Software Requirements Specification

Revision 01

for the

Yucca Mountain Repository

Environmental Impact Statement

Comment Response Database System

April 7, 1999

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Process Overview

This section provides a high-level overview of the process that will be used to receive, store, and respond to public comments received following the publication of the Yucca Mountain Repository Draft Environmental Impact Statement (DEIS). The overview is not intended to provide complete details or to be a definitive description of the process. Rather, the intent is to characterize the environment in which the Environmental Impact Statement (EIS) Comment Response Database System will function.

The requirements for system components and functions mentioned in this section are defined in greater detail in the sections following the process overview.

Public Comment Period

The public will have an opportunity to submit comments during a fixed period of time following the publication of the DEIS. It is currently anticipated that this period will begin on August 1, 1999 and will have a duration of at least 90 days.

Comment Acquisition and Routing

Comments will be accepted in a variety of forms, including regular mail, email, fax, public hearing transcripts, and correspondence with government officials. There will be no facility other than e-mail for submitting comments via the Internet. Each separate submission is considered a comment document and will be routed to the organization responsible for receiving comments and performing initial processing. Comment documents not in paper form (e.g. e-mails) will be converted (transcribed, printed, etc) as necessary.

The receiving organization stamps the date received on the first page of the comment document and assigns a unique, permanent document identifier to each comment document. The document identifier is affixed to each page of the document, to any attachments, and to the envelope in which a mailed comment is received.

The receiving organization makes the initial comment document record entry in the database, entering the document identifier, date received, document type, and commentor name. Three copies of each document are then made and the original comment document and one copy are provided to the EIS Administrative Record (AR) Coordinator. The AR Coordinator will retain the original and submit the copy to the Yucca Mountain Project (YMP) Records Processing System.

Comment Identification and Entry

The remaining two document copies are delivered to the organization responsible for processing comments. They add more detailed commentor and document status information to the comment document record.

A comment document may contain zero, one, or multiple comment(s). Subject matter experts analyze the comment documents. They identify and mark individual comments on the document. This process is referred to as comment identification or bracketing. All comment identification will be performed locally (in Las Vegas) by a small number of analysts.

After the bracketing is completed, the document is scanned and the resulting image is stored as part of the comment document record.

Each comment is assigned an identifier and entered into the database as a separate record. The comment text is entered along with additional related information, including the assigned subject category and the names of individuals that will be involved in developing a response to the comment. The source comment document identifier is also entered to provide traceability from comments back to their source comment documents.

Optical Character Recognition

Although the current assumption is that a manual data entry process will be used to input comment text, the possibility of using Optical Character Recognition (OCR) during the scanning process has been discussed.

The comment text is eventually entered into the database, but the actual capture of text from the comment document is external to the database system itself. Since no custom development or electronic linkage to the database is required to support OCR, it is expected that the introduction of

OCR into the process would have little or no impact on design or implementation of the database system.

Electronic Comment Bracketing

The possibility of acquiring software to support electronic bracketing of comments has been discussed as an alternative to manually marking individual comments on comment documents. It is believed that this would reduce the amount of work involved in both the initial and subsequent changes to comment identification.

A search for products which provide this functionality is still being conducted, but no viable candidates have yet been identified. The current assumption is that comments will be bracketed manually rather than electronically.

Since the comment bracketing process itself is external to the database system, it is expected that the introduction of electronic bracketing into the process would have little or no impact on design or implementation.

Response Development, Review, and Approval

A response is developed for each identified comment. The response is then reviewed by one or more designated individuals. The response writer incorporates any modifications arising from the review process and submits the response for re-review and approval. The response is considered final when approval is granted and it can no longer be modified by the response author. Additional iteration(s) of the response and review process occur as necessary. The response and review text from each iteration is saved as documentation of the process used to arrive at the final response.

Comment Response Document Generation

After the public comment period ends and approved responses have been written for all comments, a final document in ASCII text format containing all comments and responses is produced. Several cross-reference indices into the comments and responses are also generated.

The comment and response document described above will undergo further formatting external to the database system to produce the final EIS

Comment Response Document. It will be published and a copy provided to the EIS AR Coordinator for submittal to the YMP Records Processing System.

Comment Document Data Records

This section defines system requirements for the data elements and functions associated with the entry, storage, and retrieval of comment document data.

Comment Document Record Creation

The system must provide a data element for the entry, storage, retrieval, and update of comment document records. Each of these records will represent a single submitted comment document. The system must perform a check to ensure that the user has the appropriate privilege to perform the entry and update operations.

The comment document record creation function consists of two parts. The first part is done by the organization responsible for receiving and initial processing of comment documents. This organization must have the ability to create a comment document record by entering the Comment Document Identifier, Comment Document Type, the Date Received, and the Commentor Name.

The organization responsible for comment processing subsequently enters the remainder of the comment document data. This organization must have the ability to retrieve comment document records by Comment Document Identifier and to add additional information to complete the record.

The system must perform a check to ensure that valid values have been entered for all data elements during both phases of data entry and prompt the user to correct any errors prior to creating or updating the record.

A description of the data fields, legal values, and constraints that define a complete comment document record follows.

Comment Document Identifier

The unique identifiers for comment documents are not generated by the database system. Rather, they are generated and permanently affixed to comment documents as they are received and initially processed. The system must require that the unique identifier be input as the comment document record is created.

The identifiers are alphanumeric and consist of or contain a sequential, numeric element that can be used to sort comment documents. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Comment Document Type

The system must require the user to select the comment document type from a list of valid values. A null value for this data element is not allowed. The valid comment document types and their corresponding codes are:

- LT Letter
- PC Postcard
- FX Fax
- EM Email
- HT Public hearing transcript
- PT Petition
- OT Other

Date Received

The system must require the input of the date the comment document was received. A null value for this data element is not allowed.

Date/Time Entered

The system must automatically store the date and time the comment document record was created as a field in the record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Entered By

The system must automatically record the name of the user creating the record as a data element in the comment document record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Date/Time Updated

The system must automatically store the date and time the comment document record was updated (data entry completed) as a field in the record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Updated By

The system must automatically record the name of the user updating the record (completing the data entry) as a data element in the comment document record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Comment Document Image

The system must support the entry, storage, and retrieval of an image of the comment document with comments bracketed. A null value for this data element is allowed initially because comments are not yet bracketed at the time the comment document record is created. However, the corresponding individual comment data records may not be created until this image has been entered into the system

Duplicate Indicator

The system must provide a data element that can be used to specify that a comment document is an exact duplicate of another comment document. The system must require the user to enter the identifier of the comment document that the comment document duplicates. The user must be able to update the value of this data element at any time. A null value indicates that the comment document is not a duplicate.

Similar-To Indicator

The system must provide a data element that can be used to specify that a comment document is similar to another comment document. The system must require the user to enter the identifier of the comment document that the comment document is similar to. The user must be able to update the value of this data element at any time. A null value indicates that the comment document is not similar to another comment document.

Site Recommendation Comments Indicator

The system must provide a data element that can be used to specify that a comment document contains comments that may be relevant to the YMP Site Recommendation document. The user must be able to update the value of this data element at any time. A null value indicates that the comment document contains no Site Recommendation comments.

License Application Comments Indicator

The system must provide a data element that can be used to specify that a comment document contains comments that may be relevant to the YMP License Application document. The user must be able to update the value of this data element at any time. A null value indicates that the comment document contains no License Application comments.

Illegible Comments Indicator

The system must provide a data element that indicates whether the comment document contains any illegible comments. The user must be able to update the value of this data element at any time. A null value indicates that the comment document contains no illegible comments.

Supplemental Materials/Enclosures Indicator

The system must provide a data element that indicates whether any supplemental materials or enclosures were received with the comment document. The user must be able to update the value of this data element at any time. A null value indicates that the comment document has no supplemental materials or enclosures.

Number of Pages

The system must provide a data element for the entry, storage, and retrieval of the number of pages in the comment document. A null value is initially allowed for this data element, but the number of pages must be entered during the second phase of the comment document data entry.

Number of Signers

The system must provide a data element for the entry, storage, and retrieval of the number of individuals that signed or are listed as submitters of the comment document. The default value for this data element is one.
A null value is initially allowed for this data element, but the number of signers must be entered during the second phase of the comment document data entry.

Addressee

The system must provide a data element for the entry, storage, and retrieval of the comment document addressee. The default value for this data element is 'Wendy Dixon'. A null value is initially allowed for this data element, but the addressee must be entered during the second phase of the comment document data entry.

Commentor Identification

The following commentor identification information is entered with each comment document:

- Commentor Title (Mr./Mrs./Ms./Miss/Dr./etc.)
- Last Name
- First Name
- Middle Name (or Initial)
- Suffix (Jr., Esq., Ph.D., M.D., etc.)
- Street Address/P.O. Box
- City
- State
- Country (default USA)
- Postal Code
- Phone number
- Fax Number
- E-mail address
- Organization (e.g. NWTRB)
- Affiliation

All of the elements listed above are stored as ASCII text values except Affiliation, which is selected from the following set of values:

- General Public
- Federal Government
- State Government
- Local Government
- Native American Organization
- Citizens Group
- Special Interest Group
- Elected Official
- Business

It is anticipated that the list of affiliations may be modified in the future to contain subcategories (e.g. specific tribes within Native American Organizations). If this occurs, an arbitrary number of levels of categories must be supported.

Null values are not allowed for Last Name. 'Anonymous' is entered if no name is provided. If the document has more than one signer, only the name of the first signer is entered. Null values are allowed for all other commentor identification data elements.

The system provide a function that allows the user to:

- Determine whether other comment document(s) from the commentor have already been entered into the system.

- View the images of other comment documents from the commentor to determine whether the comment document currently being entered is a duplicate.

Remarks Text

The system must provide a data element that allows users to enter miscellaneous information regarding the comment document. This field is intended to be used to document any anomalies, discrepancies, or unusual conditions or circumstances related to the document.

Text in this field may not be altered or deleted after it has been saved, but new entries may be appended at any time. The username and entry date and time must saved and displayed along with the remarks.

A null value is allowed for this field. The maximum size of this field must be as large as possible and constrained only by limitations imposed by operating system and database software.

Comment Data Records

This section defines system requirements for the data elements and functions associated with the entry, storage, and retrieval of comments identified during the comment bracketing process.

Comment Record Creation

The system must provide a function that allows users with the appropriate privilege to create a data record representing a bracketed comment on a comment document. The required data fields, legal values, and constraints are described below. The system must check to ensure that valid values have been entered for all data elements and prompt the user to correct any errors prior to creating the comment record.

Date/Time Entered

The system must automatically store the date and time the comment record was created as a field in the record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Entered By

The system must automatically record the name of the user creating the record as a data element in the comment record. A null value for this data element is not allowed. The value in this field may not be edited after the record has been created.

Comment Identifier

The comment identifier must uniquely distinguish a comment from every other comment in the database. As the user enters a new comment data record, the system must prompt the user to enter the comment identifier. It shall consist of two parts:

- Comment document identifier. This is the number that was permanently affixed to the comment document

- Unique numeric sequence number. The sequence numbers for comments from the same comment document are sequential and start at one by default. The system must allow the user to override the default and enter another number, but whenever this occurs the system must ensure that the entered number is unique with respect to the sequence numbers of all other entered comments from the comment document.

Both parts of the comment identifier must be stored with the comment data record. A null value is not allowed for either part of this data element.

Comment Text

The system must support the entry of the full comment text. A null value for this data element is not allowed as text is entered regardless of whether the comment is being summarized (see Summary Comment/Response Pairs section below). The maximum size of this field must be as large as possible and constrained only by limitations imposed by operating system and database software.

Comment Subject Index Category

The comment subject index category, also referred to as the comment bin, identifies the general topic addressed by the comment. A null value for this data element is not allowed. A list of valid subject index values appears in the Yucca Mountain Repository EIS Public Comment Response Process Manual.

Each subject index category may contain an arbitrary number of subcategories. Comments may be assigned to a bin at any level in this hierarchy, but each comment may be assigned to one and only one bin. Every system function that presents a list of subject index categories to the user must represent them according to the hierarchy.

Users with system administrator privilege must have the ability to change the subject index category value assigned to a comment at any time following the initial creation of the comment data record. This procedure is referred to as rebinning the comment. Comments are rebinned individually by editing their comment subject category value. Functionality supporting the selection of multiple comments to be rebinned as a group is not required.

System administrators must also have the ability to update the set of valid subject index category values at any time. The ability to add, modify, or delete a category anywhere in the subject index hierarchy must be provided.

Each bin must specify the name of a bin coordinator. This individual must have bin coordinator privilege and is the default response writer for every comment assigned to the bin. Bin coordinators may reassign the response writing task to other authorized response writers at their discretion. Each bin must also have at least one default technical reviewer and one default approver assigned to it at all times.

Comment Start Page

The system must provide a data element for the entry, storage, and retrieval of the page number on which the comment starts in the comment document. A null value is not allowed for this data element.

Response Writer

The system must provide a data element for the name of the person assigned to develop the response. The default value for this element is the name of the bin coordinator for the subject index category to which the comment is assigned. The default value may be manually overridden at the time the record is created or at a later date by selection of a response writer from the list of authorized response writers (those individuals with the corresponding system privilege). A null value is not allowed for this data element.

Date/Time Response Writer Assigned

The system must automatically store the date and time on which the current response writer was assigned. The initial value for this field is the date and time on which the comment record is created and must be updated each time the response writer assignment is updated. Null values are not allowed for this data element.

Date Response Due

The system must provide a data element for the response due date. The system must require the user to enter a value when the comment record is

created. The value may be updated at any time. Null values are not allowed for this data element.

Date/Time Response Approved

The system must automatically store the date and time the comment response is approved. A null value for this data element is allowed and indicates that the response has not been approved. The value in this field may not be edited after a value has been assigned except in the case where an approved response is reopened for modification.

Response Reviewer(s)

The system must provide a data element identifying the individuals that have been assigned to review the response. The review information must include the name of the assigned reviewer, the date and time the assignment is made, and the review type, which is one of the following:

- Technical Review
- National Environmental Policy Act (NEPA) Review

The default reviewer(s) for a response are the default reviewer(s) for the bin to which the comment is assigned. NEPA reviews are optional. Additional or alternate reviewers can also be selected from the list of authorized reviewers (i.e. individuals with reviewer privilege). The maximum number of reviewers that may be specified is limited only by the number of authorized reviewers on the list. Null values are not allowed for this data element.

Response Approver(s)

The system must provide a data element for the names of the individuals responsible for approving the response. The default for this data element is the list of default approver(s) for the bin to which the comment is assigned. . Additional or alternate approvers can also be selected from the list of authorized approvers (i.e. individuals with approval privilege). The maximum number of approvers that may be specified is limited only by the number of authorized approvers on the list. Null values are not allowed for this data element.

EIS Change Indicator and Control Number

The system must provide a data element that indicates whether a comment has the potential to or has caused a change to the EIS. Values for this data element are:

- No EIS change
- Potential EIS change
- EIS was changed

The user entering the comment into the system must have the ability to set the indicator. The value must also changeable at any time thereafter. The indicator field may not be null. The default value is 'No EIS change'.

The system must prompt the user for the control number associated with the EIS change when the indicator value is set to 'EIS was changed'. The entered control number is an alphanumeric quantity and must be stored and displayed with the other information associated with the comment. This field must be null until the indicator is set to 'EIS was changed' and must not be null while the indicator is set to that value.

Remarks Text

The system must provide a data element that allows users to enter miscellaneous information regarding the comment. This field is used to capture information related to the comment, including any anomalies, discrepancies, or unusual conditions or circumstances. This field may also be used to document associations between the comment and records in other information systems.

Text in this field may not be altered or deleted after it has been saved, but new entries may be appended at any time. The username and entry date and time must saved and displayed along with the remarks.

A null value is allowed for this field. The maximum size of this field must be as large as possible and constrained only by limitations imposed by operating system and database software.

Commitments Indicator

The system must provide a data element that indicates whether any commitments have been made based on or associated with the comment. Users must have the ability to update the value of this field at any time. The Remarks text field may be used to enter additional information about the commitment. A null value for this field indicates that no such commitments exist.

Duplicate Indicator

The system must provide a data element that indicates whether the comment is a duplicate. A duplicate comment is defined as being identical to another comment that has already been received from the same commentor. If the comment is a duplicate, the user is required to enter the comment document and comment identifiers for the comment that this comment duplicates. Users must be able to update the value of this data element at any time. A null value indicates that the comment is not a duplicate.

Summary Comment/Response Pairs

Summary comment/response pairs are comments and associated responses that are developed internally rather than received from the public. They are intended to be used in cases where a determination is made that a large volume of very similar public comments warrants summarization rather than individual responses.

The system must provide support for the entry, storage, and retrieval of summary comment/response pairs. The system must allow the user to perform the following actions:

- Associate a comment with a summary comment/response at the time the comment is entered into the system. The actual comment text is still entered even though the comment will be summarized.

- Associate a comment that was previously entered into the system with a summary comment/response.

- Modify an existing summary comment/response association so that a comment becomes associated with a different summary comment/response.

- Delete the association between a comment and a summary comment/response.

Comment Rebracketing

The system must provide a function that allows users with the appropriate privilege to modify the comment identification for a particular comment document. This is known as comment rebracketing. An entry must be written to the system activity log documenting the execution of every rebracketing operation. The user must be prompted to enter a comment document identifier and must specify which of the following two types of rebracketing is to be performed:

- Rebracket the entire comment document. In this case, all comment data records associated with the comment document are deleted from the system along with any responses and reviews already entered for the comments. The document image is also deleted from the comment document record. Subsequent entry of a new document image and new comment data records will follow the normal procedure.

- Rebracket a single comment. This option will not affect any other comments that have already been identified and entered into the system from the same comment document. This type of rebracketing may consist of the deletion of a comment, deletion of a portion of the comment text, inclusion of additional text from the comment document, or splitting a single comment into multiple comments. If a comment is split, one of the new comments will retain the original comment sequence number and the user must input new sequence numbers for the others. The system must prompt the user to input a comment document image reflecting the new bracketing. This image will replace the previous image for that comment document.

Response Development Process

This section describes the process for development, review, and approval of responses to every comment that is entered into the system.

Process Overview

The steps in the response development and review process include the initial writing of a response, technical reviews, possible modifications based on the reviews, technical editing, an optional NEPA review, and an approval decision. The system must track the current status of each response version as it is developed and reviewed. The valid response status values correspond to the process steps and are listed below. The class of user performing the action in shown in parentheses:

- Response Development (response writer)
- Technical Review (technical reviewers)
- Response Modification (response writer)
- Technical Edit (technical editor)
- Technical Edit Review (response writer)
- NEPA Review (NEPA reviewer)
- Approval Decision (approvers)
- Approved (none - final state)
- Disapproved (none - final state)

The need for multiple iterations of the process can arise from a negative approval decision or from a need to re-review a modified response. The system must be able to support as many iterations as are required to successfully develop an approved response. Every data element associated with each iteration must be saved and be available for viewing as part of the complete comment and response data set.

Response Writing

The response to a comment is developed by the individual named as the response writer in the comment data record. The response may be viewed by any other system user but no one else may modify it. The response writer must be able to mark the response as complete when development is finished. The system must initiate the technical review process at this time

by updating the response status to 'Technical Review'. The response cannot be edited by the response writer while it is being reviewed.

Response Technical Reviews and Modification

The system must allow each assigned response reviewer to enter a review of the response after it is completed. The system must allow all specified technical reviews for a particular response to be developed and entered concurrently. Each reviewer has exclusive access to edit their review but every user must be able to view the current version of all other reviews.

The system must track the current status of each review. The valid status values are:

- Review Development
- Review Complete - Response acceptable in its current form
- Review Complete - Response acceptable with specified modifications (no re-review required)
- Review Complete - Response requires modification and re-review

The initial status for each review is 'Review Development'. Each reviewer must be able to update the status of their review to one of the three 'Review Complete' values when they are finished with it. When all technical reviews have been completed, one of the following actions occurs:

- If all reviewers find the response acceptable in its current form, the system updates the response status to 'Technical Edit', which initiates the technical editing phase of the process.

- If at least one reviewer has indicated that modifications are required but no reviewer has indicated the need for re-review, the system updates the response status to 'Response Modification', which initiates the process step in which the response writer modifies the original version of the response. The response writer must be able to indicate when modifications are complete. The system must update the response status to 'Technical Edit' at this time.

- A new iteration of the response development and review cycle is initiated if any reviewer has indicated the need for modifications followed by re-review.

Response Technical Edit

Technical editing of the response is performed after all technical reviews are complete. A user with Technical Editor privilege edits the response for spelling, grammar, and other technical considerations. The system must provide a way for the technical editor to indicate that the technical edits have been made and are ready for the original response writer to review and approve. The system must update the response status to 'Technical Edit Review' at this time.

The original response writer then reviews the edits, resolves any issues with the technical editor arising from the edit, and finally approves the changes. The technical editor must be able to modify the tech-edited version of the response during the review and issue resolution period. When the response writer gives approval, the system must lock the tech-edited response version and update the response status to either 'NEPA Review' or 'Approval Decision', depending on whether or not a NEPA review of the response has been specified.

The technical editor must also be able to alternatively indicate that no edits are necessary. If this occurs the step in which the response writer reviews and approves edits is bypassed.

Response NEPA Review

If a NEPA review has been specified for the response, the system must allow the designated NEPA reviewer to modify the response after technical editing is complete. The system must provide a way for the NEPA reviewer to indicate that modifications are complete and must update the response status to 'Approval Decision' at this time.

Response Approval

After the response status is updated to 'Approval Decision', the response is examined by all designated approver(s). The system must allow each approver to enter their approval decision and optional remarks explaining their decision. The system must automatically record the data and time of each approval decision.

If every approver enters a positive decision, the system updates the response status to 'Approved'. The system must also record the date and time of approval in the associated comment data record as well as the comment data records of all duplicates of the comment. If any approver disapproves of the response, the system updates the response status to 'Disapproved' and a new iteration of the response development and review cycle is initiated.

Revision of Approved Responses

Approved responses may need to be reopened for revision. System administrators must be able to initiate another iteration of the response development and review cycle for approved responses by invoking a function that sets the approval date value to null and creates another response version for the comment.

Response Development Data Elements

This section defines requirements for system data elements associated with the response development process.

Response Text

The system must provide data elements supporting the entry, storage, and retrieval of the original, modified, tech edited, and NEPA edited versions of the text for each response version. Null values are allowed for all of these fields. The maximum size of these fields must be as large as possible and constrained only by limitations imposed by operating system and database software.

Response Status

The system must provide a data element for the entry, storage, and retrieval of the current status of each response. The valid response status values are listed in the Response Development Process Overview section above. A null value for this data element is not allowed. The initial value is 'Response Development'.

Date/Time Response Updated

The system must automatically store the date and time that the response text was created or last updated. Any previously stored value is overwritten each time the response text is saved.

Review Text

The system must provide a data element for the entry, storage, and retrieval of the text for each review. Null values are allowed for this field. The maximum size of the field must be as large as possible and constrained only by limitations imposed by operating system and database software.

Review Status

The system must provide a data element for the entry, storage, and retrieval of the current status of each review. The valid review status values are listed in the Response Technical Reviews and Modification section above. A null

value for this data element is not allowed. The initial value is 'Review Development'.

Date/Time Review Updated

The system must automatically store the date and time that the review text was created or last updated. Any previously stored value is overwritten each time the review text is saved.

Approval Decision

The system must provide a data element for the entry, storage, and retrieval of each approval decision. The valid values are 'Approved' and 'Disapproved'. A null value is allowed and indicates that no decision has yet been made.

Approval Remarks Text

The system must provide a data element that allows the designated approver to enter text remarks addressing the response, reviews, and/or rationale for approving or disapproving the response. A null value is allowed for this field. The maximum size of this field must be as large as possible and constrained only by limitations imposed by operating system and database software.

Date/Time Approval Decision Made

The system must automatically store the date and time that each approval decision is made. A null value is allowed for this field.

Pre-Approved Responses

The system must support the entry, storage, and retrieval of pre-approved responses that have been developed to address anticipated comments. The author of the response must be entered and displayed along with the response text.

All pre-approved responses in the system must be available for reference by response writers as they develop comment responses. The system must allow the response writer to view the responses, select all or part of any pre-approved response text, and add the text to the response they are developing.

No recording or tracking of the fact that the text was taken from a pre-approved response is required.

The review and approval process for a response containing pre-approved response text does not differ from the normal process.

System Output Requirements

This section defines the requirements for outputs that the system must produce.

Comment Response Document

The system must produce a document containing all comments and responses in ASCII text format which will be used to produce the final Comment Response Document. This document will contain no scanned document images.

Comment Response Document Indices

The system must also produce the following cross reference indices of the Comment Response Document:

- Alphabetically by commentor
- By comment document number
- By subject index bin

Preformatted Reports

The system must be able to produce preformatted reports on comments organized by:

- Commentor Last Name
- Comment Document Identifier
- Comment Identifier
- Document Type
- Organization
- Affiliation
- City
- State
- Country
- Postal Code
- Area Code
- Date Received

- Subject Index Category (and Subcategory)
- Response Writer

The organization responsible for comment document receiving and initial processing must be able to produce a report at the end of each day that contains information on the comment documents that were received and entered into the system during the day. This report will serve as a transmittal cover page for the comment document copies that are delivered to the comment processing organization.

The system must also be able to produce preformatted reports on:

- Comments that have associated commitments
- Comments that will potentially cause EIS changes
- Samples of each type of postcard that have been received

Ad hoc Reports

The system must have an ad hoc report generation capability. The user must be able to customize reports by specifying:

- Inclusion or exclusion of specific data elements
- Selection of data matching a pattern applied to system data elements
- Sort order

Status and Work Assignment Reports

The system must be able to produce reports containing information on the current status of the response. The status reports shall contain the total number of comments:

- With approved responses
- With responses that have not been approved
- That duplicate comments with approved responses
- That duplicate comments with responses that have not been approved

It must be possible to categorize and sort the reports by:

- Response writer

- Reviewer
- Subject index bin

The system must also be able to produce reports on user work assignments (response writing, reviews, approval decisions, etc.). Each user must be able to view a report that lists the work that has been assigned to that individual. Each user must also be able to view the assignments of all other system users. The system must also produce a report on responses that are ready for technical editing. The technical editing assignments are not made to individual users, so this report must be directly accessible from the work assignment report of all users that have Technical Editor system privilege.

Comment Document Posting on YMP Internet Web Site

The requirement to post Comment Document images on the YMP Internet Web Site as the documents are received and entered into the database has been dropped.

User Interface Requirements

All comment and response data must be traceable back to the location of the comment in the original comment document. Every user screen containing a comment, response to a comment, or a response review must provide a mechanism by which the user may display an image of the bracketed comment document that contains the associated comment. The initial view must display the page on which the comment starts. The user must be able to scroll the document image vertically in both directions from that initial point and to close the view when viewing has been completed.

Additional specifics of the user interface layout will be further defined during the interface prototyping process.

System Privileges and User Authentication

System Access

All access to the system is via username/password authentication. That is, all users must have an established system account and enter their password each time they access the system. The system must provide a function that allows the user to change their password. The old password must be entered and verified and the new password entered twice to ensure that the user typed the intended password correctly.

User Privileges

Privileges for access to system functions will be granted to users based on need. The system must ensure that the user has the required privilege before allowing access to any system function. An individual user may have one or more of the following privileges at a given time:

- Read Only
- Data Entry1 - Create Comment Document Records
- Data Entry2 - Complete Comment Document Records, Enter Comment Records
- Response Writer
- Technical Reviewer
- NEPA Reviewer
- Response Approver
- Bin Coordinator
- Technical Editor
- System Administrator

System Administrators

A system administrator user class must be provided. Administrators will also authenticate via username/password and have access to all system functions described above.

Administrators will be the only users with the ability to perform privileged system functions and modify certain system data elements. Administrator privilege will be required to:

- Rebin comments
- Rebracket a comment document
- Modify the subject index
- Administer user accounts and privileges

Additional administrator functions will be added to the list as they are identified.

User Training and Documentation

User Training

Classroom-style training with written classroom materials must be provided. The training must support two classes of users: system administrators and users involved in response development and review. The training must cover basic system functions available to all users as well as the specific privileged functions available to the class of users being trained

User Manual

A user manual is not required.

Online Help

Online help is not required.

System Documentation

System design and implementation information must be well documented since it is anticipated that the software will be reused by other organizations to support the comment and response process for the Site Recommendation and License Application documents.

Miscellaneous Requirements

Capacities

The system must have the capacity to store at least 15000 comment document records. The system must have the capacity to store a cumulative total of at least 25000 individual comments/responses, comment/response summary records, and pre-approved responses

The system must be capable of supporting 25 concurrent users.

Network Access

The system will be hosted on a server on the YMP Intranet. Most users will have access to the system via their permanent connection to the YMP internal network. Remote system access options for users without such a connection include:

- Internet access using SecuRemote software on the client computer
- Dial-up connection

It has been noted that the bandwidth limitations of dialup connections may degrade the usability of system functions involving data transfers of significant size.

Searching

The system must support searching for text that matches strings entered by the user. The user must be able to select one or more of the following areas in which to perform the search:

- Comments
- Responses
- Response reviews
- Pre-approved responses
- Comment/response summaries

Global text replacement is not required. Full-text search capability is not required.

The specific formats for the interface components to support search text entry and results presentation will be further defined through the interface prototyping process.

System Activity Logging

A system activity log file must be generated. Only essential event information will be captured:

- User logins including username, date/time, and client IP address
- Comment Document Rebracketing
- System errors

Work Pending E-mail Notifications

The possibility of providing a function that would generate e-mail notifications to system users of their work assignments has been discussed.

It is expected that regular users would receive an excessively large volume of messages if this function were implemented. It would probably be necessary to allow users to specify whether they wanted to receive no messages, a subset of generated messages, or all messages.

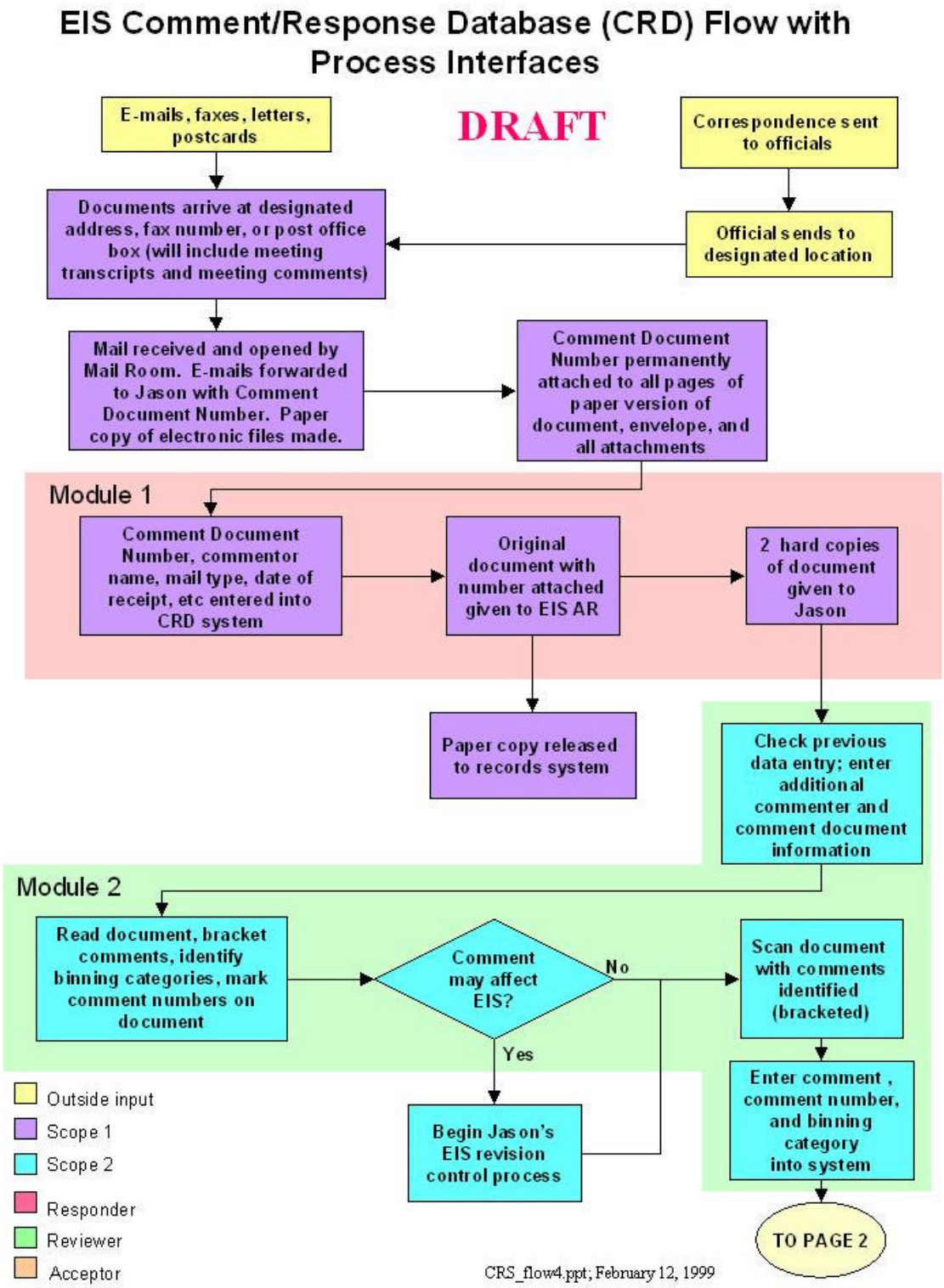
A report detailing work assignments by user has been added to the system requirements (see System Output Requirements section). Since this capability will allow users to easily check on their work assignments, there is no current requirement to implement the e-mail notification function.

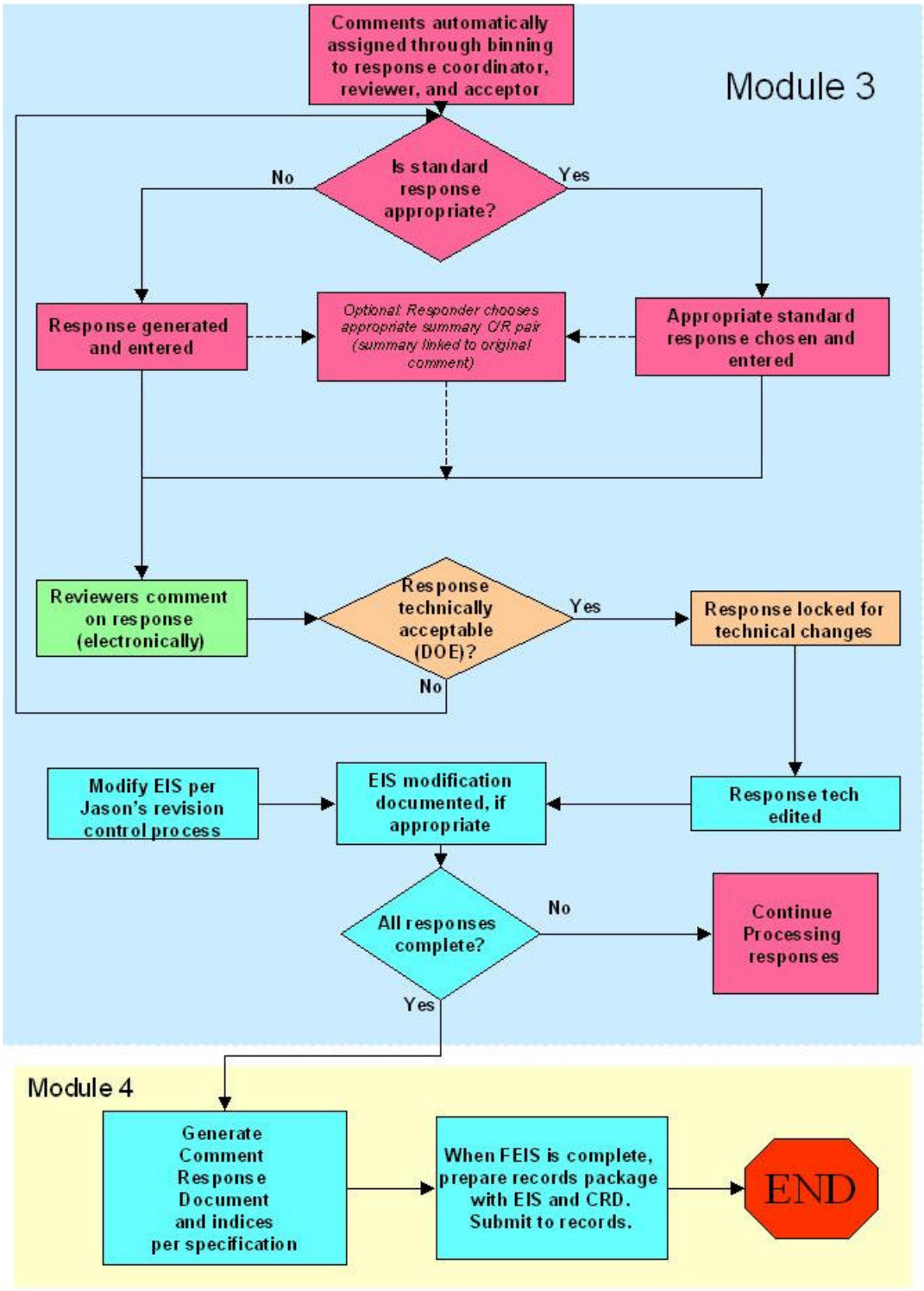
Implementation Priorities

Most of the required system functionality will be implemented in Phase I of the development cycle. However, the system functions which generate the final Comment Response Document and associated indices have a lower implementation priority because they will not be used during the period in which comments are being accepted and processed. They will be developed in Phase II, which will run concurrent with the initial use of the system during the comment submission period.

Any additional functionality that can be identified as not being required during the initial period will also be given a lower priority and developed during Phase II.

Appendix A


EIS Comment/Response Database (CRD) Flow with Process Interfaces
DRAFT
E-mails, faxes, letters, postcards
Correspondence sent to officials
Documents arrive at designated address, fax number, or post office box (will include meeting transcripts and meeting comments)
Official sends to designated location
Mail received and opened by Mail Room. E-mails forwarded to Jason with Comment Document Number. Paper copy of electronic files made.
Comment Document Number permanently attached to all pages of paper version of document, envelope, and all attachments
Module 1
Comment Document Number, commentor name, mail type, date of receipt, etc entered into CRD system
Original document with number attached given to EIS AR
2 hard copies of document given to Jason
Paper copy released to records system
Check previous data entry; enter additional commenter and comment document information
Module 2
Read document, bracket comments, identify binning categories, mark comment numbers on document
Comment may affect EIS?
No
Yes
Scan document with comments identified (bracketed)
Enter comment , comment number, and binning category into system
Begin Jason's EIS revision control process
TO PAGE 2
Outside input
Scope 1
Scope 2
Responder
Reviewer
Acceptor
CRS_flow4.ppt; February 12, 1999


Module 3
Comments automatically assigned through binning to response coordinator, reviewer, and acceptor
Is standard response appropriate?
No
Yes
Response generated and entered
Optional: Responder chooses appropriate summary C/R pair (summary linked to original comment)
Appropriate standard response chosen and entered
Reviewers comment on response (electronically)
Response technically acceptable (DOE)?
Yes
No
Response locked for technical changes
Modify EIS per Jason's revision control process
EIS modification documented, if appropriate
Response tech edited
All responses complete?
No
Yes
Continue Processing responses
Module 4
Generate Comment Response Document and indices per specification
When FEIS is complete, prepare records package with EIS and CRD. Submit to records.
END