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SYSTEM USER'S MANUAL
BASELINE ANALYSIS MATRIX VERSION 3.0

Westinghouse Hanford Company
Environmental Restoration Program

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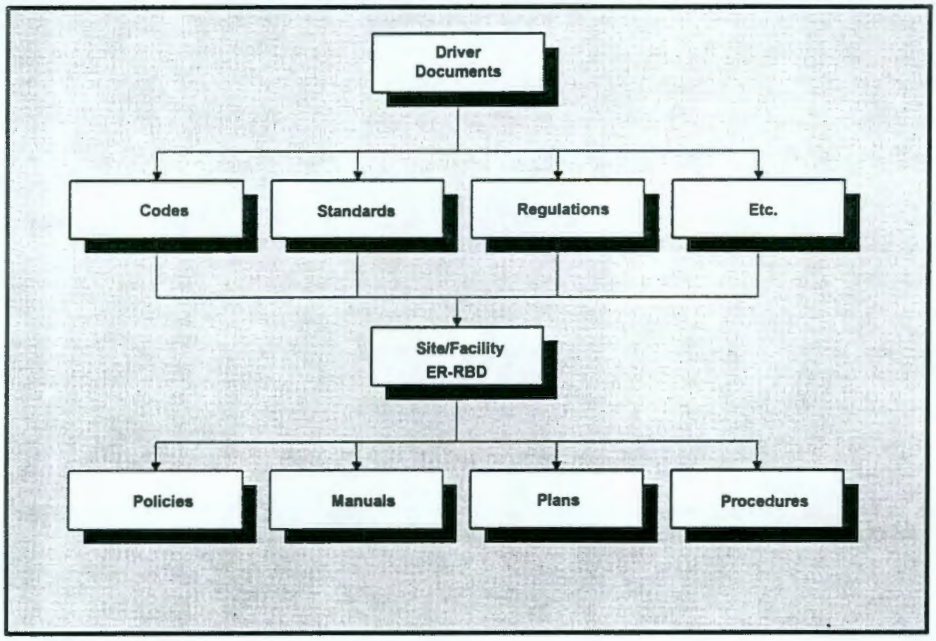
1.0 INTRODUCTION

Westinghouse Hanford Company (WHC) is a major participant in the Environmental Restoration (ER) program at the Hanford Site. WHC and other participating companies and their subcontractors must comply with multiple and sometimes overlapping requirements as part of their daily operations at the Hanford Site. To appropriately manage this regulatory compliance process, ER Requirements Baseline Documents (ER-RBDs) are developed that identify which requirement source documents apply to a given functional area. These ER-RBDs also consolidate requirements from multiple documents into a single, more concise requirement document for linking to participating companies' policies, plans, and procedures. The relationship among these documents is graphically represented in Figure 1-1.

FIGURE 1-1 BASELINE ANALYSIS MATRIX DOCUMENT RELATIONSHIPS



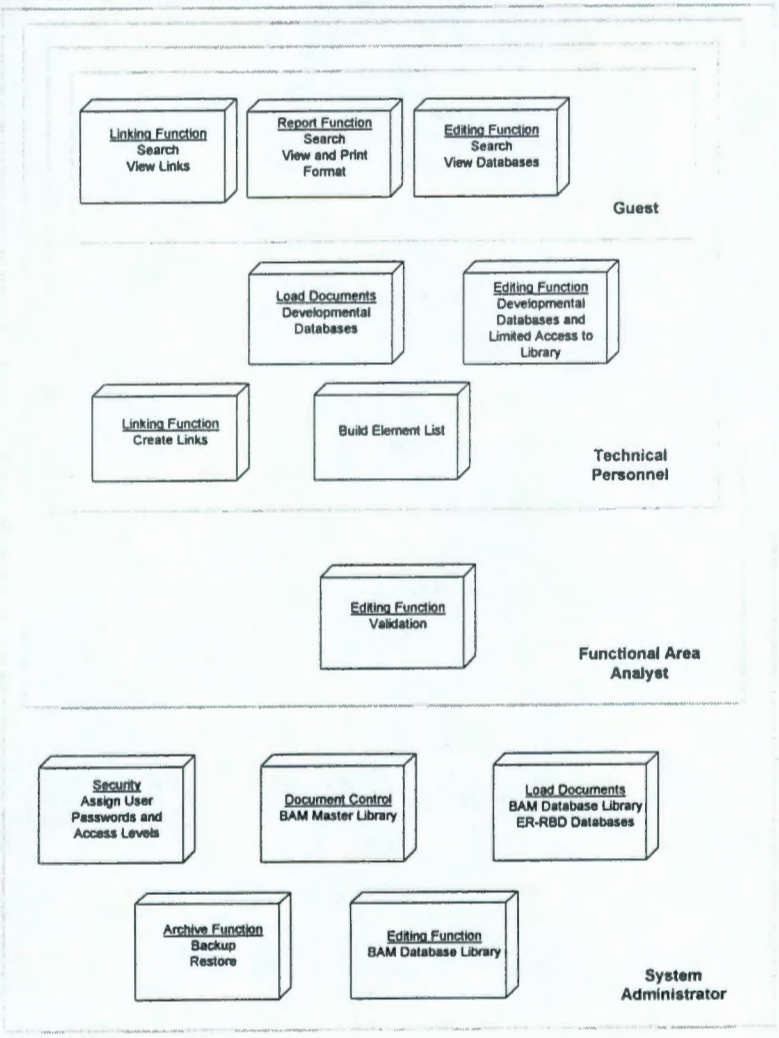
To assist in the management of the complex relationships between multiple requirements and pages of implementing procedures, WHC has developed the Baseline Analysis Matrix (BAM). The BAM is a set of software programs using relational databases and is designed to assist management in the overall processing of documentation into an automated matrix for analyzing requirements. The BAM monitors, maintains, and tracks information relative to the appropriate requirements to support the ER Commitment Management System Management Plan (CMS) objectives.

The Westinghouse Hanford Company Environmental Restoration-Commitment Management System Management Plan outline the process of ER-RBD development. The BAM System is a tool to support the processes outlined in those procedures. Functional Area Analysts (FAAs) and the System Administrator should be familiar with this document before proceeding with ER-RBD development using the BAM System.

1.1 Intended Users

The BAM System provides a variety of security access levels for intended users (see Figure 1-2). Each group is given the access level required to perform set functions. The functions and access levels are defined below. In addition to this security measure, users are also assigned passwords for entry to the system.

FIGURE 1-2 BASELINE ANALYSIS MATRIX USER ACCESS LEVELS



1.1.1 Guest

The "Guest" user has access to noneditable functions of the BAM System. This group has quick access to the text of any document either through viewing on the screen or printing reports. The links between documents are also viewable but cannot be edited. Limited access to the BAM Database Library is provided. This group can search the databases using the Text Search function of either the Linking Module or the Report Module.

1.1.2 Technical Personnel

The "Technical Personnel" user's group is additionally given the tools to create, edit and delete the document text and links in the developmental databases. Limited access to the BAM Database Library is also provided. This group can load documents within the developmental databases and build element lists.

1.1.3 Functional Area Analyst

The "Functional Area Analyst" group has the role of ensuring quality control of the BAM data. This group checks and approves all additions, changes and deletions from the developmental databases. The group has access to all developmental database functions and limited access to the BAM Database Library.

1.1.4 System Administrator

The "System Administrator" controls system security through passwords and access level assignment. Any time data is considered sensitive (especially when it is changing formats) the system administrator has control. Control of the BAM Master Library, database maintenance functions, and all editing functions of the BAM Database Library are controlled by the System Administrator.

1.2 Structure of this Manual

This User's Manual is divided into various sections to facilitate the rapid retrieval of pertinent information. Each section has been targeted to a specific type of user.

Section 1. Introduction
This section should be read by all users of this manual for a basic understanding of both the manual and the software.

Section 2. General Overview
The General Overview provides the basic building blocks for the BAM System. Therefore, it is imperative that all beginner and novice users read this section.

Section 3. Getting Started
Hardware recommendations, software installation, and beginning program operation is contained herein.

Section 4. Document Loading
This section describes the processes involved in preparing and loading documents for use within the BAM System. The System Administrator has control over all document loading when there is a format change involved. This includes text documents copied from the BAM Master Library to the BAM Database Library and the ER-RBD document loading.

Section 5. Editing
All editing of documents is included in this section. Editing capabilities include all tiers of documents and their associated document title information.

Section 6. Linking

Establishing the relationship between each document tier is explained in this section.

Section 7. Reporting

Available end-user reports and data entry forms are shown by example. The process of producing reports is covered in detail.

Section 8. System Administrator

Outlined herein are specific tools for use by the System Administrator such as: security control, database maintenance, data transfer, and BAM Database Library editing. It is recommended that distribution of this section, and assignment of System Administrator rights, be limited to experienced DOS, FoxPro[1], and BAM users.

Section 9. Trouble Shooter's Guide

The Trouble Shooter's Guide will offer helpful hints on how to troubleshoot BAM System problems. The authors of this system recognize that many unforeseen problems may occur. Therefore, this section is meant only as a supplement to the System Administrator's expertise. It is not designed to replace user interaction.

Section 10. Glossary

The Glossary defines various terms used within this manual.

Section 11. Index

Provides cross referencing information along with subject identification capabilities.

1.3 Computer Software Notice

This computer software has been developed under sponsorship of the U.S. Department of Energy. Any further distribution by any holder of this software package or other data therein outside of the U.S. Department of Energy offices or other U.S. Department of Energy contractors, unless otherwise specifically provided for, is prohibited without the approval of the National Energy Software Center. Requests from outside the Department for DOE-developed software shall be directed to the Director, National Energy Software Center, Argonne National Laboratory, 9700 South Cass Avenue, Argonne, Illinois 60439.

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[1] *FoxPro is a registered trademark of Microsoft Corporation*

2.0 GENERAL OVERVIEW OF THE BASELINE ANALYSIS MATRIX

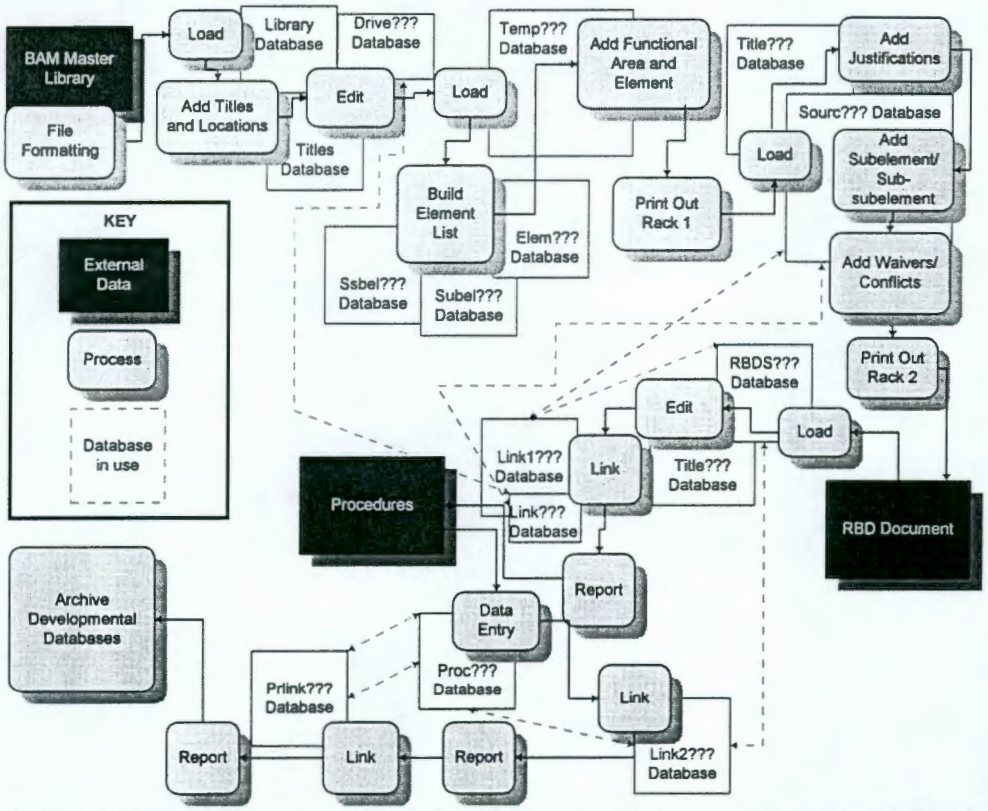
This section contains an overview of the processes involved in using the BAM System for development of the ER-RBD document and compliance tracking.

2.1 BAM System Development Work Flow

Figure 2-1 outlines the general work flow described in this section. This process model is consistent with WHC ER-Commitment Management System Management Plan. Please refer to that documentation for a comprehensive overview of the ER-RBD development process.

The databases in use during various tasks are defined within this model. This information is invaluable to the System Administrator for database management and control.

FIGURE 2-1 BAM LOGICAL PROCESS AND DATA MODEL



In the model above, many of the databases use three question marks in the database name. These characters are DOS wild card characters. The program will replace them with the functional area under development. Therefore, if one is developing an ER-RBD in the functional area nuclear safety, the developmental source database would be named SOURCNS.DBF and the ER-RBD database would be named RBDNS.DBF. This information will be of interest to the System Administrator but as a user of the system it's not necessary that you track any of your databases; the program tracks them for you.

2.1.1 Document Preparation -- BAM Master Library

The population of codes, standards, and regulations needed to produce the desired ER-RBD is stored in WordPerfect[2] files in a subdirectory within the BAM System. This area is called the BAM Master Library. The documents that are determined to be applicable to the ER-RBD development process are formatted to delimit each impact statement and definition. Working copies of files must be edited to contain only impact statements and definitions delimited by two carats (^^) starting in column one (1) and followed by a hard return. Please refer to Section 4.0 for complete information on document preparation for loading.

2.1.2 Loading the BAM Database Library

These impact statements are loaded into the BAM Database Library (controlled by the System Administrator). Document titles and document location designations are added through the Edit Database Library function. Each time an ER-RBD is developed new documents will be added to this database where they will remain unless removed (due to revision of the issuing organization) by the System Administrator.

2.1.3 Temporary Developmental Database and First Rack

All impact statements from applicable source documents will be loaded from the BAM Database Library to the Temporary ER-RBD developmental database. The titles database will be copied to the temporary titles database at the same time. Three small databases containing the applicable elements, subelements, and sub-subelements for the ER-RBD under development must be produced by the Functional Area Analyst. The functional area and element of this ER-RBD is assigned to each applicable impact statement. The contents of the database are printed. This is called RACK1 (see example printout in Section 7.6.8). The driver documents can be input at this time.

2.1.4 Source Developmental Database and Second Rack

Only impact statements determined to be applicable (during Rack 1) to the functional area of the ER-RBD are copied to the SOURCE database. Subelements and sub-subelements are assigned. Waiver, justification, and conflict statements are added to the database using the *Edit Module*. The database contents are sorted by element, subelement and sub-subelement, printed, and validated by the Functional Area Analysts. This is RACK2 (see example printout in Section 7.6.9 of this manual). This printout is used by the Functional Area Analyst to write the ER-RBD document. The ER-RBD document provides commitment statements for each element, subelement and sub-subelement. These statements are derived from single impact statements or multiple impact statements which have been consolidated into a commitment statement.

2.1.5 ER-RBD Developmental Database and Linking

The completed text of the ER-RBD document is edited to delimit each commitment statement in the same fashion as the impact statements. The document is loaded by the System Administrator into the ER-RBD database for this functional area. Titles to the ER-RBD are added to the developmental titles database. The LINK1 database is used to create the links between the impact statements in the source database and the commitment statements in the ER-RBD database. Driver to Source document links can be created at this time.

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[2] *WordPerfect is a registered trademark of WordPerfect Corporation*

2.1.6 Procedures Database and Linking

Procedure codes and definitions (not complete text) are entered into the procedures database and linked to the ER-RBD commitment statements through the LINK2 database. The PRLINK database is used to link procedures to each other for the procedure cross reference.

2.1.7 Database Maintenance -- Backup and Restore

The (backup and restore) functions are controlled by the System Administrator. The backup function is a "snapshot in time" of the ER-RBD with all associated links, impact statements and implementing procedures. The process is manually controlled because only ER-RBD developers know when all developmental databases are complete and ready for backup. In the event of an audit developmental databases from a previous revision of the ER-RBD can be restored to the system for reporting purposes.

2.2 Descriptive Tags and Identifiers

When codes, standards and regulations are used in the BAM databases, they must be broken up into impact statements. The definitions from these documents are also used in the ER-RBD development process. Document information other than impact statements and definitions will not be loaded into the databases. While reading this section, please refer to Figure 2-2 for an example of the impact statement identification process.

2.2.1 Document Identifiers

Initially, the source documents (codes, standards, and regulations) are divided into blocks of text (refer to WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs"). These blocks of text are called impact statements. Source document definitions will be loaded into the BAM Database Library as well. Each of these impact statements and definitions must be identified throughout the BAM System with the document from which they originated. Therefore, when the BAM Database Library is loaded with impact statements, the System Administrator must define the title of the document. This is done in the Edit Database Library function of the program. Other relevant information needs to be added at the same time. Please refer to section 2.3.2 for a list of the document identifiers required in the TITLES.DBF. These document identifiers are copied in subsequent document loading functions to the TITLE???.DBF developmental database as well, therefore, you will not have to enter this information again.

FIGURE 2-2 SAMPLE PRINTED DOCUMENT

ASME NQA-2 1989 EDITION

PART 2.20
Quality Assurance Requirements for Subsurface Investigations for Nuclear Power Plants

1 GENERAL

Part 2.20 provides amplified requirements related to subsurface investigations. It supplements the requirements of ASME NQA-1 and shall be used in conjunction with applicable Basic and Supplementary Sections of ASME NQA-1 when and to the extent specified by the organization invoking this Part.

1.1 Definitions

The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part.

borings - circular holes augered, washed, chopped, or drilled in or through soil or rock by the action of cutting tools for purposes of exploration

geophysical survey - the use of geophysical instruments, methods, and techniques to determine subsurface conditions by measurement of seismic or electrical phenomena, or by measurement of the earth's gravitation or magnetic fields or by any other geophysical methods

subsurface investigation - the determination, correlation, and interpretation of soil, rock, and groundwater subsurface features as disclosed or inferred by exploratory excavating, drilling, sampling, testing, and geophysical surveying

subsurface model - a physical, graphic, or descriptive representation depicting subsurface features and identified in the subsurface investigation

2 GENERAL REQUIREMENTS

The requirements of this Part apply to the work of any organization or individual participating in subsurface geotechnical investigations such as drilling, coring, sampling, trenching, logging, geophysical methods, or testing or in interpreting results of sub-surface investigations. This Part is intended to apply to any of these activities which will be used to formulate design bases for the plant.

The extent to which the individual requirements of this Part apply will depend upon the nature and scope of work to be performed and the importance of the item or service involved.

Documentation of all program elements shall be made. These elements shall include, but not be limited to, program plan, organization and qualification of personnel, identification, control and storage of project documents and records, and use of procedures conforming to applicable specifications.

2.1 Planning

A plan shall be developed for outlining project specific tasks for which procedures or work instructions will be required in accordance with the requirements of the Introduction to this Standard.

In addition, planning shall include the following:
(a) identification of engineering data required for design;

(b) specification of suitable field and laboratory testing equipment;

(c) specification of approved standard methods or procedures for field, laboratory, and engineering sampling, testing, and analysis activities;

(d) definition of required records and documentation;

e) the preparation of exploratory work plans.

The plan shall include provision for control and documentation of any changes.

2.2 Procedures and Instructions

A program of procedures and work instructions shall be established and documented for those activities falling within the scope of this Part in accordance with the requirements of the introduction to this Standard.

2.2.2 Record Location Identifiers

When the impact statements and definitions are split out from the original document, they must be assigned designators of the original location in the document. The purpose is to facilitate tracking back to the original document. Documents are set up differently and there is no standard way to designate the location in the document. These identifiers are copied in subsequent document loading functions to the developmental databases as well, therefore, you will not have to enter this information again.

When the ER-RBD document is written and prepared for loading to the RBDS???.DBF location identifiers will be added for tracking to the printed document.

2.2.3 Linking Databases

The linking databases are used by the programs to track the relationships between databases. These databases are necessary to set up the many-to-many relationships in the programs. Refer to Sections 2.3.7 , 2.3.8, 2.3.10, and 2.3.16 for the structures of linking databases.

2.3 BAM Fields and their Values

The following is a description of the fields in the main databases used within the BAM System. Listed is field name, description, type, and width. The field name is simply a short description of the field for the programs to use. The description column states the contents of this field. The type column states whether this field will allow alphabetic or numeric characters (character), numeric only (numeric), dates (date), text storage (memo), or true/false (logical). The width of the field is the number of characters allowed in the field. It is not expected that you will use all characters allowed, this is just the maximum allowable. Memo fields are an exception to this, however; unlimited text storage is available in these fields.

Some databases used in BAM Version 3.0 have names that appear with three question marks at the end of the name. These are DOS wild card characters that will be replaced by the programs with the functional area code that you designate. For example, if you are working in the nuclear safety functional area you will enter the code NS when asked by the program. Your developmental databases (the ones with the question marks in the names) would be called TEMPNS, SOURCNS, RBDNS, etc.

2.3.1 BAM Database Library (LIBRARY.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
SHORT_DOC*	Document name acronym	Character	15
LOCATION	Document location	Character	30
TEXT	Impact statement text	Memo	10
TITLE	Title	Character	30
ENTRY_DATE	System date of document entry	Date	8
ANALYST	Analyst initials	Character	3

2.3.2 Titles (TITLES.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
DOCTYPE	Document type	Character	10
ISSUED	Date of issue	Date	8
REV	Revision number	Character	8
OFFDOC	Official document title	Character	30
ORG	Originating organization	Character	5
ORGCODE	Originating organization code	Character	10
SHORT_DOC*	Document name acronym	Character	15
ENTER	System date of document entry	Date	8

2.3.3 ER-RBD Specific Titles (TITLE???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
DOCTYPE	Document type	Character	10
ISSUED	Date of issue	Date	8
REV	Revision number	Character	8
SHORT_DOC*	Document name acronym	Character	15
OFFDOC	Official document title	Character	30
ORG	Originating organization	Character	5
ORGCODE	Originating organization code	Character	10
EJNO	Justification number	Character	4
EJSTATUS	Just. status (Pending,Approved,Denied)	Numeric	1
EJTEXT	Justification text	Memo	10
PRIMSUPP	Primary or Supplemental document	Numeric	1
ENTER	System date of document entry	Date	8
ANALY	Analyst initials	Character	3
VALID	Date of impact statement validation	Date	8
VAL	Validator initials	Character	3
DOC_ID	Document Identification Code	Character	15

* indicates a field used for linking databases

2.3.4 Rack 1 (TEMP???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
TEXT	Impact statement text	Memo	10
LOCATION	Document location	Character	30
TITLE	Title	Character	30
SHORT_DOC*	Document name acronym	Character	15
F_AREA	Functional area code	Numeric	1
ELEMENT	Element assignment	Numeric	4

2.3.5 Rack 2 (SOURC???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
TEXT	Impact statement text	Memo	10
LOCATION	Document location	Character	30
TITLE	Title	Character	30
SHORT_DOC*	Document name acronym	Character	15
ELEMENT	Element assignment	Numeric	4
SUBELEM	Subelement number	Numeric	4
SUBSUBEL	Sub-subelement number	Numeric	4
ID_NO*	Unique identification number for linking	Numeric	8
WVNO	Waiver number	Character	4
WCSTATUS	Wv./Con. status (Pending,Approved,Denied)	Numeric	1
WCTEXT	Waiver/Conflict text	Memo	10
CONFNO	Conflict number	Character	4

2.3.6 ER-RBDs (RBDS???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
COMMITNO	Commitment number	Character	5
TEXT	Commitment statement text	Memo	10
SHORT_DOC*	ER-RBD document name	Character	15
LOCATION	Document location	Character	30
ELEMENT	Element number	Numeric	4
SUBELEM	Subelement number	Numeric	4
SUBSUBEL	Sub-subelement number	Numeric	4
ID_NO*	Unique identification number for linking	Numeric	8
COMM_SAT	Commitment satisfied? Yes/No/Part	Numeric	1
ENTRY_DATE	System date of document modification	Date	8
ANALYST	Analyst initials	Character	3

* indicates a field used for linking databases

VALID_DATE	Date of impact statement validation	Date	8
VALIDATOR	Validator initials	Character	3
REVIS_DATE	Date of last revision	Date	8
AUDIT_DATE	Date of last audit	Date	8
AUDIT_RPT	Assessment report	Character	10

2.3.7 Linking (LINK1???.DBF = Source to ER-RBD)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
SOURCEID*	Link code to upper tier document	Numeric	8
RBDID*	Link code to lower tier document	Numeric	8
DATE	System date of link creation or update	Date	8
ANALYST	Initials of FAA responsible	Character	3

2.3.8 Linking (LINK2???.DBF = ER-RBD to procedures)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
RBDID*	Link code to upper tier document	Numeric	8
PROCID*	Link code to lower tier document	Numeric	8
DATE	System date of link creation or update	Date	8
ANALYST	Initials of FAA responsible	Character	3

2.3.9 Procedures (PROC???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
ID_NO*	Unique identification number for linking	Numeric	8
SHORT_DOC*	Implementing reference document name	Character	15
LOCATION	Document location	Character	30
DESCRIP	Procedure title/Activity description	Character	25
REVIEW	Date of last review	Date	8
REP	Assessment report number	Character	10
REV	Revision Number	Character	8
ORG	Responsible organization	Character	5
ORGCODE	Originating organization code	Character	10
LEVEL	Hierarchy (policy, plan, manual, procedure)	Character	10
QUEST_QIN	Quest System tracking code/QIN #	Character	25
TEXT	Procedure text (not in use)	Memo	10
PROG	Program	Character	2
PROJ	Project	Character	5
PA	3100/100-DR Remedial Actions	Logical	1
PB	3105/100-BC Remedial Actions	Logical	1
PC	3110/100-KR Remedial Actions	Logical	1
PD	3115/100-FR Remedial Actions	Logical	1
PE	3120/100-HR Remedial Actions	Logical	1
PG	3125/100-NR Remedial Actions	Logical	1
PL	3200/200-BP Remedial Actions	Logical	1
PM	3205/200 NO Remedial Actions	Logical	1
PN	3210/200-PO Remedial Actions	Logical	1

* indicates a field used for linking databases

PP	3215/200-RO Remedial Actions	Logical	1
PR	3220/200-SO Remedial Actions	Logical	1
PS	3225/200-TP Remedial Actions	Logical	1
PT	3230/200-UP Remedial Actions	Logical	1
PU	3235/200 ZP Remedial Actions	Logical	1
PY	3240/200 IU- Remedial Actions	Logical	1
PW	3245/200-SS Remedial Actions	Logical	1
PX	3250/200-EGW Remedial Actions	Logical	1
P1	3255/200-WGW Remedial Actions	Logical	1
P2	3300/300-FF Remedial Actions	Logical	1
P3	3390/1100-EM Remedial Actions	Logical	1
PF	3000/SST Closures	Logical	1
PJ	3010/RARA/USTs	Logical	1
PV	3020/RCRA Closures	Logical	1
UV	3500/Asbestos Abatement	Logical	1
UB	3510/100 Area D&D	Logical	1
UE	3520/200 Area D&D	Logical	1
UC	3530/300 Area D&D	Logical	1
UN	3600/N Reactor	Logical	1
EA	3400/Program Mgmt. & Support for RA	Logical	1
EB	3410/Program Mgmt. & Support for D&D	Logical	1
SM	XXXX/Facility Surveillance & Maintenance	Logical	1
CF	3700/Disposal Facility	Logical	1
ISSUE_DATE	Date of issue	Date	8
ASSES_DATE	Date of assessment	Date	8
ANALYST	Initials of FAA responsible	Character	3

2.3.10 Procedural Links for cross references (PRLNK???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
REFFROM*	Upward link	Numeric	8
TOREF*	Downward link	Character	15
DATE	System date of link creation or update	Date	8
ANALYST	Initials of FAA responsible	Character	3

2.3.11 Element designations (ELEM???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
CODE	Element identification code	Numeric	4
NAME	Title of the element	Character	25

2.3.12 Subelement designations (SUBEL???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
CODE	Subelement identification code	Numeric	4
NAME	Title of the subelement	Character	25

* indicates a field used for linking databases

2.3.13 Sub-subelement designations (SSBEL???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
CODE	Sub-subelement identification code	Numeric	4
NAME	Title of the sub-subelement	Character	25

2.3.14 Users password/level protection (USERS.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
USERNAME	User's code name	Character	15
LASTNAME	User's last name	Character	20
FIRSTNAME	User's first name	Character	20
INITIALS	User's initials	Character	3
PASSWORD	User's password	Character	10
ACCESS	User's designated access level	Numeric	1

2.3.15 Drivers database (DRIVE???.DBF)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
SHORT_DOC*	Document name	Character	15
LOCATION	Document location	Character	30
ID_NO*	Unique identification number for linking	Numeric	8
ENTRY_DATE	System date of document entry	Date	8
ANALYST	Analyst initials	Character	3
TITLE	Title	Character	30
REV	Revision Number	Character	8
ISSUE_DATE	Date of issue	Date	8
DOC_TYPE	Document type	Character	10

2.3.16 Linking (LINK???.DBF = Driver to Source)

FIELD NAME	DESCRIPTION	TYPE	WIDTH
DRIVEID*	Link code to upper tier document	Numeric	8
SOURCID*	Link code to lower tier document	Numeric	8
DATE	System date of link creation or update	Date	8
ANALYST	Initials of FAA responsible	Character	3

* indicates a field used for linking databases

3.0 GETTING STARTED

Before you start using the BAM System, you may need to change your system configuration. You should also familiarize yourself with the general work area structures set up within the BAM System.

3.1 Hardware Recommendations

The BAM System is written for the PC platform only. It operates in the Windows 3.1[3] environment. Therefore, the constraints of Windows apply to the BAM Software. This includes the following hardware requirements:

- 386/486 computer
- DOS 5.0 or higher
- VGA monitor
- 8 mb. of RAM (developers have noticed memory problems that are workable with 4 mb. RAM however 8 is recommended)
- Laserjet II printer or higher for printing reports
- Eighty (80) mb. of hard disk storage is recommended

NOTE: There are no particular hard disk storage requirements. Hard disk requirements depend on the number of ER-RBDs developed on a single computer.

The amount of free hard drive space recommended for optimal operation is dependent upon the amount of data stored within the BAM System. All programs and empty databases require very little storage space. The installation program will check availability of space and make recommendations.

Any software program that uses databases depends on hard drive storage space for data storage. The more data that is stored in those databases requires more physical hard drive space. This concept is obvious to most computer operators, however, the fact that additional hard drive must be reserved for program operation, temporary files and temporary databases, etc. is something you need to be aware of. We recommend that you operate the BAM System with a minimum of 10 mb. free space. The programs periodically check your free drive space and makes recommendations.

3.2 Software Installation

3.2.1 Editing the CONFIG.SYS file

You must edit your CONFIG.SYS file while in DOS, therefore, you must exit Windows. Use the DOS Editor to edit the file.

1. At the DOS prompt type **EDIT C:\CONFIG.SYS**. Check the following lines in your file.
   Files=50
   Buffers=40
2. If they are set at a higher number do not change them; if they are lower, set them as shown above.
3. Save your changes and exit the DOS editor.

---

[3] *Microsoft Corporation*

4. You must restart your computer before these changes take affect.

3.2.2 Installing the BAM Software in Windows

The BAM System Version 3.0 operates in the Windows 3.1 environment. To install the BAM System on your computer:

1. Check the availability of free space on your computer. You should have 14 mb. free space for optimum performance of the BAM System[4].

2. Start windows by typing **WIN** at the DOS prompt,

3. Insert the BAM Setup disk into your floppy drive.

4. Pull down the Windows Program Manager **FILE** menu and select **RUN**,

5. When the dialog box appears, type **A:SETUP** (or B:Setup, if the disk is in that drive) and click **OK**,

6. The Setup program will instruct you to swap disks.

7. The BAM System Version 3.0 icon will appear in your Applications Group.

8. If your Applications Group window is closed after installation, pull down the **Windows** menu of the Program Manager and select **Applications Group**. The Window will open and the BAM icon will appear.

3.2.3 Installing Printer Drivers

If you have been using Windows with other applications, you probably already have your printer installed. If you haven't used Windows before, you must install the driver(s) for the printer(s) you are going to be using. Please refer to the documentation provided with Windows 3.1 for instructions on printer installation.

One of the features offered in the BAM Software is desktop publishing capabilities for report output. If you wish to differ the report format from that provided by the BAM Software, you may send the output to a text file, open that file with your word processing program, and reformat the information to your personal specifications. In order to do that, you must install the Windows printer driver that is called **GENERIC/TEXT ONLY**. This printer driver is installed in the same fashion as all other Windows printer drivers. The Windows documentation will give you instructions on printer driver installation. The BAM Software uses this driver to create report output that is complete and in a format that's easy to work with.

3.2.4 Installing an Acceptable Device Driver

The BAM Software uses a VGA or SVGA device driver. If you have an unusual monitor type, you may have another device driver installed. To install an acceptable device driver:

1. Select **Windows Setup** in the *Main Group* of the *Windows Program Manager*.

---

[4]*The BAM programs use only a little over 4mb. of disk space. The extra 10 mb. free space is required to protect data during external test file loading into databases.*

2. Pull down the options menu and select **VGA** or **Super VGA**.

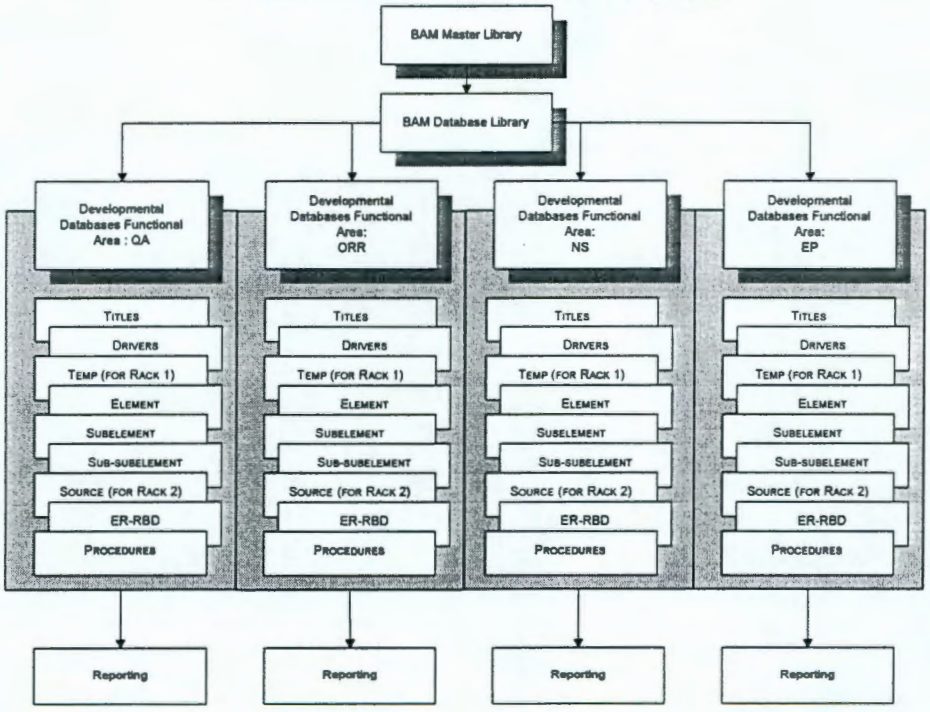
3. Restart Windows.

3.3 Using the BAM System

The BAM Version 3.0 software is an ER-RBD development tool written to center around a single functional area at a time. All functional areas can be stored at one time and used by the BAM System, but cannot be accessed simultaneously. Therefore, you must designate the functional area while you are working in the System.

Following is an example of a BAM System Work Areas with four functional areas under development at one time. The general work flow that you will be following has been described in Section 2.1 of this manual but let's take a graphic look at those work areas.

FIGURE 3-1 BAM SYSTEM WORK AREAS



1. As you can see in Figure 3-1, all ER-RBD developers have access to the BAM Master Library and the BAM Database Library. Each functional area is independent. All codes, standards and regulations are stored in the BAM Master Library. As documents are needed by ER-RBD developers, the impact statements from those documents are loaded into the BAM Database Library.

2. The element, subelement and sub-subelement lists are created from the ER-RBD Configuration Outline (refer to WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs"). This is done in the *Edit Elements* function.

3. Developers copy all impact statements from each applicable document into their own developmental database (TEMP). The impact statements that apply to this functional area

are assigned the functional area code. The impact statements that do not apply are assigned the designation "other". The applicable impact statements are assigned to an element of the ER-RBD Configuration Outline. All records in the database are sorted by functional area and element (this is the Rack 1 printout). DRIVER document references are entered into the DRIVERS database.

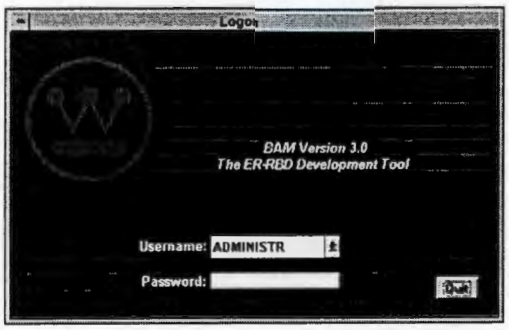
4. Only the applicable impact statements assigned to this functional area move to the SOURCE database. Each impact statement is assigned to a subelement and sub-subelement (if appropriate). Justification statements, waiver statements and conflict statements are written, if necessary. All records in the database are sorted by element, subelement and sub-subelement (this is the Rack 2 printout that is used to write the consolidated commitment statements for the ER-RBD).

5. The ER-RBD document is prepared for loading into the ER-RBD database and is loaded by the System Administrator. At this time the TEMP database for this functional area is deleted, since it is no longer necessary. The commitment statements from the ER-RBD are linked by Functional Area Analyst(s) to the SOURCE impact statements that originated them. DRIVER document references are also linked to the SOURCE impact statements.

6. Procedures for implementing these commitment statements are entered into the PROCEDURES database and linked to commitment statements in the ER-RBD database. Procedures that refer to other procedures are linked for the procedure cross reference.

3.3.1 Security Access

Before starting the BAM System, close all other applications that are running. If you have less than 8mb. RAM on your computer, you may encounter memory problems if other applications or TSRs are running in the background. To begin working with the BAM System, double-click the BAM icon in the Applications Group of the Windows Program Manager. The BAM Version 3.0 *Logon Screen* will appear as shown below.



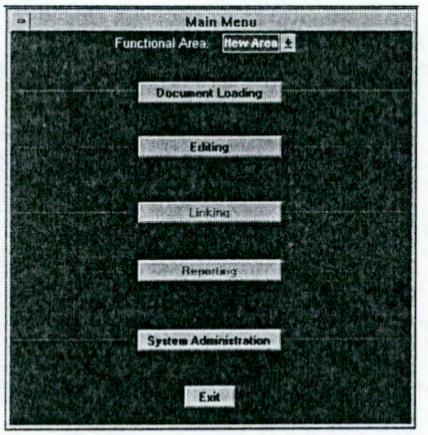
1. Pull down the username list and select your username. If your username does not appear on the list, you need to contact the System Administrator for security level assignment.

2. Enter your password. If you enter the incorrect password, try again. If the system will not let you in, contact the System Administrator to verify your password.

3. To exit the program, click the **QUIT** button.

3.3.2 Main Menu

When you have selected your name and entered a correct password, the *Main Menu* will appear as shown:



If a functional area is already under development, the functional area code will appear in the pull-down list on the *Main Menu*. If you are starting development in a new functional area you will be asked for a code when you access **Document Loading**. You are allowed three digits for this code. Hereafter, your functional area code will appear on the pull-down list and you will simply select your functional area.

The five functions of the BAM System are displayed on the *Main Menu*. Various buttons may be dimmed (disabled) depending on where you are in the ER-RBD development process at the time and the level of system access clearance you are assigned.

4.0 DOCUMENT LOADING

There are two types of document loading functions within the BAM System. One type is a simple database to database copy and will be covered later in this section. The first type we will cover here includes a change in file type from text format to database format. The System Administrator has control over this type of document loading due to the sensitivity of the data during format conversion.

4.1 Load New Document

When documents are loaded from the BAM Master Library to the BAM Database Library and when the ER-RBD document is loaded into the developmental database, this process will be used. Contact the System Administrator for more information on loading new documents into the BAM Database Library or your ER-RBD database.

The following example is a portion of the WordPerfect text file referencing the sample printed copy shown in Figure 2-2 of this manual. When the document is loaded into WordPerfect, it will look something like this:

FIGURE 4-1 SAMPLE REGULATORY DOCUMENT IN WORDPERFECT FORMAT

ASME NQA-2 1989 EDITION

PART 2.20
Quality Assurance Requirements for Subsurface Investigations for Nuclear Power Plants

1 GENERAL

Part 2.20 provides amplified requirements related to subsurface investigations. It supplements the requirements of ASME NQA-1 and shall be used in conjunction with applicable Basic and Supplementary Sections of ASME NQA-1 when and to the extent specified by the organization invoking this Part.

1.1 Definitions

The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part.

borings - circular holes augered, washed, chopped, or drilled in or through soil or rock by the action of cutting tools for purposes of exploration

geophysical survey - the use of geophysical instruments, methods, and techniques to determine subsurface conditions by measurement of seismic or electrical phenomena, or by measurement of the earth's gravitation or magnetic fields or by any other geophysical methods

subsurface investigation - the determination, correlation, and interpretation of soil, rock, and groundwater subsurface features as disclosed or inferred by exploratory excavating, drilling, sampling, testing, and geophysical surveying

subsurface model - a physical, graphic, or descriptive representation depicting subsurface features and identified in the subsurface investigation

2 GENERAL REQUIREMENTS

The requirements of this Part apply to the work of any organization or individual participating in subsurface geotechnical investigations such as drilling, coring, sampling, trenching, logging, geophysical methods, or testing or in interpreting results of sub-surface investigations. This Part is intended to apply to any of these activities which will be used to formulate design bases for the plant.
The extent to which the individual requirements of this Part apply will depend upon the nature and scope of work to be performed and the importance of the item or service involved.

Documentation of all program elements shall be made. These elements shall include, but not be limited to, program plan, organization and qualification of personnel, identification, control and storage of project documents and records, and use of procedures conforming to applicable specifications.

2.1 Planning

A plan shall be developed for outlining project specific tasks for which procedures or work instructions will be required in accordance with the requirements of the Introduction to this Standard.

In addition, planning shall include the following:
(a) identification of engineering data required for design;

(b) specification of suitable field and laboratory testing equipment;

The population of codes, standards and regulations is stored in the BAM Master Library and controlled by the System Administrator. Documents will be loaded, as needed for ER-RBD development, one at a time into the BAM Database Library. A Functional Area Analyst will determine the configuration for each ER-RBD in accordance with the guidance provided in WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs". Before loading the impact statements and definitions from a selected document, the file must be prepared according to specifications outlined herein.

The electronic copy of the document stored in the BAM Master Library is write protected. That means that the original copy cannot be edited. In order to prepare a document for loading into the BAM Database Library, you should use a working copy of the file. It is recommended that you make a DOS copy of the file and edit the copy. If you edit the original file, DOS will not let you save it under the original name. You must give the file a new name when you save it. Please refer to WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs" for information on file naming conventions to be used.

4.1.1 Document File Preparation

The working file must be edited to match the required input format. Text other than impact statements and definitions is deleted. In the ER-RBD document, the only text loaded into the ER-RBD developmental database is the text of the commitment statements. Any leading information that applies to an additional impact statement must be copied and pasted in. The pasted information must be enclosed in square brackets ([ ]) to denote that it did not appear that way in the original text. Copy and paste this information only. Do NOT type it in. Data quality must be protected, therefore, the user must be familiar with the **copy** and **paste** commands available from the *Edit Menu Pad*. Delimiters are added between impact statements. The delimiters must be two carat characters (^^) followed by a carriage return (<CR>). Do not put delimiters before the first impact/commitment statement or after the last.

CAUTION: Do not type or edit information in any of the regulatory documents. Leave text as it is even if something is misspelled. The impact statements must read verbatim to the original document. The exception is information copied from locations in the document and pasted between square brackets to provide clarity to the impact statement as a stand alone.

All line feeds <CR> and trailing spaces at the end of the lines of text in impact/commitment statements should be removed to allow the text to wrap in the reports. You can create a macro to do this or set the font in WordPerfect at one point (1 pt) when you're done editing the file. Take care to set the one point font at the beginning of the file and check the entire file to ensure that the font size does not reset anywhere else.

Shown below is the previously displayed example document (Figures 2-2 and 4-1) with editing instructions shown in the sidebar.

FIGURE 4-2 BREAKDOWN OF REGULATORY DOCUMENT FOR BAM INPUT

This portion of the working file should be deleted after defining information is copied to subsequent impact statements that cannot stand alone.	**1 GENERAL** Part 2.20 provides amplified requirements related to subsurface investigations. It supplements the requirements of ASME NQA-1 and shall be used in conjunction with applicable Basic and Supplementary Sections of ASME NQA-1 when and to the extent specified by the organization invoking this Part. **1.1 Definitions**
Here is the first impact statement with information copied from above and enclosed in square brackets	The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part [related to subsurface geotechnical investigations]. *borings* - circular holes augered, washed, chopped, or drilled in or through soil or rock by the action of cutting tools for purposes of exploration
Delimiter	^^<CR>
Copy and paste the leading information from above to this impact statement	[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part related to subsurface geotechnical investigations.] *geophysical survey* - the use of geophysical instruments, methods, and techniques to determine subsurface conditions by measurement of seismic or electrical phenomena, or by measurement of the earth's gravitation or magnetic fields or by any other geophysical methods
Delimiter	^^<CR>
Copy and paste the leading information from above to this impact statement	[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part. related to subsurface geotechnical investigations] *subsurface investigation* - the determination, correlation, and interpretation of soil, rock, and groundwater subsurface features as disclosed or inferred by exploratory excavating, drilling, sampling, testing, and geophysical surveying
Delimiter	^^<CR>
Copy and paste the leading information from above to this impact statement	[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part related to subsurface geotechnical investigations.] *subsurface model* - a physical, graphic, or descriptive representation depicting subsurface features and identified in the subsurface investigation
Delimiter	^^<CR>
This portion of the working file should be deleted after defining information is copied to subsequent impact statements that cannot stand alone.	**2 GENERAL REQUIREMENTS** The requirements of this Part apply to the work of any organization or individual participating in subsurface geotechnical investigations such as drilling, coring, sampling, trenching, logging, geophysical methods, or testing or in interpreting results of sub-surface investigations. This Part is intended to apply to any of these activities which will be used to formulate design bases for the plant. The extent to which the individual requirements of this Part apply will depend upon the nature and scope of work to be performed and the importance of the item or service involved.
Impact statement with necessary information from previous paragraph	Documentation of all program elements [related to subsurface geotechnical investigations] shall be made. These elements shall include, but not be limited to, program plan, organization and qualification of personnel, identification, control and storage of project documents and records, and use of procedures conforming to applicable specifications.
Delimiter	^^<CR>
This portion of the working file should be deleted	**2.1 Planning**
Impact statement with necessary information copied from previous paragraph	A plan shall be developed for outlining project specific tasks [related to subsurface geotechnical investigations] for which procedures or work instructions will be required in accordance with the requirements of the Introduction to this Standard.
Delimiter	^^<CR>
Impact statement with necessary information copied from previous paragraph	In addition, planning [related to subsurface geotechnical investigations] shall include the following: (a) identification of engineering data required for design;
Delimiter	^^<CR>
Impact statement with necessary information copied from previous paragraph	[In addition, planning related to subsurface geotechnical investigations shall include the following:] (b) specification of suitable field and laboratory testing equipment;

When your file is edited you must save it as a DOS text file (or as an ASCII file). This option appears under the **Save As** option of the WordPerfect *FILE* menu. WordPerfect, and most other word processing programs save special characters such as print and formatting codes in the file. In the BAM System, as in other programs and databases, ASCII text is desired. Control characters inserted by word processing programs will appear as special characters (→,â, ô, etc.) in the database. A file in ASCII will not contain these special characters.

When you are finished editing the file, it should look like the example following. Notice that character formatting no longer appears (e.g., italics, boldface, etc.).

FIGURE 4-3 SAMPLE REGULATORY DOCUMENT IN BAM INPUT FORMAT

The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part [related to subsurface geotechnical investigations].

borings - circular holes augered, washed, chopped, or drilled in or through soil or rock by the action of cutting tools for purposes of exploration
^^
[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part related to subsurface geotechnical investigations.]

geophysical survey - the use of geophysical instruments, methods, and techniques to determine subsurface conditions by measurement of seismic or electrical phenomena, or by measurement of the earth's gravitation or magnetic fields or by any other geophysical methods
^^
[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part. related to subsurface geotechnical investigations]

subsurface investigation - the determination, correlation, and interpretation of soil, rock, and groundwater subsurface features as disclosed or inferred by exploratory excavating, drilling, sampling, testing, and geophysical surveying
^^
[The following definitions are provided to assure a uniform understanding of unique terms as they are used in this Part related to subsurface geotechnical investigations.]

subsurface model - a physical, graphic, or descriptive representation depicting subsurface features and identified in the subsurface investigation
^^
Documentation of all program elements [related to subsurface geotechnicel investigations] shall be made. These elements shall include, but not be limited to, program plan, organization and qualification of personnel, identification, control and storage of project documents and records, and use of procedures conforming to applicable specifications.
^^
A plan shall be developed for outlining project specific tasks [related to subsurface geotechnicel investigations] for which procedures or work instructions will be required in accordance with the requirements of the Introduction to this Standard.
^^
In addition, planning [related to subsurface geotechnical investigations] shall include the following:
(a) identification of engineering data required for design;
^^
[In addition, planning related to subsurface geotechnical investigations shall include the following:]
(b) specification of suitable field and laboratory testing equipment;

4.1.2 Loading

When your file is prepared in the format stated in section 4.1.1, it is ready for loading into the appropriate database (either the BAM Database Library or the ER-RBD database for a particular functional area). The System Administrator has control over loading new documents so you must contact the System Administrator when you're ready to load documents.

4.2 Loading Impact Statements into Developmental Databases

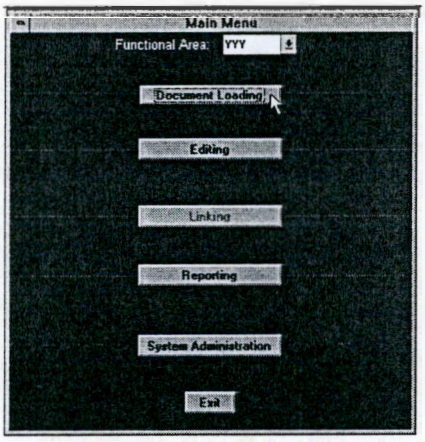
Once impact statements are loaded into the BAM Database Library you may proceed with the ER-RBD developmental phase of the BAM processes.

4.2.1 BAM Database Library to Developmental Database for Rack 1

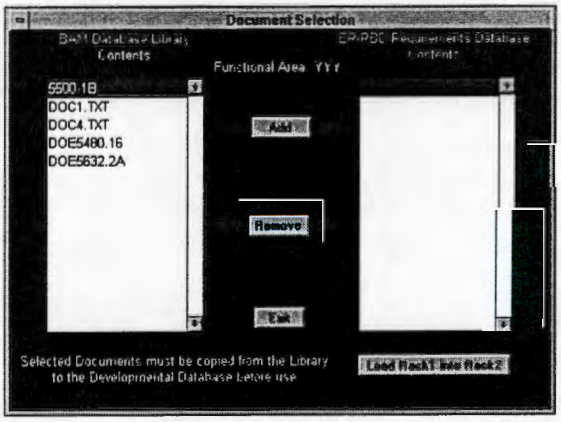
The TEMPORARY database to produce Rack 1 and the SOURCE database for Rack 2 are both FoxPro databases, therefore the System Administrator does not control the function of loading these databases. The data is not changing formats. It is simply being copied from one database to another.

1. Select your functional area from the pull-down list. If you are just beginning the process for this functional area, select **New Area**. The program will ask you for the functional area code when **Document Loading** is selected.

2. From the *Main Menu* select **Document Loading**, as shown on the screen below:



3. The *Document Selection* screen will appear:



4. Document impact statements that are available in the BAM Database Library are listed on the left-hand side of the screen. Select the first document you wish to load into your developmental database to produce Rack 1. Click the **Add** button. The document you selected appears in the right-hand list.

5. Continue to add documents until you have all that are required to support the development of your ER-RBD. If you make a mistake, simply select the document you added in error and click the **Remove** button. This will not affect the contents of the BAM Database Library. You are simply making copies of the documents stored there.

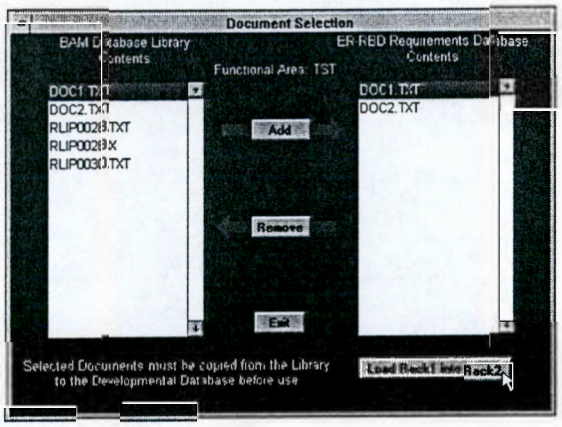
6. When you have the names of all necessary documents displayed on the **ER-RBD Requirements Database Contents List**, click the **Exit** button. The documents will be copied to your developmental database for Rack 1.

4.2.2 Load Rack 1 into Rack 2

IMPORTANT: Do NOT load Rack 1 into Rack 2 until you have completed Phase 1 of editing. When you load Rack 2 you will no longer be able to access Rack 1. If you load Rack 2 in error, please notify the System Administrator.

After Rack 1 has been completed in Phase 1(see Section 5.2), (the impact statements have been designated as relevant to the functional area under development and assigned an element of the ER-RBD Configuration Outline) they are moved to the developmental SOURCE database for Rack 2. This will become the permanent database for this functional area. Please refer to Section 5.1.2 for information on building your ER-RBD element list and Section 5.2.1 for information on editing Rack 1 to select functional area and designate the elements.

When you're ready to work with Rack 2 (Phase 2), select **Load Rack 1 into Rack 2** from the *Document Selection* screen.



5.0 EDITING

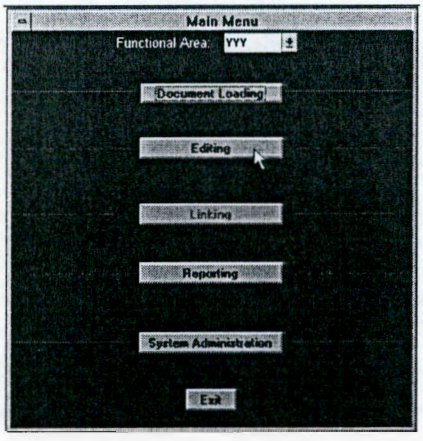
The Editing functions of the BAM System allow access to fields and text of all database.

5.1 Pre-Developmental Phase

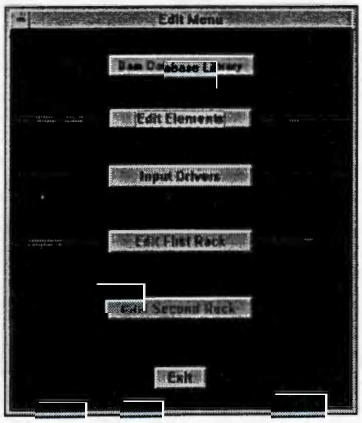
The BAM System tracks your progress through the ER-RBD development process. In the Pre-developmental phase, impact statements have not been copied into the developmental databases, but exist entirely in the BAM Database Library. The database structures are set up for this functional area, therefore, certain options are available to the user.

In the beginning of the developmental process (Phase 1) you are working on building the Element List and the Rack 1 process. Later, (Phase 2) you will edit Rack 2. In the final phase (Phase 3) you will be working with the ER-RBD database, and the procedures databases. Please refer to Figure 2.1 for a graphic overview of this process.

1. From the *Main Menu*, select your functional area from the pull-down list, then select **Editing**, as shown on the screen below:

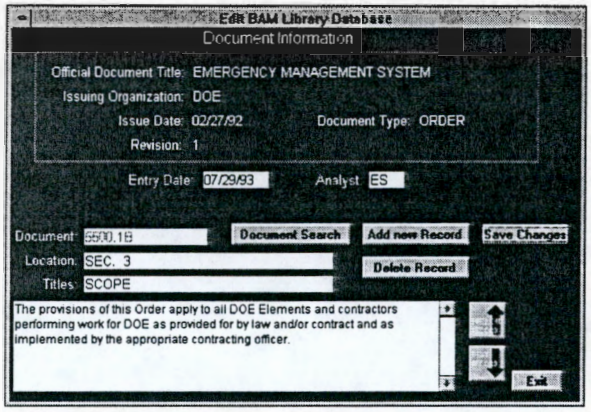


2. The following screen will appear in the pre-developmental phase. Notice that the **Edit First Rack** and **Edit Second Rack** buttons are disabled. The BAM System tracks the existence of developmental databases and does not allow access until everything is properly in place.



5.1.1 BAM Database Library

This function is provided to allow Functional Area Analysts, Technical Personnel and Guests to browse the BAM Database Library. All user groups except "Guest" may edit titles and locations. Access is denied to any other data fields within the BAM Database Library except to the System Administrator.



Information displayed in the upper portion of the screen and the Document name (shown below) applies to the entire document. All other information applies to this impact statement only.

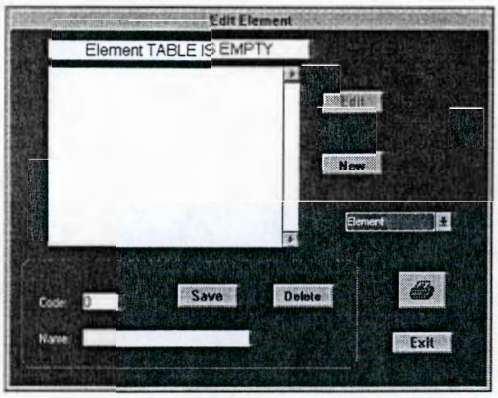
1. The location field refers to the location within the original document. The location identifier must provide traceability back to the original hard copy of the document.

2. The title field is the title of the portion of the document where this impact statement can be found. This is not the document title. Notice that the document title information is displayed in the upper portion of the screen.

5.1.2 Edit Elements

The Element List is built per the approved ER-RBD Configuration Outline (refer to WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs").

In this function of the program, you will select **Edit Elements** from the *Editing Menu*. The *Edit Element* screen will appear as shown.



Before you start entering the elements, subelements, and sub-subelements for the ER-RBD, be sure that you have a complete outline of the ER-RBD.

NOTE: The **code field** of this database tracks the order of the elements, subelements, and sub-subelements. You will assign a code number to each entry. These codes do not correspond in any way to numbers in the ER-RBD outline. The codes are used solely by the program. To allow yourself to correct errors in data entry, assign the codes by 10s. That way if you accidentally skip one from your outline you can still fit it in the proper order. For example, you entered the first element (Procurement Planning) under code number 10. The next element (Bid Evaluation) you enter under code number 20. Then you realize that you skipped Supplier Selection. You can enter Supplier Selection under code number 15 and it will be in the correct order.

You will be entering three separate sets of data: elements, subelements, and sub-subelements. The pull-down list of the Edit Elements screen allows you to select which of the lists you are preparing.

1. Select **Element** from the pull-down list.
2. Click **New** to activate the data entry portion of the screen (within the red box).
3. Enter the number 10 in the **Code** field.
4. Type the name of the element in the **Name** field.
5. Click **Save**. The element will appear in the list at the top of the screen.
6. Click **New** to enter the next element and so on until all elements are entered.
7. If you wish to delete one of the elements from the list, select it in the list at the top of the screen. Click **Delete**.
8. If you wish to edit one of the elements you have already saved, select it in the list at the top of the screen. Click **Edit**. The selected element appears in the data entry portion of the screen.

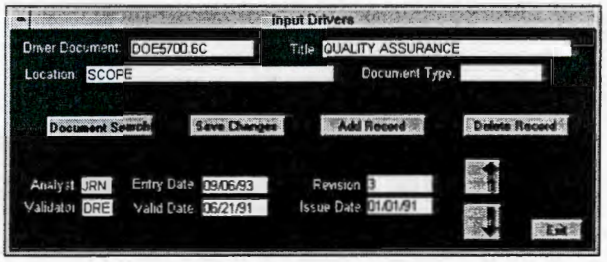
9. When finished you may want to print the list of elements that you have created to verify that the correct data has been entered. Click **Print**.

NOTE: Some Functional Area Analysts may wish to assign elements manually on the Rack 1 report for the first racking of impact statements and then have Technical Personnel enter the data using the BAM System. Please refer to Attachment 1 of WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs" for step-by-step instructions outlining the nonautomated method of ER-RBD development. If this is the case, they will also want to assign subelements and sub-subelements in a similar way. After the element lists are built, they can be printed out and delivered to the Functional Area Analysts for use in assigning the element, subelement, and sub-subelement code numbers to the Rack 1 and Rack 2 reports for data entry. This will alleviate the need to write the name of each element on the report.

10. To enter subelements and sub-subelements, select subelement or sub-subelement from the pull-down list. Proceed by following instructions for the preparation of the element list.

5.1.3 Input Drivers

Driver document references applicable to the functional area under development must be input using this function of the program. The Driver/Source Document Applicability Report (refer to WHC-IP-0952, Appendix C, "Selection and Evaluation of Standards for ER-CMS RBDs") contains the information necessary for driver document input.



1. The document name can be an abbreviation (limited to 15 characters) that will be recognizable to ER-RBD developers. Enter other applicable information for this document.

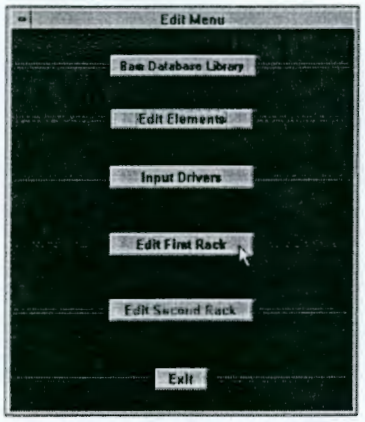
2. When all information for the first driver document is complete, click **Save Changes**.

3. Select **Add Record** and continue as instructed previously until all DRIVERS are input.

4. You may move through the DRIVERS database using the **Next/Previous Record** buttons displayed on the screen. To go directly to a driver document select **Document Search**. Select the driver you wish to access. That driver is displayed on the screen for further edits. You may delete one of the driver document records from this database by displaying it on the screen and clicking **Delete Record**.

5.2 Editing (Phase 1)

To enter Phase 1 of editing, impact statements from the BAM Database Library must be loaded to Rack 1 for this functional area. When you are in the first phase (Rack 1) of the ER-RBD development process, the following *Editing Menu* is in effect.



During this phase of ER-RBD development you are working with the first racking of impact statements (Rack 1). Notice that the **Edit Second Rack** button is disabled. The Element List must be built in order to assign elements to the impact statements. The subelement and sub-subelement lists are built at the same time and used in Phase 2 where they will be assigned in the second rack (Rack 2). Notice that the **Input Drivers** button appears on both *Phase 1 and Phase 2 Edit* screens. The driver document references can be entered and/or modified in either Phase 1 or Phase 2.

5.2.1 Edit First Rack

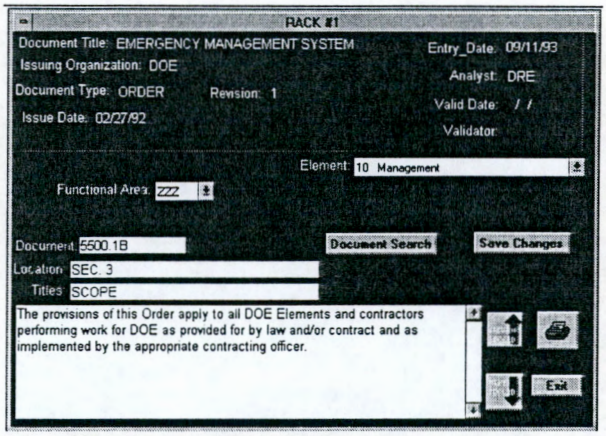
When source document impact statements have been loaded from the BAM Database Library to the ER-RBD developmental database for Rack 1, you are ready to assign functional area and element to each of the impact statements. All information displayed on the screen should be complete with the exception of analyst initials, validation information, functional area designation and element assignment.

The purpose of editing Rack 1 is three-fold. The first purpose is to designate within the BAM System that each impact statement is applicable to the functional area under development. For each impact statement, you will select either your functional area or "other" from the **functional area pull-down list**.

NOTE: Only those impact statement designated as applicable to your functional area will be copied to the database for Rack 2. Only these impact statements will become a permanent part of the developmental databases for this functional area. All impact statements designated as "other" will be eliminated from the developmental databases.

The second purpose in editing Rack 1 is to assign the element designation to each impact statement as provided by the ER-RBD Configuration Outline developed in accordance with WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs". For each impact statement, select the correct element designation from the **Element pull-down list**.

The third purpose is validation of the source document impact statements. When the impact statements have been validated in accordance with WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs", enter the validator initials and date.



The order of impact statements in this database is determined by the loading of impact statements from the BAM Database Library. Therefore, you will simply move through the database one record at a time assigning functional area and element. If you wish to move through the database in a different document order, use the **Document Search** button and select the documents in any order you wish. If you use the **Document Search** feature, verify that all impact statements in the database have been assigned to a functional area and element before you proceed to Phase 2.

1. Display the first record on the *Rack 1* screen. Assign the functional area and element appropriate for this impact statement. You can scroll through the text of the impact statement by using the arrow keys on the right-hand side of the text window.

NOTE: You will be asked for Analyst initials. These initials will be used on subsequent impact statements; you will not have to enter them on each record. When you wish to enter different Analyst initials, type them in. These new ones will again be entered into each record for you until you change them.

2. Click **Save Changes**.

3. Move to the next record by clicking the **Next Record** button.

4. Continue through all records in the database until you have assigned a functional area and element or the functional area designation "other" to each impact statement. You may move back and forth through the database with the **Next Record** and **Previous Record** buttons. You may also wish to use the **Document Search** feature to verify your work.

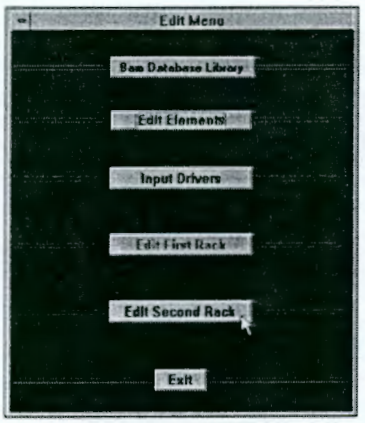
IMPORTANT: Any impact statements that are left blank (in the functional area and element fields) will not be copied to Rack 2. The program will notify you when you Exit Rack 1 if any records have not been assigned.

5. When you are finished assigning all impact statement, you are ready to print Rack 1. Please refer to Section 7.6.8 of this manual for an example of this report. Make sure you have a printer available and Click the **Printer Icon** button.

6. Click the **Exit** button to return to the *Edit Menu*.

5.3 Editing (Phase 2)

To enter Phase 2 of editing, impact statements from Rack 1 must be moved to Rack 2. Please refer to Section 4.2.2 for information on this process. When you are in the second phase (Rack 2) of the ER-RBD development process, the following *Edit Menu* is in effect.



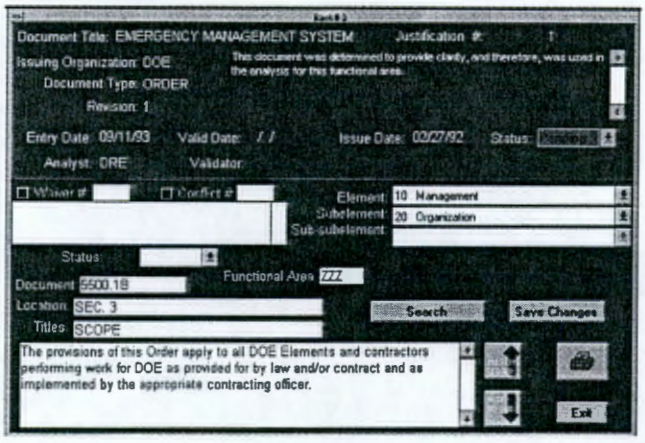
During this phase of ER-RBD development you are working with the second racking of impact statements (Rack 2). Notice that the **Edit Second Rack** button is now enabled while the **Edit First Rack** button is disabled. In Phase 2 the data from RACK 1 has been loaded to RACK 2, therefore access to the second rack is available. The element list has already been built in Phase 1. If the driver database has not been created in Phase 1, you may do that in Phase 2 by selecting **Input Drivers**.

5.3.1 Edit Second Rack

When source document impact statements have been loaded from Rack 1 to Rack 2, you are ready to assign subelement and sub-subelement to each of the impact statements. All information displayed on the screen should be complete with the exception of subelement, and sub-subelement assignment.

The purpose of editing Rack 2 is to designate in the BAM System that each impact statement is applicable to a particular subelement and sub-subelement as provided by the ER-RBD Configuration Outline developed in accordance with WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs". Some impact statements will not be designated a subelement or sub-subelement. They will remain categorized as elements.

NOTE: Only those impact statements designated as applicable to your functional area exist in the RACK 2 database. These impact statements are now a permanent part of the developmental databases for this functional area. In Phase 3 of editing, source document impact statements assigned to the functional area under development (with element, subelement, and sub-subelement assignments) will be transferred to the SOURCE database. The SOURCE database is the permanent database for this functional area. Please refer to Figure 6-1.



1. The impact statements in this database are still in the original order but within the element assignment from Phase 1. Move through the database one record at a time assigning subelement and sub-subelement (where applicable) from the pull-down lists. You can scroll through the text of the impact statement by using the arrow keys on the right-hand side of the text window.

2. If you wish to move through the database in a different document order, use the **Search** button and select the documents in any order you wish. If you use the **Search** feature, verify that all impact statements in the database have been properly assigned.

3. Click **Save Changes**.

4. Move to the next record by clicking the **Next Record** button.

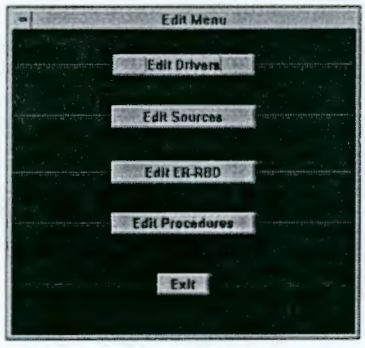
5. Continue through all records in the database until you have assigned a subelement and sub-subelement to each impact statement, as appropriate. You may move back and forth through the database with the **Next Record** and **Previous Record** buttons. You may also wish to use the **Search** feature to verify your work. Save all changes by clicking the **Save Changes** button.

6. When you are finished assigning all impact statements, you are ready to print Rack 2. Please refer to section 7.6.9 of this manual for an example of this report. Make sure you have a printer available and Click the **Printer Icon** button.

7. Click the **Exit** button to return to the *Edit Menu.*

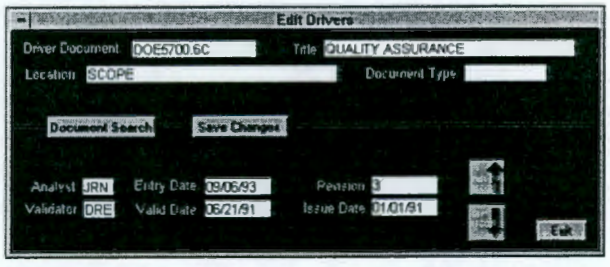
5.4 Editing (Phase 3)

To enter Phase 3 of editing, the commitment statements from the ER-RBD must be loaded for this functional area. Please refer to Section 8.2.2.1 for information on this document loading process. When you are in the third phase of the ER-RBD development process, the following *Editing Menu* is in effect.



5.4.1 Edit Drivers

You may need to edit driver information in this part of the process. If DRIVERS have been correctly input in Phase 1 you should not need to use this function. In the event that you need to make any changes to driver document entries, this screen is provided.



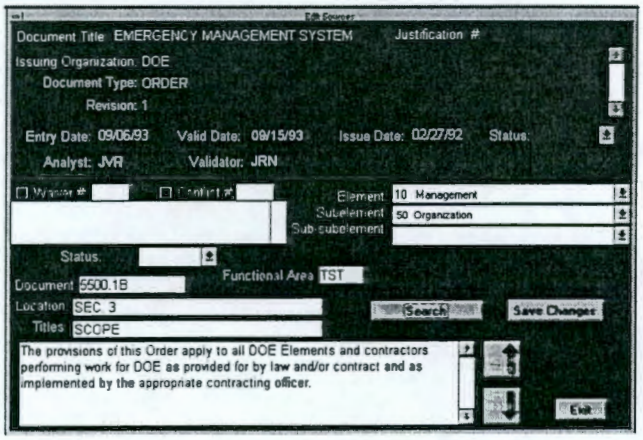
1. Move through the DRIVERS database using the **Next/Previous Record** buttons to move a single record at a time. To go directly to a driver document select **Document Search**. Select the driver you wish to access. That driver is displayed on the screen for further edits.

2. Place the cursor in the field you wish to edit. Make any required changes to the information for this driver document and click **Save Changes**.

3. Click the **Exit** button to return to the *Edit Menu*.

5.4.2 Edit Sources

All information for each impact statement should be complete at this point with the exception of document justification, waiver statements and conflict statements.



5.4.2.2 Justification Statements

Incorporate source document justification reports in accordance with the WHC-IP-0952, Appendix C, "Selection and Evaluation of Standards for ER-CMS RBDs". The justification information applies to the entire document, therefore, this information will appear on every record of this document.

1. Input the justification report number in the **Justification #** field at the top of screen.

2. Input the text from the justification report in the text box below the Justification #.

3. Click **Save Changes**.

4. As you leave this record the Status box will be set to **Pending**. After the Department of Energy Richland Field Office (DOE/RL) and Department of Energy Headquarters (DOE-HQ) approve or deny the justification, you must change the status to reflect this.

5. Click the **Exit** button to return to the *Edit Menu*.

5.4.2.3 Waiver Statements

Incorporate impact statement waivers in accordance with WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs". The waiver information applies to a single impact statement, therefore, this information will appear on this record alone.

1. Check the **Waiver #** checkbox on the left-hand side of the screen below the red box.

2. Input the waiver number in the field to the right of this checkbox.

3. Input the waiver text in the box below the Waiver #.

4. Click **Save Changes**.

5. As you leave this record the Status box will be set to **Pending**. After DOE/RL and DOE-HQ approve or deny the waiver, you must change the status to reflect this.

6. Click the **Exit** button to return to the *Edit Menu*.

5.4.2.4 Conflict Statements

Impact statement conflicts shall be identified and statements of conflict generated in accordance with WHC-IP-0952, Appendix D, "Identification and Analysis of Impact Statements for ER-CMS RBDs". The conflict information applies to two or more impact statements, however each conflict statement is actually "attached" to a single impact statement.

1. Check the **Conflict #** checkbox on the left-hand side of the screen below the red box.

2. Input the conflict number in the field to the right of this checkbox.

3. Input the conflict text in the box below the Waiver #.

IMPORTANT: Since this impact statement conflicts with 1 or more other impact statements, type in the document, location, title, and any other relevant information that will allow tracking to the conflicting statement(s). The program has no way to correlate which impact statements are in conflict without this information.

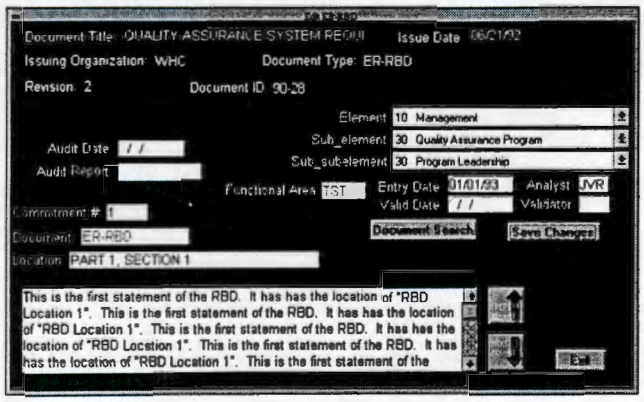
4. Click **Save Changes**.

5. As you leave this record the Status box will be set to **Pending**. After DOE/RL and DOE-HQ approve or deny the conflict, you must change the status to reflect this.

6. Click the **Exit** button to return to the *Edit Menu*.

5.4.3 Edit ER-RBD

The ER-RBD document is prepared for loading into the BAM System in the same fashion as the source document impact statements (please refer to Section 4.1.1). Some information will already be displayed for the ER-RBD. Additional information, such as document location, analyst, element, subelement, and sub-subelement, and validator information, must also be input.



1. The order of commitment statements in this database is determined by the loading from the ER-RBD document. When the commitment statements are loaded into the developmental database, they are automatically assigned a commitment number.

2. Enter the Document Identification number (official document number) in the **Document ID** field within the red box at the top of the screen.

3. Assign the element, subelement, and sub-subelement as provided by the specific ER-RBD configuration outline developed in accordance with WHC-IP-0952, Appendix A, "Planning, Preparation, Review, and Approval of ER-CMS RBDs".

4. Enter the initials of the analyst responsible for this commitment statement in the **Analyst** field.

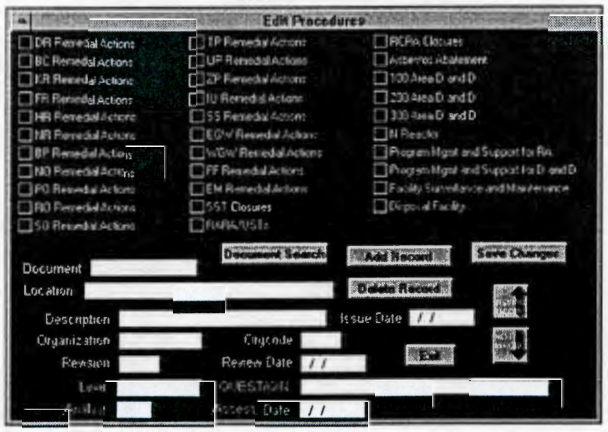
5. Enter the document location identification in the **Location** field.

6. Click **Save Changes**.

7. Click the **Exit** button to return to the *Edit Menu*.

5.4.4 Edit Procedures

All procedures which are assessed for commitment statement implementation (refer to WHC-IP-0952, Appendix E, "ER-CMS Administrative Assessment") using the ER-RBD are entered using this program function.



1. Enter the document name, location, description, issue date, organization, organization code, revision number, review date, level, QUEST or quality improvement notice (QIN) tracking number, analyst initials, and assessment date (where applicable).

2. For each procedure you may click on the appropriate checkboxes in the upper portion of the screen to designate this procedure's facility applicability. Please refer to the Facility Report in Section 7.6.4 of this manual for an example of the type of output produced.

3. Click **Save Changes**.

4. To add another procedure, click **Add Record**.

5. Move through the procedures database using the **Next/Previous Record** buttons to move a single record at a time. To go directly to a procedure select **Document Search**. Select the procedure you wish to access. That procedure is displayed on the screen for further edits.

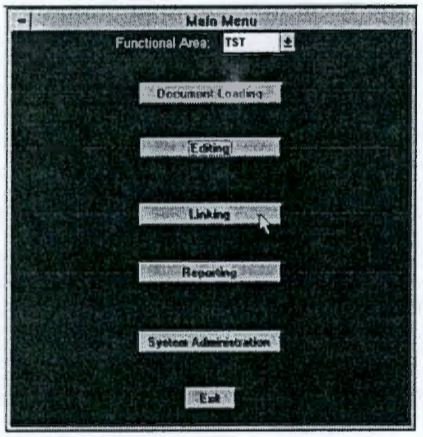
6. Place the cursor in the field you wish to edit. Make any required changes to the information for this procedure and click **Save Changes**.

7. Click the **Exit** button to return to the *Edit Menu*.

6.0 LINKING

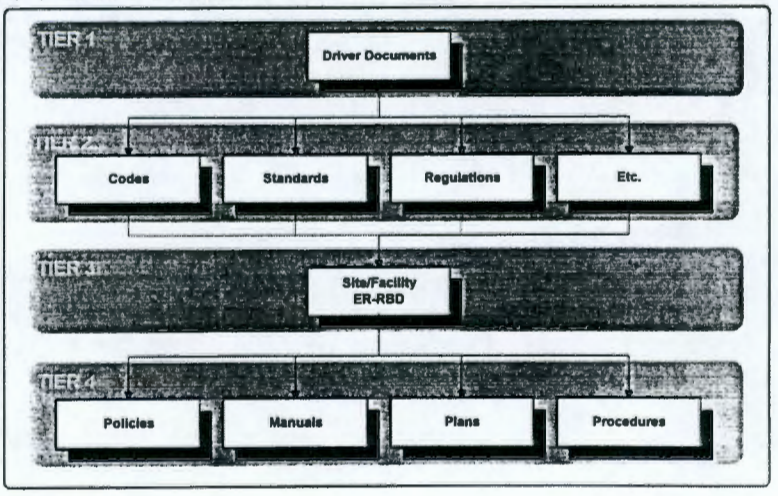
Before the linking process can begin the relationships between each tier level of documents must be understood (refer to Figure 6-1). The links must be present between consecutive tiers. Therefore, a Tier 1 document cannot, and should not, be linked to a Tier 3 document. Tier 1 must be linked to Tier 2 and Tier 2 is then linked to Tier 3. This linking sets up the compliance tracking relationship from the uppermost tier, down through each level.

To access the Linking function, click **Linking** on the *Main Menu*.



- Tier 1 The highest tier of documents which mandates source documents for a site/facility program.
- Tier 2 A document which is identified by a driver (originating) document and contains one or more impact statements which are applicable to specific functional areas.
- Tier 3 The document containing the consolidated commitment statements derived from multiple impact statements.
- Tier 4 The procedures for implementing the commitment statements.

FIGURE 6-1 BAM DOCUMENT RELATIONSHIPS FOR LINKING BY TIER LEVEL



In order to track compliance, driver document references must be linked to the source document impact statements which they mandate. Multiple impact statements must, in turn, be linked to the consolidated commitment statement which was derived from these impact statements. The procedures to implement the consolidated commitment statement must then be linked, as well.

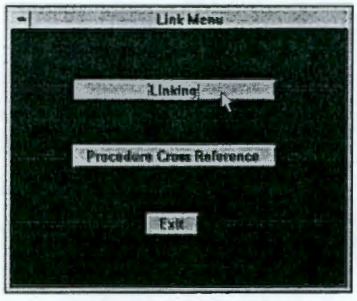
NOTE: In some instances a single impact statement may become a commitment statement in the ER-RBD.

Tier 4 policies, manuals, plans and procedures may reference other documents within the same Tier. The Procedure Cross Reference (refer to Section 6.2 of this manual) is provided to allow the cross referencing of these documents.

Both types of links set up the compliance tracking relationships that are output in the Regulatory Compliance Report and the Commitment Report. Please refer to Sections 7.6.2 and 7.6.3 for examples of these reports.

6.1 Linking (Database to Database)

To start linking from one document tier to the next, select **Linking** on the *Link Menu*.

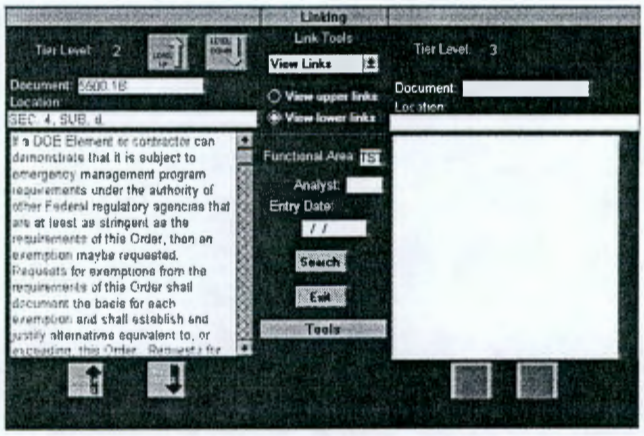


Unless you are logged in under the Functional Area Analyst security level, when you select **Linking**, the program will ask you to select the initials of the Functional Area Analyst from a list. Select the FAA who is supervising the linking. These initials will thereafter be automatically input by the program on each link that is created.

There are three (3) modes to the Linking function. The default mode is **View Links**. The other two are **Add Links** and **Delete Links**.

6.1.1 View Links

In order to provide linking of several records from one level to several records on another level (a many-to-many relationship), the *Linking* screen has been set up to enable the user to display any tier on the left side of the screen and either the next tier up or down on the right.



Set the desired level on the left using the **Level Up** and **Level Down** buttons. Set the desired direction (**View Upper Links** or **View Lower Links**) using the radio buttons below the **Link Tools** pull-down list.

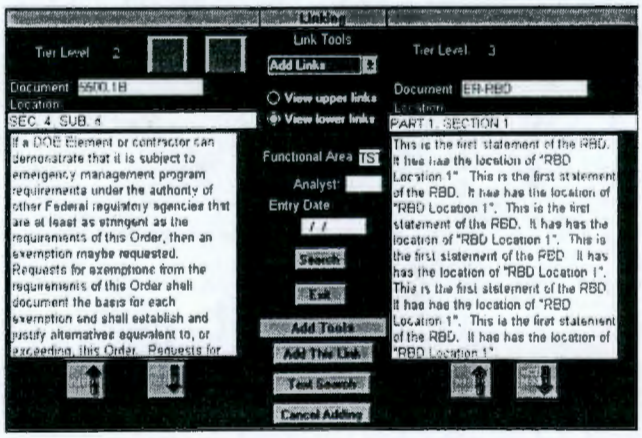
NOTE: You must be in the **View Links** or **Delete Links** mode to set the display. If you are in the **Add Links** mode, you cannot change the view without first selecting another mode from the **Link Tools** pull-down list.

Tier 2 documents will be displayed on the left side of the screen and Tier 3 documents on the right. When you initially access the *Linking* function you have not created any links for this functional area, therefore, there will not be any Tier 3 commitment statements displayed on the right. Remember that you are viewing links between these levels.

The **Search** button in the center of the screen allows you to quickly access any record from the Tier displayed on the left side of the screen when in **View Links** mode. The **Previous/Next Record** buttons are used for moving one record at a time. There are no tools displayed in this mode. The toolbox will be used in the **Add Links** and **Delete Links** modes.

6.1.2 Add Links

To create links between records from two tiers, select **Add Links** from the **Link Tools** pull-down list. The *Linking* screen will change to reflect your selection.



The function of the **Search** button in the center of the screen now allows searching of the tier displayed on the right.

A **Text Search** button is provided in the Toolbox. This button allows text searching of the records from the tier displayed on the right. All records found during the search are accessible for linking and ONLY those records located in the text search. Notice the red bar in the upper right-hand portion of the screen. This bar contains a message that the records displayed are from the text search. Access is limited to the records located in the text search.

1. You may add links now by selecting the records you wish to link and clicking **Add This Link**. To restore access to all records from this tier click **Cancel Adding** and select **Add Links** again. Access is now restored to all records from this tier.

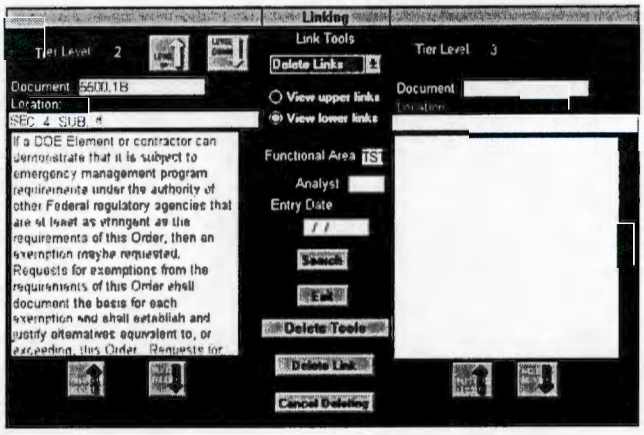
2. To exit the **Add Links** function click **Cancel Adding**.

NOTE: You must be in the **View Links** or **Delete Links** mode to set the display. In the **Add Links** mode, you cannot change the view without first selecting another mode from the **Link Tools** pull-down list.

3. Verify that the links created are correct by selecting **View Links** from the **Link Tools** pull-down list and browsing the links.

6.1.3 Delete Links

To delete links between records from two tiers, select **Delete Links** from the **Link Tools** pull-down list. The *Linking* screen will change to reflect your selection.



The function of the **Search** button in the center of the screen allows searching of the tier displayed on the left as in the **View Links** function.

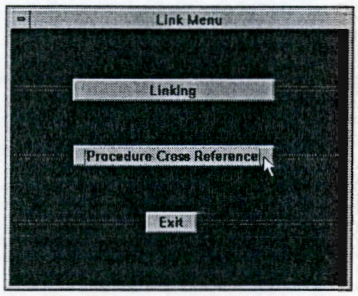
1. You may delete links now by selecting the records you wish to unlink and clicking **Delete Link**.

2. To exit the Delete Links function click **Cancel Deleting**.

3. Verify that the links are correct by selecting **View Links** from the **Link Tools** pull-down list and browsing the links.

6.2 Procedure Cross Reference (Linking within the Procedures Database)

To start cross reference linking of the procedures , select **Procedure Cross Reference** on the *Link Menu*.

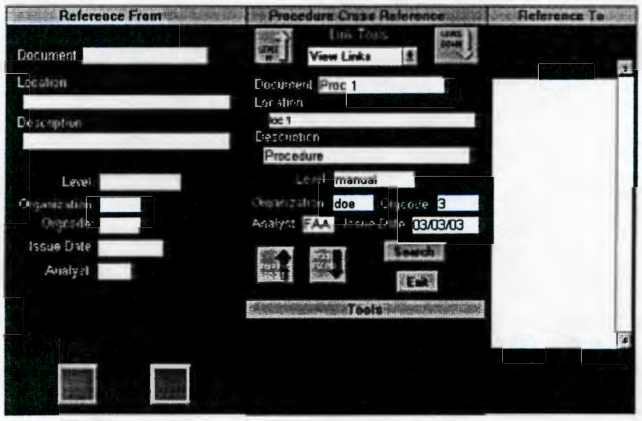


There are three (3) modes to the **Procedure Cross Reference** function. The default mode is **View Links**. The other two are **Add Links** and **Delete Links**.

The *Procedure Cross Reference* screen contains three (3) parts. The linking pivot point is the center portion of the screen. Procedures that refer to other procedures are input. If the **Reference To** procedure also references another procedure, add another **Reference To** link. The program will create the structures of these references and will track procedures with the procedures referencing them and the procedures they reference.

6.2.1 View Links

The default mode is **View Links**. The information under **Reference From** and **Reference To** should be blank initially because cross reference links have not been created. Remember that you are viewing links.



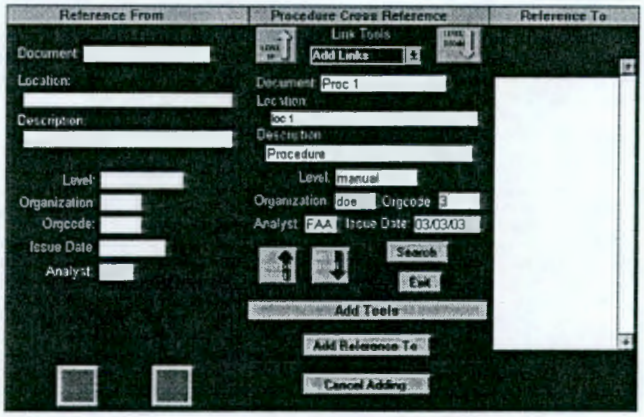
Initially there will be only one level so you may not use the **Level Up/Down** buttons. After cross links have been created, the desired level can be set by clicking these buttons.

The **Previous/Next Record** buttons can be used to move through the procedures database one record at a time. The procedures are listed in alphabetical order. To search the database use the **Search** button.

To return to the *Link Menu* click the **Exit** button.

6.2.2 Add Links

To create cross reference links from the procedures database, select **Add Links** from the **Link Tools** pull-down list. The screen will change to reflect your selection.



1. Click the **Add Reference To** button under **Add Tools**.

2. All procedures in the PROCEDURES database will be listed on the right side of the screen. Select the reference you wish to link to.

3. You may create several levels of procedures referencing other procedures.

NOTE: As stated earlier, the program will create the structures of these references and will track procedures with the procedures referencing them and the procedures they reference. All reference links can be created with the **Add Reference To** button.

4. To exit the *Add Links* function click **Cancel Adding**.

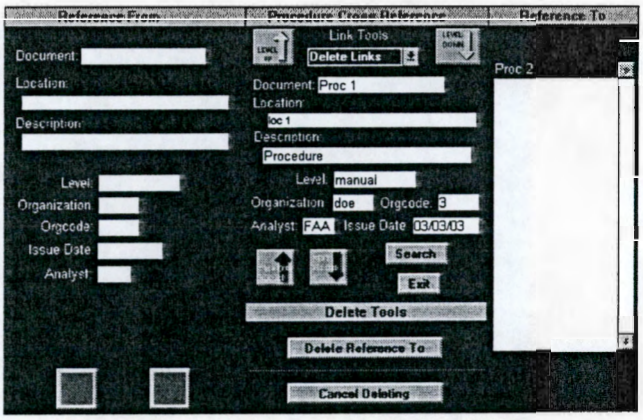
5. Verify that the links created are correct by selecting **View Links** from the **Link Tools** pull-down list and browsing the links.

6. To search the database use the **Search** button.

7. To return to the *Link Menu* click the **Exit** button.

6.2.3 Delete Links

To delete cross reference links within the PROCEDURES database, select **Delete Links** from the **Link Tools** pull-down list. The screen will change to reflect your selection.

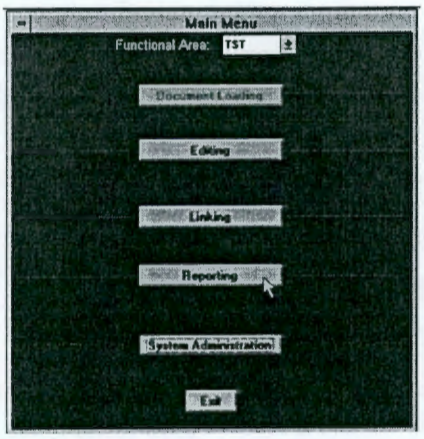


1. Select the procedure link that you wish to delete.
2. Click the **Delete Reference To** button in the toolbox.
3. To exit the *Delete Links* function click **Cancel Deleting**.
4. Verify that the links are correct by selecting **View Links** from the **Link Tools** pull-down list and browsing the links.
5. To exit the **Delete Links** function click **Cancel Deleting**.
6. To search the database use the **Search** button.
7. To return to the *Link Menu* click the **Exit** button.

7.0 REPORTING

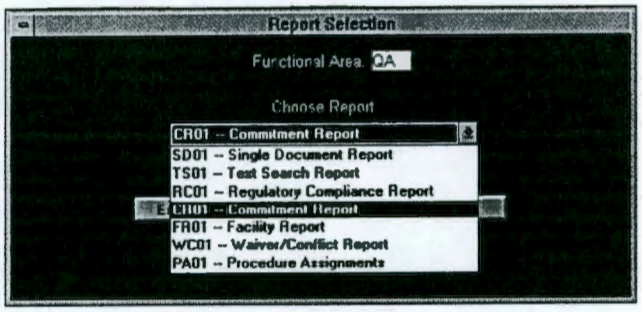
The BAM System reports can be output three different ways. They can be output to the printer, directly to the screen for viewing, or to a text file generated by the program for input into any text editor for desktop publishing.

To access the Reporting function, click **Reporting** on the Main Menu.



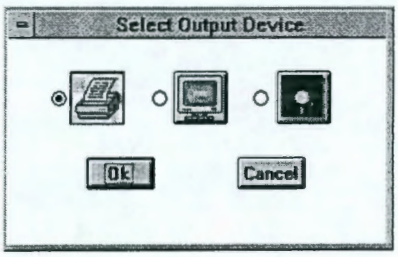
7.1 Report Selection

The BAM System has seven (7) available reports. For descriptions and examples of the reports offered, please refer to Sections 7.5 and 7.6 of this manual. The main report selection screen will list available reports dependent upon your progress in the ER-RBD development process. Not all reports will display until information is available to produce the reports. Please refer to Section 7.6 for step-by-step instructions specific to each report.



7.2 Routing Reports to the Printer or Screen

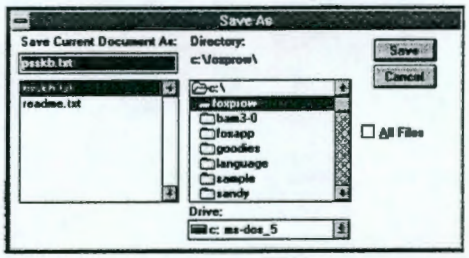
After you have selected a report for printing using the **Choose Report** pull-down list, the following screen will appear. To send the output to the printer, choose the **Printer icon**. To view the report on screen choose the **Monitor icon**.



7.3 Routing Reports to a Text File

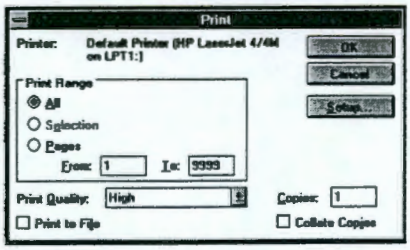
To send the report to a file for desktop publishing purposes choose the disk file icon from the output selection screen.

1. The following dialog box will appear asking you for a file name and location designation for the output file.

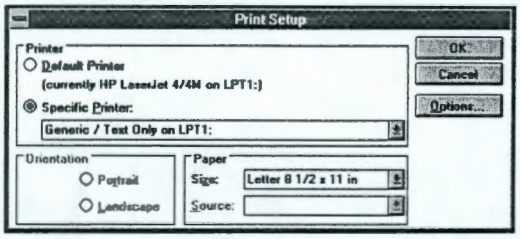


2. Select the proper directory location and type in a file name (the default file name is REPORT.TXT). Click **Save**.

3. The printer dialog box will appear. Click **Setup**.



4. The printer setup dialog box will appear. Verify that the **Generic / Text Only** printer is selected. If it isn't, pull down the list of printers and select **Generic / Text Only**.



NOTE: If the Generic / Text Only printer does not appear on the printer selection list, refer to Section 3.2.3 of this manual for directions on installing this printer driver.

5. Click **OK**.

BAM Version 3.0 reports are functional area centered. Therefore, all data reported is from a single functional area. You may generate reports for other functional areas but may NOT generate reports across multiple functional areas.

7.4 Report Types

The BAM System contains three (3) types of reports: end-user, data entry, and developmental.

End-user reports include the following reports accessible from the *Report Selection Menu*:

- TS01 -- Text Search Report
- RC01 -- Regulatory Compliance Report
- CR01 -- Commitment Report
- FR01 -- Facility Report
- WC01 -- Waiver/Conflict Report
- SD01 Single Document Report

A data entry report is also accessible from the *Report Selection Menu*:

- PA01 -- Procedure Assignments Checklist

Developmental reports are accessible through print buttons provided on the Rack 1 and Rack 2 screens:

- Rack 1
- Rack 2

7.5 Reports Defined

The **Text Search Report** (TS01) is produced using the BAM Database Library or the developmental databases. You may search for text in any single document loaded into the BAM Database Library or the Rack 1, Rack 2, Source, or ER-RBD for any functional area. Text searches may also be done on any document stored in the BAM Master Library by means of WordPerfect searches on single documents or DOS searches on a range of documents. Please refer to section 8.0 System Administrator section for more information on this type of search.

The **Regulatory Compliance Report** (RC01) shows all links between levels of documents. You may generate the report at any document level. The report displays all document levels (DRIVERS, SOURCES, ER-RBD, PROCEDURES) that are linked in one functional area at a time.

References such as document name, location, etc. are printed on this report. If you wish to view full text of document levels, the commitment report should be used.

In the example shown in the following section, the operator generated the report for one particular procedure. All links to that procedure are shown.

The **Commitment Report** (CR01) allows you to select any document (or part thereof) from any tier and generate a set of Commitment Report pages that show all the document paragraphs from all tiers that relate to each of the selected document paragraph(s). The commitment report is accessible by commitment number as well. You may access only one functional area at a time. Other functional areas that have been developed can be accessed in subsequent passes to produce commitment reports for those areas.

This report prints full text of the impact statements and commitment statements. If you simply wish to view the location designators of the links, you should use the RC01 report.

The **Facility Report** (FR01) is in a matrix format showing procedure applicability to facility. You can select a single procedure or range of procedures for this report.

The **Waiver and Conflict Reports** (WC01) is produced for the purpose of DOE review and approval. All waiver statements for a functional area are printed with the corresponding impact statement where they are assigned. The conflict statements are then printed with the corresponding impact statements where they are assigned.

The **Procedure Assignments Checklist** (PA01) prints all commitment statements (one per page) from a single functional area. This is a data input form for Functional Area Analysts to assign procedures that implement each commitment.

The **Single Document Report** (SD01) is produced using the BAM Database Library, the developmental source database, or the ER-RBD database. Only one document can be selected at a time.

The **Rack 1 Report** is a developmental report of the first racking process. All impact statements used in ER-RBD development for a single functional area are printed on the report with assignment areas for functional area and element.

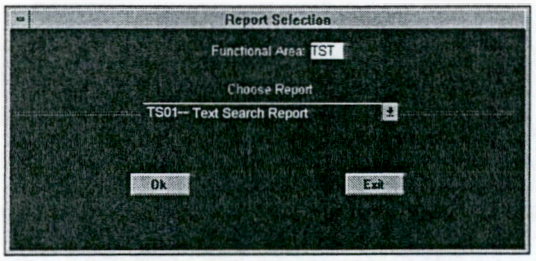
The **Rack 2 Report** is a developmental report of the second racking process. All impact statements used in ER-RBD development for a single functional area are printed on the report with their designated functional area and element. Assignment areas for subelement and sub-subelement are also included.

7.6 Example Reports

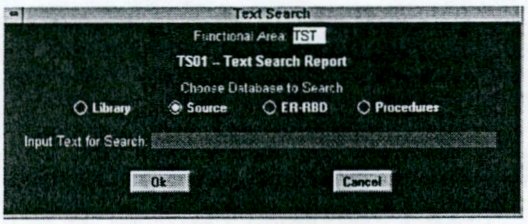
All reports provided with the BAM System are shown below by example. The data is not live and therefore should not be interpreted in any way other than as examples of report layout.

7.6.1 TS01 -- Text Search Report

1. Select **TS01 -- Text Search Report** from the *Report Selection Menu* as shown below.



2. Note the functional area designation. If you wish to run the report on a different functional area, click **Exit**, select another functional area and proceed.



3. Select the data source for the text search using the radio buttons.

4. Enter the search text. You may use complex Boolean expressions including: .and., .or., and combinations of the two (i.e., CHARACTERIZATION .AND. ENVIRONMENTAL .OR. CONDITIONS .AND. PLANNING). Be sure to include the periods surrounding the words AND and OR.

5. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-1 EXAMPLE TEXT SEARCH REPORT

ANSI/ASQC-E4 (DRAFT)
TS01
Text Search Report for Functional Area QA

Document: E-4 Location: Part III, Section 1, Subsection 1a

Statement:

PART II SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESS AND CONDITIONS PLANNING AND SCOPING:

All projects involving the generation, acquisition, and use of environmental data shall be planned and documented.

Document: E-4 Location: Part III, Section 1, Subsection 1b

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

The type and quality of environmental data needed for their intended use shall be defined and documented using the EPA Data Quality Objectives (DQO) process (5) or its equivalent.

Document: E-4 Location: Part III, Section 1, Subsection 1c

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Determination of the type and quality of environmental data needed shall involve key users of the data as well as those responsible for activities affecting data quality.

Document: E-4 Location: Part III, Section 1, Subsection 1d

Statement:

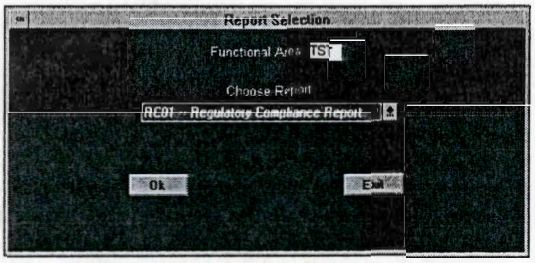
PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Planning activities shall be documented to assure that participants in the environmental data operations are informed of and understand the requirements of the project in a timely manner.

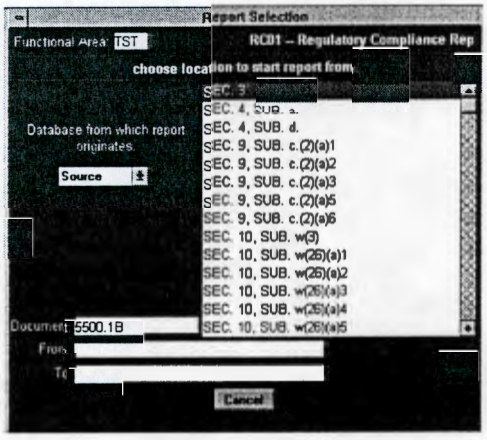
Page: 1

7.6.2 RC01 -- Regulatory Compliance Report

1. Select **RC01 -- Regulatory Compliance Report** from the *Report Selection Menu* as shown below.



2. Note the functional area designation. If you wish to run the report on a different functional area, click **Exit**, select another functional area and proceed.



3. Select the database of origin for the report.

4. Select the document (where applicable).

5. Select the portion of the document (where applicable) following the instructions on the screen.

6. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-2 EXAMPLE REGULATORY COMPLIANCE REPORT

Page 1 contains driver and source document links to user-selected commitment statements
Page 2 contains ER-RBD (commitment statement) links to implementing references (with arrows designating user selected commitments)
Page 3 contains implementing references
Page 4 contains the full text of the first user-selected commitment statement and shows the commitment status with related information

Westinghouse Hanford Company -- Environmental Restoration Program
Regulatory Compliance Report
Functional Area: QA
DOE/RL 90-28 Revision 2
Quality Assurance System Requirements Document

Report Date: 06/14/93
Report Number: RC01

Page 1

Originating/ Source Document	Rev	Issue Date	Location	Element	Commit #	Waiver #	ER-RBD Location
HFFACO	1	01/01/90	Section I, Sub. 2.0				
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.0, Sub. 1.0.2	Organization	224		Part II, Section 2.0, Sub 2.0.1
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.0, Sub. 1.0.4	Organization	224		Part II, Section 2.0, Sub 2.0.1
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.0, Sub. 1.0.2	Organization	225		Part II, Section 2.0, Sub 2.0.8
QAMS 004	2	06/01/90	Section 7, Sub. 7.3, Para 7				
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.4, Sub. 1.4.7	Management	222		Part I, Section 3.0, Sub 3.0.6
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.4, Sub. 1.4.8	Management	222		Part I, Section 3.0, Sub 3.0.6
DOE Order 5700.6C	3	02/01/91	Part 1, Section 1.4, Sub. 1.4.9	Management	223		Part I, Section 3.0, Sub 3.0.7
QAMS 005	2	11/01/92	Section 7, Sub. 7.3, Para 7				
DOE Order 5700.6C	3	02/01/91	Part 1, Section 2.0, Sub. 2.0.7	Management		101	N/A
DOE Order 5700.6C	3	02/01/91	Part 1, Section 2.0, Sub. 2.0.8	Management	226		Part II, Section 6.0, Sub 6.0.1
DOE Order 5700.6C	3	02/01/91	Part 1, Section 2.0, Sub. 2.0.9	Management	227		Part II, Section 6.0, Sub 6.0.2

Westinghouse Hanford Company -- Environmental Restoration Program
Regulatory Compliance Report
Global Implementing References
Functional Area: QA
DOE/RL 90-28 Revision 2
Quality Assurance System Requirements Document

Report Date: 06/14/93
Report Number: RC01

Page 2

Commit	ER-RBD Location	Impl. Ref.	Rev.	Issue Date	Location	Description	Resp. Org.	Org. Code
⇒222	Part I, Section 3.0, Sub 3.0.6	QAMP-004	1	02/01/91	Section 5, Para 1.1	Records	HEHF	55678
⇒222	Part I, Section 3.0, Sub 3.0.6	QAMP-004	1	02/01/91	Section 4, Para 4.1	Filing	PNL	55435
⇒223	Part I, Section 3.0, Sub 3.0.7	QAMP-004	1	02/01/91	Section 3, Para 5.2	Bookkeeping	HEHF	45534
⇒224	Part II, Section 2.0, Sub 2.0.1	QAMP-004	1	02/01/91	Section 3, Para 5.5	Bookkeeping	HEHF	45435
⇒224	Part II, Section 2.0, Sub 2.0.1	QAMP-004	1	02/01/91	Section 2, Para 1.1	Personnel	HEHF	34344
⇒225	Part II, Section 2.0, Sub 2.0.8	QAMP-004	1	02/01/91	Section 2, Para 1.2	Personnel	WHC	45433
⇒226	Part II, Section 6.0, Sub 6.0.1	QAMP-004	1	02/01/91	Section 2, Para 2.1	Personnel	USAC	35353
⇒227	Part II, Section 6.0, Sub 6.0.2	QAMP-004	1	02/01/91	Section 2, Para 2.2	Personnel	HEHF	34533

Westinghouse Hanford Company -- Environmental Restoration Program
Regulatory Compliance Report
Implementing Reference Report
Functional Area: QA
DOE/RL 90-28 Revision 2
Quality Assurance System Requirements Document

Report Date: 06/14/93
Report Number: RC01

Page 3

Implementing Reference(s)	Location	Description	Resp. Org.	Org. Code	Last Review
QAMP-004	Section 2, Para 1.1	Personnel	HEHF	53453	03/13/91
QAMP-004	Section 2, Para 1.2	Personnel	WHC	34242	03/13/91
QAMP-004	Section 2, Para 2.1	Personnel	USAC	23423	03/13/91
QAMP-004	Section 2, Para 2.2	Personnel	HEHF	23423	03/13/91
QAMP-004	Section 3, Para 5.2	Bookkeeping Requirements	HEHF	23432	01/11/91
QAMP-004	Section 3, Para 5.5	Bookkeeping Requirements	HEHF	45353	01/22/92
QAMP-004	Section 4, Para 4.1	Filing	PNL	33333	07/17/92
QAMP-004	Section 5, Para 1.1	Records Management	HEHF	42333	08/19/92

FIGURE 7-2 EXAMPLE REGULATORY COMPLIANCE REPORT (CONTINUED)

Westinghouse Hanford Company -- Environmental Restoration Program
Regulatory Compliance Report
Implementing Reference Report
Functional Area: QA
DOE/RL 90-28 Revision 2
Quality Assurance System Requirements Document

Report Date: 06/14/93 Page 4
Report Number: RC01

Commitment Number: 222 Part II, Section 2.0, Sub 2.0.1 Title: Project Management System Type: ER-RBD Document Issued:03/01/92
Analyst: JVR Entry Date: 04/01/92 Validator: JRN Validation Date: 05/01/92 Assessment Date: 04/08/93 Assessment Report #: 10
Element: Quality Assurance System Requirements Sub_Element: Test equipment Sub_Sub_Element: Calibration

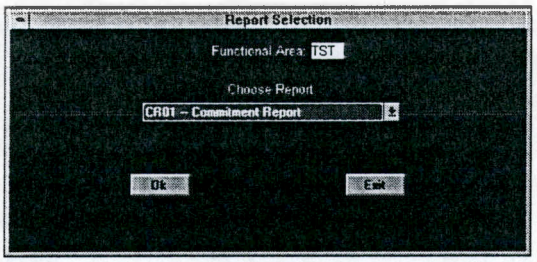
Program Control: The program shall describe the provisions to ensure that tools, gauges, instruments, laboratory, and measuring test equipment used in activities that affect the quality of environmental data operations are properly controlled, calibrated, and adjusted at specified periods to maintain the accuracy within necessary limits.

Commitment Satisfied: Yes *

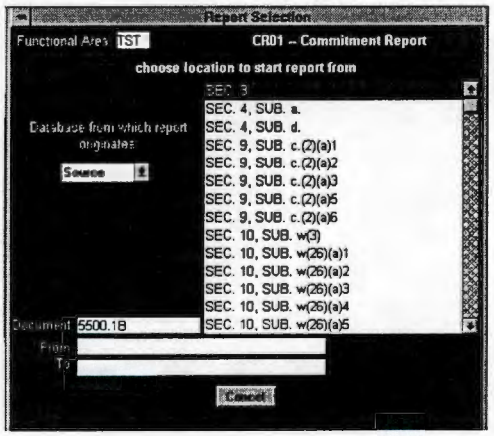
**********End of Report**********
Attention: You may need to generate this report for other functional areas.

7.6.3 CR01 -- Commitment Report

1. Select **CR01 -- Commitment Report** from the *Report Selection Menu* as shown below.



2. Note the functional area designation. If you wish to run the report on a different functional area, click **Exit**, select another functional area and proceed.



3. Select the database of origin for the report.

4. Select the document (where applicable).

5. Select the portion of the document (where applicable) following the instructions on the screen.

6. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-3 EXAMPLE COMMITMENT REPORT

Page 1 contains the driver documents and first impact statements linked to the selected commitment statement.
Page 2 contains implementing references linked to the commitment statement and a cross-reference of procedures referenced from and referencing these procedures.
Each impact statement linked to the selected commitment statement and drivers linked to those impact statements will print out on subsequent pages of the report.

Westinghouse Hanford Company -- Environmental Restoration Program
Baseline Analysis Matrix
Commitment report -- Functional Area -- QA

Report Date: 06/14/93
Report Number: CR01

Page 1

Document		Revision	Date	Title	Location	Description	Analyst	Validator	Issue Date
Driver (1)	DOE-IP/90-2	3	06/17/92	DOE Implementation Plan for DNFSB 90-2	6.2	DOE Plan	JRN	JVR	06/17/92
Driver (2)	HFFACO	2	01/12/91	HFFACO	7.0	Law	JRN	ES	01/12/91

Source Doc:

Document	Revision	Date	Title	Location
4700.1	10	03/06/87	Project Management System	Part II, Section D-2, Sub. 35

Element: Control of Measuring and Testing Equipment
Subelement: Test equipment
Sub-subelement: Calibration

1. Calibration and control of test and measurement equipment. Standards should be established to assure that tools, gauges, instruments and other testing and measuring devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.

Baseline Doc:
Commit # 344

Document	Revision	Date	Title	Location
QASR	2	03/01/92	Quality Assurance System Requirements	Part II-C, Section 13.1, Subsection 1

Element: Control of M&TE
Subelement: Test equipment
Sub-subelement: Calibration

Program Control: The program shall describe the provisions to ensure that tools, gauges, instruments, laboratory, and measuring test equipment used in activities that affect the quality of environmental data operations are properly controlled, calibrated, and adjusted at specified periods to maintain the accuracy within necessary limits.

Commitment Satisfied? Yes *

Westinghouse Hanford Company -- Environmental Restoration Program
Baseline Analysis Matrix
Commitment report -- Functional Area -- QA

Report Date: 06/14/93
Report Number: CR01

Page 2

Implementing References

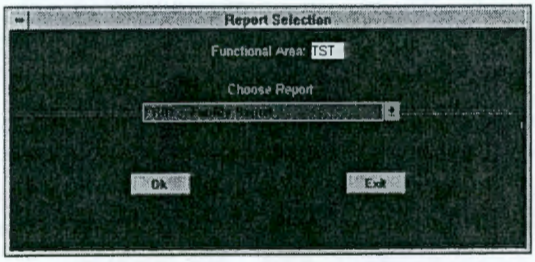
Document	Type	Revision	Date	Location	Resporg	Orgcode	Assessment Report #	Assessment Date	Quest/QIN
WHC-CM-7-7	Manual	1	06/24/93	III 3.2, 6.1	WHC	23	545345	06/18/93	1624564
WHC-CM-7-7	Manual	1	06/24/93	III 3.2, 6.3	WHC	23	7978989	06/18/93	Q10348
WHC-CM-7-7	Manual	1	06/24/93	III 3.2, 6.4	WHC	23	97896	06/18/93	Q3498891
WHC-CM-7-7	Manual	1	06/24/93	III 3.2, 6.5	WHC	23	789765	06/18/93	13658

Procedure Cross Reference

			References	Referenced From		
Document	Rev.	Location	Document	Document	Rev.	Location
WHC-CM-7-7,	2	III, 3.2,, 6.1	WHC-CM-3-10	WHC-CM-2-1	2	II, 6.2, 6.3
			WHC-CM-3-10	WHC-CM-2-1	2	II, 7.2, 7.3
			WHC-CM-3-10	WHC-CM-2-1	2	II, 7.2, 8.3
WHC-CM-7-7,	2	III, 3.2, 6.3	WHC-CM-3-10	WHC-CM-2-1	2	II, 6.2, 6.3
WHC-CM-7-7,	2	III, 3.2, 6.4	WHC-CM-3-10	WHC-CM-2-2	2	I, 3.2, 7.3
WHC-CM-7-7,	2	III, 3.2, 6.5	WHC-CM-3-10	WHC-CM-2-2	2	I, 3.2, 6.3

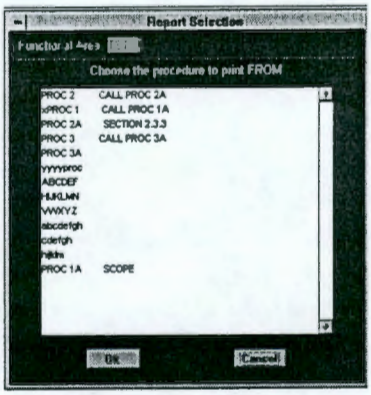
7.6.4 FR01 -- Facility Report

1. Select **FR01 -- Facility Report** from the *Report Selection Menu* as shown below.

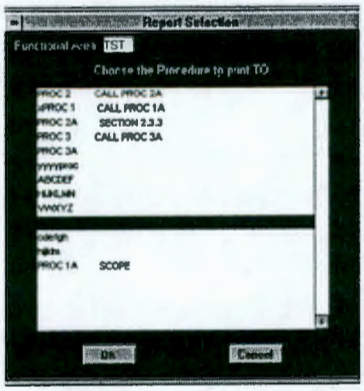


2. Note the functional area designation. If you wish to run the report on a different functional area, click **Exit**, select another functional area and proceed.

3. Select the procedure from which you wish to start the report.



4. Select the procedure where you wish to end the report (if you wish to print only one procedure, select the same procedure as first selected).



5. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-4 EXAMPLE FACILITY REPORT

A facility applicability matrix will print out for each implementing reference selected. The key to facility codes will print at the end of the report.

Westinghouse Hanford Company -- Environmental Restoration Program
Baseline Analysis Matrix
Facility Report -- Functional Area -- QA

Report Date: 08/14/93 Page 1
Report Number: FR01

Document	Type	Revision	Date	Title	Location	Resporg	Orgcode
WHC-CM-7-7	Policy	1	06/24/93	Calibration and Control of Monitoring Instruments	III 3.2, 6.1	WHC	23

Program	Project
ER	XXXX

Facility Applicability Matrix

PA	PB	PC	PD	PE	PG	PL	PM	PN	PP	PR	PS	PT	PU	PY	PW	PX	P1	P2	P3	PF	PJ	PV	UV	UB	UE	UC	UN	EA	EB	SM	CF
X	-	X	-	-	-	X	-	-	X	X	-	-	-	-	-	-	X	X	X	-	-	-	-	-	-	-	-	X	X	X	X

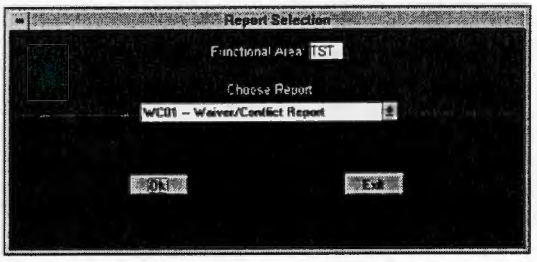
KEY TO FACILITY CODES

3100	100-DR Remedial Actions	PA	3250	200-EGW Remedial Actions	PX
3105	100-BC Remedial Actions	PB	3255	200-WGW Remedial Actions	P1
3110	100-KR Remedial Actions	PC	3300	300-FF Remedial Actions	P2
3115	100-FR Remedial Actions	PD	3390	1100-EM Remedial Actions	P3
3120	100-HR Remedial Actions	PE	3000	SST Closures	PF
3125	100-NR Remedial Actions	PG	3010	RARA/USTs	PJ
3200	200-BP Remedial Actions	PL	3020	RCRA Closures	PV
3205	200 NO Remedial Actions	PM	3500	Asbestos Abatement	UV
3210	200-PO Remedial Actions	PN	3510	100 Area D&D	UB
3215	200-RO Remedial Actions	PP	3520	200 Area D&D	UE
3220	200-SO Remedial Actions	PR	3530	300 Area D&D	UC
3225	200-TP Remedial Actions	PS	3600	N Reactor	UN
3230	200-UP Remedial Actions	PT	3400	Program Mgmt. & Support for RA	EA
3235	200 ZP Remedial Actions	PU	3410	Program Mgmt. & Support for D&D	EB
3240	200 IU- Remedial Actions	PY	XXXX	Facility Surveillance & Maintenance	SM
3245	200-SS Remedial Actions	PW	3700	Disposal Facility	CF

**********End of Report**********
Attention: You may need to generate this report for other functional areas.

7.6.5 WC01 -- Waiver/Conflict Report

Select **WC01** -- **Waiver/Conflict Report** from the *Report Selection Menu* as shown below.



1. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-5 EXAMPLE WAIVER/CONFLICT REPORT

This report is for transmittal purposes to DOE-RL and DOE HQ. It shows all waivers assigned during the development of the ER-RBD for this functional area and conflicts between impact statements. The waiver statements print first followed by the conflict statements.

Westinghouse Hanford Company -- Environmental Restoration Program
Baseline Analysis Matrix
Waiver/Conflict Report -- Functional Area -- QA

Report Date: 06/14/93
Report Number: WC01

Page 1

Impact Statement: 1

Document	Revision	Date	Location	Waiver #	Waiver status
4700.1	10	03/06/87	Part II, Section D-2, Sub. 35	0004	Pending

1. Calibration and control of test and measurement equipment. Standards should be established to assure that tools, gauges, instruments and other testing and measuring devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.

Waiver statement:
The text of the assigned waiver statement appears here.

Impact Statement: 2

Document	Revision	Date	Location	Waiver #	Waiver status
E-4	2	8/21/91	Part III, Section 1, Subsection 1c	0011	Pending

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Determination of the type and quality of environmental data needed shall involve key users of the data as well as those responsible for activities affecting data quality.

Waiver statement:
The text of the assigned waiver statement appears here.

Impact Statement: 3

Document	Revision	Date	Location	Conflict #	Conflict status
E-4	2	8/21/91	Part III, Section 1, Subsection 1d	0001	Pending

Statement:

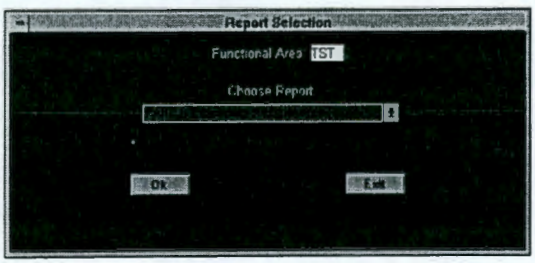
PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Planning activities shall be documented to assure that participants in the environmental data operations are informed of and understand the requirements of the project in a timely manner.

Conflict statement:
The text of the assigned conflict statement appears here.

7.6.6 PA01 -- Procedure Assignments

Select **PA01 -- Procedure Assignments** from the *Report Selection Menu* as shown below.



1. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-6 EXAMPLE PROCEDURE ASSIGNMENTS

The procedure assignment checklist prints out one commitment statement per page. The entire ER-RBD is printed for one functional area at a time. The purpose of this form is for procedure assignments to commitment statements of the ER-RBD for data input.

ADMINISTRATIVE ASSESSMENT BAM INPUT FORM

Report Date: 06/26/93
Report Number: PA01

Page 1

Commitment Statement/Number

Part III, Section 6.0, Sub. 6.0.1/00001

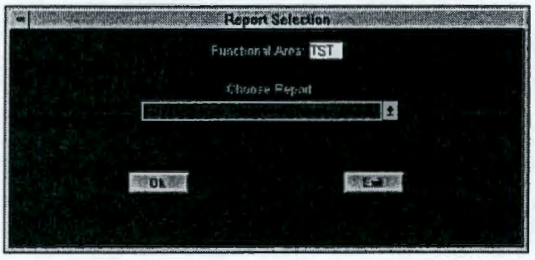
Segregation: Nonconforming items shall be segregated from conforming items, whenever practical. Segregation shall include placing the nonconforming items in a clearly identified and designated hold area until an appropriate disposition is determined.

Procedure Assignment(s)

Document. No.	Rev.	Issue Date	Level/ Type	Document. Name	Location	Resp. Org.	Org. Code	Analyst	Assess. Date	QIN/QUEST Number	References Procedure:

7.6.7 SD01 -- Single Document Report

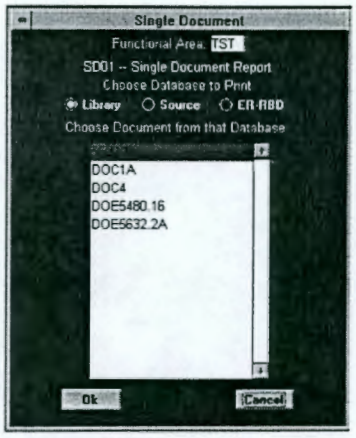
1. Select **SD01 -- Single Document Report** from the *Report Selection Menu* as shown below.



2. Note the functional area designation. If you wish to run the report on a different functional area, click **Exit**, select another functional area and proceed.

3. Select the data source for the text search using the radio buttons.

4. Select the desired document from this data source.



5. Click **OK**. Proceed to output selection as defined in Sections 7.2 and 7.3 of this manual.

FIGURE 7-7 EXAMPLE SINGLE DOCUMENT REPORT

ANSI/ASQC-E4 (DRAFT)
SD01
Single Document Report for Functional Area QA

Document: E-4 Location: Part III, Section 1, Subsection 1a

Statement:

PART II SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESS AND CONDITIONS PLANNING AND SCOPING:

All projects involving the generation, acquisition, and use of environmental data shall be planned and documented.

Document: E-4 Location: Part III, Section 1, Subsection 1b

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

The type and quality of environmental data needed for their intended use shall be defined and documented using the EPA Data Quality Objectives (DQO) process (5) or its equivalent.

Document: E-4 Location: Part III, Section 1, Subsection 1c

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Determination of the type and quality of environmental data needed shall involve key users of the data as well as those responsible for activities affecting data quality.

Document: E-4 Location: Part III, Section 1, Subsection 1d

Statement:

PART III SECTION 1 CHARACTERIZATION OF ENVIRONMENTAL PROCESSES AND CONDITIONS PLANNING AND SCOPING:

Planning activities shall be documented to assure that participants in the environmental data operations are informed of and understand the requirements of the project in a timely manner.

Page: 1

7.6.8 Rack 1

The Rack 1 Report is printed from the *Edit Rack 1 Screen*.

FIGURE 7-8 EXAMPLE RACK 1 REPORT

WHC Requirements Analysis Document (Rack 1)

Date: 06/16/93 Page 1

Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 1	**Comment:**	
Statement: The project should be designed to meet the DQOs.	**Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 2	**Comment:**	
Statement: <The project plan should be defined as follows:> Project Objectives: Project objectives provide background information, state the reasons for the data collection effort, identify any regulatory programs governing the data collection, define specific objectives for each sampling location, and describe the intended uses of the data.	**Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 3	**Comment:**	
Statement: Project Management: A person(s) shall be designated to have the responsibility and authority for (1) developing project documents that implement the DQOs, (2) selecting field and laboratory organizations to conduct the work, (3) coordinating communication among field and laboratory organizations and government agencies as required, and (4) reviewing and assessing the final data.	**Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 4	**Comment:**	
Statement: Sampling Requirements: Sampling locations, equipment, procedures, and sample preservation and handling requirements shall be specified.	**Analyst:**	

7.6.9 Rack 2

The Rack 2 Report is printed from the *Edit Rack 2 Screen*.

FIGURE 7-9 EXAMPLE RACK 2 REPORT

WHC Requirements Analysis Document (Rack 2)

Date: 06/16/93 Page 1

Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 1	**Subelement:** Office Administration	**Sub-subelement:** Clerical Personnel
Statement: The project should be designed to meet the DQOs.	**Comment:** **Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 2	**Subelement:** Office Administration	**Sub-subelement:** Clerical Personnel
Statement: <The project plan should be defined as follows:> Project Objectives: Project objectives provide background information, state the reasons for the data collection effort, identify any regulatory programs governing the data collection, define specific objectives for each sampling location, and describe the intended uses of the data.	**Comment:** **Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 3	**Subelement:** Office Administration	**Sub-subelement:** Clerical Personnel
Statement: Project Management: A person(s) shall be designated to have the responsibility and authority for (1) developing project documents that implement the DQOs, (2) selecting field and laboratory organizations to conduct the work, (3) coordinating communication among field and laboratory organizations and government agencies as required, and (4) reviewing and assessing the final data.	**Comment:** **Analyst:**	
Document ES 16	**Functional Area:** QA	**Element:** Management
Location Part 6, Section 6.3, Subsection 4	**Subelement:** Office Administration	**Sub-subelement:** Clerical Personnel
Statement: Sampling Requirements: Sampling locations, equipment, procedures, and sample preservation and handling requirements shall be specified.	**Comment:** **Analyst:**	
ER-RBD Statement		
Analyst Signature_____ **Date**_____		

8.0 SYSTEM ADMINISTRATOR

The BAM System Administrator is responsible for document loading and editing of the BAM Database Library. Responsibilities also include the loading of ER-RBD document commitment statements into the appropriate ER-RBD developmental database. In addition, the System Administrator has control over system security and database maintenance.

Please refer to Figure 2-1 BAM Logical Process and Data Model for databases in use during the ER-RBD development processes.

Section 2.3 of this manual lists all databases used in the BAM System with the contents of those databases. This information will be helpful in the database maintenance function.

8.1 Managing the BAM Master Library

The BAM Master Library is a subdirectory used for storage of codes, standards and regulations. The subdirectory for storage of the documents will be created during the BAM Version 3.0 Setup program.

The electronic files containing codes, standards and regulations are usually produced using WordPerfect, therefore this manual approaches using these documents on the premise that you will continue to use WordPerfect. As you may know, almost any text editor can access these documents and convert them to ASCII or DOS Text format for use by the BAM System. Even Macintosh equipment can be used for impact statement definition, as long as the file is ultimately in ASCII or DOS Text before import to the BAM System.

Document locations, dates, titles, etc., must be added to the impact statements in the BAM Database Library after the document is loaded. Therefore, you will probably need to print the WordPerfect file of each document that is loaded into the BAM Database Library to get this document information.

CAUTION: All files stored in the BAM Master Library should have the attribute read-only. The data must be safeguarded against being overwritten by users. If the files are read-only access they become, essentially, a working file since users will not be allowed to save the file under the original name after editing. To attach the read-only attribute to the files in the BAM Master Library type the following at the DOS prompt:

ATTRIB +R C:\BAMW\MASTER*.*

8.1.1 DOS Text Search

Text searches may be done on any document stored in the BAM Master Library by means of WordPerfect searches on single documents or DOS searches on a range of documents.

To search a document using WordPerfect, retrieve the document into WordPerfect and select the desired option from the WordPerfect Search menu.

The DOS **find** function searches for a text string in a file or files. The format of the command is:

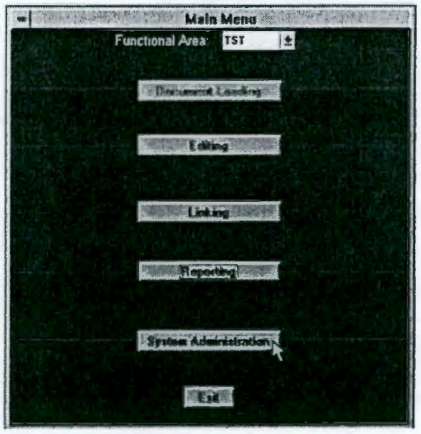
FIND /N /I "STRING" [[DRIVE:] [PATH] FILENAME [...]]

/N	Displays line numbers with the displayed lines.
/I	Ignores the case of characters when searching for the string.
"STRING"	The word or group of words for which you are searching.

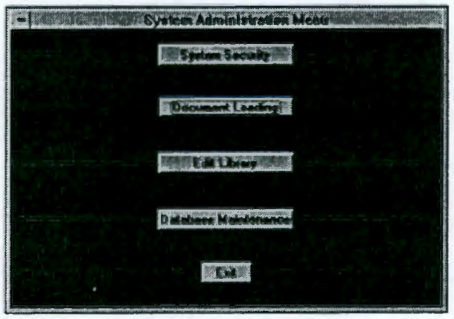
Example: To search for the word calibration in two DOE orders from the BAM Master Library you would type: **find /n /i "calibration" c:\bamw\master\doe5700.6c,doe4700.1**. The information found will be displayed on your screen. You may choose instead to pipe the located information to a file or directly to your printer. Simply add **>file.nam** or **>lpt1** to the command string.

8.2 Using the System Administrator Module

From the *Main Menu* of the BAM System select **System Administrator**, as shown below:



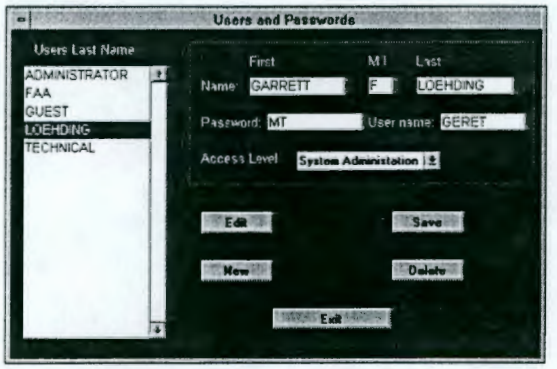
The *System Administrator Menu* appears as shown:



8.2.1 System Security

When the BAM Version 3.0 is first installed on your computer there is only one designated user. The username is set at **ADMINISTRATOR** and the password is set at **BAM**. One of the first things you must do after installing the system is assign usernames and passwords for authorized system operators.

On the *System Administrator Menu*, select **System Security**.



1. First, set up the correct information for your own user access. Highlight the word **ADMINISTRATOR** in the **Users Last Name List** on the left-hand side of the screen.

2. Click **Edit**.

3. Type in your First Name, Middle Initial and Last Name.

4. Type in the password you wish to use.

5. Type in the username you wish to appear on the *Logon* screen when the BAM System starts.

6. Leave your access level at System Administrator.

7. Click **Save**.

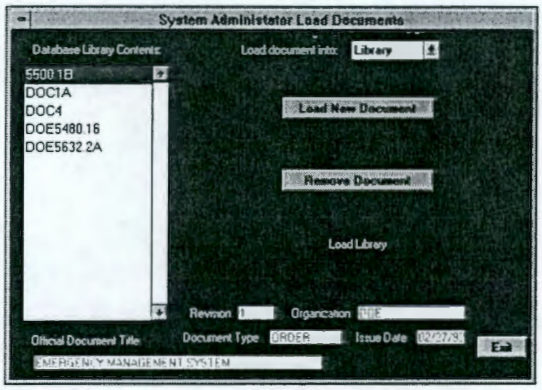
Now you may enter the information for additional system users by clicking the **New** button and typing in information as you did before. You can add user access information at any time. Please refer to Figure 1-2 User Group Access Levels to ensure that you assign appropriate security levels to each user. Do NOT assign any other System Administrator access levels.

8.2.2 Document Loading

8.2.2.1 Load New Document

When files are prepared in the format stated in section 4.1.1, they are ready for loading into the appropriate database. Most documents loaded into the BAM System will be codes, standards and regulations and these will be loaded into the BAM Database Library. When the

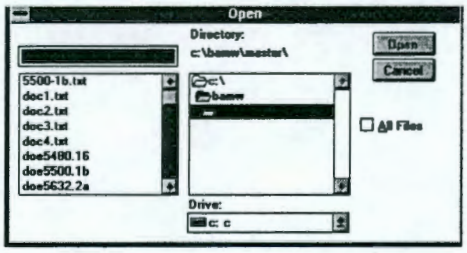
ER-RBD is finished, it will also be loaded the same way but will be loaded into the ER-RBD database for the appropriate functional area. Take care to select the correct functional area before loading ER-RBD commitment statements. The System Administrator has control over loading new documents; they may not be loaded by any other access level.



1. The names of all documents in the BAM Database Library are displayed in the **Database Library Contents List**. Check to make sure that the document you intend to load is not already loaded. Information relevant to the highlighted document is displayed for clarity at the bottom of the *System Administrator Load Documents Screen.*

2. The Library database is selected by default. If you are loading the ER-RBD document, exit to the *Main Menu* and select the correct functional area before proceeding. Select **Load documents into: ER-RBD** from the *System Administrator Load Documents Menu.*

3. Select **LOAD NEW DOCUMENT**. A selection screen will appear as shown:



4. Select the name of the file you wish to load into the database. If you are loading a document from the BAM Master Library, the directory will be called MASTER. If you are loading your ER-RBD document, you will have to scroll through directories and find the file. Click **Open.**

CAUTION: WordPerfect occasionally puts a special character at the end of a file that will look like an arrow (→) when typed in DOS, or a box (□) when in the memo field of a database record. You will not be able to see this character in WordPerfect. This character will create a record at the end of all the records loaded from the input file. This record must be deleted.

NOTE: The program will count the number of impact statements loaded (Library) or the number of commitment statements loaded (ER-RBD). Make note of the number of statements loaded by the program. For a cross-check of the data, use a DOS command to count the number of delimiters in the ASCII file that was loaded. Since the delimiters are between impact statements, add 1 to the DOS count.

1. At the DOS prompt type **FIND /C "^^" FILE.NAM** where file.nam is the name of the file you loaded.

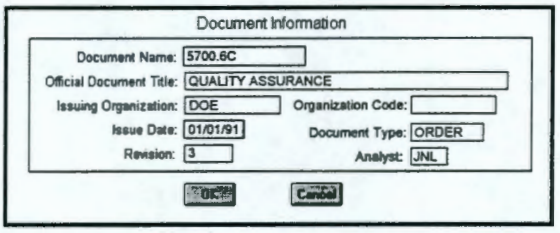
2. DOS will return **FILE.NAM: 45** where 45 is the number of carat delimiters found in the file.

3. Therefore, the number of impact statements is 46. This number should match the program count of impact statements during loading. If it doesn't you will have to do a visual count of the input file vs. the database.

The program checks the amount of available space on your hard drive during the execution of certain functions of the program. If a requirements document is very large, even though the program determines there is enough space to load a document, you may run out of space on your hard drive before the document is completely loaded. If this happens, the document will not load. Free some disk space and retry.

NOTE: When you load the ER-RBD document for a functional area, the temporary database for the Rack 1 printout is deleted by the program at that time because it is no longer needed and takes up valuable disk space.

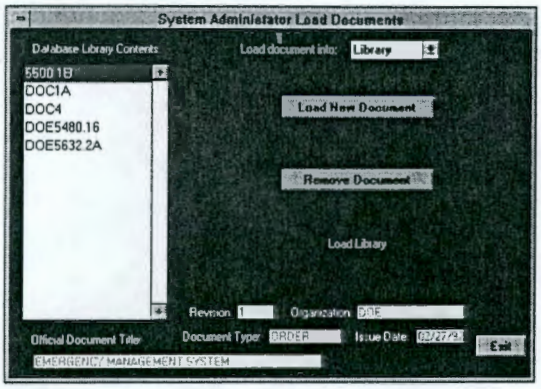
When any document is loaded, you will be asked to enter relevant information for this document.



The document name can be an abbreviation that will be recognizable to ER-RBD developers. Enter all other information that applies to the document. The analyst initials are those of the Functional Area Analyst responsible for delimiting the impact/commitment statements.

8.2.2.2 Remove Document

The System Administrator has control over the **Remove Document** function. Documents may need to be removed from the BAM Database Library in the event of a document revision. To remove a document from the BAM Database Library, use the *System Administrator Load Documents* screen.

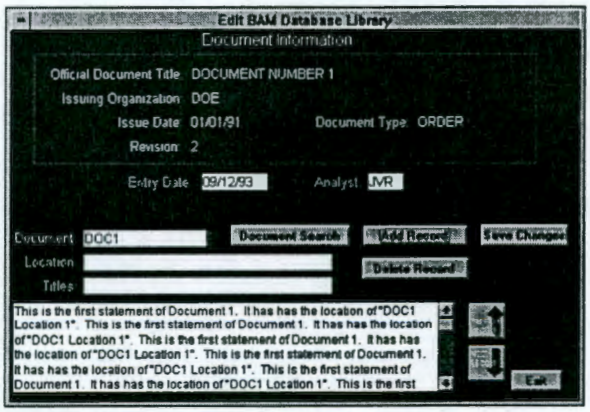


1. The names of all documents in the BAM Database Library are displayed in the **Database Library Contents List**. Information relevant to the highlighted document is displayed at the bottom of the *System Administrator Load Documents* screen. Verify that this is, indeed, the document you wish to remove from the BAM Database Library.

2. Select **REMOVE DOCUMENT**. A dialog box will appear; asking you to confirm that this is what you wish to do.

8.2.3 Edit Library

The information that you entered for the document title at the end of the loading function (outlined in the previous section) appears in the upper area of this screen. This is the *Edit BAM Library Database* screen.



Information regarding the location of the impact statement, for traceability back to the specified portion of the original document, must be entered on this screen. As you can see, you have a title designation associated with this impact statement. The entry date will be automatically entered on the system date when the document was loaded into the Library. Click **Save Changes** after each record is completed. Scroll through the document using the **Previous Record** and **Next Record** buttons until all information is complete. To work with a different document, select the **Document Search** button to go directly to another document.

NOTE: The **Add Record** and **Delete Record** buttons provided on this screen are to be used in the event that the internal review determines that an impact statement was not properly designated. At the time of this finding Functional Area Analyst must follow proper channels to approach the problem. That will include preparing a BAM Change Request (refer to WHC-IP-0952, Appendix J, "Baseline Analysis Matrix Operation and Maintenance") and submitting it to the System Administrator if they feel that this may impact other functional areas.

8.2.3.1 Redesignating an Impact Statement

If it is determined in the internal review that an impact statement was not properly designated before loading into the BAM Database Library you can redesignate the impact statement. Please refer to the note preceding this section for procedures regarding this problem.

It may have been determined that the impact statement in question should be combined with another one or that one should be split into two or more impact statements.

8.2.3.1.1 Combining Impact Statements

1. You will need to copy the text from one impact statement and paste it into the other using the **Copy** and **Paste** commands from the ***Edit*** menu at the top of your screen.

2. To copy text, place the cursor at the beginning of the text you wish to copy, hold down the mouse button and drag the cursor across/down the text until all text you wish to copy is highlighted.

3. Select **Copy** from the ***Edit*** menu.

4. Move to the record containing the impact statement you wish to paste into, place the cursor in the text window at the position you want the paste command to occur and select **Paste** from the ***Edit*** menu.

5. Click **Save Changes**.

6. Move to the record that you copied from and click **Delete Record**. If you delete a record in error, use the **Recover Data** function of the *Database Maintenance Menu*.

8.2.3.1.2 Splitting Impact Statements

1. Copy the portion of the text that should be split off , as a stand-alone, from this impact statement. To copy text, place the cursor at the beginning of the text you wish to copy, hold down the mouse button and drag the cursor across/down the text until all text you wish to copy is highlighted.

3. Select **Cut** from the ***Edit*** menu. Notice that the selected text disappears from your screen. The text you cut out is stored on a clipboard waiting for you to paste it somewhere else.

4. Click **Save Changes**.

5. Click **Add Record**. A blank record will appear.

6. Place the cursor in the text box at the bottom of the screen and select **Paste** from the ***Edit*** menu at the top of your screen.

7. Enter all other information pertinent to this impact statement.

8. Click **Save Changes**.

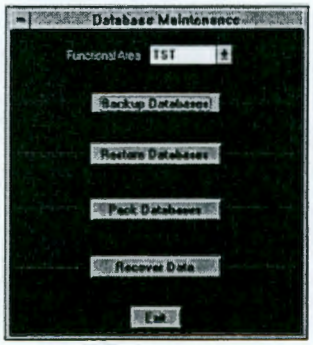
8.2.4 Database Maintenance

The Database Maintenance function is provided in the BAM System with backup and restore capabilities for the ER-RBD developmental databases. This allows ER-RBD developers to have a "snapshot in time" of their developmental databases.

You will also want to backup the BAM Database Library at established intervals. If the library is not too large you can copy the LIBRARY.DBF AND LIBRARY.FPT files from the LIBRARY subdirectory and the TITLES.DBF AND TITLES.CDX from the BAMW subdirectory to floppy disks. If they are too large, you may use commercially available utility programs like Norton's Backup[5], PKZip[6], or LHA[7].

The **Recover Data** function enables you to recover deleted records from any of the databases when these records have been deleted in error. Database packing removes phantom space from the databases created by record deletion.

Select the functional area relevant to the databases you wish to access. Any functional area designated will allow access to the BAM Database Library. Then select the desired function.



8.2.4.1 Backup Databases

1. Select the functional area from the *Database Maintenance Menu* that is relevant to the databases you wish to backup. Select **Backup Databases**.

2. A window will open echoing the activity of the compression program that backs up the databases and stores them in a file. They are stored by date so that you can restore the correct copy when necessary.

CAUTION: If you backup a functional area more than once in a single day the last one you did is the only one that will be stored for that day.

---

[5] *Symantec Corporation*
[6] *PKZip is a product of PKWARE, Inc.*
[7] *© Haruyasu Yoshizaki*

3. When the backup file is created you will be asked if you want to delete the developmental databases for this functional area. If you want to continue work with these databases, click **Cancel**; if you are beginning a new revision or want to restore a previous version of the ER-RBD click **OK**.

The backup program takes a "snapshot in time" of the ER-RBD developmental databases in the event of an audit. However you may also want to backup the databases to safeguard against data loss. You are only constrained by the amount of available hard disk space. If you wish to move your backup files onto floppy disks or other storage media, you can also do that but there is no function provided in the BAM System to physically move the files to other media. The backup files will be named by functional area code and sequence number with the extension ZIP (i.e., QA20.LHA). You can look at the date the files were created to insure that you have the correct backup copy. Use DOS or the Windows File Manager to copy these files to other media.

8.2.4.2 Restore Databases

CAUTION: Before restoring databases for a functional area, backup existing databases since they will be overwritten.

1. Select **Restore Databases** from the *Database Maintenance Menu*. Be sure to select the correct functional area.

2. The *Choose Date to Restore* screen will appear. Select the backup date that is relevant to the databases you wish to restore.

3. A window appears listing the dates of the backup files for this functional area. Select the date of the file you wish to restore.

4. A dialog box will open up asking you to confirm your desire to restore this functional area and warning you that databases in existence for this functional area will be overwritten. Click **Cancel** if you're unsure that the databases in use have been backed up. Otherwise, click **OK**.

You can now work with these developmental databases within the BAM System.

8.2.4.3 Pack Databases

FoxPro databases are safeguarded against the accidental deletion of records. When users choose to delete a record, that record is marked for deletion but is not physically deleted until the database is packed. The record that is marked for deletion is invisible to programs, therefore, the user will no longer see the record that has been deleted. But that record will still occupy physical space on your hard drive. When a substantial amount of record deletion occurs in the databases, you will be able to gain disk space by packing the databases.

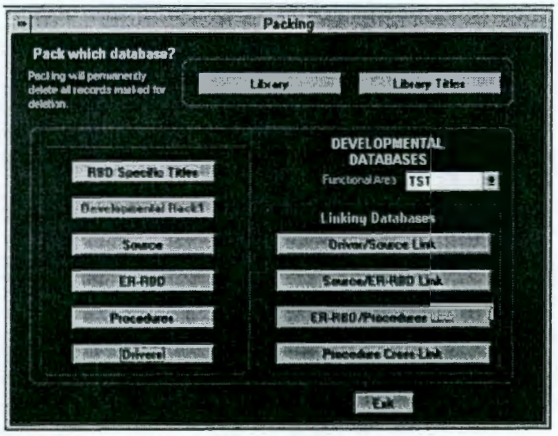
CAUTION: Packing the database physically removes records marked for deletion. These records cannot be recovered after the database has been packed.

When you use the **Remove Document** function of the *System Administrator Load Documents Menu* the records are marked for deletion. They are, of course, not physically removed until you pack the Library. Since there will be a substantial number of documents stored in the Library this database tends to be rather large. Document revisions are issued and the old revisions are removed from the Library. Without packing the database you can see that you would be physically storing both documents, even though one of them is invisible to the programs.

It's good practice to pack the developmental databases and library before they are backed up. This way the backup copy resides in less disk space.

1. Select the functional area from the *Database Maintenance Menu* that is relevant to the databases you wish to access. Any functional area designated will allow access to the BAM Database Library.

2. Select **Pack Databases** from the *Database Maintenance Menu*. The *Pack Databases Screen* will appear as shown below.



3. Select the functional area before you pack any of the developmental databases.

4. Click the button associated with the desired database. Disabled buttons represent databases that do not exist for this functional area.

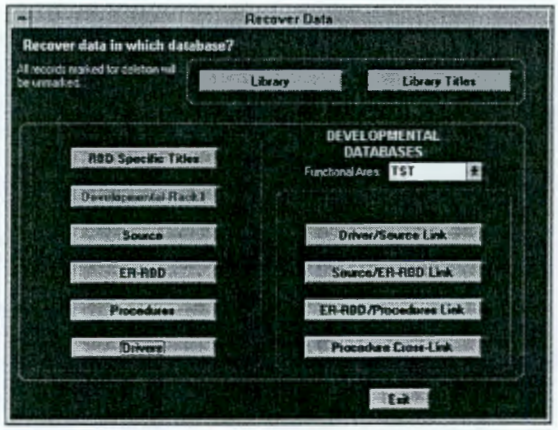
5. A dialog box will ask you to confirm your desire to pack the selected database.

8.2.4.4 Recover Data

The **Recover Data** function accesses databases in a similar fashion as the **Pack Databases** function. If a user has accidentally deleted records from one of his developmental databases, you can restore the data for use by the programs (and user viewing) by "unmarking" the record(s) that has been marked for deletion. This function can also be used for recovering data inadvertently deleted in the BAM Database Library.

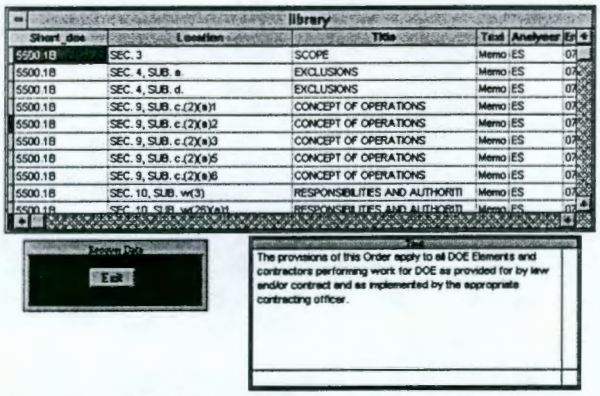
1. Select the functional area from the *Database Maintenance Menu* that is relevant to the databases you wish to access. Any functional area designated will allow access to the BAM Database Library.

2. Select **Recover Data** from the Database Maintenance menu. The *Recover Data* screen will appear as shown below.



3. Confirm the functional area displayed on this screen before you continue.

4. Click the button associated with the desired database. A browse window will appear displaying the selected database as shown below:



5. Notice the darkened space in the left-hand margin of the browse window. This indicates that the record has been marked for deletion. To undelete this record, click on the darkened rectangle and it will disappear. This means that the record has been undeleted.

6. If you are unsure that this is the record you need to undelete, look at the actual text of this record in the small window in the lower right-hand side of your screen.

7. The windows are movable by dragging them from the title bar.

8. When ready to exit the browse window click **Exit**.

NOTE: When ER-RBD developers load Rack 2, Rack 1 access is disabled. If they have loaded Rack 2 inadvertently, you can recover access to Rack 1 by manually deleting the SOURCE developmental databases for this functional area. Delete the files: SOURC???.DBF, SOURC???.FPT, and SOURC???.CDX (where the ?s are replaced with the functional area code).

9.0 TROUBLE-SHOOTER'S GUIDE

PROBLEM	SOLUTION
Memory Errors	Close all other Windows applications or TSRs that are running. Restart the BAM System.
Screen freezes during Backup or Restore	The program has been interrupted by operator action. To resume, strike ALT-spacebar (simultaneously), select Switch To..., then select Restoring/Backing Up Databases.
Not enough disk space during Document Loading	Verify which documents were loaded, then free some disk space and try again.
Generic Text/Only driver does not appear on list when routing reports to a disk file	Install the Generic/Text Only printer driver using the Windows Control Panel - Printers function to set up this printer.
Buttons are overlapped on screen (screen looks weird)	If you have a unusual monitor type you may be using a device driver that is not acceptable to the program. Exit the BAM System. Go to the Windows Program Manager, select Windows Setup in the Main Group, Pull down the options menu, change system settings. Change the display to VGA or Super VGA. Restart Windows to change the setting. Restart the BAM System.
Invalid Password	Contact System Administrator for password assignment/verification.
Username does not appear on Logon screen	Contact System Administrator for assistance.
Not running on a 386 DPMI Implementation (BAM System won't launch)	EMM386.EXE must be loaded without switches in your CONFIG.SYS file (e.g., DEVICE=C:\WINDOWS\EMM386.EXE). If you have DOS 5.0 and WINDOWS 3.1 use the EMM386.EXE file from the Windows directory. If you have DOS 6.0 and Windows 3.1 use the EMM386.EXE file from the DOS directory.
Printer not ready	Check printer power, online status, cable connection, port designation (in Windows).
Reports won't print in landscape	Exit the BAM System. Change to the BAMW subdirectory and delete the files FOXUSR.DBF and FOXUSR.DBT. Restart the BAM and retry your reports.
Canceled print job stays in memory	When you cancel a print job, FoxPro doesn't take it out of memory if you are using the Windows Print Manager. Switch to the Print Manager and delete the job.

"NO LINK" displayed on reports	You may have run the report before you created links between the tiers. Go back and input links. The NO LINK message also appears on the reports as a legitimate message to the user that a link does not exist between particular records.

10.0 GLOSSARY

Active Window The window on the screen where the next action will take place.

Commitment Statement One single record from the ER-RBD database.

Dialog A box that requests more information to complete a command or an expression.

Disabled An item that is unavailable for use. Disabled items generally appear dimmed and cannot be chosen.

Drag (Click & Drag) To place the cursor on a screen object, hold down the mouse button, and move the object, letting go of the mouse button when the object reaches its destination.

Driver Document The highest tier of documents which mandates source documents for a site/facility program.

Element A major work activity or programmatic issue necessary to properly implement a program or fabricate, manufacture, construct, test, operate, or maintain a facility or system.

Enabled An item that is available to be acted upon. When enabled, items no longer appear dimmed and can be chosen by the user.

Error Message A message displayed to tell the user about an error or problem in the execution of a program or in the user's communication with the system. An error message is often accompanied by a beep.

Event-driven A state in which the sequence of actions is determined by the user. When a program is event-driven, the computer responds to you instead of making you respond to it.

Field A particular type or category of information in a record. One or more fields make a record. One or more records make up a table.

Functional Area "Industry derived" program areas which, when integrated, incorporates "industry consensus" approaches to execution of safety significant activities and creates the ES&H configuration envelope, or safety infrastructure that establishes an overall basis for safety. These areas are maintained as a separate set of databases by the BAM Software.

Functional Area Analyst The second highest level of four access level user groups of the BAM System. Access is limited only by the System Administrator functions.

Guest The lowest of four access level user groups of the BAM System. Access is extremely limited.

Icon	A graphic representation of a program or component of a program. When selected by the user, the program or function represented by the icon launches.
Impact Statement	One single record from the BAM Database Library
Insertion Point	The place in a document where something will be added.
List	A set of items displayed on the screen from which the user makes selection.
Menu Bar	A horizontal strip that appears at the top of the screen and contains menu pads.
Menu Options	Commands, found on menus, that perform specific actions.
Menu Pads	The menu names found on the menu bar.
Pack	To permanently remove the records in a table that have been marked for deletion.
Paste	To place the contents of the clipboard at the insertion point.
Pointer	A small solid box or arrow on the screen that follows the movement of the mouse and shows where your next action will take place.
Popup	The menu that appears when you choose a popup control in a dialog.
Popup Control	A rectangle with an underlined arrow in a gray box to the right of it. Choose the box containing the arrow to display the associated menu.
Push Buttons	Key words or pictures that appear within a gray box. The action associated with a push button occurs immediately when you choose the push button unless it contains an ellipsis (...). The ellipsis indicates that another dialog will appear when you choose the push button.
Radio Buttons	A set of hollow circles followed by text or pictures that can be toggled by clicking. Radio buttons are grouped so that only one can be chosen at a time. When a radio button is chosen, it appears filled in and any previously chosen radio button becomes deselected.
Record	A unit of storage in a table. Every table can contain a large number of records; each record is comprised of fields.
Scroll	To move through the contents of a window so that a different part becomes visible.
Scroll Bars	The controls that are used to view text that extends beyond the edge of a window. A window can have vertical and/or horizontal scroll bars.

Select (1) To designate where the next action will take place. To select using a mouse, you click on or drag across information. You can also select menu items by typing a letter or number at a prompt, by using a combination key press, or by using arrow keys; (2) To highlight. Selecting prepares something to be chosen.

Source Document A document which is identified by a driver (originating) document and contains one or more impact statements which are applicable to specific functional areas.

Subelement Subcategory of an element (see Element).

Sub-subelement Subcategory of a subelement (see Element).

System Administrator The highest level of four access level user groups of the BAM System. Access is unlimited.

Technical Personnel The third highest level of four access level user groups of the BAM System. Access is limited only by the System Administrator functions and data validation.

Title Bar A horizontal band across the top of a window that displays the window's title.

TSR Terminate and Stay Resident programs run in the background while other programs are running. These TSRs use memory even though the user does not see them operating.

11.0 INDEX

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