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Reg Guide

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555
ATTENTION: Docketing and Servicing Branch

Gentlemen:

The Department of Energy is pleased to furnish these comments on the Nuclear Regulatory Commission's proposed draft regulatory guide, "Standard Format and Content of Site Characterization Reports for High-Level Waste Geologic Repositories".

The Department finds that the draft Guide in general provides a reasonable basis for writing such a document. Specific exceptions to this statement are taken in section-by-section comments which are enclosed.

The Site Characterization Report (SCR) will be prepared to allow NRC to judge the adequacy of the Department's site characterization program at a potential repository site. It will not fully substantiate judgements regarding site suitability until results from in situ testing, conducted from an exploratory shaft, are reported through updates of the SCR. Certain information requested, such as the effect of the design basis earthquake on surface structures (section 3.6.1), and transport mechanisms for radionuclides in each hydrogeologic unit in the credible pathway (section 5.4.4.1), will likely not be available when the SCR is first submitted and is not needed by the Commission in judging the adequacy of the Department's site investigation program. We recommend deletion of these kinds of requirements.

The guide asks for separate chapters describing outstanding issues and the Department's plans to resolve the issues. It would be clearer for all parties involved if the plans for resolution immediately followed the discussion of the issues for each major section (i.e., siting, repository, waste package).

We recommend combining "Issues" and "Investigations" into the same chapters. This should make the discussion and resolution of issues clearer in subsequent updates. Specifically, we recommend:

1) Chapter 13 and 14 be combined into one chapter and renumbered Chapter 13.

2) Chapter 15 and 16 be combined into one chapter and renumbered Chapter 14.

3) Chapter 17 and 18 be combined into one chapter and renumbered Chapter 15.

4) Chapter 19 and 20 be combined into one chapter and renumbered Chapter 16.

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The remaining chapters would be renumbered accordingly.

The Department of Energy will add a subsection to each of Chapters 3 through 12, entitled "Summary of Unresolved Issues", cross-referenced to appropriate sections of Part C.

In sections calling for waste package or repository information, the content should be clearly limited to site/package or site/repository interactions. Design detail not relevant to discussion of these interactions should not be requested. The emphasis should be on the question of how the site may affect the package or the repository.

We also prefer the term "reference design" to "conceptual design". The term "conceptual design" has a specific meaning within the Department and requires design details, such as space allocations for functions and type of construction, which will likely be unavailable at the SCR stage and which appears unnecessary for the Commission's evaluation of the Department's site investigation program.

Most of our reviewers believe the guide asks for more detail than the Commission needs to make the judgement required at this stage. For example the guide asks for copies of all data, logs and interpretations made for each borehole DOE has drilled. If all data were provided in the SCR for each hole, the document would be overwhelmed. It seems that only representative data is needed in the SCR. Other data would be available upon request. We also feel the guide requires unnecessary duplication and expense by defining "referenced reports" as documents prepared and filed separately with NRC. The guide does not allow the Department to cite references that have been published (e.g., professional journals) and are available publicly.

The Department will incorporate environmental data in its site characterization NEPA Documents, or other environmental documents, as allowed in 10 CFR 60. All information which addresses impacts of the environment on site performance will be incorporated in the SCR. Information addressing potential impacts of the facility on the environment will be discussed in NEPA Documents.

The guide requests semiannual SCR updates. Significant effort is required to update a document as comprehensive as an SCR every six months. The Department strongly recommends that Letter Progress Reports be submitted at six-month intervals and that the total SCR be formally updated annually.

The Quality Assurance programs and plans, presently shown as distributed throughout the Site Characterization Report with each activity, should instead be discussed in a separate chapter.

A major concern is the amount of time the Commission will need to review the SCR submittals. Our projects are using three months for planning purposes. Please advise us if we should use another estimate for planning purposes.

Enclosed are more specific comments and a proposed revision to the Table of Contents. We would be happy to meet with representatives of the Commission to discuss these comments.

Sincerely,

Sheldon Meyers

Sheldon Meyers
Acting Deputy Assistant Secretary
for Nuclear Waste Management
and Fuel Cycle Programs
Office of Nuclear Energy

Enclosures

SPECIFIC COMMENTS ON NRC FORMAT AND CONTENT GUIDE

PART A

STANDARD FORMAT AND CONTENT GUIDANCE FOR DESCRIBING THE CRITERIA AND DECISION PROCESS OF SELECTING CANDIDATE AREAS AND SITES

An Executive Summary will be added before the Introduction to allow a clear and concise synopsis of the Site Characterization Report. Both in this Executive Summary, and in the following Introduction, the purpose of the SCR should be explicitly defined: extracted from page xi, Items 1-5. In addition, the purpose should express the action that DOE expects from NRC: a letter from the Director of NMSS agreeing with the site-characterization program as detailed in the SCR. Qualifying remarks should appear in both the Executive Summary and the Introduction, similar to those made by the NRC on pages xiii, and xiv, concerning the relative completeness and balance of the information available at the time the SCR is written.

1. INTRODUCTION

1.3 Material Incorporated by Reference: The definition of "Reports" makes it impossible to incorporate by reference literature documents which have not been filed separately with the NRC. DOE should be able to reference published documents which are publicly available. They should not be required to defer incorporation by reference until documents have been submitted to NRC.

2. DECISION PROCESS FOR CHOOSING CANDIDATE AREA AND SITE

2.3 Legal and Insitutional Factors: In the event that political factors weigh more heavily in site selection than technical factors, it would seem appropriate that the effects of political considerations be described here, in addition to the technical factors which have also to be considered.

PART B

STANDARD FORMAT AND CONTENT GUIDANCE FOR
DESCRIBING THE SITE, WASTE FORM, WASTE PACKAGING,
AND ENVIRONMENT, AND CONCEPTUAL DESIGN

3. GEOLOGIC DESCRIPTION OF CANDIDATE AREA AND SITE

3.2 Subsurface Penetrations at Site: The first sentence should be changed to read "Provide a tabulation of all active and abandoned wells, boreholes, and excavations constituting potential radionuclide discharge points...."

3.4 Geomorphology: Acceptable as written, but seems excessive for the purposes of the SCR as defined by NRC. The section is vague with respect to what is meant by "geomorphic units". An appropriate combination of Quaternary stratigraphy and and geomorphic land forms seems necessary.

3.4.2.1 Geomorphic Units: Acceptable as written, but see comment under Section 3.4.

3.4.2.3 Geomorphic Effects: The use of the word "relevant" in the first sentence is not specific. The word should be deleted and replaced by the words "detrimental or beneficial".

3.5 Stratigraphy and Lithology: In paragraph 1, Item (3), "Surface Geology" is not a subset of stratigraphy or lithology. This description should be deleted from the section and placed elsewhere in the document.

In paragraph 2, the first sentence should be reworded as follows: "From the above information, generate a conceptual model of both the candidate area and site so that site selection, and plans for site characterization, can be assessed." The second sentence of paragraph 2 should be rewritten as follows, "These models should be developed to a level of detail and spatial extent needed to give a basic geologic understanding, to form a basis or framework for other investigations such as hydrogeology, geochemistry, structural geology, and geotechnical engineering, and to provide information for the basis upon w h site characterization should be undertaken."

3.5.1 Regional Stratigraphic Framework: In Item (4) the first sentence should be deleted.

3.5.4 Stratigraphic and Lithologic Framework of Proposed Sit of Geologic Repository: In paragraph 1, sentence 6 should be rewritten as follows: "For wells that have been cored, representative driller logs, lithologic and geophysical logs, and core photographs will be provided. All such information will be available for inspection at the site".

Paragraph 2, the sentence should be rephrased to read, "...as hydrology, and to provide a basis for site characterization."

In paragraph 4, the first sentence should be rewritten as follows: "Each lithostratigraphic unit should be described and mapped as needed to support other studies such as hydrology and to provide a basis for site characterization."

Item (10): As written, this is "gobbledygook". What is needed is a definition of the age and chronology of the units in the site area.

Item (11 Replace the words "to include" with the word "in ing".

3.6 Geophysics of Candidate Area and Site: All geophysical work that has been done will be described in this section. The results and interpretation will, however, be dispersed into appropriate sections (e.g., seismicity will be found in the Tectonics Section). Reference will be made to the appropriate section in which geophysical results and interpretations are found.

Paragraph 1, line 3: The phrase "An assessment of natural or man-made events that might change the geophysical... conditions... is vague. What is needed is discussion of the potentjal for tectonic or volcanic events that might affect repository performance.

3.6.1 Seismicity of Candidate Area: Paragraph 4, the first sentence should read, "...of magnitude greater than 4..." A magnitude of 3 will not usually be felt and thus cannot be reliably detected and recorded with historical earthquake reports.

In paragraph 4, the fourth sentence, "Effects of such...should be evaluated", should be deleted. The analysis of these effects is entirely premature at the site-characterization report stage.

In paragraph 4, the sixth sentence: Delete the words "The evaluation of the preliminary design earthquake should"... New sentence will read, "Include and evaluation of the active faults in the area..."

3.6.3 Regional Seismic Reflection and Refraction Surveys: What is intended by the use of the term "region"? This request could be either impossible or unnecessary, depending on how region is defined.

3.6.8 Borehole Geophysics: The second sentence should read, "Copies of representative data, logs, and interpretations will be included. All information will be available for inspection at the site."

3.7 Structural Geology and Tectonics: In the first sentence, the words "screening and selection process" should be deleted.

3.7.2.4 Jointing: In paragraph 2, sentence 3: replace the word "Analyze" with the word "Discuss".

3.7.2.6 Active Stress Field: In the second paragraph, sentence 2 replace the word "Analyze" with the word "Discuss".

3.8 Long-Term Regional Stability with Respect to Tectonic and Geological Processes: In the second sentence, replace the word "models" with the word "methods".

3.9 Mineral Resources: At the end of the first paragraph, add the following sentence "The purpose of the resource assessments is to determine whether, with respect to similar nearby areas, the site is average, above average, or below average in value of mineral resources and potential resources". This sentence comes from subsection 3.9.4, and we recommend its deletion in that subsection.

In the second paragraph, we recommend that the first sentence read",...from the surface to a depth of 1/2 km below the limits of the conceptual repository excavation...."

3.9.3 Assessment of Comparison Areas in Region: In the last sentence, delete the word "statistically".

3.9.4 Analysis of Resources: Delete the first sentence. We recommend its placement at the end of the first paragraph of Section 3.9.

5. HYDROGEOLOGY

Second sentence, Item (1), should be rewritten to say, "Describe the hydrogeology based on available literature and site screening studies,..." The purpose of the Site Characterization Report is not to demonstrate that the site is adequate.

5.1.1 Hydrogeologic: Acceptable as written. A Qualitative description will be provided.

5.1.2 Relationships Among Hydrogeologic Units: The first sentence should be rewritten as follows: "...and hydrochemical facies." The words "and the average interstitial ground-water velocities." should be deleted. Such velocities are not relevant on a regional basis.

5.1.3 Potentiometric Level: The first sentence should be rewritten to read, "Provide...potentiometric levels of principal hydrogeologic units."

5.1.4 Hydraulic Characteristics of Principal Hydrogeologic Units: The text of this subsection should read as follows, "Provide the ranges, mean values, and methods for determining the principal hydraulic characteristics for the principal hydrogeologic units such as hydraulic conductivity, storage coefficient, effective porosity, and saturated thickness. The second sentence of this paragraph should be deleted. The discussion called for by this sentence has its place in the Modeling and/or Performance Assessment Section.

5.2 Regional Ground-Water Flow System: Delete the word "detailed".

5.2.2 Principal Ground-Water Paths: This section should be rewritten as follows: "Describe the principal ground-water flow paths. Use cross sections and maps to indicate the principal ground-water flow paths. Using the information requested in Section 8.2, discuss the impact of future climatic variations on ground-water flow paths. The last sentence of this paragraph should be deleted; it is not appropriate to be discussed at the regional level.

5.3.2 Regional Hydrochemistry: This section should include information on ground water temperature. Furthermore the symbol "HCO_4^-" should be "HCO_3."

5.4.1.2 Potentiometric Levels: The first sentence should read, "Provide representative hydrographs and potentiometric-surface maps for each principal hydrogeologic unit."

5.4.2 Hydraulic Characteristics of Matrix and Fluid: The first sentence should read, "Provide information... and fluid for principal hydrogeologic unit".

5.4.4.1 Radionuclide Transport Mechanisms: In the first sentence, delete "and the results"...The SCR is intended to define methods and plans only at this stage of investigation.

5.4.4.2 Geothermal Gradient and Thermal Convective Component: Delete, "...and assess the effect...on the ground-water transport".

5.4.6.1 Design Considerations: Information requested in this subsection is not understood. The type of information requested should be specified.

5.4.7 Local Ground-Water Users: Add the following sentence: "Describe sources of water for construction and operation of the proposed facility."

6. GEOCHEMISTRY

In the 11th line from the top, Item (1), should read. "Identify and discuss pertinent geochemical factors based on available literature and site screening studies..." The near-field should be defined.

6.3 Chemistry of Waste, Barriers, and Near-Field Environment: The information for Section 6.3 (and Chapter 11) will be presented in summary form and stated succinctly, but will status the program to date and summarize the plans to resolve the issues remaining. References to publicly available planning documents and data summaries as sources of additional information will be used as much as possible.

6.4 Geochemical Retardation: In paragraph 1, the following changes should be made: Item (1) Sorption-desorption, (2) Should be eliminated, (4) Should read "Particulate Transport", (9) should be added, "Sorptive Capacity".

6.8 Geochemical Modeling: This section should be deleted. It will be covered in Chapter 12.

7. SURFACE HYDROLOGY

Portions of the first paragraph should be changed as follows: "This section...to (1) Describe surface hydrologic factors to the extent practical based on available literature and site-screening studies, (2 show that the site will not be compromised by flooding,..."

7.2 Floods

7.2.4 Flooding Protection Requirement: This subsection should be deleted. This is properly a consideration of safety analysis and is premature at the Site Characterization Report stage.

7.3 Surface-Water/Ground-Water Disposition of Releases: This subsection should be deleted. This is a concern for safety analysis, and is prematurely requested at the Site Characterization Report stage.

7.4 Locations and Distances to Points of Surface-Water Use

7.4.2 Projected Surface-Water Uses: Insert the following sentence: "Describe sources of water for construction and operation of the proposed facility."

7.5 Chemical and Biological Composition of Adjacent Watercourses: The first paragraph, second sentence, should read as follows: "The chemical data should be sufficient to determine leach or discharge rates into drainage basins."

7.6 Unresolved Hydrologic Issues and Plans This subsection should be retitled, "Unresolved Hydrologic Issues". Plans belong in a separate section of the document.

The text should read "Summarize any issues or problems identified during the preliminary site investigations."

Note that a section similar to this, summarizing unresolved issues, is to be added to each of the chapters in Part B.

8. CLIMATOLOGY

The title of this section should be changed to, "CLIMATOLOGY, METEOROLOGY, AND AIR QUALITY". In the first sentence the words "surrounding area" should be defined.

8.1.1 Regional Climate: The title of this subsection should be changed to "Climate". In the first sentence, the phrase "of the region" should be deleted.

The last sentence of the first paragraph should read, "Data should be provided in sufficient detail to indicate impact on facility design and operation." Long-term isolation is addressed under "Long-Term Climatic Assessment.

What is the basis for defining the "recent" as the last 30 years? The term "recent" should be defined for each site.

Item (8) of paragraph 2 should be deleted. It duplicates Section 8.1.2.3.

The first sentence of the last paragraph should read, "All information should be fully documented and should be based on available data."

A section should be added for discussion of air quality data.

8.1.2 Local and Regional Meteorology: This section should be deleted and moved to Chapters 13 and 14.

8.1.2.1 Dispersion Evaluations: This subsection should be deleted and moved to Chapters 13 and 14.

8.1.2.2 Site Meteorological Measurement Program: This subsection should be deleted and moved to Chapters 13 and 14.

8.2.1 Paleoclimatology: In the second paragraph, the second sentence, delete the word "validity" and replace it with the word "applicable".

8.2.2 Future Climatic Variation: Acceptable as written, although the need for estimating wind flow regimes is not clear.

8.2.3 Site Paleoclimatic Investigation: This subsection should be deleted and put in the planning section.

9. ENVIRONMENTAL, LAND-USE, AND SOCIOECONOMIC CHARACTERISTICS

The site and relevant study area should be defined and the basis for the definition stated. The paragraph should be written in a manner similar to the following, "The description of the site and study area should include..."

9.1 Environmental

9.1.2 Climate: This section should be deleted. It duplicates portions of Chapters 3 and 8.

9.1.3 Geology: This section should be deleted. It duplicates portions of Chapters 3 and 8.

10. REPOSITORY DESIGN

Much of the information requested by the NRC is not yet available. Throughout this section, change the words "conceptual design" and "proposed conceptual design" to "reference design". The reason for this change is that the phrase "conceptual design" is a specific stage in the Federal Government's design process. That stage will not have been reached when SCRs are prepared. The definition of "reference design" is as follows: "A design with details sufficient to identify repository issues requiring resolution by the site characterization program.

10.1 Description of Conceptual Design: This will become "Description of Reference Design".

Delete the current text in this paragraph and replace with the following paragraph: "Provide plan, evaluation and cross-section drawings for the reference design, showing the planned layout of surface and subsurface facilities, and describe how these are related to known or inferred site conditions. Provide the design bases, design assumptions, preliminary design criteria, and preliminary analyses that have been performed to develop the reference design, and relate these to known or inferred site conditions. Identify major systems, components, and structures in the reference design. In addition, the following information on the reference design should be provided.

10.1. Design of Underground Openings: Delete the first sentence of this paragraph and add the following to read: "Provide the general layout of proposed subsurface openings in plan and cross-section.

10.1.2 Backfill: In the first paragraph, in the first line, delete "Proposed conceptual" add "Reference".

10.1.3 Strength of Rock Mass: In the first paragraph, 10th line, delete "conceptual" add "reference".

In the first paragraph, last line, delete "proposed" add "reference".

10.1.4 Sealing of Shafts, Boreholes, and Underground Openings: In the first paragraph, the 5th line delete "proposed conceptual" add "reference".

10.1.5 Construction: In the second paragraph, 9th line, delete "conceptual" add "reference".
In the second paragraph, twelfth line, delete "proposed conceptual" add "reference".

10.1.6 Design of Surface Facilities: In the first paragraph, first line, delete "overburden" add "surface".

In the first paragraph, the second line, delete "rock" add "soil".

In the first paragraph, the third line, delete "of overburden" add "to".

Delete the last sentence of the paragraph. The subject will be discussed in various hydrology sections.

11. WASTE FORM AND PACKAGING

This title should be changed to "Waste Package".

11.2 Design Concepts: Item 1. should read "Identification and description of multiple barriers within the waste package, and ...

Note that the definition given in Footnote 1 at the bottom of page 11-1 is inconsistent with the DOE definition and that presumed to be in the draft of NRC's 10 CFR 60. This inconsistency should be corrected.

12. PERFORMANCE ANALYSIS

Since performance analysis cannot be performed at this stage, what is required in this chapter beyond a description of the models?

12.2 Methods of Analysis of Performance Analysis Issues: In the first two sentences, delete the phrase "of analysis".

12.2.1 Description of Geologic Repository Used in Analysis: The first sentence should read, "Provide a description of the repository model to be used".

12.2.1.2 Principal Natural Processes and Human-Induced Stresses: In the first sentence, delete "in the analysis", add "by the model".

12.2.1.3 Scenario Selection: In the first and second lines, delete "studied in the". Add instead, "methods of finding and selecting".

12.2.1.4 Boundary and Initial Conditions: The first sentence should read: "Provide information on the method of determining boundary conditions that characterize the geologic repository."

Delete the last two sentences.

12.2.1.5 Engineering and Waste Package Design Features: In the last sentence, delete "relating to the analysis"; add "required by the models.

PART C

STANDARD FORMAT AND CONTENT GUIDANCE FOR IDENTIFYING PERTINENT ISSUES

CHAPTERS 13 AND 14 (*PROPOSED NEW CHAPTER 13 "SITE ISSUES AND PLANS"*)

The Department of Energy proposes to combine these chapters into one chapter renumbered Chapter 13. In that chapter, issues to be resolved will be discussed sequentially with the plans for their resolution. The Department believes that there is compelling logic to doing this rather than separating the issues and the plans for their resolution into separate chapters. This makes it immediately evident to the reader what the issues are and how the issues are to be resolved. It eliminates the need to flip back and forth between separate chapters to crosscheck issues with their resolutions.

The issues will be discussed sequentially in the order that they are discussed in Part B of the SCR. The issues will be cast in the context of considerations identified in 10 CFR 60. All issues will be presented on a chart which will illustrate considerations of 10 CFR 60, which of those considerations have been resolved, which of those considerations are issues remaining to be resolved, and will cross reference all issues with appropriate portions of Part B. These issues will include environmental considerations for which there is no explicit place in the NRC's draft document.

Options for issue resolution may include mitigation of those siting issues which may be compensible by counterbalancing features, as is allowed in the draft 10 CFR 60. Refer to the revised Table of Contents proposed by the Department of Energy for the Site Characterization Report, which constitutes an attachment to these comments.

CHAPTERS 15 and 16 *(PROPOSED NEW CHAPTER 14 "REPOSITORY DESIGN ISSUES AND PLANS")*

We recommend combining Chapters 15 and 16 into Chapter 14, entitled " Repository Design Issues and Plans". The substance of that chapter is presented below.

Describe the design issues and plans to resolve these issues that are important for site characterization. These are the issues and plans that form a basis for the design investigation that will be conducted during site characterization.

14.1 Verification or Measurement of Site Conditions: Describe those site conditions that are part of the design bases that must be verified or measured during site characterization to verify or advance the reference design. Examples include such factors as the in situ stress field and ground-water flow and chemistry.

14.1.x.1 Resolution of Design Issues: Describe the plan for addressing each of the site condition issues. Describe the method of the investigations and any limitations of the method.

14.1.x.2 Plan for Using Design Information: Describe how the information gained on each issue will be applied to the conceptual design.

14.2 Verification or Measurement of Site Material Behavior: Describe the material-behavior characteristics that are part of the design basis that must be verified or measured during site characterization to verify or advance the referenced design. Examples include such characteristics as geochemical, mechanical, hydraulic, and thermomechanical properties of the host medium.

14.2.x.1 Resolution of Design Issues: Describe the plan for addressing each of the site material-behavior issues. Describe the method of the investigation and any limitations of the method.

14.2.x.2 Plan for Using Design Information: Describe how the information gained on each issue will be applied to the conceptual design.

CHAPTERS 17 AND 18 *(PROPOSED NEW CHAPTER "WASTE PACKAGE ISSUES AND PLANS")*

The Department of Energy recommends that Chapters 17 and 18 be combined into one chapter, Chapter 15, entitled "Waste Package Issues and Plans", please refer to the revised Table of Contents for the SCR to see how this combination has been handled.

CHAPTERS 19 and 20 *(PROPOSED NEW CHAPTER 16 "PERFORMANCE ANALYSIS ISSUES AND PLANS")*

The Department of Energy recommends that Chapters 19 and 20 be combined into one chapter, Chapter 16, entitled "Performance Analysis Issues and Plans". The content of this chapter will be substantially that suggested in the Standard Format and Content with the following two exceptions. We recommend that Subsection 19.1.3 "Types of Scenarios" be deleted because it is covered in the previous section. We further believe that the semiannual reports called for in Chapter 20 would better be handled in a single annual update of the SCR, supplemented by semiannual Letter Progress Reports from the Department of Energy to NRC.

PART D

STANDARD FORMAT AND CONTENT GUIDANCE FOR PRESENTING SITE CHARACTERIZATION PROGRAM

21. SITE CHARACTERIZATION PROGRAM *(PROPOSED NEW CHAPTER 17)*

This chapter will be renumbered to become Chapter 17.

21.1 Narrative: The narrative will include both at-depth and surface-based characterization activities.

21.3 Underground Test Facility: Compatibility of exploratory shafts with future repository use should be addressed to the extent feasible based on preliminary repository concepts. Particular attention should be given to not precluding the ability to use and/or seal the exploratory opening in the future. The ability to conduct the at-depth characterization without introducing irreversible conditions from the standpoint of future designs and seals should be emphasized.

21.5 Milestones, Analyses, Decision Points and

21.6 Schedule: The information supplied in these sections will be at the summary level only. Extensive reference to DOE programmatic documents will be made.

PROPOSED NEW CHAPTER 18 "QUALITY ASSURANCE"

The Department of Energy recommends introducing a chapter, in the revised Table of Contents Chapter 18, dealing with Quality Assurance. This chapter would cover the Quality Assurance Programs for each of the subparts of the repository system, that is, site characterization, waste-package deisng, repository design, and performance assessment. Please refer to the revised Table of Contents to see how this change is proposed.

CHAPTER 22. IDENTIFICATION OF ALTERNATIVE SITES (*PROPOSED NEW CHAPTER 19*)

This chapter will be renumbered Chapter 19 in the proposed revision to the SCR.

ATTACHMENT 1

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ATTACHMENT 2

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