

PDR
WM-10, 11, 16

Attachment A

MEMORANDUM FOR: WM Staff
FROM: FEA Review Coordinator *John Finkler*
SUBJECT: DISTRIBUTION OF REVISION NO. 1 TO THE FEA REVIEW PLAN

Attached is revision no. 1 to the FEA Review Plan. Pertinent information on this revision is listed below. Please update your original FEA review plan with this revision and also arrange for this revision to be given in a timely manner to any contractors supporting your review.

Revision No.	FEA Review Plan Section No./Title/ Page No. Revised	Description	Date of Issuance
<i>1</i>	<i>Section 11, Review Procedures</i>	<i>7 procedures identified in section 11</i>	<i>June 6, 1986</i>

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Nov 51 1167*

Final EA Review Procedure No. 1: Additional Guidance on Writing Comments

This procedure gives additional guidance on writing comments referred to in sections 5.2 and 5.3 and 11.0 of the FEA Review Plan. It also supplements guidance on comment writing given in both section 5.2 of the FEA Review Plan and Procedure No. 2 on example comments.

1. Completeness

Review comments should contain sufficient information for a third party knowledgeable about the high-level waste program (i.e., someone besides the writer or addressee who may be thoroughly aware of surrounding details) to be able to follow what is going on. The comments must stand on their own and clearly and completely communicate specifically what problems we have with a conclusion statement, evaluation, etc.

The reviewer must avoid making unsupported statements or sweeping generalizations which require subsequent quantification or technical elaboration (e.g., "considerable error," "far exceed," "serious complications.") Failure to provide a complete technical rationale may result in additional coordination and discussion with the staff reviewer in order to develop a complete, fair and defensible comment.

In raising concerns, making comments and criticisms, the reviewer should explicitly anticipate and, in the analysis, deal with the major counterarguments that might be made to the criticism. This must be done for effectiveness in delivering a point.

2. Be Concrete and Specific

Comments on missing information should identify specifically what is missing. Also include why the missing information is significant. Concrete, specific examples with reference to portions of the document may be needed to support the comment. The guidance that we provide should be laid out in a logical, systematic fashion.

3. Say Specifically What is Wrong

The comment should succinctly and specifically define the problem and not infer that there is some deficiency with respect to the point being discussed.

Final EA Review Procedure No. 2: Example Comments

This procedure gives examples of NRC responses to nine hypothetical cases covering a ranges of possible DOE responses (see Enclosure 1). NRC responses range from no comment to various types of written responses. The attached examples, referred to in Section 5.4 Comment Format and Content of the FEA Review Plan, should be used as additional guidance for those technical reviewers writing comments and quality reviewers reviewing comments.

Case I: DOE doesn't respond at all to our major comment

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1),(b)(2),(c)(1),(c)(3)
and 960.5-2-9(b)(1),(b)(2),(c)(2)

Examination of the final EA (Section 6.3.1, pages 6-172 to 6-190; 6.3.5.1, 6-258 to 6-276) indicates that the NRC staff concerns expressed in draft EA Major Comment 5 about the likelihood of heterogeneities within the Richton Dome and the possible effects of such heterogeneities on the availability of suitable host rock and on the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome have not been addressed, resulting in unsupported findings* for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and for favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9. For example, the final EA

*Choices here include:

- Unsupported findings--no attempt made to support findings;
- Inadequately supported findings--some attempt to support findings was made, but without success;
- Marginally supported findings--some attempt to support findings was made, but with only limited success;
- Adequately supported findings for the most part but unsupported (inadequately supported, marginally supported) in certain respects.

assumes (Section 6.3.1, page 182, first paragraph) that rock property data derived from the core samples of essentially pure salt taken from borehole MRIG-9 may be considered representative of the properties of the in situ rock mass units which potentially include heterogeneities. This assumption may greatly overestimate such rock properties as strength, creep, thermal conductivity, and porosity of the host rock and thus underestimate the difficulties associated with remining during potential retrieval operations and the need for extensive ground support systems to maintain roof and opening stability. Failure to recognize the potential effects of anomalous zones both internal and external to the Dome might also result in underestimation of how much such heterogeneities could limit the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of the underground facility. Thus these heterogeneities could severely limit the flexibility in locating the repository.

Based upon the above, the NRC considers that its original comment is appropriate to the final EA and has included it as an attachment(Attachment 1).

Case II: DOE doesn't respond to portions of our major comment.

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1),(b)(2),(c)(1),(c)(3)
and 960.5-2-9(b)(1),(b)(2),(c)(2)

In the NRC staff major comments on the draft EA for Richton Dome concerns were raised that the likelihood of heterogeneities within the Richton Dome and the possible effects of such heterogeneities were not adequately considered in the evaluation of guidelines related to availability of suitable host rock and to the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome. Examination of the final EA indicates that the likelihood of heterogeneities within the Richton Dome has been acknowledged (Section 6.3.1, page 6-180, third paragraph, and page 6-182, first complete paragraph); however, the possible effects of such heterogeneities have not been factored into discussions and evaluations presented in the final EA related to the Rock Characteristics Guidelines (Section 6.3.5.1, page 6-270, last paragraph; page 6-275, second paragraph) to consider the uncertainties associated with repository induced thermomechanical loading effects on potentially heterogeneous rock mass, mining problems, radiological safety issues, and adverse rock characteristics conditions expected to be encountered during retrieval. Therefore, the final EA does not contain a reevaluation of the findings with respect to the Rock Characteristics guidelines. Pages 6-270 and 6-275 show the same conclusions with respect to the Rock Characteristics

guidelines that were contained in the draft EA. (Add more specific examples as necessary to provide a strong basis for the problem and to indicate those portions of the major comment that were and were not addressed in the final EA).

The NRC staff considers that the lack of recognition in the final EA to the effects of heterogeneities in the salt rock at Richton Dome has resulted in unsupported findings* for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and for favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9. For example, the final EA assumes (Section 6.3.1, page 182, first paragraph) that rock property data derived from the core samples of essentially pure salt taken from borehole MRIG-9 may be considered representative of the properties of the in situ rock mass units which potentially include heterogeneities. This assumption may greatly overestimate such rock properties as strength, creep, thermal conductivity, and porosity of the host rock and thus underestimate the difficulties associated with remining during potential retrieval operations and the need for extensive ground support systems to maintain roof and opening stability. Failure to recognize the potential effects of anomalous zones both internal and external to the Dome might also result in underestimation of how much such heterogeneities could limit the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of

the underground facility. Thus these heterogeneities could severely limit the flexibility in locating the repository.

Case III: DOE responds by expressing technical disagreement with all or part of our major comment and supports its case with unconvincing evidence/information

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1),(b)(2),(c)(1),(c)(3) and 960.5-2-9(b)(1),(b)(2),(c)(2)

In NRC staff major comment number 5 on the draft EA for Richton Dome the concern was raised that the effects of heterogeneities likely to be present in salt dome interiors were not adequately considered in the evaluation of guidelines related to availability of suitable host rock and to the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome. In the final EA (Section 6.3.1, pages 6-172 to 6-190) it is stated that investigators were unable to obtain evidence of the existence of anomalous zones and heterogeneities from surface seismic testing and from the

one borehole (MRIG-9) drilled into the dome. It was also argued (Section 6.3.5.1, pages 6-258 to 6-276) that should anomalous zones occur they are likely to be limited in size, thus leaving no uncertainty that their effects may be easily mitigated. Given the very sparse data and the size of the dome the NRC staff remains concerned that such anomalous zones and heterogeneities may indeed exist and that great uncertainties do exist regarding the nature and extent of required mitigation measures.

That significant heterogeneities such as anomalous zones may exist in the interior of the Richton Dome and near the Dome periphery is reasonable based upon considerable mining experience in the Gulf Coast region and in similar geological settings. For example, Jones (1973) indicates that heterogeneities such as clay, brine, gas pockets, and brecciated shear zones forming anomalous zones may exist both in the interior and near the periphery of Gulf Coast domes. (Add additional basis as needed to establish the problem.)

The NRC staff considers that the lack of recognition in the final EA of the effects of heterogeneities in the salt rock at Richton Dome has resulted in unsupported findings* for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9. For example, the final EA assumes (Section 6.3.1, page 182, first paragraph) that rock property data derived from the core samples of

essentially pure salt taken from borehole MRIG-9 may be considered representative of the properties of the in situ salt rock mass units which potentially include heterogeneities. This assumption may greatly overestimate such rock properties as strength, creep, thermal conductivity, and porosity of the host rock and thus underestimate the difficulties associated with remining during potential retrieval operations and the need for extensive ground support systems to maintain roof and opening stability. Failure to recognize the potential presence of anomalous zones both external and internal to the Dome also has resulted in underestimation of how much such heterogeneities could limit the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of the underground facility. Thus these heterogeneities could severely limit the flexibility in locating the repository.

Case IV: DOE responds by expressing technical disagreement with our major comment and supports its case with convincing evidence/information

NO WRITTEN COMMENT

Case V: DOE responds by agreeing with our comment and adequately revising the final EA consistent with our suggested resolution (whether they change the finding or not)

NO WRITTEN COMMENT

Case VI: DOE responds by saying that the concern will be resolved during site characterization and changes their findings/evaluations to reflect current uncertainties

NO WRITTEN COMMENT

Case VII: DOE responds by saying that the concern will be resolved during site characterization but does not factor the uncertainties expressed in our concern into their analysis of the appropriate guideline

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1),(b)(2),(c)(1),(c)(3) and 960.5-2-9(b)(1),(b)(2),(c)(2)

In NRC staff major comment 5 on the draft EA for Richton Dome the concern was raised that the effects of heterogeneities likely to be present in salt dome interiors were not adequately considered in the evaluation of guidelines related to availability of suitable host rock and to the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome. Examination of the final EA (Section 6.3.1, page 185, third paragraph) indicates that the possibility of heterogeneities within the Richton Dome has been recognized and site characterization plans will include studies to determine the nature and extent of any such heterogeneities. However, based upon their currently available information, the findings with respect to the Rock Characteristics guidelines listed above have not been modified (Section 6.3.5.1, pages 6-258 to 6-276). While the NRC staff agrees that site characterization activities should provide information regarding these concerns, the NRC staff considers that the lack of recognition in the final EA of the existing uncertainties regarding the potential for and the effect of heterogeneities in the salt rock at Richton Dome has resulted in unsupported findings* for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and for favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9.

The NRC staff also considers that this apparent lack of reevaluation of the findings in question may indicate that the potential significance of

heterogeneities within the interior and near the periphery of the Dome may not be fully appreciated. For example, the final EA assumes (Section 6.3.1, page 182, first paragraph) that rock property data derived from the core samples of essentially pure salt taken from borehole MRIG-9 may be considered representative of the properties of the in situ salt rock mass units which potentially include heterogeneities, may greatly overestimate such rock properties as strength, creep, thermal conductivity, and porosity of the host rock and thus underestimate the difficulties associated with remaining during potential retrieval operations and the need for extensive ground support systems to maintain roof and opening stability. Failure to recognize the potential presence of anomalous zones both external and internal to the Dome has also resulted in underestimation of how much such heterogeneities could limit the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of the underground facility. Thus these heterogeneities could severely limit the flexibility in locating the repository.

Case VIII: New data or information which has not been considered in the final EA results in a significant concern

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1), (b)(2), (c)(1), (c)(3) and 960.5-2-9(b)(1), (b)(2), (c)(2)

In the NRC staff major comments in the draft EA for Richton Dome the concern was raised that the effects of heterogeneities likely to be present in salt dome interiors were not adequately considered in the evaluation of guidelines related to availability of suitable host rock and to the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome. Examination of the final EA (Section 6.3.5.1, pages 6-258 to 6-276) gives no indication that new geophysical data, geologic interpretations of this data, and engineering evaluations of the features indicated by the data have been considered in the reevaluations of the findings for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and for favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9. (Comment 2 further addresses lack of consideration of new geophysical data from the geologic perspective; this comment discusses the lack of engineering evaluations.) Examination of appropriate sections of Chapter 3, 5, and 6 revealed no discussion or reference to this new data and evaluations which have become available since the release of the draft EAs.

The new geophysics data and its interpretation is documented in Therber, 1985 and the engineering evaluations are given in Therber and Therber, 1985. (note: these are hypothetical references and data)

In summary, the new geophysics data and interpretation given in Therber, 1985 indicate that.....This further supports a conclusion that at least three major anomalous zones of some unknown extent exist within the interior of the Richton Dome. Furthermore, Therber and Therber, 1985 have conducted evaluations of.....Given the range of assumptions Therber and Therber (1985) have presented concerning the nature and extent of the three anomalous zones they have concluded that there may be a severe limitation on the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of the underground facility. These new conclusions together with concerns expressed by the NRC in its draft EA comment lead the NRC staff to conclude that the findings for the guidelines listed above are unsupported.*

Case IX: New data or information presented either in the final EA or elsewhere results in a significant new concern

Prepare the major comment in a manner similar to the major comments on the draft EAs by including the problem, basis and significance; however, do not include a suggested resolution.

Final EA Review Procedure No. 3: Editorial and Format Guidance

This procedure gives the necessary editorial and typing format guidance referred to in section 6.3 of the FEA Review Plan. It also supplements guidance on overall product format and content given in Section 5.3 of the FEA Review Plan. This guidance should be used by technical reviewers in writing their comments, editors who will edit the comments, and secretaries who will be typing comments.

Typing format guidance

The typing format for comments should be as shown in the attached example comment. Comments should be double spaced through the DSSRT review and be single spaced for NMSS and WM Director reviews.

Editorial guidance

The product should be consistent to the extent appropriate with NRC's "Technical Writing Style Guide," NUREG-0650, which includes, for example, guidance on format for references, nomenclature, and preferred usage.

The FEA production manager and each FEA lead branch secretary has a copy of NUREG-0650 for reference.

Also, listed below are some preferred usages unique to FEA comments. Use:

- ...final EA...
- ...the NRC staff...
- ...(see comments no. 3)...for reference to another NRC comment
- ...(Section 6.3.1, page 182, first paragraph)...for reference to parts of the final EA
- ...et al. (not ...et. al.)

Do not use ...the DOE... or ...DOE..., rather use "in the final EA." This usage will depersonalize our comments.

Comment 1

Effects of Host Rock Mass Heterogeneity - (Draft EA Major Comment 5)

Guidelines on Rock Characteristics 10 CFR 960.4-2-3(b)(1),(b)(2),(c)(1),(c)(3)
and 960.5-2-9(b)(1),(b)(2),(c)(2)

In the NRC staff major comments on the draft EA for Richton Dome concerns were raised that the likelihood of heterogeneities within the Richton Dome and the possible effects of such heterogeneities were not adequately considered in the evaluation of guidelines related to availability of suitable host rock and to the level of complexity of technology needed to construct, operate, and close a repository at Richton Dome. Examination of the final EA indicates that the likelihood of heterogeneities within the Richton Dome has been acknowledged (Section 6.3.1, page 6-180, third paragraph, and page 6-182, first complete paragraph); however, the possible effects of such heterogeneities have not been factored into discussions and evaluations presented in the final EA related to the Rock Characteristics Guidelines (Section 6.3.5.1, page 6-270, last paragraph; page 6-275, second paragraph) to consider the uncertainties associated with repository induced thermomechanical loading effects on potentially heterogeneous rock mass, mining problems, radiological safety issues, and adverse rock characteristics conditions expected to be encountered during retrieval. Therefore, the final EA does not contain a reevaluation of the findings with respect to the Rock Characteristics guidelines. Pages 6-270 and 6-275 show the same conclusions with respect to the Rock Characteristics

guidelines that were contained in the draft EA. (Add more specific examples as necessary to provide a strong basis for the problem and to indicate those portions of the major comment that were and were not addressed in the final EA).

The NRC staff considers that the lack of recognition in the final EA to the effects of heterogeneities in the salt rock at Richton Dome has resulted in unsupported findings for favorable conditions (b)(1) and (b)(2) and potentially adverse conditions (c)(1) and (c)(2) of Guideline 960.4-2-3 and for favorable conditions (b)(1) and (b)(2) and potentially adverse condition (c)(2) of Guideline 960.5-2-9. For example, the final EA assumes (Section 6.3.1, page 182, first paragraph) that rock property data derived from the core samples of essentially pure salt taken from borehole MRIG-9 may be considered representative of the properties of the in situ rock mass units which potentially include heterogeneities. This assumption may greatly overestimate such rock properties as strength, creep, thermal conductivity, and porosity of the host rock and thus underestimate the difficulties associated with remining during potential retrieval operations and the need for extensive ground support systems to maintain roof and opening stability. Failure to recognize the potential effects of anomalous zones both internal and external to the Dome might also result in underestimation of how much such heterogeneities could limit the available lateral extent of acceptable host rock for locating the underground facility and providing an adequate buffer zone beyond the limits of the underground facility. Thus these heterogeneities could severely limit the flexibility in locating the repository.

Final EA Review Procedure No. 4: Production Guidance

This procedure gives the necessary product production guidance referred to in section 6.3 and section 10.1, no. 3 of the FEA Review Plan. Production team responsibilities; instructions for creating/revising documents on the IBM 5520, archiving, and merging; and a list of secretaries available for overtime typing are included. This guidance should be used by the production team members in typing, revising, controlling, and merging documents on the IBM 5520 system.

Production team responsibilities

The production/editorial team will consist of the following individuals:

Production/Editorial Manager	E. Tana
FEA Lead Branch Secretary for RP	R. Shipman
FEA Lead Branch Secretary for GT	M. Thomas
FEA Lead Branch Secretary for EG	G. Hawkins
IBM 5520 Coordinator	S. Root

Secretaries for each branch will type the comments written by the technical reviewers in their branch as coordinated by the FEA lead Branch secretary. Secretaries desiring overtime work (see attached list) will be used as needed to supplement typing during normal working hours and will be coordinated by the production manager.

The responsibilities of the production team members are as follows.

1. Production/Editorial Manager
 - o Gives guidance on typing/production procedures
 - o Tracks branch/team production progress throughout FEA review period, identifies production problems and recommends solutions
 - o Together with each PM, puts draft comments in proper order and merges into one document (Step 2--see Figure 1)
 - o Coordinates needed typing OT

- o Edits comments in Step 2, Figure 1 and coordinates with comment authors (technical reviewers). Obtains editorial assistance as needed.
 - The editorial review will follow section 10.1, no. 3, paragraph 3 of the FEA Review Plan and will focus only on the following product requirements:
 - o Written in a clear, concise, complete, and specific manner consistent with procedures 1 and 2 on comment and product content
 - o Written in an objective and factual tone consistent with procedures 1 and 2 on comment and product content
 - o Written grammatically correct and editorially consistent with procedure 3 on editorial and format guidance
 - o Responsible for distribution of draft comment packages to appropriate individuals for review
 - o Edits/proofs final package.
- 2. Lead Branch Secretary (RP, EG, GT)
 - o Coordinates branch typing of comments up through and including section/technical quality review/resolution (see Figure 1)
 - o Assures correct format is used
 - o Tracks progress of branch comment typing and identifies any problems and need for additional typing to Production Manager and Branch Chief
 - o WMRP secretary responsible for archiving comments weekly
- 3. IBM 5520 Coordinator, WMPC
 - o Assures someone is available from WMPC to solve any IBM 5520 or printer problems
 - o Assists with weekly archiving of comments

Instructions for creating/revising/controlling documents on the IBM 5520

The following guidance should be followed up to but not including merging.

1. Use FORMAT FEA, which has been created for this project.
2. Each comment should be typed as a separate document, with the author's name and date of the latest revision at the end.
3. Do not make any page or line format changes.
4. Do not use the split page instruction.
5. The Header Margin Text should contain the correct document call-up name and page number at the top of each page.
6. In the document profile, the Document Charge Number should be "9999" so all comments can be accessed by whatever secretary is available to do revisions. (See attached)
7. The following naming conventions MUST be used:

FEA/Hanford/Author's Initials/# of Authors Comment	(for Hanford)
FEA/Yucca/Author's Initials/# of Authors Comment	(for Yucca Mt)
FEA/Deaf Smith/Author's Initials/# of Authors Comment	(for Deaf Smith)
FEA/Davis/Author's Initials/# of Authors Comment	(for Davis Canyon)
FEA/Richton/Author's Initials/# Authors of Comment	(for Richton Dome)

Archiving

All comments will be archived once a week. The only way we can make sure that all FEA comments are archived is if the above naming conventions are used.

Merging and subsequent revision

After the completion of section/technical quality reviews and the project review and resolution, the separate documents containing the comments will be merged into one document for all of the FEA's. After this point, all typing of revisions needed will be coordinated through the Production/Editorial Manager. Depending upon the amount of revisions required due to the Branch Chief review/resolution, the Decision Support System review/resolution, the Division/Office Director review/resolution, or the concurrence process, the Production/Editorial Manager will decide if and when the merged comment package should be split up temporarily to handle the typing load.

OVERTIME FOR FEA REVIEW

<u>NAME</u>	<u>EXTENSION</u>	<u>EVENINGS</u>	<u>WEEKENDS</u>	<u>COMMENTS</u>
Joanne Morrison	74201	Yes	Sat. and Sun.	
Renay Shipman	74775	Yes	Sat. and Sun.	
Vanessa Gland	74670	Yes	Sat. and Sun.	Weekends starting in June
Kimberly Malone	74730	Yes (2-3 hours)	Sat. and Sun.	Evenings only on Sundays
Vinita Dowdle	74156	Yes	Sat. and Sun.	
Rochelle Webster	74704	Yes	Sat. and Sun.	
Denise Woods	74700	Yes	Sat. and Sun.	
Millie Thomas	74411	Hed-Fri only	Sat. and Sun.	Has classes Mon/Tues Evening:
Cathy Jensen	74173	Yes	Sat. and Sun.	FEA OT dependent on WMEG's OT work
Teresa Schultze	28742 (ADM)	Yes	Sat. and Sun.	
Mary Simms	43308 (OCM)	Yes	Sat. and Sun.	
Chris Hatley	24061 (G&P)	Yes	Sat. and Sun.	Willing to quit part-time job if extensive OT is needed on FEA Review.

Create Document

Name: FEA/...../.../..	Type: <u>Text</u>
Document Format Source: FORMAT FEA.....	
Access: Shared Revise	Document Charge Number: 9999
Document Date: <u>Today's Date</u>	
Originator: (Author's Name)	Retention Period: <u>Indefinite</u>
Comment: FEA Comment on.....	

Final EA Review Procedure No. 5: Concurrence Memorandum

The attached procedure provides the concurrence memorandum referred to in Section 10.1 QA Requirements, No. 5 of the FEA Review Plan. This memorandum should be used for concurrence signoff from each FEA technical reviewer, section technical quality reviewer, project reviewer, and Branch Chief, involved with the FEA review when the product is final. If contractors are not available to sign comments the lead reviewers or section leaders should sign for them and include a record note indicating coordination.

Enclosure 1

MEMORANDUM FOR: Robert E. Browning, Director
Division of Waste Management

FROM: John J. Linehan, Acting Chief and
FEA Review Coordinator
Repository Projects Branch, DWM

Philip S. Justus, Acting Chief
Geotechnical Branch, DWM

John T. Greeves, Chief
Engineering Branch, DWM

SUBJECT: CONCURRENCE FOR FEA REVIEW

This memorandum contains the final concurrence of the Nuclear Regulatory Commission (NRC) staff and contractors (full contributors) who contributed to the FEA reviews as FEA technical reviewers, section/technical reviewers, and project reviewers. Enclosure 1 consists of a copy of the final comments with each comment signed and dated by the NRC staff and contractors who contributed to the comment (technical reviews, section/technical quality reviewers, project reviewers, and editorial reviewers). The signatures on Enclosure 1 together with those on this memorandum document that the following three Quality Assurance (QA) requirements in Section 10.1 of the FEA Review Plan have been met for the portion of the review for which each person was responsible as defined in Sections 8.2 and 10.1.

- o Apply the FEA Review Plan
- o Conduct Section/Technical Quality Reviews and Project Reviews
- o Conduct Branch Chief Reviews

More specifically these signatures indicate that the final comments meet the following nine product requirements defined in Section 5.2 of the FEA review plan.

1. Technically defensible
2. Accurately represents FEA information (i.e., FEA has been correctly quoted/represented including recognizing what is said on a given topic in all chapters and appendices of the FEA)
3. Consistent with FEA review plan objectives (see Section 3.0) and responsibilities (see Section 8.2)

- 4. Technically consistent within a discipline and across projects
- 5. Technically consistent across different disciplines within one project
- 6. Consistent with NRC-HLW policies and technical positions
- 7. Written in a clear, concise, complete, and specific manner consistent with procedures 1 and 2 on comment and product content (see Section 11.0)
- 8. Written in an objective and factual tone consistent with procedures 1 and 2 on comment and product content (see Section 11.0)
- 9. Written grammatically correct and editorially consistent with procedure 3 on editorial and format guidance (see Section 11.0)

John J. Linehan, Acting Chief and
 FEA Review Coordinator
 Repository Projects Branch
 Division of Waste Management

Philip S. Justus, Acting Chief
 Geotechnical Branch
 Division of Waste Management

John T. Greeves, Chief
 Engineering Branch
 Division of Waste Management

Enclosure:
 Signed final comments

CC :WMRP:rs : : : : : :
 -----:-----:-----:-----:-----:-----:-----
 LME :RJohnson : : : : : :
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 DATE :06/ /86 : : : : : :

Final EA Review Procedure No. 6: Issuing changes to the FEA Review Plan

This procedure describes how changes to the FEA Review Plan will be issued. In the event that changes are needed it will be necessary to provide each staff and contractor involved with the review and who received a copy of the FEA Review Plan with each revision so they have the most current and complete guidance.

Revisions to the FEA Review Plan include corrections, deletions or additions as needed. These revisions will be developed by the Repository Projects Branch and coordinated with the branch chiefs of the Geotechnical and Engineering branches before they are issued by the FEA Review coordinator. Revisions also will be coordinated with the Director of the Division of Waste Management as needed.

Each revision will include corrected pages or additional pages to the FEA Review Plan that are marked in the lower right hand corner of each page as follows:

FEA Review Plan Revision No. 00, 00/00/86.

Furthermore, those revised portions will be identified by a line in the right hand margin adjacent to the revised material.

All revisions will be distributed to all Division of Waste Management staff. It is the responsibility of the staff to arrange for all revisions to be given in a timely manner to each of their contractors involved with the FEA review. Each revision will be distributed using the form and log sheet shown in Attachment A. This log sheet will identify information pertinent to each revision and is intended to assist reviewers in maintaining an updated FEA Review Plan.

Attachment A

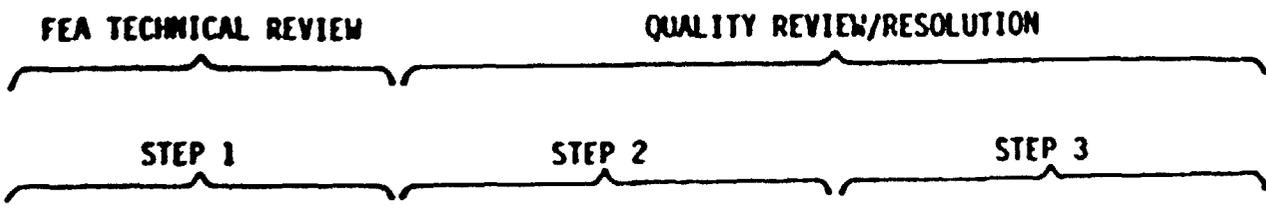
MEMORANDUM FOR: WM Staff
 FROM: FEA Review Coordinator
 SUBJECT: DISTRIBUTION OF REVISION NO. ___ TO THE FEA REVIEW PLAN

Attached is revision no. ___ to the FEA Review Plan. Pertinent information on this revision is listed below. Please update your original FEA review plan with this revision and also arrange for this revision to be given in a timely manner to any contractors supporting your review.

Revision No.	FEA Review Plan Section No./Title/ Page No. Revised	Description	Date of Issuance

Final EA Review Procedure No. 7: Detailed Milestones and Schedules

Enclosure 1 gives specific dates for the FEA Review milestones identified on Figures 1 and 2 of the FEA Review Plan. This schedule is based on the start date of June 9, 1986. It is recognized that there may be a limited number of cases where, with the concurrence of RP, EG, and GT management, there may be a need to adjust dates for internal milestones.



SCAN/READ June 9-16

REVIEW AND PREPARE COMMENTS June 11-30

INFORMAL DISCUSSIONS TR, SL, PM Intermittently June 9-30

SECTION/TECHNICAL QUALITY REVIEW/RESOLUTION Intermittently June 9-30;
Steady July 1-14

PROJECT REVIEW/RESOLUTION Same schedule as above

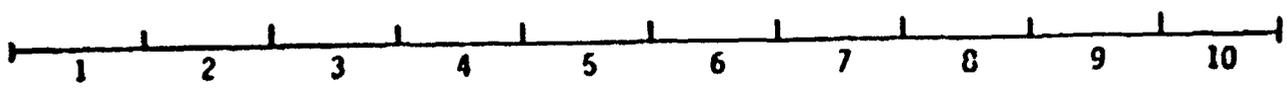
MERGE COMMENTS AND EDIT July 15-23

BRANCH CHIEF REVIEW/RESOLUTION Intermittently June 9-July 23;
Steady July 24-30

DECISION SUPPORT SYSTEM REVIEW/RESOLUTION
Intermittently June 9-30 and July 24-30; steady Aug 1-6

DIVISION/OFFICE DIRECTOR REVIEW/RESOLUTION
Intermittently June 9-Aug. 6; steady Aug. 7-13

CONCURRENCE/REPRODUCTION
Aug. 14-15



KEY: _____ CONTINUOUS WORK
----- INTERMITTENT WORK TO OBTAIN BACKGROUND AND/OR PROVIDE EARLY FEEDBACK AND GUIDANCE

Figure 1 -- FEA Review Schedule for Hanford and Yucca Mountain FEA's

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ENCLOSURE 1

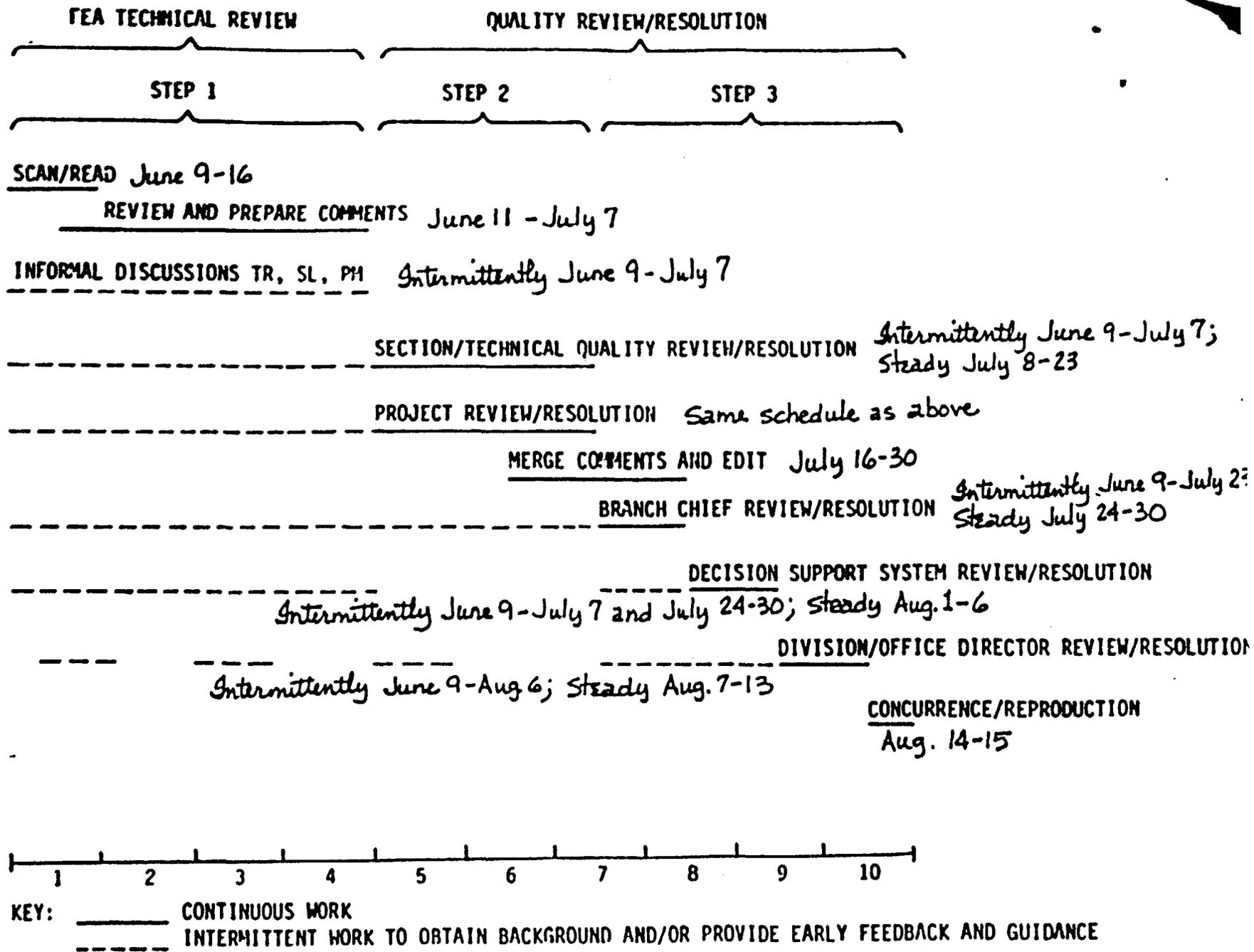


Figure 2 -- FEA Review Schedule for Deaf Smith, Davis Canyon and Richton Dome FEA's