 70 license application	Disagree. The referenced procedures and regulation contain information relevant to the review of management measures described in a Part 70 license application. References are not used as acceptance criteria, or even regulatory guidance, but provide background information to reviewers and the industry.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.4 Maint.	NEI	<p><u>Miscellaneous:</u> Item 8. <u>Solicitation of Performance Data</u> The SRP directs a reviewer to examine data on which to base a decision or analysis. Part 70 facilities do not collect or assemble the extensive data that a nuclear reactor operator would. For example, section 11.6.2 states that the "...maintenance function... justifies the preventive maintenance intervals in the terms of equipment reliability goals..." Part 70 licensees do not have data to provide reliability goals. The SRP should not direct a reviewer to examine a program or new performance goal for which data will be lacking.</p>	Disagree. The maintenance function relates to IROFS. In order to provide continuous compliance with the performance requirements of 10 CFR Part 70.61, which require an unlikelihood of failure of IROFS, an equipment reliability goal must be selected. A preventive maintenance (surveillance) schedule can be selected to verify that the reliability goal is met. Over time, the surveillance will either confirm the selected reliability goal or show that improvement in the IROFS is necessary.
11.5 Maint.	NEI	Discussion of the maintenance management measure section 11.4.3.2, creates new requirements patterned after commercial nuclear power plant operation requirements and guidance for maintenance programs. It appears to apply the concepts of preventive and corrective maintenance to "human performance" activities.	Disagree. Maintenance function criteria are based on generally accepted practices used in industries where operating process integrity and highly assured containment of product is necessary. The industry chooses the use of administrative controls; the NRC must evaluate applicant's commitment to ensure the availability and reliability, through maintenance, of any given control, whether engineered or administrative. Section 11.4.3.2 also refers to the training and qualification management measure as the means of assuring administrative controls. Text editing was done to clarify these points.
11.6 Maint.	NEI	The acceptance criteria in section 11.4.3.2(4) for functional testing contain a paragraph of detailed work procedures. NEI concurs with the need for detailed procedures, but recommends that such detailed information be maintained at the facility and not included in the license application.	Agree in part. Agree that detailed procedures would be maintained at the facility. However, the functional test methods and criteria should be described to provide the NRC with an overview of how this maintenance function would be conducted by the licensee. Minor modifications were made to this section.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.7 Maint.	NEI	Although encompassing Part 70 licensees, the Part 21 requirements are primarily directed toward Part 50 licensees where an equipment defect could have very significant safety implications. In view of the appreciably lower risks...(NEI) recommends that the reference to 10 CFR Part 21 in section 11.4.3.2(f), should be deleted.	Disagree. Equipment defect in an IROFS could have very significant safety implications. Part 21 applies to Part 70 licensees and has particular significance when pertaining to UF ₆ valves, cylinders, shipping containers etc...
11.8 Maint.	NEI	NEI recommends correction of some language in section 11.6.2, "Evaluation Findings," which states that the "surveillance activities...ensure the validity of an ISA..." Similarly, the requirement for the maintenance management measure to "link items relied on for safety requiring maintenance to the ISA Summary..." is not understood.	Agree in part. The statement was revised to clarify that it is availability and reliability of IROFS that are to be ensured.
11.9 Maint.	NEI	NEI has proposed an extensive rewrite of the entire July 1999 version of draft SRP Chapter 11, including the portions pertaining to maintenance.	Agree in part. The NEI recommendations for revised text concerning the maintenance management measures were changed as deemed appropriate. Generally, these revisions were based on comments provided in this table and those provided in NEI mark ups.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.10 Maint.	NEI	<p><u>Specific Concerns:</u> Section 11.3.2, Maintenance - Areas of Review</p> <p>'maintenance' categorizes maintenance activities as "corrective", "preventive", "surveillance/monitoring" and "functional testing". Most maintenance organizations would combine "preventive" and "surveillance/monitoring". Preventive maintenance includes condition inspection and monitoring activities in addition to periodic refurbishment or replacement of components. It would also be more appropriate to list the order as "surveillance/monitoring", "preventive", "functional testing" and lastly "corrective". If you emphasize the first three, then you minimize "corrective maintenance". Since the objective is to provide reasonable assurance of the availability and reliability of the IROFS, "corrective maintenance" should be listed last. Of course, correction of known deficiencies will be top priority regardless of the listing order.</p>	Agree with logic. However, requested change was a format issue and staff does not believe revision was necessary.
11.11 Maint.	NEI	<p><u>Specific Concerns:</u> Section 11.3.2, Maintenance - Areas of Review</p> <p>correct the 1st sentence grammar "...examine the applicant's commitments <u>to inspect, calibrate and maintain IROFS to a level commensurate...</u>"</p>	Agree. The sentence was revised.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.12 Maint.	NEI	<p><u>Specific Concerns:</u> Section 11.3.2, Maintenance - Areas of Review</p> <p>3rd sentence: unnecessary sentence appropriate to Chapter 3 ('ISA') only. The 5th sentence, 2nd half -- again an inappropriate sentence for this chapter talking about the ISA</p>	Disagree. Both sentences provides clarity for the reviewer.
11.13 Maint.	NEI	<p><u>Specific Concerns:</u> Section 11.3.2, Maintenance - Areas of Review</p> <p>Points (1) - (4) outline acceptance criteria that should be deleted from §11.3.2. Just list the four areas (as was done in the last 1999 version of SRP Ch. 11)</p>	Disagree. The points provided under each maintenance area provide detail for the applicant and reviewer.
11.14 Maint.	NEI	<p><u>Specific Concerns:</u> Section 11.3.2, Maintenance - Areas of Review</p> <p>Point (1) (a)&(b) 'failures' is incorrect term. Correct §70.4 term is 'unacceptable performance deficiencies' as the IROFS may not have actually failed in operation. Rather, during a test-on-demand of the IROFS an unacceptable performance deficiency may have been detected.</p>	Agree. Both points 1(a) and 1 (b) were revised.
11.15 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section 11.3.2 ('Areas of Review') stated that the reviewer would examine an applicant's commitments to maintenance. However, this entire section 11.4.3.2 ignores commitments in Sections (1) & (2). Consistency is lacking. (See NEI's November 1999 letter for a re-casting of this chapter in terms of licensee commitments).</p>	Disagree. In section 11.3.2, the first sentence states "staff will evaluate the applicant's description of its maintenance function." Commitments by the applicant are only one part of providing reasonable assurance to a license reviewer. The primary means of providing reasonable assurance is by describing in writing how a safety function is a sound, predictable method that can be relied upon. This allows a reviewer to make an independent finding of a safety functions adequacy.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.16 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (1): 1st sentence: delete the first clause ('...for IROFS identified in the ISA Summary...' for it has been stated many times previously that these management measures apply to IROFS identified in the ISA Summary.</p>	Disagree. The first sentence may be redundant but it addresses an item of concern and does not detract from the overall intent.
11.17 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (1): 3rd sentence: this sentence does not apply to surveillance/monitoring and should be deleted. In a general way it explains how to use the results of a maintenance program. Delete it</p>	Disagree. Sentence provides the applicant and reviewer with an example how incident investigation can be used to provide positive feedback to the surveillance/monitoring function.
11.18 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (1): 4th sentence: this sentence addresses records management and the topic is better addressed in section 11.4.3.7 Delete for simplicity & consistency.</p>	Disagree. This sentence reinforces the importance of record keeping for the surveillance/monitoring function.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.19 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (2): 1st sentence: rewrite in terms of commitments: "...applicant <u>commits to plan</u> and implement repairs on IROFS...".</p> <p>Consistent with terms in §70.4, replace '...identified failures of IROFS...' with '...identified unacceptable performance deficiencies...' as we are interested not just in identified failures, but in identifying potential failures.</p>	<p>Disagree. Applicants must provide a description of commitments. A license reviewer cannot <u>independently</u> assess a commitment to determine if reasonable assurance is being provided by the applicant and that a safety function is adequate.</p> <p>Agree. The sentence was revised to include "identified unacceptable performance deficiencies".</p>
11.20 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (2) last sentence: this sentence pertains to Functional Testing and should be located to Section (4). [This same sentence is unnecessarily repeated in Section (3) as well.]</p>	Disagree. The sentence is reinforcing the importance of testing an IROFS anytime it is repaired, tested, taken off-line or inadvertently actuated.
11.21 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (3): 1st sentence: 'unplanned outages' is an inappropriate term for Part 70 facilities</p>	Disagree. However, "unplanned outage" is changed to "unanticipated loss".
11.22 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (3): 5th sentence: this sentence pertains to Functional Testing and should be located to Section (4)</p>	Disagree. The sentence is reinforcing the importance of testing an IROFS anytime it is repaired, tested, taken off-line or inadvertently actuated.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.23 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (3): last sentence: this sentence addresses records management and the topic is better addressed in §11.4.3.7 Delete for simplicity & consistency.	Disagree. This sentence reinforces the importance of record keeping for the preventive maintenance function.
11.24 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): for clarity, indent the two paragraphs containing the example	Agree. Paragraphs were indented.
11.25 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): Example 3 rd sentence: 'safety control' should be 'IROFS'.	Agree. The sentence was revised.
11.26 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): Example 1 st sentence, paragraph 2: instead of 'subject to' NRC review', recommend ' <u>for NRC review</u> '. i.e. the records will be maintained at the facility for possible NRC inspection.	Agree. The sentence was revised.
11.27 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): Paragraph 3 is out of place. It addresses administrative controls and one can not functionally test an ' <i>activity relied on for safety</i> ' or the person performing the activity. This is, rather, addressed in §11.4.3.3.	Disagree. The industry chooses the use of administrative controls; the NRC must evaluate applicant's commitment to ensure the availability and reliability, whether engineered or administrative. For example, a person can be functionally tested through audits, drills or through other management measures.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.28 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): Editorial note: some separation (e.g. a few blank lines) should be provided between paragraphs 4 & 5. Paragraphs 5-7 provide acceptance criteria (work control methods) that apply to <u>all</u> maintenance measures and not just to Functional Testing</p>	Agree. Spaces were added between the paragraphs.
11.29 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 5, sentence 1: insert 'adequate' before 'description' (the description has to be at least 'adequate' to be acceptable.)</p>	Agree. The sentence was revised.
11.30 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 5, sentence 2: suggest adding to the end of this sentence: "...and for which the applicant should <u>commit to prepare written procedures...</u>"</p>	Agree. The sentence was revised to include the proposed language.
11.31 Maint.	NEI	<p><u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 5, 3rd sentence: item (d) -- replace 'safety control' by 'IROFS'</p>	Agree. The sentence was revised.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.32 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 5, 4 th sentence: this sentence is out of place and should be included in §11.4.3.4 Delete it.	Disagree. This sentence reinforces the importance of approved written procedures for conducting maintenance.
11.33 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 6: for consistency with the 4 components of the maintenance management measure, replace 'calibration activities' by 'surveillance/monitoring'	Agree. The sentence was revised.
11.34 Maint.	NEI	<u>Specific Concerns:</u> 11.4.3.2, Maintenance - Acceptance Criteria Section (4): paragraph 6, 1 st sentence: this sentence is a statement of the obvious. It adds no clarity to the review and should, therefore, be deleted.	Disagree. Based on staff's experience, this sentence is not obvious to all applicants and will not be deleted.
11.35 Maint.	NEI	<u>Specific Concerns:</u> 11.5.2.2, Maintenance - Review Procedures 1 st sentence: This states nothing new and should be deleted. Such instructions were given in the introduction to the entire SRP.	Agree. The sentence was deleted.
11.36 Maint.	NEI	<u>Specific Concerns:</u> 11.6.2, Maintenance - Evaluation Findings Paragraph 1, 1 st sentence: the words '...and management measures for IROFS...' is redundant as maintenance is already a management measure. The sentence implies that there are management measures for the management measures.	Agree. The sentence was deleted.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.37 Maint.	NEI	<u>Specific Concerns:</u> 11.6.2, Maintenance - Evaluation Findings Paragraph 2: the implication that '...surveillance activities... ensure the validity of the ISA...' is erroneous. Management measures as a whole ensure the achievement of this goal.	Agree. The sentence was revised to reflect that surveillance/monitoring, PM and functional testing of IROFS, identified by the ISA Summary, all lead to providing reasonable assurance that IROFS will act to prevent or mitigate accident consequences.
11.38 Maint.	NEI	<u>Specific Concerns:</u> 11.6.2, Maintenance - Evaluation Findings Paragraph 3, item (3): the statement that '...maintenance...links IROFS requiring maintenance to the ISA Summary...' is unclear. What is the intended meaning? There was no acceptance criterion in §11.4 that addressed this issue (and so can it really have been 'evaluated')?	Agree. The sentence was revised to provide clarity.
11.39 Maint.	NEI	<u>Specific Concerns:</u> 11.6.2, Maintenance - Evaluation Findings Paragraph 3, item (4): reference to 'reliability goals' is inappropriate. Part 70 licensees do not have established formal 'reliability goals'. There was no acceptance criterion in §11.4 that addressed reliability goals (and so can it really have been 'evaluated')?	Disagree. In order to provide continuous compliance with the performance requirements of 10 CFR Part 70.61, which require an unlikelihood of failure of IROFS, an equipment reliability goal must be selected. A preventive maintenance (surveillance) schedule can be selected to verify that the reliability goal is met. Over time, the surveillance will either confirm the selected reliability goal or show that improvement in the IROFS is necessary. See 11.4.3.2-1 and 11.4.3.2-3 for acceptance criteria.

Response to Comments - Chapter 11 - Maintenance

Comment No.	Source	Comment	Disposition
11.40 Maint.	NEI	<u>Specific Concerns:</u> 11.6.2, Maintenance - Evaluation Findings Paragraph 3, item (6): the observation that the licensee will maintain "...detailed records of all surveillance, inspections [etc.]..." is overly prescriptive. What level of 'detail' is expected? Records enumerated in 10 CFR 70.62(a)(3) for IROFS unacceptable performance deficiencies should be adequate. Additional detail may not be warranted.	Agree in part. The sentence was revised to remove the word detailed and IROFS was added to provide specificity. However, a maintenance function would have to have the records listed in item (6) in order to maintain the minimum knowledge required for maintenance of IROFS. This information would be maintained onsite and available for NRC review.

Response to Comments - Chapter 11- Training and Qualifications

Comment No.	Source	Comment	Disposition
11.1 T&Q	NEI	Training and qualification requirements are too comprehensive, prescriptive and cumbersome.	Disagree. Training and qualification requirements should be established, as necessary for the activity, based on safety and risk. The SRP wording has been clarified to make it clear that the training and qualification objectives and methods are assigned by the applicant based on rusj,
11.2 T&Q	NEI	SRP training and qualification Areas of Review and Acceptance Criteria include “ <i>systematic approach to training, (SAT)</i> ” terms or concepts which are not necessary or appropriate.	Disagree in part. Training and qualification requirements should be established for the activity, as necessary, based on safety and risk. The concepts and terms are typical of those used for training and qualification program planning and implementation in a variety of applications. The SRP Sections have been reworded to properly reflect that the criteria do not invoke a NRR SAT type program.
11.3 T&Q	NEI	Omit design and construction personnel from the requirement to conduct needs/job analyses..	Disagree in part. Training and qualification requirements should be established, as necessary for the activity, based on safety and risk. SRP sections have been reworded for clarification and citing of specific positions has been removed from the SRP wording.
11.4 T&Q	NEI	Question why plant engineers and operators should be expected to have expertise in design, construction, and decommissioning.	Agree. Training and qualifications should be appropriate for the positions and activities and based on safety and risk.
11.5 T&Q	NEI	Delete qualifications portion of SRP chapter 11.3.	Disagree. Qualification requirements should be established for the activity, as necessary, based on safety and risk.
11.6 T&Q	NEI	Delete prescriptive criteria for qualification and training of plant personnel in SRP Section 11.4.3.4(9)	Disagree. Qualification requirements should be established for the position and/or activity, as necessary, based on safety and risk.

Response to Comments - Chapter 11 - Procedures

Comment No.	Source	Comment	Disposition
11.1-Pro	NEI	Discussion of the procedure management measure presents in §11.3.5 what appears to be a reasonable set of procedural criteria. However, the acceptance criteria (§11.4.3.5) turn these reasonable criteria into a bureaucratic nightmare of overly prescriptive detail. The SRP should not prescribe procedure content or imply that the reviewer will include assessment of individual procedures.	Disagree. The detail presented in the SRP does not, and is not intended to, dictate the specific text of procedures, or to require a reviewer to review and approve specific procedures. The direction to the reviewer concerns what applicant commitments should be sought in the license application regarding (1) the scope of topics to be covered by plant procedures, and (2) the scope of topics to be addressed within procedures. Plant procedures include more than just operating procedures. As noted elsewhere in the responses to comments, detail provided for the understanding and knowledge of the reviewer is necessary in an SRP to both define and limit the scope of reviewer action.
11.2-Pro	NEI	Procedures should be written, updated and kept at the facility and not be incorporated into the license or evaluated as part of the license application review. This chapter requires procedures for many activities that are not identified in the ISA as items relied on for safety.	Agree in part. It is not the intent of this section of the SRP to require the review of specific operating procedures as part of the licensing review. However, written operating procedures are currently required (10 CFR 70.23(a)(5)) and will continue to be required for all activities at the facilities that involve the use of licensed material.
11.3-Pro	NEI	The SRP incorrectly states that a procedure should contain "...regulations, policies and guidelines governing the procedure..." These, in fact, should be covered in the safety and regulatory procedures and not in the operating procedure.	Disagree. Operating procedures are the main tools that operations personnel use to safely run the facility and they should clearly identify the safety requirements. This does not mean that all regulations, policies and company guidelines must be placed in full text into related procedures. Where certain relevant safety information is important to the successful conduct of the procedure, such should be incorporated into the procedure. Placing this type of information into the SOPs will further explain to the operator why he/she is

Response to Comments - Chapter 11 - Audits and Assessments

Comment No.	Source	Comment	Disposition
			required to perform specific functions.

Comment No.	Source	Comment	Disposition
11.1-A&A	NEI	The audit and assessment management measure discussion frequently directs the licensee to use the audit or assessment results to immediately implement corrective actions (e.g. §11.4.3.6 1(j), 2(e)), whereas any unacceptable performance deficiencies should, in fact, initially be referred to the facility's Corrective Action program to establish what corrective actions, if any, may be warranted. NEI recommends that the CAP referral process be used before any corrective action is undertaken.	Disagree, the audit and assessment management measure discussion does not frequently direct the licensee to use the audit or assessment results to immediately implement corrective actions. The sections cited in the comment are appropriate and only suggest that an A and A program is acceptable if "On-the-spot corrective actions are provided for, with appropriate documentation; i.e., the option of immediate corrective action is available, and, audit organizations schedule and conduct appropriate follow-up to ensure timely and effective corrective action."
11.2-A&A	NEI	NEI recommends that discussion of the audit and assessment management measure revert to the language used in the June 1999 version of the SRP and focus on a licensee's binding license commitments to implement this measure. The prescriptiveness must be reduced and the carry-over of nuclear reactor terminology must be deleted. NEI also recommends that the 'Evaluation Finding' language in the earlier version of SRP Chapter 11.5 be reinstated. The 'Review Procedure' language in the new §11.5.2.6 is far too general and a majority of it should be relocated to §11.5.1 to describe general considerations applicable to all management measures.	Agree in part. Section 11.5.6 "Evaluation Findings" from Jun 2, 1999 SECY 99-147 were inserted (by reference) in the "Evaluation Findings" Section of the new draft SRP.

Response to Comments - Chapter 11 - Incident Investigation

Comment No.	Source	Comment	Disposition
11.1-Inc I	NEI	The SRP mandates establishment of "teams" to investigate abnormal events and establish their root cause(s). "Teams" is too prescriptive. A risk-based evaluation of the event should be promptly performed and, depending on the complexity and severity of the event, an individual may be all that is required to conduct the evaluation. What is important is the applicant's commitment to establish a process to conduct such investigations and to recommend possible corrective actions. NEI recommends instead that a licensee should "...establish a process to investigate abnormal events and to determine their specific or root cause(s) and generic implications..."	Agree. The SRP was revised accordingly.
11.2-Inc I	NEI	NEI recommends that the NRC consider changing the name of the "Incident Investigation" management measure to read "Corrective Action Program" to more accurately reflect the current industry usage.	Disagree. CAP is important but it is the second part of a two step process to identify and correct problems at the facilities. A CAP program is utilized for both the correction of items discovered by the A&A function and through events. Therefore, it should remain a separate and independent function.

Response to Comments - Chapter 11 - Records Management

Comment No.	Source	Comment	Disposition
11.1 RM	NEI	Examples of records should be limited to those that a licensee could be reasonable expected to establish and retain during the operating life of a facility.	Disagree. Just as design and construction records of an operating plant should meet SRP Chapter 11 guidance, final survey and decommissioning records should also meet the guidance as they become available.