Office of Civilian Radioactive Waste Management   QA: QA

PROCEDURE

DEVELOPMENT, REVIEW, ONLINE PLACEMENT, AND MAINTENANCE OF INDIVIDUAL REFERENCE INFORMATION BASE DATA ITEMS

AP-SIII.4Q

Revision 0 ICN 5

Effective Date: 01/31/2003

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Approval: _DR Tommela_   1/23/03
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                Chief Information Officer

CHANGE HISTORY

Revision Number	Interim Change No.	Effective Date	Description of Change
0	0	06/30/1999	Initial Issue. Supersedes NWI-TDM-002Q, *Development, Review, Placement, and Maintenance of Individual Reference Information Base Items.*
0	1	12/15/1999	ICN to add three definitions, clarify the Reference Information Base data item development process, clarify records responsibilities and handoff, revise the QA records list, and modify processes and format to accommodate the "Qualified-Verification Level 2" status.
0	2	12/20/2000	ICN to update Qualified-Verification Level 2 definition, clarify level 3 change control disposition authority, and change the Reference Information Base item reference format.
0	2 BSCN 1	02/12/2001	Blue Sheet Change Notice to provide a simple process for the new Management and Operating Contractor to accept this existing procedure for implementation during contract performance.
0	3	10/19/2001	ICN to clarify records responsibility and disposition of the Reference Information Base Data Item Online Review Checklist in Paragraph 5.4.3. This action is required to address Deficiency Report BSC-01-D-097 and Document Action Request D1029. Notes with action steps were removed in accordance with Deficiency Report YMSCO-01-D-064.
0	4	12/21/2001	Interim Change Notice to eliminate language regarding AP-3.4Q, *Level 3 Change Control*, which has been cancelled. Addition of new language to Section 3.0, Definitions. Addition to and change of language to Subsection 4.2. Clarification of process steps in Section 5.0, Process. Removal of Attachment 4, Available Subject Matter Data Report. This action is required to address Document Action Requests D989, D1050, and D1086.

CHANGE HISTORY (Continued)

Revision Number	Interim Change No.	Effective Date	Description of Change
0	5	01/31/2003	ICN to address Document Action Requests D4987 and D6067; add definition 3.4 (Reference Information Base Data Item Editor) and Reference Information Base Data Item Editor responsibilities to process section; add Attachment 3, Available Subject Matter Data Report, to procedure and add language for Attachment 3 to Subsections 3.5 and 6.1; add To Be Determined, To Be Verified, and Corroborative Sources to Attachment 5; address minor editorial changes.

1.0 PURPOSE

This procedure establishes the responsibilities and process for the development, review, online placement, and maintenance of technical data items in the Reference Information Base (RIB).

2.0 APPLICABILITY

This procedure applies to individuals within Bechtel SAIC Company, LLC and the U.S. Geological Survey who develop, review, revise, and maintain data/information and data/information descriptions included in the RIB.

3.0 DEFINITIONS

3.1 *Parameter*–Scientific data, performance assessment data, or engineering technical information that represents physical or chemical properties, consisting of an assigned variable name and generally represented by a value or range of values. Select parameters that are potentially subject to varied interpretation and selection of multiple values, and subject to multiple use for various technical products within the Yucca Mountain Project (YMP), reside within the RIB within the Technical Data Management System.

3.2 *Qualified-Verification Level 2*–Qualified but unconfirmed data that were acquired or developed using procedures in effect prior to 06/30/1999, and are not directly used to support the estimates of principal factors as defined by Attachment 1, Screening Criteria for Grading Data, of AP-3.15Q, *Managing Technical Product Inputs*.

3.3 *RIB Data Item*–An approved electronic file containing YMP site specific geoscience and engineering data/information that represents YMP consensus. This electronic file includes scientific data, performance assessment data, or engineering technical information describing Yucca Mountain-specific physical or chemical properties represented as summaries and abstractions, such as mean test values, maximum and minimum values, standard deviations, and statistical confidences presented in tabular, graphic, or narrative format. A RIB Data Item should include parameters that meet the criteria given in Subsection 3.1 of this procedure.

3.4 *RIB Data Item Editor*–A member of the RIB/Data Traceability who is responsible for the technical editing of RIB Data Items.

3.5 *RIB Data Item Package*–Documentation including the concurrence draft of the approved RIB Data Item; Attachment 1, RIB Data Item Cover Sheet (Form ASIII4-2); the Review Record (Form AP-2.14Q.1) from AP-2.14Q, *Review of Technical Products and Data*; the review Comment Sheets (Form AP-5.1Q.5) from AP-5.1Q, *Plan and Procedure Preparation, Review, and Approval*, or review markups of the RIB Data Item; Attachment 2, RIB Data Item Online Review Checklist (Form ASIII4-3); Attachment 3, Available Subject Matter Data Report (Form ASIII4-1); Technical Data Information Form Transmittal Letter from AP-SIII.3Q, *Submittal and Incorporation of Data to the Technical Data Management System*; and Technical Data Information Form from AP-SIII.3Q.

3.6 ***RIB Development Author*–**The individual who develops the RIB Data Item as described in Subsection 3.3 of this procedure. The RIB Parameter Originator may be designated as the RIB Development Author.

3.7 ***RIB Development Compiler/Coordinator*–**A member of the RIB/Data Traceability who is designated by the RIB Database Administrator (DBA) to coordinate the development of a RIB Data Item under the direction of appropriate subject matter experts. The Compiler/Coordinator may also be designated by the RIB DBA to work with a RIB Development Author to coordinate the RIB development process.

3.8 ***RIB Parameter Originator*–**The individual that develops or acquires parameters meeting the criteria for inclusion in the RIB as given in Subsection 3.1 of this procedure.

3.9 ***RIB Web Technician*–**A member of the RIB/Data Traceability who is responsible for placing RIB Data Items on the RIB web site in HTML format and maintaining the overall RIB web site.

4.0 RESPONSIBILITIES

4.1 The Chief Information Officer is responsible for the preparation, change, and approval of this procedure.

4.2 The following organizations or positions are responsible for activities identified in Section 5.0 of this procedure:

a) RIB Parameter Originator
b) RIB DBA (or Designee)
c) RIB Development Author
d) RIB Development Compiler/Coordinator
e) RIB Data Item Editor
f) RIB Web Technician

5.0 PROCESS

Acronyms and abbreviations used in this procedure are defined in Attachment 4, Acronyms and Abbreviations.

PROCESS OUTLINE

5.1   INITIATION OF RIB DATA ITEM

5.1.1   RIB Parameter Originator:

Initiate a RIB Data Item by doing one of the following:

1)   Notify the RIB DBA of intent to develop a RIB Data Item, and fulfill the responsibilities of the RIB Development Author as described in this procedure.

2)   Submit electronic file(s) of parameter values to the RIB DBA for incorporation into the RIB in accordance with AP-SIII.3Q if RIB Development Author responsibilities will not be fulfilled by the RIB Parameter Originator.

5.1.2   RIB DBA:

Upon receipt of the parameter values developed in accordance with the appropriate procedure(s) (e.g., AP-SIII.9Q, *Scientific Analyses*, or AP-SIII.10Q, *Models*) for incorporation into the RIB, determine RIB Development Author designation and assign a RIB Development Compiler/Coordinator to assist with the process, or assign development of the RIB Data Item to a RIB Development Compiler/Coordinator.

5.2   DEVELOPMENT

5.2.1   RIB Development Author and/or Compiler/Coordinator:

a)   Develop the RIB Data Item from the best available data/information sources using qualified data obtained from a controlled source, qualified-verification level 2 data from a controlled source, accepted data documented in accordance with AP-SIII.2Q, *Qualification of Unqualified Data and the Documentation of Rationale for Accepted Data*, and unqualified data, as required.

b)   Perform analyses and assessment modeling necessary to support the development of a RIB Data Item in accordance with the appropriate procedure(s) (e.g., AP-SIII.9Q or AP-SIII.10Q).

c)   If insufficient amounts of qualified, qualified-verification level 2, or accepted data exist to develop a RIB Data Item, and the unqualified data will directly affect resolution of safety or waste isolation issues, initiate data qualification in accordance with AP-SIII.2Q.

d)   Using Microsoft Word, prepare the RIB Data Item in accordance with contents and format prescribed in Attachment 5, RIB Data Item Format and Content.

e) Ensure that data and information used to develop a RIB Data Item are obtained from, or are traceable (referenced) to, YMP databases and/or other YMP records sources. Cite the appropriate identifiers for each reference used: Data Tracking Number (DTN), Records Processing Center (RPC) accession number, Technical Information Center (TIC) catalog number, or Document Control Document Identifier (DI).

f) Using Attachment 3, Available Subject Matter Data Report, compile a report by reference number of all available subject matter data/information. Include an explanation of the rationale for excluding any part of that data/information from the RIB Data Item.

g) Provide the RIB Data Item to the RIB Data Item Editor for technical editing before it goes through the review process.

5.2.2 RIB Data Item Editor:

Ensure that the RIB Data Item is technically sound in accordance with the online OCRWM Style Manual and Attachment 5, RIB Data Item Format and Content.

5.2.3 RIB Development Author and/or Compiler/Coordinator:

Subsequent to the technical editing, proceed with Subsection 5.3 for the review and approval process.

5.3 REVIEW AND APPROVAL

RIB Development Author and/or Compiler/Coordinator:

a) Coordinate with the manager responsible for development of the RIB Data Item for the assignment of Technical Reviewers.

b) Determine which organizations are affected by the RIB Data Item or revision.

c) Initiate a review by the Technical Reviewers in accordance with AP-2.14Q.

d) Assign the following review criteria to the Technical Reviewers:

- Review the RIB Data Item for technical correctness and the assurance that the source data and information are appropriate and sufficient.

- Determine whether the data/information support, adequately summarize, appropriately represent, and, if applicable, correctly interpret the RIB subject.

- Confirm the data/information are correctly traced to the cited references.

- Check the RIB Data Item for format, completeness, references, clarity, and scope of discussion.

e) Upon completion of the review by the Technical Reviewers, initiate a review by the affected organizations in accordance with AP-2.14Q.

f) Assign the following review criteria to affected organizations:

- Agreement that the RIB Data Item data/information represents the YMP consensus.

g) Complete the review process by responding to comments, if appropriate; create concurrence/final draft, if necessary; and obtain reviewer's acceptance on Comment Sheets and concurrence signature on the Review Record.

h) If applicable, proceed with dispute resolution in accordance with AP-2.14Q.

i) Upon completion of the review, obtain appropriate Responsible Manager's signature approval on Attachment 1, RIB Data Item Cover Sheet.

j) Return the concurrence/final draft of the approved RIB Data Item to the RIB Data Item Package.

k) Obtain a DTN from the Data Coordinator in accordance with AP-SIII.3Q.

5.4 ONLINE PLACEMENT AND REVIEW

5.4.1 RIB Development Author and/or Compiler/Coordinator:

Electronically transmit the approved RIB Data Item text and figures to the RIB Data Item Editor.

5.4.2 RIB Data Item Editor:

Perform final technical editing for the text and figures of the RIB Data Item and electronically transmit the RIB Data Item text and figures to the RIB Web Technician for placement on the RIB web site.

5.4.3 RIB Web Technician:

a) Place the RIB Data Item on the RIB web site.

b) Notify the RIB DBA when the RIB Data Item is ready for review.

c) Provide a pre-intranet electronic staging file to the RIB DBA and RIB Development Author and/or Compiler/Coordinator for review of the RIB Data Item.

5.4.4   RIB Development Author and/or Compiler/Coordinator:

Review the online RIB Data Item following the steps listed in Attachment 2, RIB
Data Item Online Review Checklist; print name and sign checklist, and forward
checklist to RIB DBA for signature approval.

5.4.5   RIB DBA:

a)   Return Attachment 2, RIB Data Item Online Review Checklist, to the RIB
Development Author or Compiler/Coordinator for inclusion in the RIB Data
Item Package.

b)   Notify the RIB Web Technician that the online RIB Data Item is approved.

5.4.6   RIB Development Author and/or Compiler/Coordinator:

Submit the entire RIB Data Item Package, as a records package, to the RIB/Data
Traceability for submission to the RPC in accordance with Section 6.0.

5.5   MAINTENANCE

RIB DBA:

Following the steps outlined in Subsections 5.2 through 5.4 of this procedure, update RIB
Data Items whenever superseding or supplemental subject matter data/information are
identified.

6.0   RECORDS

The records listed in Subsection 6.1 shall be collected and submitted to the RPC in
accordance with AP-17.1Q, *Record Source Responsibilities for Inclusionary Records*, as
individual records or included in a records package, as specified.

6.1   QA RECORDS

Records Package:

Approved RIB Data Item

RIB Data Item Cover Sheet (Form ASIII4-2)

Comment Sheets (Form AP-5.1Q.5 from AP-5.1Q) (if applicable, include the review
markups of RIB Data Item)

Review Record (Form AP-2.14Q.1 from AP-2.14Q)

RIB Data Item Online Review Checklist (Form ASIII4-3)

Technical Data Information Form Transmittal Letter (from AP-SIII.3Q)

Technical Data Information Form (from AP-SIII.3Q)

Available Subject Matter Data Report (Form ASIII4-1)

6.2   NON-QA INCLUSIONARY RECORDS

None

6.3   NON-QA EXCLUSIONARY RECORDS

None

7.0   REFERENCES

a)   *Quality Assurance Requirements and Description*, DOE/RW-0333P

b)   AP-2.14Q, *Review of Technical Products and Data*

c)   AP-3.15Q, *Managing Technical Product Inputs*

d)   AP-5.1Q, *Plan and Procedure Preparation, Review, and Approval*

e)   AP-17.1Q, *Record Source Responsibilities for Inclusionary Records*

f)   AP-SIII.2Q, *Qualification of Unqualified Data and the Documentation of Rationale for Accepted Data*

g)   AP-SIII.3Q, *Submittal and Incorporation of Data to the Technical Data Management System*

h)   AP-SIII.9Q, *Scientific Analyses*

i)   AP-SIII.10Q, *Models*

8.0   ATTACHMENTS

Forms attached to this procedure are controlled and distributed as full-size pages separate from this procedure and may be copied for use when implementing this procedure.

Attachment 1 - RIB Data Item Cover Sheet (Form ASIII4-2)
Attachment 2 - RIB Data Item Online Review Checklist (Form ASIII4-3)
Attachment 3 - Available Subject Matter Data Report (Form ASIII4-1)
Attachment 4 - Acronyms and Abbreviations
Attachment 5 - RIB Data Item Format and Content

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT	QA:
RIB DATA ITEM COVER SHEET	Page 1 of

RIB Data Item Title:	
RIB Number	RIB Author/Compiler/Coordinator:

Approval:

Responsible Manager:	Date:
RIB DBA:	Date:
DTN:	Release Date:

EXAMPLE

AP-SIII.4Q   FORM NO. ASIII4-2 (Rev. 12/21/2001)

Attachment 1 - RIB Data Item Cover Sheet

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT	QA:	
RIB DATA ITEM ONLINE REVIEW CHECKLIST	Page 1 of	
RIB Data Item Title	DTN:	
	1. Review the RIB data item against the hard copy version ensuring the online version text and graphical information is identical to the hard copy version.	
	2. Check hyperlinks to ensure that they link to the correct location.	
	3. Check parameters search function. Ensure that the search function currently identifies the RIB data item(s) containing the parameter	

Reviewer Name. (Print/Sign)	Date:
RIB DBA: (Print/Sign)	Date:

EXAMPLE

Attachment 2 - RIB Data Item Online Review Checklist

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT		QA:	
AVAILABLE SUBJECT MATTER DATA REPORT		Page of	
RIB Data Item Parameter Value Under Development:			
Name of RIB Development Author	Signature	Date:	
Reference Number (DTN, Accession Number, TIC, or DI)	**Title**		**Qualification Status Including TBV**
	EXAMPLE		

AP-SIII.4Q   FORM NO. ASIII4-1 (Rev. 01/31/2003)

Attachment 3 - Available Subject Matter Data Report

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT		QA:	
AVAILABLE SUBJECT MATTER DATA REPORT		Page	of
(EXPLANATION OF RATIONALE)			
RIB Data Item Parameter Value Under Development			

Name of RIB Development Author:	Signature:	Date:

Reference Number (DTN, Accession Number, TIC, or DI)	Explanation
	EXAMPLE

AP-SIII.4Q   FORM NO. ASIII4-1 (Rev. 01/31/2003)

Attachment 3 - Available Subject Matter Data Report (Continued)

DBA	Database Administrator
DI	Document Identifier
DTN	Data Tracking Number
QA	Quality Assurance
RIB	Reference Information Base
RPC	Records Processing Center
TBD	To Be Determined
TBV	To Be Verified
TIC	Technical Information Center
YMP	Yucca Mountain Project

Attachment 4 - Acronyms and Abbreviations

RIB Number:

Subject:

Author:

Compiler/Coordinator:

Release Date:

RIB DTN:

Data Status:

Technical Data Parameters

This section includes a list of technical data parameters and associated Technical Data Management System parameter numbers referenced in the RIB Data Item.

Description and Methodology

This section describes the methods and equipment used to collect the data/information, the environmental and mechanical limitations that affect the data/information, and the limitations on data/information usage. Data/information are presented in a clear, concise form which may be tabular, graphical, narrative, or a combination of all three.

Statistics (optional)

This section describes any statistical processes performed on, or related to, the collection, presentation, analysis, and use of numerical data/information embodied in the RIB Data Item.

Data/Information Sources

This section lists all sources used to develop the RIB Data Item. This includes specific cited references within the source document used in the development of the RIB Data Item. Include in the citation the DTN, RPC accession number, TIC catalog number, and DI, as available.

Qualified Sources–Those reference sources carrying a "Q" designation and containing 1) data resulting from expert elicitation; 2) data qualified using the AP-SIII.2Q qualification process; 3) data acquired or developed using procedures in effect on or after 06/30/1999; or 4) data that have been confirmed using the Data/Document Confirmation Checklist (Form AP-3.15Q.3) in AP-3.15Q.

TBD (if applicable)

TBV (if applicable)

Qualified-Verification Level 2–Those reference sources carrying the qualified-verification level 2 designation as defined in Subsection 3.2 of this procedure.

Attachment 5 - RIB Data Item Format and Content

Accepted Sources–Those reference sources considered as established fact (e.g., engineering handbooks, industry standards, and tables of constants) or data/information generally accepted by the scientific and engineering community and found to be technically defensible by those using it. Accepted data/information sources must be documented in accordance with AP-SIII.2Q.

Corroborating Data–Data that is used to support or substantiate other data (*Quality Assurance Requirements and Description*, DOE/RW-0333P). The use of corroborating data has no impact on the qualification status of the arguments or datasets. For additional information on the use of corroborating data, refer to AP-SIII.2Q.

Unqualified Sources–Those reference sources that were not acquired or developed using the Office of Civilian Radioactive Waste Management Quality Assurance (QA) program.

References

This section lists all documents cited in the RIB Data Item that were not included in the section above as data/information sources.

Attachment 5 - RIB Data Item Format and Content (Continued)