

Pacific Northwest National Laboratory

Operated by Battelle for the
U.S. Department of Energy

Federal Emergency Management Information System (FEMIS)

Data Management Guide

Version 1.4.5

RECEIVED
JUL 14 1998
OSTI

June 26, 1998

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

Prepared for the U.S. Department of Energy
under Contract DE-AC06-76RLO 1830

PNL-10611

Acknowledgment

This software and its documentation were produced with Government support under Contract Number DE-AC06-76RLO-1830 awarded by the United States Department of Energy. The Government retains a paid-up non-exclusive, irrevocable worldwide license to reproduce, prepare derivative works, perform publicly and display publicly by or for the Government, including the right to distribute to other Government contractors.

Disclaimer

This material was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor the United States Department of Energy, nor Battelle Memorial Institute, nor any of their employees, MAKES ANY WARRANTY, EXPRESSED OR IMPLIED, OR ASSUMES ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS OF ANY INFORMATION, APPARATUS, PRODUCT, SOFTWARE, OR PROCESS DISCLOSED, OR REPRESENTS THAT ITS USE WOULD NOT INFRINGE PRIVATELY OWNED RIGHTS.

References to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation, or favoring by the U.S. Army or Battelle.



This document was printed on recycled paper.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

Federal Emergency Management Information System (FEMIS)

Data Management Guide for FEMIS v1.4.5

RA Burnett	SM Johnson
TR Downing	RM Loveall
KL Gaustad	WD Millard
M Hoza	C Winters
DM Johnson	BM Wood

June 26, 1998

Prepared for the CSEPP Office,
United States Army Chemical and Biological Defense Command
under a Related Services Agreement
with the U.S. Department of Energy
Contract DE-AC06-76RLO 1830

Pacific Northwest National Laboratory
Richland, Washington 99352

Preface

The Federal Emergency Management System is an emergency management planning and analysis tool. The following documents were developed to support system administrators database administrators, and users. The audience for each is identified.

This *FEMIS Data Management Guide* provides the information needed to manage the data files and database used to support the administrative, user-environment, database management, and operational capabilities of FEMIS. Audience: chiefly database administrators and system administrators but also emergency management planners and analysts who want to know details of the emergency management data.

The *FEMIS Installation Guide* provides instructions for installing and configuring the FEMIS software package. Audience: system administrators.

The *FEMIS System Administration Guide* provides information on FEMIS system administrator activities as well as the utilities that are included with FEMIS. Audience: system administrators.

The *FEMIS Bill of Materials* defines FEMIS hardware, software, and communication requirements. Audience: system administrators.

The *FEMIS Online Help System* explains how to start and use the FEMIS program, which is designed to help civilian emergency management personnel to plan for and support their responses to a chemical-releasing event at a military chemical stockpile.^(a) Audience: all users of FEMIS, especially emergency management planners and analysts.

(a) The FEMIS program is being developed by the Pacific Northwest National Laboratory as part of the U.S. Army's Chemical Stockpile Emergency Preparedness Program (CSEPP). Pacific Northwest National Laboratory is operated for the U.S. Department of Energy by Battelle Memorial Institute under Contract DE-AC06-76RLO 1830.

About This Guide

Purpose

The Federal Emergency Management Information System (FEMIS) is an emergency management planning and analysis tool that is being developed under the direction of the U.S. Army Chemical and Biological Defense Command. This *FEMIS Data Management Guide* provides the background, as well as the operations and procedures needed to generate and maintain the data resources in the system.

Scope

Database administrators, system administrators, and general users can use this guide to manage the data files and database that support the administrative, user-environment, database management, and operational capabilities of FEMIS. This document provides a description of the relational and spatial information present in FEMIS. It describes how the data was assembled, how it is loaded, and how it is managed while the system is in operation. For details on installing and configuring FEMIS, see the *FEMIS Installation Guide*. For information on FEMIS system administrator activities as well as the utilities that are included with FEMIS see the *FEMIS System Administration Guide*.

We encourage you contact us with suggestions or to ask questions. You can contact us by mail, telephone, fax, or E-mail:

Pacific Northwest National Laboratory
Robert M. Loveall
P.O. Box 999, MS K7-28
Richland, WA 99352
Telephone: (509) 375-2251
Fax Number: (509) 375-3641
E-mail address: bob.loveall@pnl.gov

Audience

This guide is addressed chiefly to database administrators and system administrators. It will also be of value to emergency management planners and analysts who want to know details of the emergency management data. Users of this guide are expected to be familiar with the *FEMIS Installation Guide* and *FEMIS System Administration Guide* as well as with the FEMIS itself.

Software Products

FEMIS integrates the following Commercial-Off-The-Shelf (COTS) software products.

Software Application	Software Company
ArcView GIS	Environmental Systems Research Institute, Inc. (ESRI)
NFS Maestro	Hummingbird Communications Ltd.
Solaris NFS Client	Sun Microsystems, Inc.
Microsoft Windows NT Workstation	Microsoft Corporation
Microsoft Project for Windows	Microsoft Corporation
Oracle	Oracle Corporation
SQL*Net, TCP/IP Adapter, and ODBC Driver	Oracle Corporation
Solaris	Sun Microsystems, Inc.

FEMIS integrates the following government-furnished software products.

D2PC (March 1998) U.S. Army ERDEC
PARDOS v3.1 (May 1997) U.S. Army ERDEC
Evacuation SIMulation Model (ESIM v2.1f13) Oak Ridge National Laboratory

The following software products are optional.

ARC/INFO® Environmental Systems Research Institute, Inc.
Corel WordPerfect® Corel Corporation
Microsoft Office™ Microsoft Corporation

Prerequisites

This guide assumes the database administrators have some knowledge of the Oracle database management system. Additional training may be required to understand the distributed database components of FEMIS. A complete set of Oracle7 documents should be available to the database administrator.

Organization

This document is organized into nine sections and three appendices that contain supporting information.

Section 1.0 — Overview — contains an overview for managing the FEMIS data.

- Section 2.0 – Resource Documents – lists documents referenced or used as resources for this document.
- Section 3.0 – Building the Initial Information – describes how the initial information is compiled and how the relational data and spatial data are initially loaded.
- Section 4.0 – Managing Relational Data – discusses how relational data is managed during system operation.
- Section 5.0 – Managing Spatial Data – describes how the spatial data is managed after it is installed.
- Section 6.0 – Managing Exercise Data – discusses how exercise data is managed.
- Section 7.0 – Managing Meteorological (Met) Data – discusses how the real-time meteorological (Met) data is managed.
- Section 8.0 – Evacuation (Evac) Data – describes managing the evacuation data model.
- Section 9.0 – Managing D2PC Model Data – discusses how the D2PC model data is managed. Subsections describe opening, saving, deleting, and importing a case.
- Appendix A – Site Survey Form – consists of a Site Survey form example. The site specific survey is used to collect an essential set of site parameters needed to preset the site database.
- Appendix B – Database Data Model – consists of the FEMIS data model that includes Main, Spatial, Evacuation, and D2PC information.
- Appendix C – FEMIS Database Schema Changes – consists of database schema changes that have been implemented for FEMIS v1.4.5.
- Appendix D – FEMIS Data Dictionary – consists of the FEMIS Data Dictionary, which is a dynamic listing of the current database.

Acknowledgment

FEMIS would like to thank John Bower, Bower Software Services, for his contribution to this document.

Contents

About This Guide	v
1.0 Overview	1-1
2.0 Resource Documents	2-1
3.0 Building the Initial Information	3-1
3.1 Site Survey	3-3
3.2 Building Relational Data	3-3
3.3 Building Spatial Data	3-4
3.3.1 Data Sources and Import Processing	3-12
3.3.1.1 Facilities	3-13
3.3.1.2 Accident Based Planning Wedges	3-15
3.3.1.3 D2PC Plume Themes	3-15
3.3.1.4 Evacuation Themes	3-15
3.3.1.5 Census Blocks	3-15
3.3.1.6 County Boundaries	3-15
3.3.1.7 Accident-Based Planning Categories	3-15
3.3.1.8 Igloos (Point)	3-16
3.3.1.9 Emergency Planning Zones	3-16
3.3.1.10 Depot Zones	3-16
3.3.1.11 Traffic Control Points	3-16
3.3.1.12 Known Points	3-16
3.3.1.13 Met Towers	3-17
3.3.1.14 Warning Sirens	3-17
3.3.1.15 Administrative Boundaries	3-17
3.3.1.16 Road Themes (Detailed, Major)	3-17
3.3.1.17 Railroads	3-17
3.3.1.18 Streams and Water Bodies	3-17
3.3.1.19 Elevation Contours	3-18
3.3.1.20 Image Maps	3-18
3.3.1.21 Other Themes	3-18
3.3.2 TIGER/Line Data	3-18
4.0 Managing Relational Data	4-1
4.1 Site Default Information and Considerations	4-1
4.2 FEMIS Data Manager Tool	4-2
4.2.1 Data Control	4-3
4.2.2 DBGrid Control	4-4
4.2.3 Editing in the DBGrid Control	4-4
4.2.4 Other Data Management Functions	4-5
4.3 Managing Relational Data	4-6
4.3.1 Database Integrity	4-6
4.3.2 Testing Modifications	4-7
4.3.3 Exercise Data	4-7
4.3.4 Archiving Tables	4-7

4.3.5 Backup and Recovery of the Database	4-9
4.4 Data Sharing Between EOCs	4-10
4.4.1 Depot Owned Tables	4-10
4.4.2 Site-wide Shared Tables	4-10
5.0 Managing Spatial Data	5-1
5.1 System Spatial Datasets	5-1
5.1.1 Census Blocks	5-1
5.1.2 County Boundaries	5-2
5.1.3 Accident-Based Planning Categories	5-2
5.1.4 Igloos (point)	5-2
5.1.5 Emergency Planning Zones	5-2
5.1.6 Depot Zones	5-2
5.1.7 Met Towers	5-2
5.1.8 Warning Sirens	5-3
5.1.9 Administrative Boundaries	5-3
5.1.10 Road Themes (Detailed, Major)	5-3
5.1.11 Railroads	5-3
5.1.12 Streams and Water Bodies	5-3
5.1.13 Elevation Contours	5-4
5.1.14 Image Maps	5-4
5.2 User-Modifiable Spatial Datasets	5-4
5.2.1 Facilities	5-4
5.2.2 Traffic Control Points	5-4
5.2.3 Known Points	5-4
5.2.4 Accident-Based Planning Wedges	5-5
5.3 Model-Related Spatial Datasets	5-5
5.3.1 D2PC Theme Data	5-5
5.3.2 Evacuation Theme Data	5-5
6.0 Managing Exercise Data	6-1
6.1 Selecting Exercise Modes	6-1
6.2 Creating an Exercise in Exercise Mode	6-2
6.3 Modifying an Exercise in Exercise Mode	6-3
6.4 Deleting an Exercise in Exercise Mode	6-4
7.0 Managing Meteorological (Met) Data	7-1
8.0 Evacuation (Evac) Data	8-1
8.1 Creating an Evacuation Case	8-1
8.2 Opening an Existing Case	8-2
8.3 Saving an Evacuation Case	8-2
8.4 Deleting an Evacuation Case	8-3
8.5 Importing an Evacuation Case	8-4
8.6 Importing Incomplete Evacuation Cases	8-5
8.7 Exporting an Evacuation Case	8-6

9.0 Managing D2PC Model Data	9-1
9.1 Opening a D2PC Case	9-1
9.2 Saving a D2PC Case	9-2
9.3 Deleting a D2PC Case	9-3
9.4 Archiving D2PC Cases	9-4
9.4.1 Using the archive_d2.sh Script	9-4
9.4.2 Archiving D2PC by Date	9-5
9.4.3 Archiving D2PC by Number of Cases	9-6
9.4.4 Running D2PC Archiving from the Command Line	9-6
9.4.5 Archiving Limitations	9-7
9.5 Importing a D2PC Case	9-8
Appendix A - Site Survey Form	A-1
Appendix B - Database Data Models	B-1
Appendix C - FEMIS Database Schema Changes	C-1
Appendix D - FEMIS Data Dictionary	D-1

Acronyms and Definitions

AAT	Arc attribute table
COTS	Commercial-Off-The-Shelf
CFCC	Census Feature Class Code
CLA	Chemical Limited Area
COTS	Commercial-Off-The-Shelf
CSEPP	Chemical Stockpile Emergency Preparedness Program
DBMS	Database management system
DLG	Digital Line Graph
E-mail	Electronic mail
EMIS	Emergency Management Information System
EOC	Emergency Operations Center
EPZ	Emergency Planning Zones
ESF	Emergency Support Function
ESIM	Evacuation SIMulation, part of Oak Ridge Evacuation Modeling System (OREMS)
FEMIS	Federal Emergency Management Information System
FIPS Code	Federal Information Processing Systems Code
GIS	Geographic information system
IBS	Integrated Baseline System
IDYNEV	Interactive DYnamic EVacuation
IEM	Innovative Emergency Management, Inc.
IRZ	Immediate Response Zone
LAN	Local area network
MCE	Maximum Credible Event
Met	Meteorological
OREMS	Oak Ridge Evacuation Modeling System
ORNL	Oak Ridge National Laboratory
PAD	Protective Action Decision
PAR	Protective Action Response
PAT	Point/polygon attribute table
PAZ	Protective Action Zone
PC	Personal computer
PNNL	Pacific Northwest National Laboratory
RDBMS	Relational database management system
SQL	Structured Query Language
SQL script	Sequence of SQL statements that performs database operations
TCP	Traffic Control Point
UNIX	Generic name for the Server Operating System
USGS	United States Geological Survey

1.0 Overview

The Federal Emergency Management Information System (FEMIS[®])^(a) information resources are described in this *FEMIS Data Management Guide*. To comprehend what types of data are present, where the data is located, and how it is managed during the life span of the system, a basic understanding of the FEMIS architecture is necessary. The system is being developed by Pacific Northwest National Laboratory (PNNL)^(b) and is designed for a single Chemical Stockpile Emergency Preparedness Program (CSEPP) site that has multiple Emergency Operations Centers (EOCs). The capability to connect to remote CSEPP sites and share information will be present in a future release.

Each EOC has personal computers (PCs) that emergency planners and operations personnel use to do their jobs. These PCs are connected via a local area network (LAN) to servers that provide efficient EOC-wide services. Each EOC is interconnected to other EOCs via telecommunications links.

FEMIS is a client/server system where much of the application software is located in the client PC. This client software the FEMIS application, government furnished dispersion and evacuation models, and Commercial-Off-The-Shelf (COTS) software tools such as the ArcView geographic information system (GIS) and Microsoft Project (electronic planning).

A UNIX server provides data management services, ARC/INFO GIS capabilities, evacuation (Evac) modeling, electronic mail (E-mail), and meteorological (Met) input processing. A PC communication utility is available to interface with external subsystems. At this time, the weather collection system (Handar Met System) is the only external subsystem.

Figure 1.1 illustrates a conceptual view of FEMIS and the types of information required. Much of this information is located in the Oracle database management system (DBMS). Between EOCs, the DBMSs cooperate to share data, which allows multiple PC users to share the information while maintaining the integrity and persistence of the data. The user then adds information, makes decisions, displays maps, or uses other FEMIS functionality. Decisions or information are passed back to the FEMIS database and notifications are made to the FEMIS users. Other information exists in the UNIX file system and the Met server. The COTS tool information for the GIS, project management, and E-mail are present in the client file system. Table 1.1 summarizes the types of relational data used by FEMIS and the general use of that data.

(a) FEMIS software was copyrighted in 1995 by Battelle Memorial Institute.

(b) Pacific Northwest National Laboratory is operated for the U.S. Department of Energy by Battelle Memorial Institute under Contract DE-AC06-76RLO 1830.

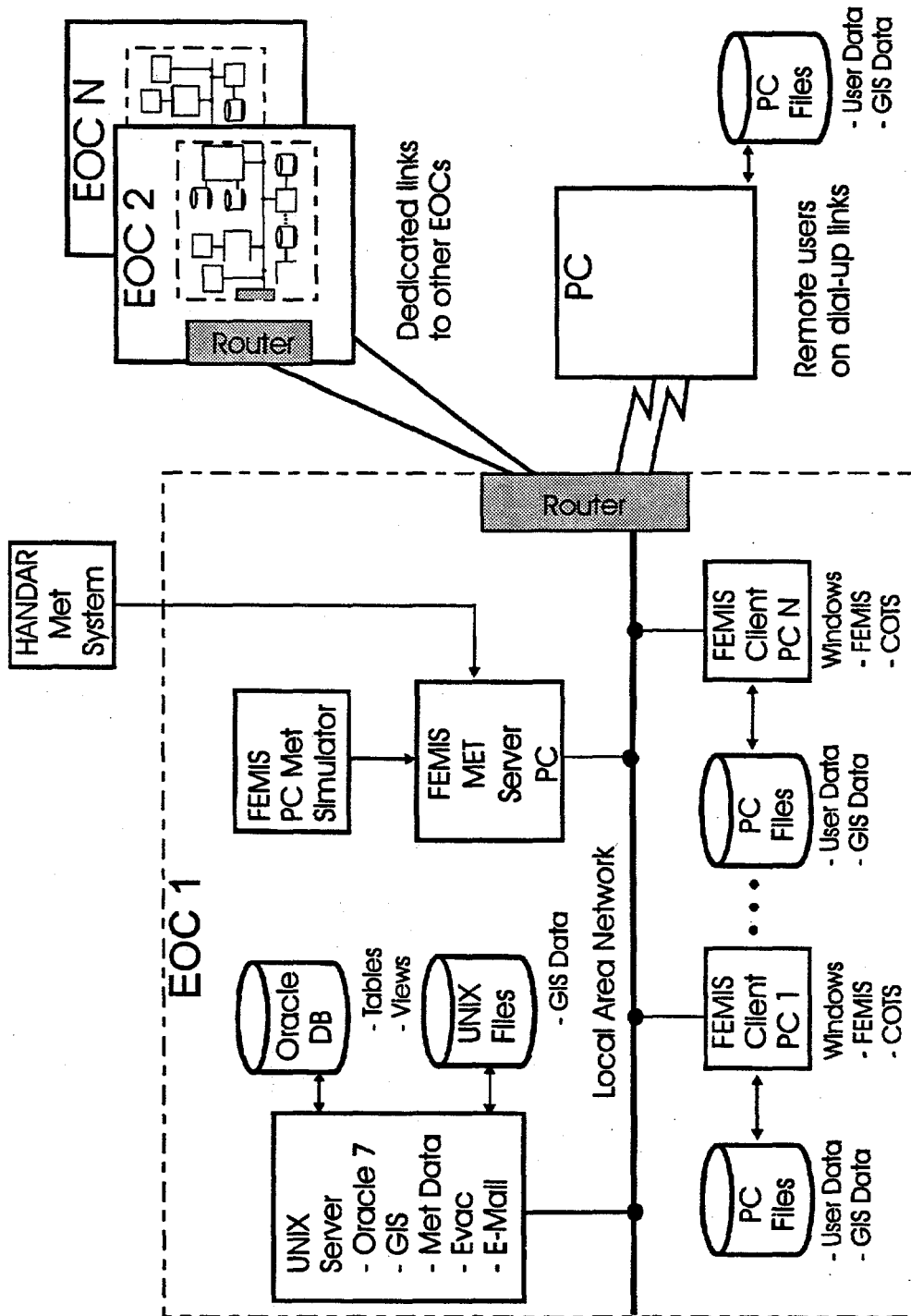


Figure 1.1. Conceptual View of FEMIS

Table 1.1. Types of Relational Data and General Use Description

Data Type	Data Use Description
D2PC Data	Relational data tables used by the dispersion model
Electronic Plan Data	Supporting electronic planning information
Evacuation Data	Relational data tables used by the ESIM ^(a) Evacuation Model
Facility Data	Facilities, resources, and shelters information
Met Data	Weather conditions and tower information
Personnel Data	Person and organization information and user control data
Population Data	Population information including special populations
Resource Data	Resources and Memoranda of Understanding information
Risk Data	Plumes, wedges, threatened areas, and Protective Action Decision (PAD)/Protective Action Responses (PARs) information
Site Data	CSEPP site information including EOC data
Source Data	Chemical agents, munitions, bunkers, events, and casualties
Spatial Data	Relational data supporting the GIS
Work Plan Data	Work plans, Maximum Credible Event (MCE) data, the journal, and D2PC/Evacuation case management data
Zone Data	Information about emergency planning zones
(a) Evacuation SIMulation (ESIM) model is part of the Oak Ridge Evacuation Modeling System (OREMS).	

Note: See the *FEMIS Installation Guide* for assistance with creating the database and installing the Oracle server as well as relational database management system (RDBMS). For assistance validation and troubleshooting, see the *FEMIS System Administration Guide*.

2.0 Resource Documents

FEMIS Installation Guide - This document provides instructions for installing and configuring the FEMIS software package.

FEMIS System Administration Guide - This document contains a detailed description of the system administration interface.

Integrated Baseline System (IBS) Data Management Guide, Version 2.1 - This document contains a full description of the data files present in the IBS system.

3.0 Building the Initial Information

After FEMIS is installed, information is present in the database to enable the immediate use of the system. For example, the database tables used for validation are preset with the correct values, base maps are present in the spatial data, and some facility data is present. This section describes how this initial information is obtained and loaded into the system as part of the installation.

The initial information can be grouped into the following three classes:

- CSEPP global - EOCs at all sites will contain identical information for this class of tables. Examples are the relational tables named `State` and `Hazard_Site`. This data is available from Pacific Northwest National Laboratory for new installations.
- Site global - All EOCs at a given site will contain identical information for this class of tables. Examples are the relational tables named `Zone` and `Accident_Class`. This data is obtained from existing sources in electronic form or manually entered.
- EOC specific - Each EOC at the site will have distinct information for this class of tables. Examples are the relational tables named `Facility` and `Memo_Understanding`. Like the site global data, some of this information is available in electronic form and some will be gathered and entered manually.

The latter two classes of data prepared for a site have to be tailored to conditions present at that site. Factors to consider are the number and type of EOCs present, the objectives of the site, and the area of interest for map and GIS theme coverage. Another consideration is the amount of information contained in active Emergency Management Information System (EMIS) and Integrated Baseline System (IBS) databases that can be extracted for the new FEMIS system.

Figure 3.1 illustrates the general process of data preparation at a high level. The detailed steps to accomplish this are described in the following paragraphs.

EMIS is currently being used by the U.S. Army as the onpost automation system at most CSEPP sites. EMIS has a centralized database using the Oracle DBMS, and it also has a GIS that is used somewhat in the same manner as ArcView is used in FEMIS. Therefore, EMIS is a source for onpost relational data (such as igloos) and spatial information (such as base maps tailored to the site environment).

IBS is used at some CSEPP sites for offpost EOC automation at the county and state levels. The IBS EOCs tend to operate autonomously so each contains information that is unique. The data contained in IBS is in ASCII files and binary files for the spatial information. In general, data must be extracted from each IBS system deployed at the site. Then parts of this data have to be merged to ensure that common information is consistent. IBS is a source for offpost facility, personnel, and resource information.

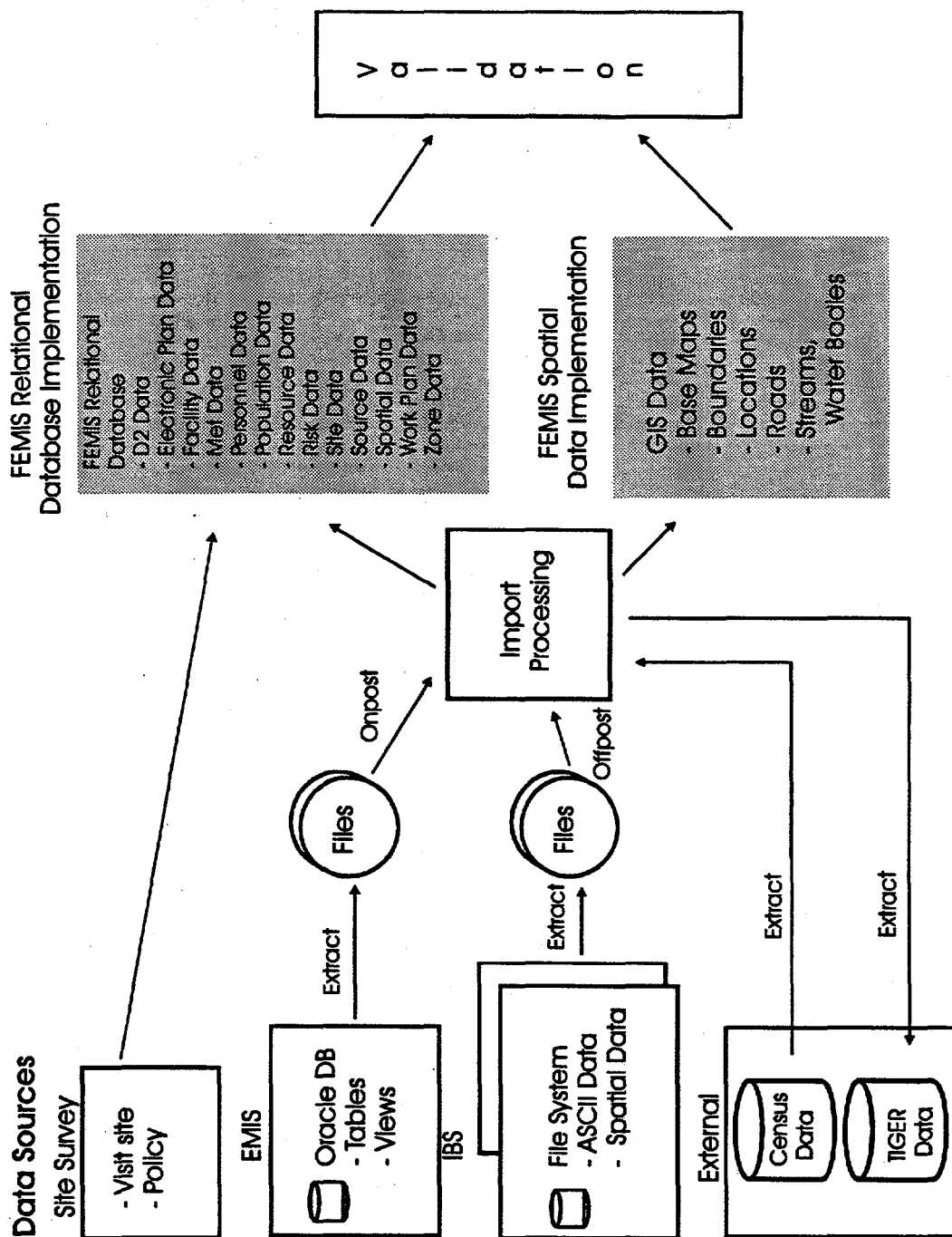


Figure 3.1. General Process of Data Preparation at a High Level

The FEMIS database includes some types of data not present in IBS and EMIS. This type of information is obtained during the Site Survey. Also, the Site Survey is used to validate some of the data captured from IBS and EMIS; more details are provided in Section 3.1, Site Survey.

The extraction and post processing required for relational and spatial data are discussed in Sections 3.2 and 3.3. In general, each relational table or spatial data file requires individualized processing.

Census data and TIGER/Line data provided by the government are important external data sources. As shown in Figure 3.1, subsets of information from these sources are extracted and used for both spatial and relational databases. Section 3.3, Building Spatial Data, discusses how this is accomplished.

The validation step shown in Figure 3.1 is very important. It is accomplished after the spatial and relational databases are created. Even though some validation is done during the import processing, the final validation is needed to ensure consistency between the inter-related tables and files comprising the FEMIS database.

3.1 Site Survey

Although much of the information needed to preset the FEMIS database is available in electronic format, some information is not. Therefore, a means to collect a varied set of parameters that are not available in IBS, EMIS, or the government-furnished external sources is needed. All sites will require a common set of parameters obtained from the Site Survey. Depending on how widely IBS and EMIS are used at a given site, additional information may be required.

The Site Survey provides default and recommended values in many cases. The EOC personnel should review the data provided and modify it directly on the form. The electronic Site Survey form uses a computer spreadsheet for capturing extensive amounts of data.

An example of a Site Survey is included in Appendix A to indicate the basic information that is needed for FEMIS. Electronic copies of the survey form will be sent to each EOC site for completion. When completed, the survey is returned to the development location for analysis of compatibility with other information. An onsite follow up meeting is held at each EOC to resolve questions and ensure consensus at the site.

3.2 Building Relational Data

The relational database in FEMIS is managed by Oracle7, a commercial DBMS. The distributed processing features of Oracle are utilized to produce a multi-server distributed data architecture. Data replication is widely used to provide a local copy of most shared tables. This replication is important because it allows an EOC to operate autonomously in case the links to other EOCs are not operational. Also, performance is enhanced because the shared tables are located on the local database.

Approximately 180 tables comprise the FEMIS relational database. The FEMIS logical data model describes graphically what information is present and how the data objects are interrelated. This model represents a large collection of general purpose tables, such as evacuation data and GIS and dispersion tables. A diagram of the FEMIS model is included in Appendix B, Database

Data Model. Appendix C, FEMIS Data Schema Changes, provides the database schema changes that have been implemented to update the database from FEMIS v1.4 to the current version, FEMIS v1.4.5. Definitions of the database attributes can be found in Appendix D, FEMIS Data Dictionary.

Based on design efforts and testing results, each relational database table is local to an EOC or shared with the other EOCs. Data in the local tables can be accessed only from users logged in to that EOC database. The data in shared tables is available to several EOCs. Details of data placement are made transparent to the FEMIS users, so the FEMIS database appears to be a single, unified collection of tables. This physical design of the Oracle database is provided as a part of database implementation and can be tailored to CSEPP sites.

Approximately one-half of the tables do not contain any information when the system is installed. These are tables, such as the Situation Summary table, that will contain information about the current conditions at the site. As the system is used, data will accumulate in these tables and become a useful resource. The management of these tables will be discussed in Section 4.0, Managing Relational Data.

The remaining tables are preset with data as part of the system installation process. Over the life-cycle of FEMIS, some of the data in this class of tables may require updates after installation, which is discussed in Section 4.0, Managing Relational Data. How preset data is collected and processed to become part of the delivered database is the subject of the remainder of this section.

Tables containing preset information that is universal to all sites are called CSEPP Global tables. During FEMIS development, information was assembled from various sources and loaded into this class of tables. Table 3.1 lists 32 Oracle tables that are in this class, what type of user interface manages the data in the table (all of these tables are managed by the FEMIS Data Manager), and comments.

Table 3.2. illustrates the source of the information for the CSEPP Global tables, the filename (if appropriate), the loading strategy, and the contents of the information in the table. A PNNL source means that the information was assembled from various sources available to Pacific Northwest National Laboratory.

The other two table classes with preset information contain site-specific and EOC- specific data. Table 3.3 lists the 36 tables in these two classes (similar to Table 3.1) illustrating the table name, what type of user interface manages the data in the table, and comments. More complete details for gathering and loading these tables are provided in Table 3.4.

3.3 Building Spatial Data

FEMIS spatial data contains location information in the form of geographic coordinates of points, lines, and polygons that represent physical features and non-physical area boundaries on the surface of the earth. Within FEMIS, this location information is stored as ArcView themes which are accessed by the FEMIS application via the ArcView GIS software. Each theme represents a coherent set of similar geographic features (e.g., roads, facility locations, census tract boundaries). FEMIS spatial data also contains attribute information that is associated with the

Table 3.1. CSEPP Global FEMIS Tables

Table #	Table Name	User Interface	Comments
1	ACCIDENT_CLASS	DataMgr	
2	ACTIVITY	DataMgr	
3	AGENT_MUNITION	DataMgr	
4	CHEMICAL_AGENT	DataMgr	
5	CONTROL_POINT	DataMgr	Initial
6	DOSAGE	DataMgr	
7	EP_ERROR_CODES	DataMgr	
8	FACILITY_TYPE	DataMgr	
9	GOAL	DataMgr	
10	HAZARD	DataMgr	
11	HAZARD_SITE	DataMgr	
12	LOCATION_TYPE	DataMgr	
13	MEASUREMENT_DEFN	DataMgr	
14	MEASUREMENT_TYPE	DataMgr	
15	MET_PARAMETER	DataMgr	
16	MUNITION	DataMgr	
17	OBJECT_SUBTYPE	DataMgr	
18	PD_LEVEL	DataMgr	
19	PLAN_DETAIL	DataMgr	Template
20	PLAN_HEADER	DataMgr	Template
21	POPULATION_DEFINITION	DataMgr	Initial
22	PRIVILEGE	DataMgr	
23	PROTECTIVE_ACTION	DataMgr	
24	SHELTER_DEFINITION	DataMgr	
25	STATE	DataMgr	
26	SYSTEM_MODE	DataMgr	
27	SYSTEM_PHASE	DataMgr	
28	SYSTEM_STAGE	DataMgr	
29	VAL_LIST	DataMgr	
30	VAL_LIST_DATA	DataMgr	
31	VAL_LOCATION_TYPE	DataMgr	
32	ZONE_TYPE	DataMgr	

Table 3.2. Global Preset Database Tables

Table Loaded	Source	Filename	Load Strategy	Contents
ACCIDENT_CLASS	PNNL	None	SQL load using data acquired during development	Global validation for accident classes and descriptions
ACTIVITY	PNNL	None	SQL load using data acquired during development	Global validation for activity codes and descriptions
AGENT_MUNITION	EMIS	AGENT_MN.DAT	SQL load using EMIS data	Global agents, munitions and quantities per munition
CHEMICAL_AGENT	PNNL	None	SQL load using data acquired during development	Global agent codes and types
CONTROL_POINT	PNNL	None	SQL load using software control points	Global control point names and descriptions
DOSAGE	PNNL	None	SQL load using normal D2 dosages	Dosage levels and descriptions from D2 model
EP_ERROR_CODES	PNNL	ERROR.DAT	SQL load ESIM user manual error codes	Error code with description of error
FACILITY_TYPE	PNNL/ IBS	FACIL.DAT	SQL load from both the PNNL data and the Facility_Type field within the facility data file	Global facility types and their descriptions
GOAL	PNNL	None	SQL load with data based on user advisory board	"Save lives, protect property"
HAZARD	PNNL	None	SQL load using data acquired during development	Global hazard type and description
HAZARD_SITE	PNNL	None	SQL load using data acquired during development	Compilation of the names, locations, and description for the CSEPP sites
LOCATION_TYPE	IBS	LOC_TYPE.DAT	SQL load with control data file. To generate the control file, the original data file from IBS must be edited to remove unrelated data.	Global validation for location types and descriptions
MEASUREMENT_DEFN	PNNL	None	SQL load using data acquired during development	Global validation for measurement classes
MEASUREMENT_TYPE	PNNL	None	SQL load using data acquired during development	Global validation for measurement types and description
MET_PARAMETER	PNNL	None	SQL load using data acquired during development	Global validation for parameter codes and descriptions
MUNITION	PNNL	None	SQL load using normal D2 munitions	Global munitions and descriptions
OBJECT_SUBTYPE	PNNL/ IBS	FACIL.BAT	SQL load from both PNNL control data and the Facility_Type field within the facility data file	Global validation for location types and FEMIS object subtypes

Table 3.2. Global Preset Database Tables (continued)

Table Loaded	Source	Filename	Load Strategy	Contents
PD_LEVEL	PNNL	None	SQL load using data acquired during development	Plan level name and number
PLAN_DETAIL	PNNL	None	SQL load using data acquired during development	Plan reference ID, responsible parties, start, finish, and duration times for plan template
PLAN_HEADER	PNNL	None	SQL load with plan data template	Plan reference ID, name, status, descriptions for initial plan template
PRIVILEGE	PNNL	None	SQL Plus query based on CONTROL_POINT table	Global privilege numbers and flags for assigned privileges based on control points
POPULATION_DEFINITION	PNNL	None	SQL load using data acquired during development	Defines population categories based on ages, sex, and households
PROTECTIVE_ACTION	PNNL	None	SQL load using data acquired during development	Global validation for protective actions and descriptions
SHELTER_DEFINITION	PNNL	None	SQL load using data acquired during development	Global validation for shelter types and descriptions
STATE	PNNL	None	SQL load using data acquired during development	Global validation for state codes and names
SYSTEM_MODE	PNNL	None	SQL load using data based on user advisory board	Global system modes, default flags and description
SYSTEM_PHASE	PNNL	None	SQL load using data based on user advisory board	Global phase names, flags and descriptions
SYSTEM_STAGE	PNNL	None	SQL load using data based on user advisory board	Modes, phases, and stages
VAL_LIST	PNNL	None	SQL load using data acquired during development	Validation list names and descriptions for Visual Basic applications
VAL_LIST_DATA	PNNL	None	SQL load using data acquired during development	Validation lists data and text
VAL_LOCATION_TYPE	PNNL	None	SQL load using data acquired during development	Global validation table for location types
ZONE_TYPE	PNNL	None	SQL load using data acquired during development	Global validation for zones and descriptions

Table 3.3. Site-Specific and EOC-Specific FEMIS Tables

Table #	Table Name	User Interface	Comments
1	AGENCY	Agency UI	
2	BUNKER	GIS	Spatial considerations
3	CENSUS_BLOCK	DataMgr	Read only
4	AGENCY	DataMgr	Read only
5	BUNKER	DataMgr	Read only
6	COUNTY	DataMgr	
7	DEPARTMENT	Department UI	
8	EMERGENCY_SUPPORT	DataMgr	
9	EOC	DataMgr	
10	EOC_OBJECTIVE	DataMgr	
11	EOC_ZONE	DataMgr	
12	FACILITY	Facility UI	
13	FEMIS_OBJECT	DataMgr	
14	FEMIS_USER	Manage User UI	
15	GIS_LAYER	DataMgr	Data captured with GIS load
16	GIS_LAYER_DEFINITION	DataMgr	
17	GIS_OBJECT	DataMgr	Data captured with GIS load, export
18	MET_TOWER	DataMgr	Compatibility to Met towers onsite
19	NAME_SUBSTITUTION	DataMgr	
20	PA_UNIT	DataMgr	
21	PERSON	Person Form UI	
22	POPULATION_CONDITION	DataMgr	Set up for normal weekday night
23	POPULATION_LOCATION	DataMgr	
24	POSITION	DataMgr	
25	POSITION_ASSIGNMENT	DataMgr	
26	RESOURCE_CATEGORY	DataMgr	
27	RESOURCE_DEFINITION	Resource Definition UI	
27	RESOURCE_FACILITY	Facility UI	
29	RESOURCE_LOCATION	Facility UI	
30	STORED_AGENT	DataMgr	
31	USER_MODE_PRIV	DataMgr	
32	VAL_POSITION	DataMgr	
33	WK_POSITION	DataMgr	
34	ZONE	DataMgr	
35	ZONE_IN_GROUP	DataMgr	
36	ZONE_RISK_GROUP	DataMgr	

Table 3.4. Site-Specific and EOC-Specific Preset Database Tables

Table Loaded	Source	Filename	Load Strategy	Contents
AGENCY	IBS	AGENCY_LOOKUP.DAT	SQL load with validated data	Agency codes and their associated agency names
BUNKER	EMIS	GISIGL.DAT (onpost)	SQL load with validated data	Igloo names and codes specific to the site
CENSUS_BLOCK	Census	STF1B tape files	SQL load with census data	State and county FIPS codes and block name
CENSUS_SUBDIVISION	Census	STF1B tape files	SQL load with census data	State and county FIPS codes and subdivision name
CENSUS_TRACT	Census	STF1B tape files	SQL load with census data	State and county FIPS codes and tract name
COUNTY	PNNL	None	SQL load with preset data. Use Site Survey results if different	State and county FIPS codes and county name
DEPARTMENT	PNNL and Site Survey	None	SQL load with Dept_Code set to Agency_Code or Site Survey	Department and agency codes. IBS does not have department code so this is generated.
EMERGENCY_SUPPORT	IBS and Site Survey	EF.DAT	SQL load with preset data. Use Site Survey results if different	Emergency support functions and descriptions
EOC	IBS and Site Survey	None	SQL load with preset data. Use Site Survey results if different	EOC names, types number, description
EOC_OBJECTIVE	Site Survey	None	SQL load with data from Site Survey	EOC name, notify, decision and goal times, description and dose levels
EOC_ZONE	PNNL	None	Preloaded list of zones associated with an EOC. Use Site Survey results if different.	EOC and zone names
FACILITY	IBS and Site Survey	FACIL.DAT	See Facility Note	Facility names, capacity, description
FEMIS_OBJECT	IBS, PNNL, and EMIS	None	See FEMIS Object Note	FEMIS object names, types, subtypes, x and y points
FEMIS_USER	Site Survey	None	SQL load with data from Site Survey	User code with encrypted password, account status

Table 3.4. Site-Specific and EOC-Specific Preset Database Tables (continued)

Table Loaded	Source	Filename	Load Strategy	Contents
GIS_LAYER	PNNL	None	SQL load with preset data	Data for existing themes
GIS_LAYER_DEFINITION	PNNL	None	SQL load with preset data	Data for defining themes
GIS_OBJECT	PNNL	None	SQL load with preset data	Data for all spatial objects
MET_TOWER	Site Survey	METTOWER.DAT	SQL load with data from the Site Survey	Names and locations of Met towers
NAME_SUBSTITUTION	PNNL	None	SQL load with preset data	Standard case naming
PA_UNIT	Site Survey	None	SQL Plus query based on zone and facility tables	Protective action units, type and zone or facility name
PERSON	IBS	PERSON.DAT	See Person Note	Person reference number, name, address
POPULATION_CONDITION	PNNL	None	SQL load with data for normal conditions	Population condition names, locations, descriptions
POPULATION_LOCATION	PNNL	None	SQL load with data based on census blocks, subdivisions, and tracts	Population categories with locations, descriptions, and counts
POSITION	Site Survey	None	SQL load with data from Site Survey	Position code with address, phone and description
POSITION_ASSIGNMENT	Site Survey	None	SQL load with data from Site Survey	Persons who are users
RESOURCE_CATEGORY	IBS and Site Survey	RESOURCE.DAT	SQL load with data from Site Survey	The category and its description
RESOURCE_DEFINITION	IBS and Site Survey	RESOURCE.DAT	SQL load with data from Site Survey	Resource reference number, name, description
RESOURCE_FACILITY	IBS	RESOURCE.DAT	See Resource Note	Resource reference number, name, description
RESOURCE_LOCATION	IBS	None	SQL Plus query based on RESOURCE_FACILITY table	Location of the resource at the facility

Table 3.4. Site-Specific and EOC-Specific Preset Database Tables (continued)

Table Loaded	Source	Filename	Load Strategy	Contents
STORED_AGENT	EMIS	GISIGL.DAT	SQL load with validated data	Bunker name, agent code and munition type
USER_MODE_PRIV	Site Survey	None	SQL Plus query based on tables PERSON, PRIVILEGE and SYSTEM_MODE	Control point names, privilege numbers, user codes, and mode names
VAL_POSITION	Site Survey	VAL_POS.DAT	SQL load with preset data. Use Site Survey results if different	Position codes and names
WK_POSITION	IBS	POSITION_LOOKUP.DAT	SQL load with validated data	Agency, department, and title of position
ZONE	IBS	Spatial data files	SQL load with validated data	Zone name and type
ZONE_IN_GROUP	Site Survey	None	SQL load with data from Site Survey	List of zones in risk groups
ZONE_RISK_GROUP	Site Survey	None	SQL load with data from Site Survey	Name of risk groups
Facility Note:	A temporary table, T_FACILITY is created, loaded and updated with the data in FACIL.DAT. The data load is completed when the data is copied from the T_FACILITY table to the facility table. Updates from the Site Survey will be included.			
FEMIS Object Note:	Since the FEMIS_OBJECT table data represents geographical coordinates for many objects represented in the relational portions of the database it has several different SQL Loader control scripts which load data into the table. Examples include the facilities from each EOC, igloos, zones, blocks, tracks, subdivisions, and counties.			
Person Note:	Two temporary tables, T_PERSON and T_AGENCY are created, loaded and updated with the data from PERSON.DAT. The data load is completed when the data is copied from the T_PERSON table to the person table. Updates from the Site Survey will be included.			
Resource Note:	A temporary table, T_RESOURCE_FACILITY is created, loaded and updated with the data in RESOURCE.DAT. The data load is completed when the data is copied from the T_RESOURCE_FACILITY table to the RESOURCE_FACILITY table.			

geographic features that make up the themes. These attribute values are stored and maintained in the FEMIS relational database. They are attached to the features within the ArcView themes as required by the FEMIS applications.

Figure 3.1 shows the general approach to building the initial FEMIS spatial and relational databases. Data from various information sources must be processed by the appropriate FEMIS data import software programs to extract the required data elements and place them into the proper data structures for storage in the FEMIS relational and spatial databases. All required attributes associated with both geographic and non-geographic data objects are stored in the FEMIS relational database. The geographic coordinates of the spatial features, together with selected attributes of those features, are stored as ArcView themes in the FEMIS spatial database.

3.3.1 Data Sources and Import Processing

The five major sources of FEMIS spatial data are discussed below:

1. **EMIS (Emergency Management Information System).** EMIS was developed for the U.S. Army as an interim onpost emergency management system. EMIS stores and manages spatial data and related attributes for onpost geographic features, model results, and raster image background maps. Most of the attribute information is stored in Oracle relational database tables.
2. **IBS (Integrated Baseline System).** IBS was developed as an interim offpost emergency management system. IBS stores and manages spatial data and related attributes for offpost geographic features and model results. The information is stored in a file system developed specifically for IBS. Most of the data is available in the form of ASCII text files.
3. **TIGER/Line Data.** The U.S. Bureau of the Census provides TIGER/Line data files that contain detailed location and attribute information for a variety of physical and non-physical features such as roads, railroads, streams and water bodies, facilities, landmarks, state and county boundaries, census unit boundaries, and other political and administrative boundaries. These ASCII files are organized into 12 record types at the county level (or equivalent to the county level for all states in the United States). Import processing of TIGER/Line data is discussed in detail in Section 3.3.2, TIGER/Line Data.
4. **1990 Census Statistical Data.** The U.S. Bureau of the Census provides statistical census data files that contain demographic information from the 1990 decennial census. This data consists of large ASCII files which contain population, family, and household counts within various demographic groupings (i.e., by age, sex, race, household type, income, and other social and economic factors). The information is reported at several geographic levels (e.g., county, subdivision, census tract, block group, block). Selected portions of this data are required by FEMIS applications and must be extracted and attached as attributes to the corresponding TIGER/Line census area polygons.
5. **Site Configuration Data.** Some spatial data related to planning decisions made at the site (e.g., accident-based planning category boundaries) may not be available from EMIS or any other existing data system. This data must be obtained directly from site personnel and must be entered into ASCII files prior to FEMIS import processing.

The FEMIS spatial data themes are listed and characterized in Table 3.5. They can be divided into three categories as discussed below: system spatial datasets, user-modifiable spatial datasets, and model-related spatial datasets.

1. System spatial datasets change infrequently and are managed and controlled by the database administrator. Users cannot modify the spatial information contained in these datasets. Examples of system spatial datasets are roads; census blocks, tracts, and subdivisions; and emergency planning zone boundaries. All of these themes must be initially loaded into the FEMIS spatial database.
2. User-modifiable spatial datasets are the themes that can be created and/or modified by users from within certain FEMIS modules. User-modifiable themes include facilities, known points, traffic control points, and threat wedge themes, including accident-based planning wedges (user-defined threat wedges). The facilities theme is initially loaded with the locations of facilities that are known to be of interest for emergency planning purposes. Users can then add other facilities to this theme through the FEMIS facility management interface. The traffic control points theme is initially loaded with road and street intersections and other locations where it is expected that roadblocks or other traffic/access control mechanisms would be applied in an emergency. Users can then add other traffic control points through the FEMIS Known Points/Traffic Control Points interface. Known points are other geographic point locations that users may wish to include as reference points for locating a hypothetical or real event, or for other purposes. Known points data optionally can be initially loaded into the FEMIS database. Users can then add other known points to this theme through the FEMIS Known Points interface. Accident-based planning wedges and D2PC plume-based threat wedges are not initially loaded into the FEMIS database. They are defined and generated through the FEMIS Threat Area interface.
3. Model-related spatial datasets are created by the hazard and evacuation model for each model case that is run. These themes are created and stored on the user's PC. Data on these model-related themes are also stored in the relational database to facilitate access by other users. These themes are generated entirely by the FEMIS software under the user's control and are thus not initially loaded.

The following paragraphs briefly discuss typical data sources and import processing for each of the FEMIS spatial themes that must be initially loaded. Management of spatial data, after it has been initially loaded, is the responsibility of the site.

3.3.1.1 Facilities

Facility locations and attributes are obtained from the IBS "known points" and "facility" ASCII files. An IBS export utility is used to create an ASCII file containing the facility names, locations, descriptions, and other attribute information. This file may be supplemented by information on additional facilities from the Site Survey or other sources. A loader script is used to load the data from this file into the relational database. An SQL script is then used to query the relational database and create an ASCII file containing facility locations and attributes in ArcView Event Theme format. This file can be directly loaded as a point theme into ArcView.

Table 3.5. Spatial Data Theme Descriptions

Generic Theme (Layer) Description	Data Source	User Directory	Filename	Data Type	User Modify	FEMIS Object ^(a)	Number of Themes
Facilities	IBS, FEMIS App	FACILITY	FACILITY	Vector - Point	Yes	Yes	1
Accident Based Planning Wedges	FEMIS App	WA_<eoc_code>	<eoc_code>_WA	Vector - Polygon	Yes	Yes	1 per EOC
D2 Plume (Dosage)	FEMIS App	D2_<eoc_code>	D<case_id(7)>	Vector - Polygon	Yes	Yes	1 per EOC and case
D2 Plume (Concentration)	FEMIS App	D2_<eoc_code>	K<case_id(7)>	Vector - Polygon	Yes	Yes	1 per EOC and case
D2 Wedge	FEMIS App	D2_<eoc_code>	W<case_id(7)>	Vector - Polygon	Yes	Yes	1 per EOC and case
Evacuation Centroids	FEMIS App	EV_<eoc_code>\E<exercise_num>	C<case_id(7)>	Vector - Point	Yes	No	1 per EOC and case
Evacuation Links	FEMIS App	EV_<eoc_code>\E<exercise_num>	L<case_id(7)>	Vector - Line	Yes	No	1 per EOC and case
Evacuation Nodes	FEMIS App	EV_<eoc_code>\E<exercise_num>	N<case_id(7)>	Vector - Point	Yes	No	1 per EOC and case
Census Blocks	TIGER/Line	CEDBLOCK	<site_code>_TB	Vector - Polygon	No	No	1
County Boundaries	TIGER/Line	STCOUNTY	<site_code>_SC	Vector - Polygon	No	Yes	1
Accident-Based Planning Categories	Site Configuration	ABPC	<site_code>_PC	Vector - Polygon	No	Yes	1
Igloos (point)	EMIS	IGLOO_P	<site_code>_IP	Vector - Point	No	Yes	1
Emergency Planning Zones	IBS	ZONE	<site_code>_EZ	Vector - Polygon	No	Yes	1
Depot Zones	EMIS	ZONE	<site_code>_DEP	Vector - Polygon	No	No	1
Traffic Control Points	IBS, Site Survey	TCP	TCP	Vector - Point	Yes	Yes	1
Known Points	Various	KNOWN_P	KNOWN_P	Vector - Point	Yes	Yes	1
Met Towers	Site Configuration	METTOWER	<site_code>_MT	Vector - Point	No	Yes	1
Warning Sirens	IBS, Site Survey	SIREN	SIREN	Vector - Point	No	Yes	1
Administrative Boundaries	IBS	ADMINEND	<site_code>_AB	Vector - Polygon	No	No	1
Detailed Roads	TIGER/Line	ROADALL	<county_code>_RA	Vector - Line	No	No	1 per county
Major Roads	TIGER/Line	ROADMAJ	<site_code>_RM	Vector - Line	No	No	1
Railroads	TIGER/Line	RAILROAD	<site_code>_RR	Vector - Line	No	No	1
Streams, Water Bodies	TIGER/Line	STREAM	<site_code>_ST	Vector - Line	No	No	1
Elevation Contours	IBS	CONTOUR	<site_code>_c-interval(m)>	Vector - Line	No	No	1 per interval value
Image Maps	EMIS	IM_<scale>	<site_code>_scale><tile>	Image	No	No	1 or more per scale

(a) "Yes" --> Contains entries in FEMIS_OBJECT table to link spatial and relational data.

3.3.1.2 Accident Based Planning Wedges

Accident Based Planning Wedges (user-defined threat wedges) are generated within the Threat Analysis module of FEMIS and can be named and saved in the database for later use.

3.3.1.3 D2PC Plume Themes

D2PC Plume (Dosage and Concentration) themes and plume-based wedge themes are dynamic model-related themes generated within FEMIS. They are based on output from the D2PC model. D2PC cases may be imported from IBS or EMIS, or they may be created from scratch within FEMIS.

3.3.1.4 Evacuation Themes

Evacuation themes (centroids, links, and nodes) are dynamic model-related themes generated in support of the Evacuation SIMulation (ESIM), part of the Oak Ridge Evacuation Modeling System (OREMS) model within FEMIS. There may be one set of evacuation theme files for every evacuation case in the system. Evacuation cases may be imported from IBS or OREMS, or they may be created from scratch within FEMIS.

3.3.1.5 Census Blocks

The ARC/INFO® TIGERTOOL command (see Section 3.3.2, TIGER/Line Data) is used to convert TIGER/Line data files into ARC/INFO coverages for the counties surrounding the hazard site. Census enumeration district boundaries are then extracted from the ARC/INFO coverages, and separate coverages are created for census blocks. These coverages are then converted to ArcView themes. Census tracts and subdivisions are not currently included as themes in the spatial database, but in a future release, PNNL plans to include them in the spatial database.

Census demographic data (e.g., population counts) are extracted from the STF-1B census statistical data files and stored in the relational database as attributes of each census block, tract, or subdivision. These demographic attributes are then attached to an ArcView census theme by running a query that extracts the attributes of each block, tract, or subdivision into an ASCII file, loading this text file into ArcView, and running an Avenue script to join the attribute columns in the text file to the appropriate census theme's data table.

3.3.1.6 County Boundaries

The ARC/INFO TIGERTOOL command is used to convert TIGER/Line data files into ARC/INFO coverages for the counties surrounding the hazard site. County boundary polygons are then extracted from the full TIGER/Line ARC/INFO coverages and stored in a new ARC/INFO coverage. This coverage is then converted to an ArcView theme.

3.3.1.7 Accident-Based Planning Categories

For planning purposes, the Accident Based Planning Review Group at each CSEPP site determines the geographic boundaries of several categories of potential accidents. The categories represent different levels of impact severity and are typically represented geographically by concentric circles of differing radii centered on the site's Chemical Limited Area. Given the number of categories and the center and radius of each category's circle, the theme is generated by running an ArcView/Avenue script using the appropriate input parameters for each circle.

3.3.1.8 Igloos (Point)

Igloo location and attribute data are obtained from EMIS or other sources. A script is used to extract the data from EMIS and create ASCII files containing the igloo names, locations, and contents (agents/munitions). A loader script is used to load the data from the ASCII file into the appropriate relational database tables. A second SQL script is then used to query the FEMIS relational database and create an ASCII file containing igloo locations and attributes in ArcView Event Theme format. Some minor editing of this ASCII file may be needed to transfer multiple agent-munition data for an igloo from multiple records into a single record. This file can then be directly loaded as a point theme into ArcView.

3.3.1.9 Emergency Planning Zones

Emergency planning zone boundary and attribute data are extracted from the IBS spatial data zone files into ASCII files. A loader script is used to load the zone data from the ASCII files into the appropriate relational database tables. Another ASCII file containing the zone coordinates in ARC/INFO Generate format is used to create an ARC/INFO polygonal coverage, which is then converted into the ArcView zone theme.

3.3.1.10 Depot Zones

At a minimum, the Depot Zones theme will contain the Chemical Limited Area (CLA) boundary. For some CSEPP sites, the Depot Zones theme may also contain other on-post zones, sub-zones, or other designated non-overlapping areas within the Depot boundary. The CLA and other on-post zone boundary data is obtained from EMIS text files, imported into an ARC/INFO coverage, and then converted to shape files which can be directly loaded into ArcView.

3.3.1.11 Traffic Control Points

The locations of traffic control points are obtained from IBS (if available) or from site survey information. An IBS export utility or a text editor is used to create an ASCII file containing the traffic control point names, locations, descriptions, and other attribute information. A loader script is used to load the data from this file into the relational database. An SQL script is then used to query the relational database and create an ASCII file in ArcView Event Theme format. This file contains the traffic control point locations and attribute information and can be directly loaded as a point theme into ArcView.

3.3.1.12 Known Points

Known point locations normally are not initially loaded into a FEMIS database unless the site requests some special locations to be loaded as known points because they do not fit the data type of any of the other standard FEMIS point themes. Also, the ability is needed to modify these points dynamically from within FEMIS. If it is desired to load known points data into the database, a text file is created with the names, lat/lon locations, and other relevant information on the known points. A loader script is used to load the data from the text file into the relational database. An SQL script is then used to query the relational database and create a text file containing known point locations and attributes in ArcView event theme format. This file can be directly loaded as a point theme into ArcView.

3.3.1.13 Met Towers

Meteorological (Met) monitoring tower data is obtained from the Met subsystem's METTOWER.DAT file (see Section 7.0, Managing Meteorological [Met] Data). A loader script is used to load the data from the ASCII file into the appropriate relational database tables. An SQL script is then used to query the relational database and create an ASCII file containing Met tower locations and attributes in ArcView Event Theme format. This file can be directly loaded as a point theme into ArcView.

3.3.1.14 Warning Sirens

The locations of warning sirens are obtained from IBS (if available) or from site survey information. An IBS export utility or a text editor is used to create an ASCII file containing the siren names, locations, descriptions, and other attribute information. A loader script is used to load the data from this file into the relational database. An SQL script is then used to query the relational database and create an ASCII file in ArcView Event Theme format. This file contains the siren locations and attribute information and can be directly loaded as a point theme into ArcView.

3.3.1.15 Administrative Boundaries

Data on administrative boundaries (e.g., national forests, state parks, Native American reservations) are obtained from the IBS Administrative Boundaries data layer. An ASCII file containing the spatial coordinates and attributes of Administrative Boundary polygons is exported from IBS, imported into ARC/INFO, and then converted into shape files for an ArcView theme using ARC/INFO's ARCSHAPE command.

3.3.1.16 Road Themes (Detailed, Major)

The ARC/INFO TIGERTOOL command is used to convert TIGER/Line data files into ARC/INFO coverages for the counties surrounding the hazard site. Road features are then extracted from the full ARC/INFO coverages, and separate ARC/INFO coverages are created for detailed roads, one theme per county (line segments with a Census Feature Class Code [CFCC] that begins with "A"), and for major roads (CFCC beginning with "A1" or "A2"). These coverages are then converted to ArcView themes.

3.3.1.17 Railroads

The ARC/INFO TIGERTOOL command is used to convert TIGER/Line data files into ARC/INFO coverages for the counties surrounding the hazard site. Railroad features (CFCC beginning with "B") are then extracted from the full TIGER/Line ARC/INFO coverages and stored in a new ARC/INFO coverage. This coverage is then converted into an ArcView theme.

3.3.1.18 Streams and Water Bodies

The ARC/INFO TIGERTOOL command is used to convert TIGER/Line data files into ARC/INFO coverages for the counties surrounding the hazard site. Stream and water body features (CFCC beginning with "H") are then extracted from the full TIGER/Line ARC/INFO coverages and stored in a new ARC/INFO coverage. This coverage is then converted to an ArcView theme.

3.3.1.19 Elevation Contours

Elevation contour lines are obtained from IBS. An IBS import/export utility is used to generate an ASCII file in ARC/INFO `generate` format for a line (arc) theme. The resulting file may need to be edited or regenerated to retain only the contour lines for the contour interval desired. Multiple files can be generated if multiple contour themes with different contour intervals are desired. Each ASCII file is used to generate an ARC/INFO line coverage, and the coverage is then converted into the shape files of an ArcView theme.

3.3.1.20 Image Maps

Background image maps of the area surrounding the hazard site are obtained from the original Sunraster format images used to create the EMIS background image library. Images at up to four different scales (1:24,000, 1:100,000, 1:500,000, and 1:1 million) are currently incorporated into the FEMIS spatial database. The ARC/INFO GIS is used to register each image to another FEMIS data layer, such as roads or streams. The image must then be converted to a Tagged Information File Format (TIFF) graphics file, integrated with other images of the same scale, and exported to ArcView.

3.3.1.21 Other Themes

Other spatial data themes may be incorporated into a site-specific spatial database as required by the site. These themes may include (but are not limited to) interstate highways, interstate exits, populated places, place name boundaries, emergency route alerts, fire district boundaries, daytime population centroids, and night time population centroids. The procedures used to prepare and import these datasets into ArcView varies depending upon the source and format of the original data.

3.3.2 TIGER/Line Data

The TIGER/Line files, available on a CD, contain coordinates of points, lines, and polygons that represent physical features (e.g., roads, streams and water bodies, landmarks) and non-physical boundaries (e.g., states and counties, 1990 census tracts and blocks, state parks). The files also contain attribute information (e.g., feature name, feature type, census unit identifier) associated with each point, line, and polygon feature. The attribute information can be used by the ARC/INFO GIS software to select individual features by name or to select a group of features by feature type (e.g., interstate highways). The TIGER/Line files also contain topological information (left and right area identifiers for a line segment) that allows ARC/INFO to construct polygons and to link the polygon areas to their associated arcs, label points, and area attributes. TIGER/Line files do not contain statistical census demographic data.

Each TIGER/Line dataset represents one county in a given state and may contain up to 12 different record (file) types. Some of the record types are optional, and thus not all county datasets have all 12 files. The format and content of these 12 file types are documented in the *Technical Documentation for TIGER/Line Census Files, 1990* (U.S. Department of Commerce, Bureau of the Census, Washington, D.C., 1991).

ARC/INFO provides two commands that can be used to convert TIGER/Line data to Arc coverages and associated Info attribute files. The TIGERARC command performs the basic conversion of point, line, and attribute data and completes the conversion rather quickly (usually

3 to 5 minutes). The TIGERTOOL command performs a comprehensive conversion using a macro supplied with ARC/INFO, version 6.0 and higher. TIGERTOOL runs TIGERARC and also builds the line and polygon coverages, relates those coverages to the Info files that contain the various attributes associated with the geographic objects, and checks for and reports detectable errors or inconsistencies in the data. TIGERTOOL takes approximately 15 to 20 minutes to complete for a typical county dataset.

The syntax for the TIGERTOOL command for use within FEMIS is as follows:

```
TIGERTOOL <tiger_line_file_prefix> <out_cover_prefix> VTD
```

Each TIGER/Line county dataset contains a set of files with names that are identical except for the last character in the filename. The second item in the command line, `<tiger_line_file_prefix>`, should be set to this common part of the filename. The last character appended to the common filename indicates the file type. The 12 file types are described via an example dataset in the following paragraphs. Similarly, `<out_cover_prefix>` is the filename prefix to be used to identify the output coverages to be created by TIGERTOOL. The VTD option instructs TIGERTOOL to extract and store the Voting Tabulation District boundaries.

The set of TIGER/Line files for Gilliam County, Oregon (State FIPS Code 41, County FIPS Code 021) is given below as an example.

Note: The filenames contain a common prefix (`tgr41021.f4`) followed by a single character denoting the file type.

```
tgr41021.f41 - Type 1: Basic data records
tgr41021.f42 - Type 2: Shape coordinate points
tgr41021.f43 - Type 3: Additional census geographic area codes
tgr41021.f44 - Type 4: Index to alternate feature names
tgr41021.f45 - Type 5: Feature name list
tgr41021.f47 - Type 7: Landmark features
tgr41021.f48 - Type 8: Area landmarks
tgr41021.f4a - Type A: Additional polygon geographic area codes
tgr41021.f4i - Type I: Area boundaries
tgr41021.f4p - Type P: Polygon locations (internal points)
tgr41021.f4r - Type R: Record number ranges
```

There was no Type 6 data file (additional address range and ZIP code information) available for Gilliam County. Because the TIGERTOOL user documentation suggests that Type 4, 5, and 6 files should not be converted if the information in them is not needed, these files can be renamed so TIGERTOOL will not find them under the input file prefix `tgr41021.f4`.

TIGERTOOL creates three output coverages:

1. `<outcover_prefix>1` - contains arc (line) coordinates and polygon topology extracted from the basic data records (Type 1) and the shape coordinate points (Type 2)
2. `<outcover_prefix>2` - point coverage containing polygon label points from Type P records

3. `<outcover_prefix>3` - point coverage containing point landmark features from Type 7 records.

In addition, TIGERTOOL creates a collection of ARC/INFO attribute files that contain the attributes of points, lines, and polygons contained in the three GIS coverages. TIGERTOOL also builds a set of "relates" (relational joins) to link these Info attribute files to the arc attribute table (AAT) and point/polygon attribute table (PAT) files of the coverages. These "relate" definitions are named and stored in a file named `<outcover_prefix>.rel` and can be activated in ARC/INFO by using the `RELATE RESTORE <file_name>` command. Items (columns) in the related attribute files can then be accessed in ARC/INFO commands as though they were an item in the PAT or AAT file by using the syntax `<relate_name>//<item_name>`. The attribute files created by TIGERTOOL and their associated relate names are listed below.

1. `<outcover_prefix>1.acode` - arc attributes from Type 1 records. Relate name: `ACODE`.
2. `<outcover_prefix>1.type3` - additional census geographic area codes, including voter tabulation districts, from Type 3 records. Relate name: `TYPE3`.
3. `<outcover_prefix>1.pcode` - polygon (area) attributes from Type 1 records. Relate name: `PCODE`.
4. `<outcover_prefix>2.typea` - additional polygon geographic area codes, including congressional districts, from Type A records. Type A files also have reserved place holders for possible future storage of school district boundaries, traffic analysis zones, and urbanized area codes. Relate name: `ACODE`.
5. `<outcover_prefix>2.xcode` - polygon label points from Type P records. Relate name: `XCODE`.
6. `<outcover_prefix>2.typei` - area boundary identifiers from Type I records (contains both Type 1 record numbers and Type P polygon identifiers). Links Type 1 line segment records to the corresponding Type P polygon records (left and right). Relate name: `TYPEI`.
7. `<outcover_prefix>3.xcode` - attributes of point and area landmark features and longitude/latitude coordinates of point landmarks from Type 7 records. Relate name: `TYPE7`.
8. `<outcover_prefix>3.type8` - polygon identifiers for area landmarks from Type 8 records. Relate name: `TYPE8`.

These ARC/INFO attribute files and the predefined relates allow users of Arcplot (ARC/INFO map display subsystem) to select and display a specific theme (e.g., all hydrographic features) or a subset of features (e.g., primary and secondary divided highways) by relating the coverage to the CFCC attribute and selecting CFCC values that correspond to the desired feature types. Individual features (e.g., Interstate Highway 84) can be selected by feature name. Polygons of a specific type (e.g., census blocks boundaries) can be displayed by selecting all the line segments for which the left area identifier (e.g., census block identifier) differs from the right area identifier. Once the user has selected a group of similar features, these features can be extracted into an ARC/INFO coverage and then exported to an ArcView theme for use within FEMIS.

4.0 Managing Relational Data

The relational database contains approximately 180 tables that hold information used by the application software. As described in Section 3.2, Building Relational Data, some of the tables are preloaded with records before the system is deployed. As the system is used, new information is added and some of the initial information may be modified or deleted.

The FEMIS application software, including the models, are largely responsible for managing the information in the relational database. This section discusses the default information in the database and then describes the general purpose query tool that allows users to browse and modify data.

In the FEMIS system, all data access protection is performed by means of user interface screens. The procedures for giving FEMIS users the correct privileges to perform their tasks are provided in Section 15.0, System Management, of the *FEMIS System Administration Guide*.

4.1 Site Default Information and Considerations

When the database for a new CSEPP site is created, a set of default information is defined that meets the specialized requirements of the site. This information is solicited from the EOC users at the site and is loaded into the `EOC_Objective` table for each EOC.

The type of population information in the database is another default consideration. The database is designed to contain a set of "normal condition" population counts and then have flux or change counts to account for non-normal conditions. The census data available from the government is the primary source of population information.

The census data contains counts for many categories of people, such as by age range, gender, race, etc. For the Utah and Alabama sites that have databases now, the "total population" category was the default. This contains counts for all ages, both sexes, and all races. The definition of attributes of population categories are stored in the table called `Population_Definition`.

The census data is gathered by asking people in residential areas how many people live at that residence. Since most people in a residence are more likely to be at home during the night than the day, these counts best define night time numbers. Also, since many families have routines that are structured around the 5-day workweek, the counts are good indicators of weekday populations while not accounting for the whereabouts of people on weekends or special events. Based on these considerations, the normal condition for population information is weekday, nighttime conditions. These counts are stored in the `Population_Location` table.

To create data supporting non-normal population conditions, information about changes to normal population counts needs to be supplied in the `Population_Flux` table. For example, to know how many people were in a census block during the weekday, daytime hours, the `Population_Flux` table would have to have a count of the number of persons leaving (-) or entering (+) the block during the day. Normally this would be a negative value due to people at

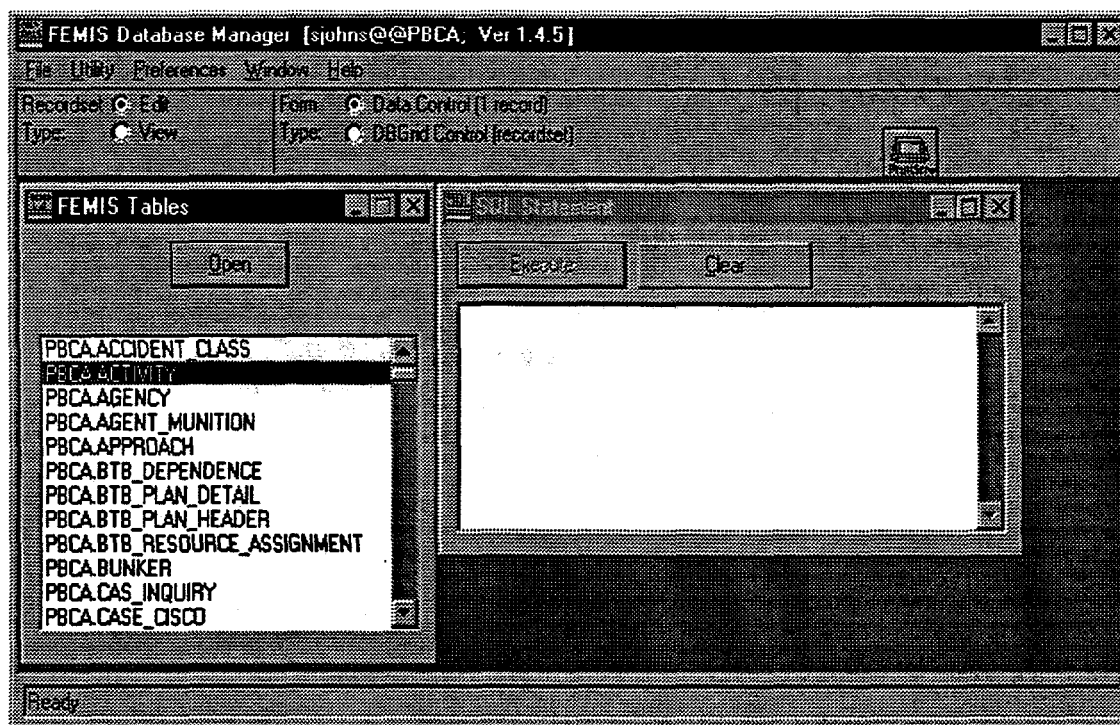
work or children in school. This flux or change information is difficult to assemble from government sources and it probably has to be entered at the site after the system is installed.

4.2 FEMIS Data Manager Tool

This FEMIS application has many user interface windows for accessing and managing relational data. The online help function provides a convenient user guide. A collection of the relational tables has no formal user windows and relies on a general-purpose tool to manage the records in them. This section describes how this tool is used and provides guidelines to manage the relational database while FEMIS is in use.

The FEMIS Data Manager Tool is activated by clicking on the Start->Programs->FEMIS->Database Manager. The FEMIS login window displays and the user must enter a valid username and password for the EOC database that will be accessed. Then the FEMIS Database Manager window displays.

The appearance of the window depends on the privilege of the user. UN.DB_mgr Edit privilege is required for the full function version shown below. A view only version of the window is displayed if the user has at least UN.DB_mgr Browse privilege. This contains the same information as the full function version except that no Recordset Type Edit button is provided and no SQL window is provided. Other differences are dependent on user selection of the Recordset Type Edit button prior to opening a table.



Note: When Recordset Type Edit is selected, tables will be opened as Dynasets and data can be modified. When Recordset Type View is selected, tables will be opened as Snapshots and are read only.

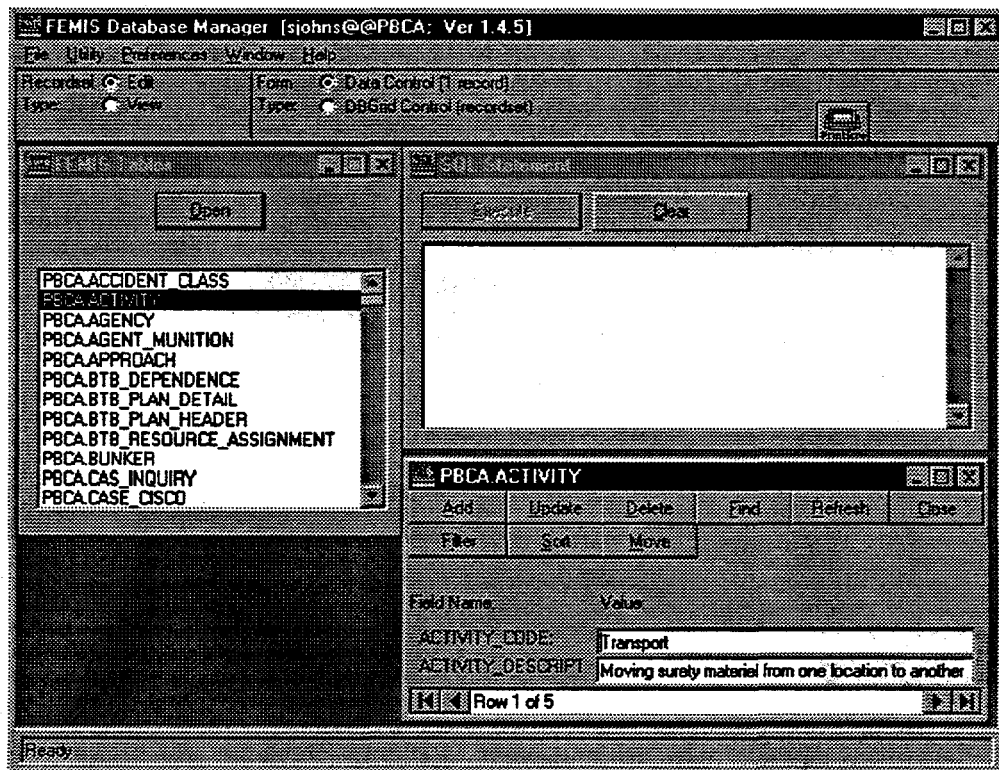
The FEMIS Tables window contains a list of all tables in the relational database which are appropriate to the users Recordset Type selection and the current default EOC. Replicated tables (S_XXX...) are removed from the list when in edit mode; system tables and MLOG\$ tables are never shown.

The SQL Statement window on the right is used to formulate a user query, but normally it is not used. It can be changed into an icon by selecting the Close option or by double clicking on the control box in the upper left corner of this window.

Regardless of mode, two options exist for viewing the data in a table. This is controlled by selecting a Form Type. A Form Type of Data Control will present the data one record at a time with a Data Control bar to move from record to record. A Form Type of DBGrid Control will present the data in a spreadsheet format with scroll bars.

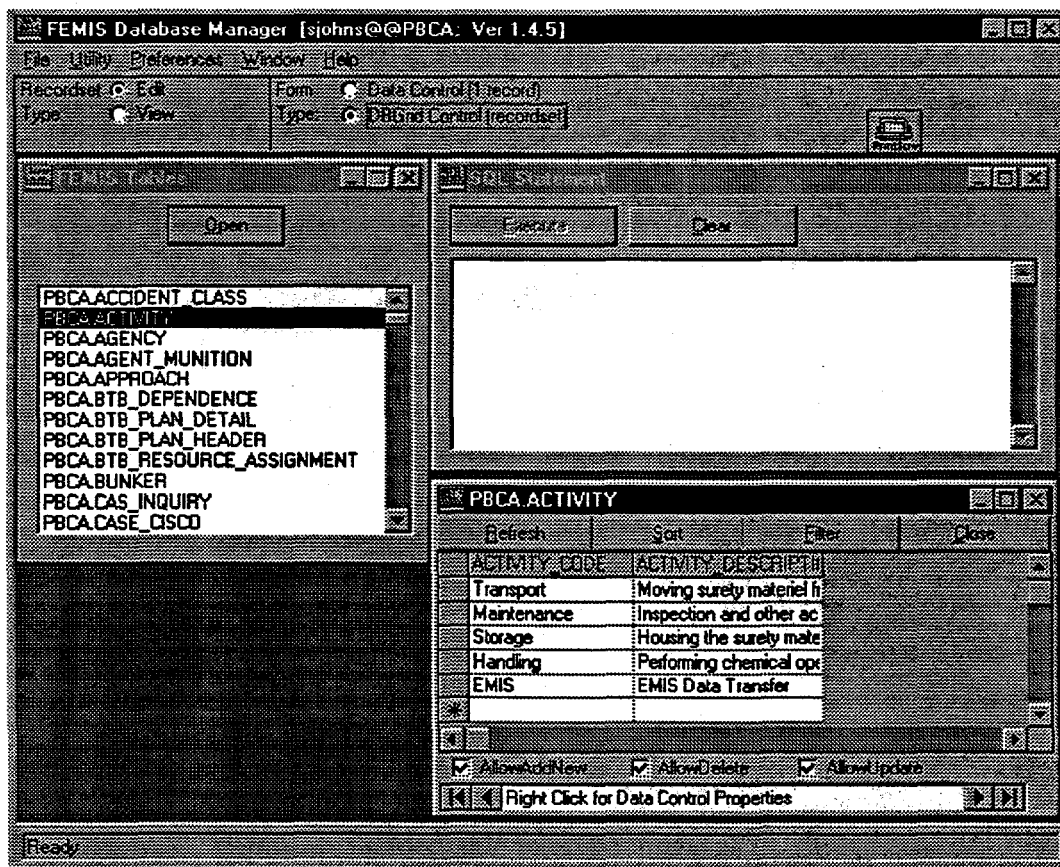
4.2.1 Data Control

The Data Control Form Type which presents a single record at a time for viewing or editing (if in Edit Mode) contains some additional command buttons which are sometimes useful. The Add, Update, and Delete buttons (available only in Edit Mode) allow editing of the current record in the Dynaset. The Find, Filter, Sort and Move buttons all provide search and organization options for viewing the data regardless of mode. Refresh will redo the snapshot or Dynaset. The Close button will close the window and prompt to commit changes if any were made.



4.2.2 DBGrid Control

To view multiple records, select the DBGrid Control radio button and select a table from the list. You can double click on a table name or highlight it and then click on the Open button. This will display a Snapshot or Dynaset depending on your mode (View or Edit) on the selected table and display it in a multi-record grid display. If the record is longer than the width of the window or there are more records available than can be shown, scroll bars are presented to view all the records and fields. The Refresh button will redo the display. The Sort and Filter buttons are search and organization options for viewing the records in the table. The Close button will close the window. The control bar at the bottom of the window can be used to quickly move through large numbers of records or to view current data control properties. These properties are not editable regardless of mode.



4.2.3 Editing in the DBGrid Control

The check boxes shown near the bottom of the window, (AllowAddNew, AllowDelete and AllowUpdate) are only available if the table was opened in Edit mode. These functions allow one to Add new records, Delete existing records, or Modify existing records in the Dynaset.

If AllowAddNew is checked, a "*" will be found at the bottom of the table next to the leftmost column, and you can place the cursor in that blank row and add information. On completion of the record (signaled by moving to another record), you will be prompted to commit changes. If

you commit changes, some limited error checking will be performed but remember that this is a general purpose tool and is not knowledgeable of all the controls included in the FEMIS application interface.

If **AllowDelete** is checked, you can select a row for deletion by clicking on the gray column (next of the **ACTIVITY_CODE** column), and then press the delete key. You will be prompted to confirm the deletion. If you confirm the deletion, the table will be refreshed with the row removed.

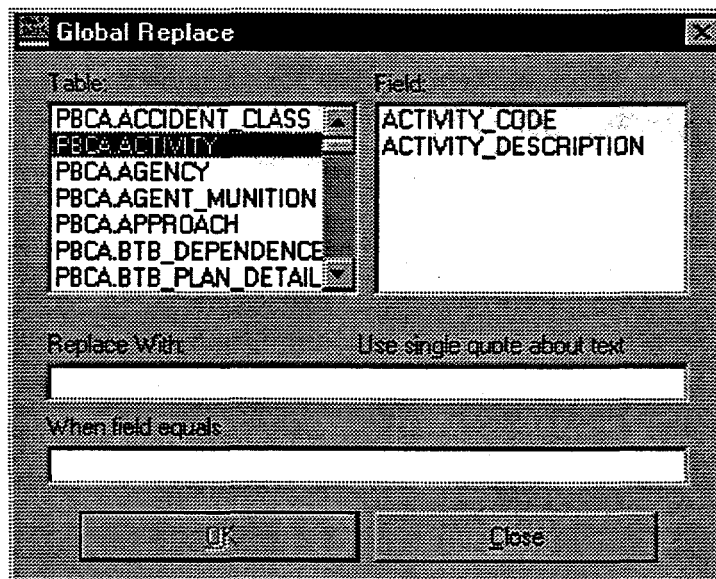
If **AllowUpdate** is checked, you can mouse on a particular data cell and modify its contents. You will be prompted to confirm the change when you move to another row.

4.2.4 Other Data Management Functions

To obtain a list of any errors you may have encountered during your session, click on **Errors** under the **File** menu. You can click on **Properties** to view properties of the **DBEngine** or **Workspace** and the **Print** entry will allow you to print the **Current Screen**, **Current FEMIS Window**, **Current FEMIS Child Window** or **Selected Area** (as does the **Print** button).

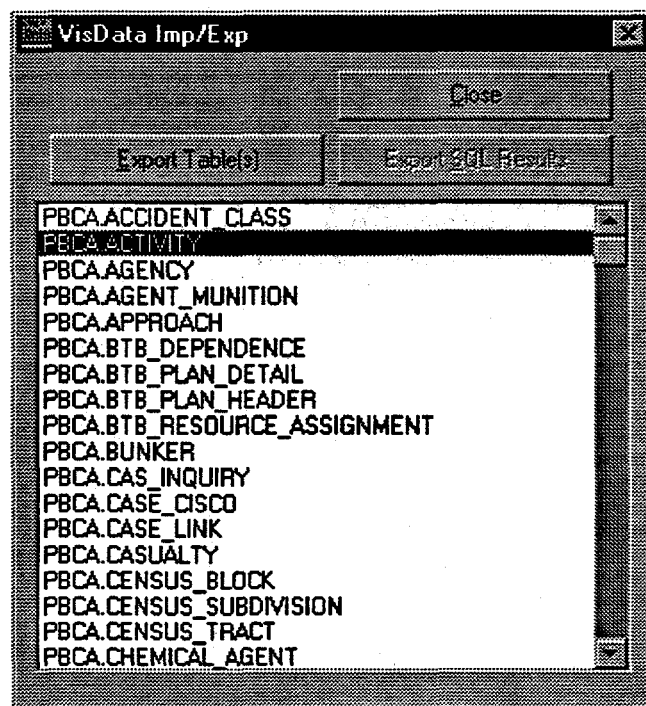
The **Utility** menu provides options for global replacement, export, and various options for closing forms.

When in **Edit Mode**, you can use the **Global Replace** option. **Global Replace** will, when a specified condition is met, replace values in a particular field with some new value.



The **Global Replace** dialog box is shown. It has a title bar with a close button. Inside, there are two list boxes: **Table** and **Field**. The **Table** list box contains the following items: **PBCA.ACCIDENT_CLASS**, **PBCA.ACTIVITY** (which is selected), **PBCA.AGENCY**, **PBCA.AGENT_MUNITION**, **PBCA.APPROACH**, **PBCA.BTB_DEPENDENCE**, and **PBCA.BTB_PLAN_DETAIL**. The **Field** list box contains **ACTIVITY_CODE** and **ACTIVITY_DESCRIPTION**. Below these list boxes, there is a text input field labeled **Replace With:** and a checkbox labeled **Use single quote about text**. Below that is another text input field labeled **When field equals:**. At the bottom of the dialog box are two buttons: **OK** and **Close**.

It also provides an option to export a selected table or results of a SQL query in a variety of formats.



The Preferences drop-down menu allows you to turn on/off the display of statistics on the opening/loading of tables—Show Performance Numbers. You can also specify a two time out values—Query Timeout Value and Login Timeout Value.

4.3 Managing Relational Data

This section describes several considerations and provides some guidelines that will help you manage the relational database. Topics included are database integrity, testing modifications, managing exercise data, archiving data, and backup and recovery of the database.

4.3.1 Database Integrity

The information in the relational database has complex inter-relationships that must be maintained. The user interface windows have been designed and tested to achieve this integrity.

CAUTION

Changing the FEMIS relational database tables can destroy the functionality of the FEMIS application. Observe extreme care when performing any maintenance in the relational database.

Do not allow general users to modify the relational database. Database adjustments should only be performed by qualified Database Administrators.

When changes are made using the FEMIS Data Manager tool or other tools, such as SQL*Plus, care must be taken to prevent inconsistencies in the database. Only FEMIS users that understand the database should be given access to tools that allow modifications.

4.3.2 Testing Modifications

It is recommended that any significant changes to the database are first tested by implementing them on an exercise dataset, see Section 6.0, Managing Exercise Data. If problems are encountered, the exercise data can be easily deleted without any impact on the operational data. When the changes have been tested, then they may be applied to the operational data.

4.3.3 Exercise Data

Each time a new exercise dataset is generated, approximately one-half of the tables in the relational database gain a significant number of new records. If the obsolete exercise data is not removed, database performance may be impacted. Section 6.0, Managing Exercise Data, describes the maintenance of this type of data. Each dataset should be documented and unnecessary data deleted.

4.3.4 Archiving Tables

The Journal table (where events are logged) and the Met tables require some maintenance because these tables grow daily as the system is used. The frequency of archiving depends on how the system is used. For example, if FEMIS is operated 7 days a week for 24 hours a day with continuous Met feed, the Met_Condition table records could increase or grow by approximately 1,000 records per day. In a month, nearly 30,000 records would accumulate, and in a year the count would be approximately 360,000. The Journal table rate of growth would be less than the Met tables, but after a year's time, it may approach 100,000 records. These numbers of records would not fill the tables or the database but would be undesirable to view in the Status Boards.

Data should be archived when users indicate too many records are present or when the Database Administrator determines older records in the table are no longer useful. Because the archived data can be reloaded, archival does not mean the data is lost. Once the FEMIS system use pattern is set and fairly stable, archiving can be done periodically as part of standard system administration policies.

A timed archiving capability is available to periodically remove records from these two tables. Section 13.0, Backup Strategy, in the *FEMIS System Administration Guide* describes how to use this capability. The manual archiving program still exists and can be used for special situations and is described below.

The archive program is located in the /home/femis/database/eocdba directory.

Note: The archive program is a generic tool for archiving two types of data for any FEMIS database. The tool will allow you to archive and delete data for other EOCs—do not archive or delete data for other EOCs unless authorized to do that task.

The following example illustrates how to archive Journal data for the onpost EOC in Utah.

Go to the directory where the archive programs are kept.

```
% cd ~femis/database/eocdba
```

Start the archive program.

```
% archive.sh
```

The first menu that displays allows you to select the database from which you wish to archive data.

```
Databases
=====
tead
ctoo
utst
=====
Choice ==>
```

For example: to archive data for the onpost EOC, enter tead.

The second menu allows you to select the type of data to archive.

```
Archive Data Menu
=====
met
journal
=====
Choice ==>
```

For example: to archive Journal data, enter journal.

Then you will see some informational messages, including the directory into which the .dmp file will be placed and the name of the .dmp file.

```
* * * MSG: Output to: /files6/home/femis/dev/inf/eocdba
* * * MSG: Exporting to: tead_1996-04-19-09-52_journal.dmp
```

Note: The .dmp file name includes both the date and time.

Then the actual export begins, so you will see some messages from the Oracle Export utility, exp. The name of each table and the number of records exported are also displayed; you should verify that the record count is an expected value.

When the export completes, you should see the message:

```
Export terminated successfully without warnings.
```

The following message is verifying that you saw the message above regarding the export completing successfully.

Did the export complete successfully? [N] ==>

Enter Y if the export was successful, and the program will continue and allow you to specify which data to delete. If the export did not work properly OR if you do not want to delete any data, then enter N.

Normally you will enter Y, and then you will be asked for an archive date.

Enter archive date (MM/DD/YY) [04/23/96] ==>

Any data older than the date you enter will be deleted from the database. If you want to use the default date (today), just press <Enter>.

Then you will be asked to confirm the deletion of data.

Do you really want to delete records older than 4/1/96? [N] ==>

If you do want to delete the data, enter Y.

Then the Oracle SQL*Plus utility will delete records from the table(s), displaying other status messages as it runs. The last message from SQL*Plus is the important one – how many rows were deleted? Was it the expected number?

Finally, the archive tool will display the following archive complete message and exit.

* * * MSG: Archive of journal in tead is complete

The .dmp file should then be moved to the exports directory.

```
% mv *.dmp ../exports
```

The .dmp file will be backed up to tape as part of the normal system backup process. However, the Database Administrator should periodically remove old .dmp files, especially when the volume of data is over 100MB.

4.3.5 Backup and Recovery of the Database

The database files should be backed up at regular intervals. One backup per day, during off-use times, should be sufficient; the site System Administrator may decide that more frequent backups are desirable. In case of disk failures or other serious problems involving the database, the files can be restored from the last backup. See the Section 13.0, Backup Strategy, in the *FEMIS System Administration Guide* for additional details on backing up the database.

4.4 Data Sharing Between EOCs

Information in the EOC databases is shared between EOCs in order to provide users with a site-wide concept of the current status of conditions. In FEMIS, this sharing is done several different ways.

4.4.1 Depot Owned Tables

The simplest sharing is done with the Depot tables that only the Depot can modify. Examples are the BUNKER and MET_CONDITION tables. Offpost EOCs are provided with a read only copy of this data that reflects all changes made onpost. These shared tables are listed as follows:

BUNKER
CSEPP_ACCIDENT
D2_MET_SELECTION
MET_CONDITION
MET_TOWER
STORED_AGENT
WORK_PLAN
WORK_PLAN_ACT
WORK_PLAN_ACTIVITY

4.4.2 Site-wide Shared Tables

The other form of data sharing assembles copies of other EOC data in a site-wide view. For example, Facility table data is shared in a view named S_FACILITY that contains information from all EOCs including the local one. There are several options available for this type of data. Table 4.1 shows the tables shared with the site-wide views and indicates the default options. If additional tables are shared, a new version of FEMIS is required.

One option is to share the data conditionally based on the setting of a flag in the table. This allows changes in the local database to occur without propagation of the data until the user wants to share it (if sharing is desired). This option is not modifiable in the current release of FEMIS; if changes are desired, a new version of FEMIS would be required to account for the modifications.

The other option allows the Depot to not share their data in these site-wide views. For example, the Depot may not want the offpost EOCs to view their resource data. It is possible to modify this option by tailoring data sharing at the site. To do this, modify the default settings in the vuelist.tpl file in the /home/femis/database/dba directory. To remove the Depot FACILITY table from the offpost S_FACILITY views, change the Restricted condition from N to Y. This modification has to be done at the time of a fresh install or a complete reinstall of FEMIS.

CAUTION

Be very careful when changing data sharing options since errors may cause FEMIS to operate incorrectly and serious errors could be introduced.

Table 4.1. Site-Wide View Tables

Table Name	Conditional	Restricted
AGENCY	N	N
D2_INPUT	Y	N
D2_ITEM_OF_INTEREST	Y	N
D2_I_CONCENTRATION	Y	N
D2_I_DOSAGE	Y	N
D2_I_MET	Y	N
D2_I_QUANTITY	Y	N
D2_I_RELEASE_NUM	Y	N
D2_MET_SELECTION	Y	N
D2_O_RUN_DT	Y	N
DEPARTMENT	N	N
FACILITY	N	N
FEMIS_OBJECT	N	N
GIS_LAYER	N	N
GENERIC_TEXT	Y	N
GIS_OBJECT	N	N
INTERVAL_QUANTITY	Y	N
JOURNAL	Y	N
KNOWN_POINT	N	N
KP_CLASS_DEF	N	N
KP_SUB_CLASS_DEF	N	N
KP_HISTORY	N	N
LOCAL_CONFIG	Y	N
MEMO_UNDERSTANDING	N	N
PA_DECISION_MATRIX	Y	N
PA_UNIT	N	N
PERSON_SHELTERED	N	N
PLUME	Y	N
POSITION	N	N

POTENTIAL_ACCIDENT	Y	N
POTENTIAL_THREAT	Y	N
RELEASE	Y	N
REPLICATION_TEST	N	N
RESOURCE_CATEGORY	N	N
RESOURCE_DEFINITION	N	N
RESOURCE_OWNER	N	N
RESOURCE_LOCATION	N	N
RESOURCE_MOU	N	N
SHELTER	N	N
TRAFFIC_CONTROL_POINT	N	N
UDS_COLUMN	Y	N
UDS_ROW	Y	N
USER_DEFINED_STATUS	Y	N
USER_MODEL_CASE	Y	N
WEDGE_POLYGON	Y	N
WK_POSITION	N	N
ZONE_CLUSTER_IN_GROUP	N	N
ZONE_IN_GROUP	N	N
ZONE_RISK_GROUP	N	N

5.0 Managing Spatial Data

FEMIS spatial datasets are stored as ArcView themes (layers). Each theme represents a specific type of geographic feature (e.g., roads, state and county boundaries, facility locations) within the area of interest surrounding the CSEPP site. Table 3.5 lists each of the standard FEMIS spatial themes and describes the storage structures and other characteristics of these themes. The data files for each spatial theme are stored on the UNIX server in a directory structure that allows them to be easily installed on each PC. Users maintain copies of these theme files in a parallel directory structure on their client PCs for use with the ArcView GIS software. In update mode, the FEMIS GIS setup program checks the modification date of themes on the server and automatically updates the local copies of the theme files if they are obsolete.

The `GIS_LAYER_DEFINITION` table, in the relational database, contains information on the spatial data storage structure in the form of a set of rules defining the FEMIS naming convention for themes, file directories, files, and ArcView legends. In addition, tables in the relational database contain attribute values and other information about the features in the spatial themes. Other tables link the spatial data to this attribute information.

The FEMIS spatial data can be divided into three categories: system spatial data, user-modifiable spatial data, and model-related spatial data. These categories are discussed below.

1. System spatial data themes change infrequently and are managed and controlled by the system data administrator. Users cannot modify the spatial information contained in these themes. Examples of system spatial themes are roads, census blocks, and emergency planning zone boundaries.
2. User-modifiable spatial data themes can be modified by users from within certain FEMIS modules. User modifications are restricted to adding new features (map objects) to an existing theme. The system data administrator retains control over modification and deletion of existing features in these themes. Facilities are an example of a user-modifiable spatial theme.
3. Model-related spatial data themes are created for each model case that is run. These themes are temporarily generated and stored on the user's PC as needed.

5.1 System Spatial Datasets

The following paragraphs briefly describe the management and maintenance process for the "static" FEMIS spatial themes that cannot be modified by FEMIS users.

5.1.1 Census Blocks

Enumeration district boundaries are maintained by the Database Administrator. Changes in the data would originate from updated TIGER/Line data from the U.S. Bureau of the Census. Depending on the nature and magnitude of the changes, the data administrator could choose either

to regenerate the entire theme from the new TIGER/Line files for the affected counties (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the ARC/INFO coverage and then export the modified coverage to ArcView.

5.1.2 County Boundaries

The county boundaries theme is maintained by the Database Administrator. Changes in the data would originate from updated TIGER/Line data from the U.S. Bureau of the Census. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate the entire theme from the new TIGER/Line files (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the existing ARC/INFO coverage and then export the modified coverage to ArcView.

5.1.3 Accident-Based Planning Categories

The Database Administrator is responsible for maintaining this theme at each site. If changes in the category boundaries are recommended by the Accident Based Planning Review Group, the theme can be regenerated by running the ArcView/Avenue script `createABPC` using the desired parameters for center location and radius.

5.1.4 Igloos (point)

Igloo themes are maintained by the Database Administrator at each site. Changes in the data from onpost (new igloo constructed, existing igloo destroyed, or a correction in the location and/or content of an existing igloo) are made by updating the igloo information in the relational database, and then running an SQL script to regenerate the ArcView event theme file for igloos.

5.1.5 Emergency Planning Zones

This theme is maintained by the Database Administrator at each site. Changes in the data, due to changes in zone boundaries or the addition of new zones, can be made by editing the ASCII "Generate" text file for zones, regenerating the ARC/INFO coverage from the ASCII file, and then converting the coverage to an ArcView theme that replaces the previous Zone theme.

5.1.6 Depot Zones

The Depot Zones theme is maintained by the Database Administrator. Changes to the Depot Zones theme must be made by editing the original ARC/INFO "Generate" Depot Zones file (a text file), using the edited file to recreate the ARC/INFO Depot zones coverage, and then converting the coverage to ArcView shape files; or by using ArcEdit to graphically edit the previously created ARC/INFO coverage, and then converting the edited coverage to shape files.

5.1.7 Met Towers

The Met tower point location theme is maintained by the Database Administrator. If a new Met tower is constructed, an existing tower is taken out of service, or a correction is needed in the

location data for an existing tower, the changes would be made by updating the information on Met towers in the relational database, and then running an SQL script to regenerate the ArcView event theme file for Met towers.

5.1.8 Warning Sirens

The warning sirens point location theme is maintained by the Database Administrator. If a new warning siren is constructed, an existing siren is taken out of service or a correction is needed in the location of an existing siren. The location correction would be made by updating the information on sirens in the relational database, and then running the SQL script to regenerate the ArcView event theme file for sirens.

5.1.9 Administrative Boundaries

Administrative boundaries (e.g., national forest boundaries) are maintained by the Database Administrator. Changes in the data will likely originate from new or updated United States Geological Survey (USGS) Digital Line Graph (DLG) data, which was the original source of the IBS Administrative Boundaries data. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate the entire theme from the new USGS data files (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the Administrative Boundaries coverage and then export the modified coverage to ArcView.

5.1.10 Road Themes (Detailed, Major)

Road network themes (Detailed and Major) are maintained by the Database Administrator. Changes in the data would originate from updated TIGER/Line data from the U.S. Bureau of the Census. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate each affected theme from the new TIGER/Line files (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the appropriate ARC/INFO coverages and then export the modified coverages to ArcView.

5.1.11 Railroads

The railroads theme is maintained by the Database Administrator. Changes in the data would likely originate from updated TIGER/Line data from the U.S. Bureau of the Census. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate the entire theme from the new TIGER/Line files for the affected counties (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the existing ARC/INFO railroads coverage and then export the modified coverage to ArcView.

5.1.12 Streams and Water Bodies

The streams and water bodies theme is maintained by the Database Administrator. Changes in the data would originate from updated TIGER/Line data from the U.S. Bureau of the Census. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate the entire theme from the new TIGER/Line files for the affected counties (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the existing ARC/INFO coverage and then export the modified coverage to ArcView.

5.1.13 Elevation Contours

The elevation contours theme is maintained by the Database Administrator. Changes in the data would likely originate from new or updated USGS elevation data, which was the original source of the IBS Elevation Contours data. Depending on the nature and magnitude of the changes, the data administrator could choose either to regenerate the entire theme from the new USGS data files (the recommended method), or to use ARC/INFO's ArcEdit utility to edit the elevation contours coverage and then export the modified coverage to ArcView.

5.1.14 Image Maps

Image maps are maintained by the Database Administrator. Revised image maps are incorporated into the spatial database in the same manner as the original image maps were installed (registration in ARC/INFO, conversion to a TIFF graphics file, integration with other images, and export to ArcView). An image map of an area not previously represented would be added to the image files. A revised image map of an area previously represented would replace the obsolete image map file of the same area.

5.2 User-Modifiable Spatial Datasets

This section discusses accident-based planning wedge themes and facility themes. Users that have the appropriate privileges can modify these themes from within FEMIS.

5.2.1 Facilities

Separate facility themes exist for each EOC. Users can add, delete, or modify facilities in their EOC's facility theme from within FEMIS. After a user has finished making the changes and submits the new information to the database, an SQL-PASSTHRU query is automatically run from the FEMIS application. This query updates the appropriate database tables and creates an ASCII text file that is used to generate a new facility theme for the EOC. The Database Administrator can update any EOC's facility theme by following the same process.

5.2.2 Traffic Control Points

Separate traffic control point themes exist for each EOC. Users can add, delete, or modify traffic control points in their EOC's traffic control point theme from within FEMIS. After a user has finished making the changes and submits the new information to the database, an SQL-PASSTHRU query is automatically run from the FEMIS application. This query updates the appropriate database tables and creates an ASCII text file that is used to generate a new traffic control point theme for the EOC. The Database Administrator can update any EOC's traffic control point theme by following the same process.

5.2.3 Known Points

Separate known point themes exist for each EOC. Users can add, delete, or modify known points in their EOC's known point theme from within FEMIS. After a user has finished making the changes and submits the new information to the database, an SQL-PASSTHRU query is automatically run from the FEMIS application. This query updates the appropriate database

tables and creates an ASCII text file that is used to generate a new known point theme for the EOC. The Database Administrator can update any EOC's facility known point by following the same process.

5.2.4 Accident-Based Planning Wedges

Separate accident-based planning wedge themes exist for each EOC. Users can add or delete wedges in their EOC's planning wedge theme from within FEMIS. After a user has finished making the changes and submits the new information to the database, an `SQL-PASSTHRU` query is automatically run from the FEMIS application. This query updates the appropriate database tables and creates an ASCII text file that is used to generate a new planning wedge theme for the EOC. The Database Administrator can update any EOC's planning wedge theme by following the same process.

5.3 Model-Related Spatial Datasets

Model related spacial datasets include the following themes: D2PC track (Dosage), D2PC track (Concentration), evacuation nodes, evacuation links, and evacuation centroids. For each of these themes, the actual ArcView GIS files are located on the PC. No model files for the GIS are stored on the server.

5.3.1 D2PC Theme Data

Although GIS D2PC files may be found on the PC, they are in fact regenerated each time a D2PC plotting function is invoked. These GIS D2PC files are viewed as temporary files.

5.3.2 Evacuation Theme Data

Evacuation theme data is stored in the database; however, this data is used to generate GIS files within ArcView on a PC by PC basis. For example, if someone changes some geographic information for an evacuation case on one PC, the evacuation grid for that case will need to be regenerated on any other PC to utilize the latest information. The GIS layer for an existing evacuation case may be generated on any PC by using the `Create Network` option contained within the evacuation interface.

6.0 Managing Exercise Data

Training and readiness are evaluated through exercises. The FEMIS system supports training or exercise of any aspect of the system's use while still maintaining the integrity of the real world data and situation. In Exercise mode, FEMIS uses copies of the real data so the exercise can be as similar to real world use as possible. Both Planning and Operational modes exist under exercise.

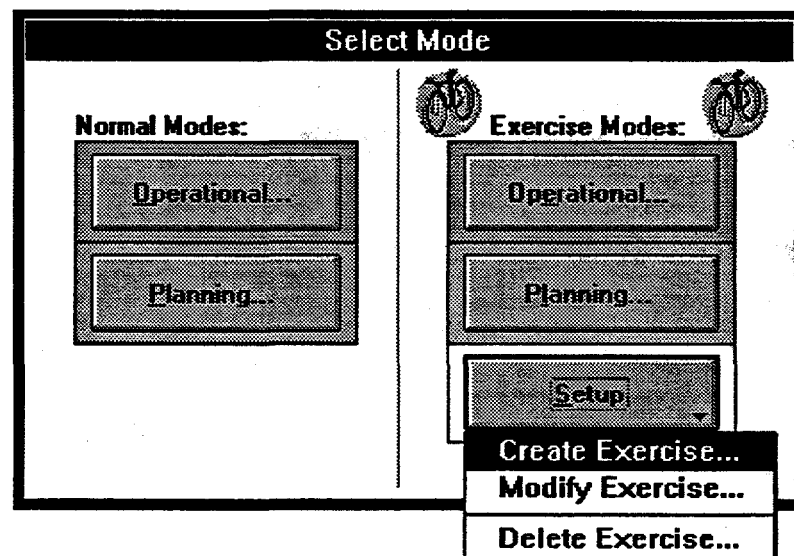
An exercise situation can be set up to meet exercise objectives. Over 90 of the tables in the relational database are used for exercises. Each table can contain data for many exercises. This section describes how to manage this type of data.

When you are in Exercise mode, a bike icon is displayed on FEMIS windows.

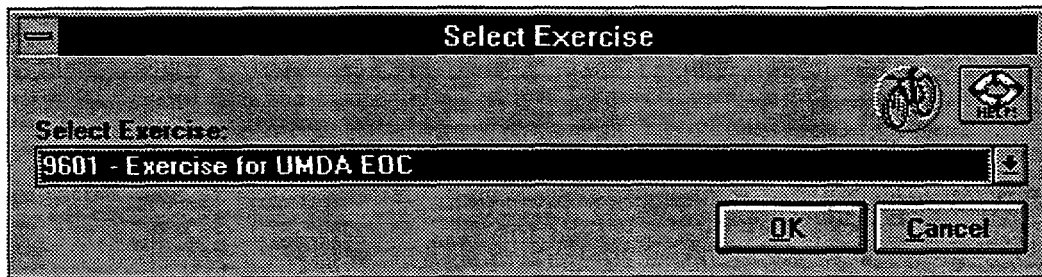


6.1 Selecting Exercise Modes

To start Exercise model from the Select Mode window, click on either the Operational or Planning button located on the right side of this window. You will use these modes for training or formal site exercises.



The Select Exercise window is displayed with a drop-down list so you can select an exercise. After you have selected an exercise, the Tracking Navigator window is displayed.



To create, modify, or delete an exercise, click on the **Setup** button on the **Select Mode** window, which displays these three options: **Create Exercise**, **Modify Exercise**, or **Delete Exercise**.

6.2 Creating an Exercise in Exercise Mode

FEMIS enables the appropriate environment to be created for a desired exercise. Because exercise objectives may require particular circumstances, the user should have a clear understanding of the new exercise before proceeding.

From the **Select Mode** window, click on the **Setup** button and then the **Create Exercise** option to display the **Exercise Setup: Create Exercise** window.

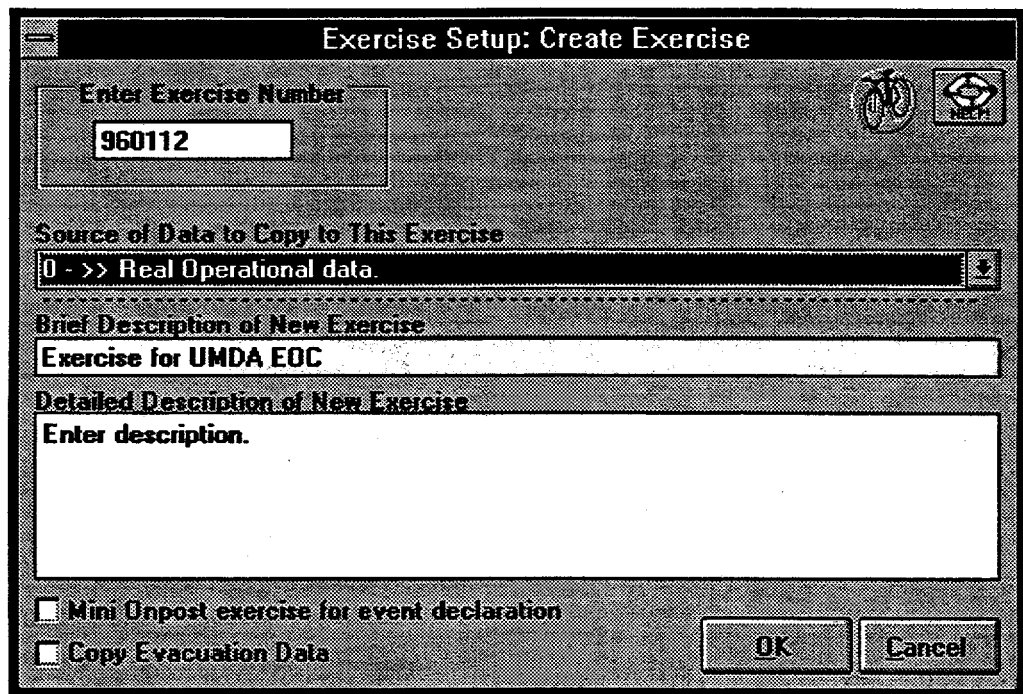
To create a unique exercise, click on the drop-down list button to display the available choices for the **Source of Data to Copy to This Exercise**. Usually you will want to use **Real Operational data** as the basis of the new exercise, so you will select **0 - >> Real Operations data** from the list. You can also select an existing exercise, assign it a new number, and later modify it serve your exercise purpose (see Section 6.3, **Modifying an Exercise in Exercise Mode**).

The **Mini Onpost exercise for event declaration** checkbox creates exercise data for an event. The **Copy Evacuation Data** checkbox allows the Evacuation tables to be copied. Due to the size of these tables, use this option sparingly.

To save the new exercise, click the **OK** button. The **FEMIS Exercise Manager** message window indicates the exercise has been created and displays the total records copied. Click the **Cancel** button to exit without creating a new exercise.

FEMIS will ensure data integrity between exercise, real, and planning data. During an exercise some data may be entirely simulated while other data may be real. FEMIS enables you to specify when the data is real in as non-obtrusive a way as possible.

During the exercise itself, FEMIS supports exercise control by allowing the controller to inject information into the exercise data, use E-mail, and review the exercise using FEMIS status boards.



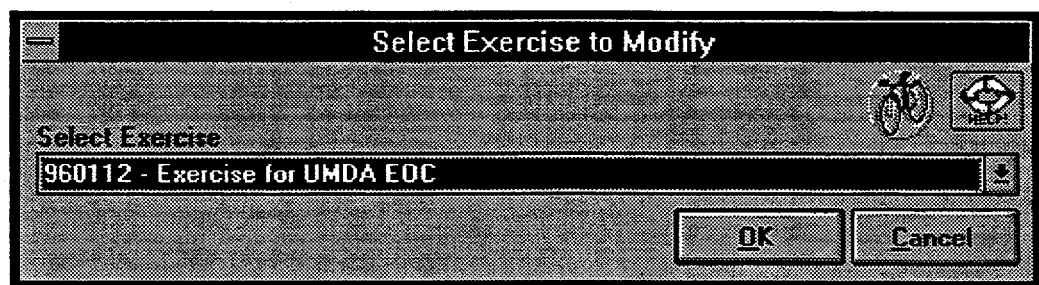
The dialog box is titled "Exercise Setup: Create Exercise". It contains the following fields and controls:

- Enter Exercise Number:** A text box containing the value "960112".
- Source of Data to Copy to This Exercise:** A dropdown menu showing "0 - >> Real Operational data.".
- Brief Description of New Exercise:** A text box containing "Exercise for UMDA EOC".
- Detailed Description of New Exercise:** A large text area with the prompt "Enter description.".
- Mini Onpost exercise for event declaration:** An unchecked checkbox.
- Copy Evacuation Data:** An unchecked checkbox.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.
- Icons:** A bicycle icon and a help icon in the top right corner.

6.3 Modifying an Exercise in Exercise Mode

FEMIS enables the system manager/exercise director to modify an existing exercise to fit changing site requirements.

To modify an exercise, click on the **Modify Exercise** option to display the **Select Exercise to Modify** window.

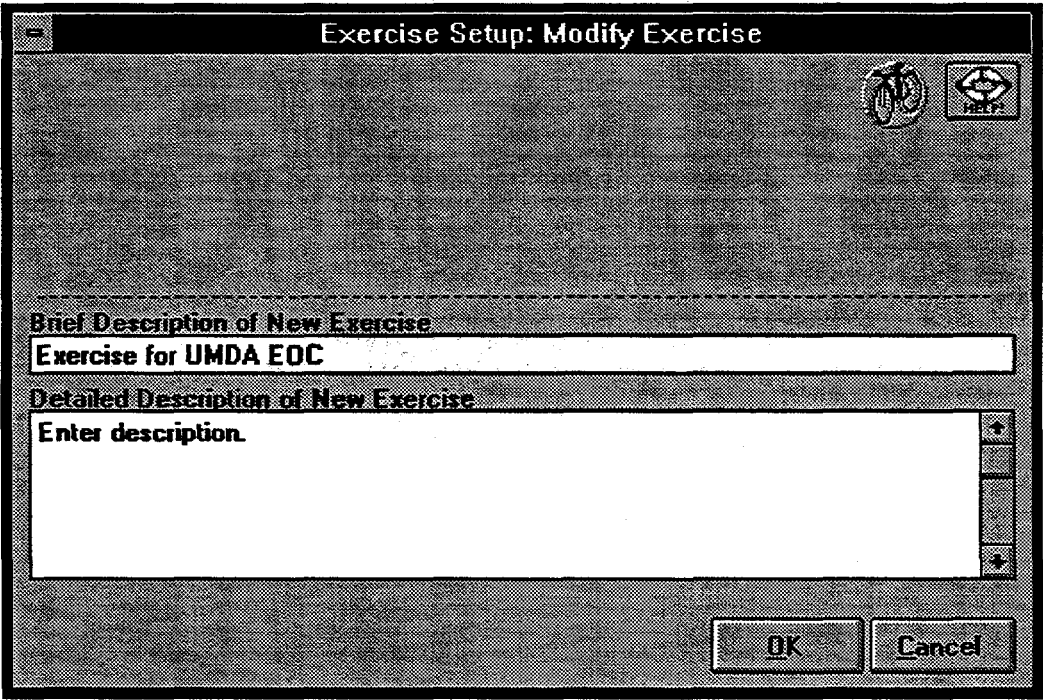


The dialog box is titled "Select Exercise to Modify". It contains the following fields and controls:

- Select Exercise:** A dropdown menu showing "960112 - Exercise for UMDA EOC".
- Buttons:** "OK" and "Cancel" buttons at the bottom right.
- Icons:** A bicycle icon and a help icon in the top right corner.

From the drop-down list, select the name of the exercise you want to modify and click the OK button.

The **Exercise Setup: Modify Exercise** window is displayed with the details of the selected exercise prefilled in the various fields.



The dialog box is titled "Exercise Setup: Modify Exercise". It contains two text input fields. The first field is labeled "Brief Description of New Exercise" and contains the text "Exercise for UMDA EOC". The second field is labeled "Detailed Description of New Exercise" and contains the text "Enter description.". There are two buttons at the bottom right: "OK" and "Cancel".

Click the **OK** button to save your changes. Click the **Cancel** button to exit without modifying the exercise.

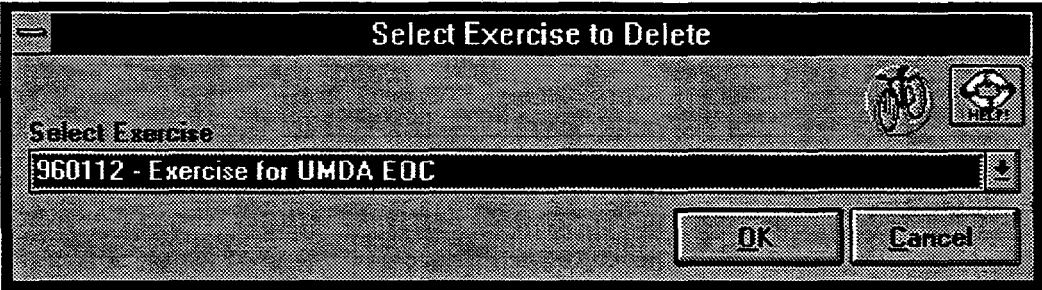
At this point, you can modify the exercise to fit your needs by using the FEMIS user interface and the FEMIS Data Manager. The Brief Description of New Exercise and the Detailed Description of New Exercise fields should be modified to indicate details of the modified exercise.

6.4 Deleting an Exercise in Exercise Mode

FEMIS enables you to delete an exercise without affecting the Operations mode.

Exercises take up a lot of database space. To keep your database from filling up with exercises, delete them as necessary.

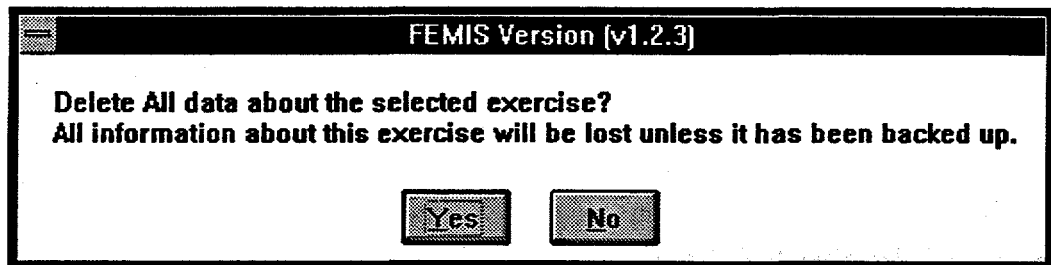
To delete an exercise, click the **Delete** option to display the Select Exercise to Delete window. From the drop-down list, select the exercise to be deleted.



The dialog box is titled "Select Exercise to Delete". It contains a drop-down list labeled "Select Exercise" with the text "960112 - Exercise for UMDA EOC" selected. There are two buttons at the bottom right: "OK" and "Cancel".

Click the OK button to delete the selected exercise. The FEMIS Exercise Manager message window asks you to confirm that this exercise should be deleted.

Click the Cancel button to exit without deleting an exercise.



7.0 Managing Meteorological (Met) Data

Meteorological (Met) information is normally supplied continuously by EMIS or the subsystem that collects data from the towers. The subset of data required for dispersion modeling is stored in the relational database in real time. As shown in Figure 1.1, the FEMIS Met server collects the data and sends it to the UNIX server where it is loaded into the MET_CONDITION database table. If EMIS is used for the onpost EOC, EMIS will supply the meteorological (Met) data, and DEI will load it into the same MET_CONDITION table in the FEMIS database.

For the FEMIS UNIX Met subsystem to operate correctly on the UNIX server, a tower configuration file must be available. This file contains information about the Met towers and sensors for the site. An example of this file, METTOWER.DAT, is shown in Table 7.1. When the FEMIS system is installed, this file may need to be modified to reflect the current configuration.

Data records will accumulate in the Met_Condition table while the Met collection subsystem is in operation. Because there is no automated archive function that removes old data, archiving has to be done periodically by the Database Administrator or a user that is familiar with Met data (see Section 4.3.4, Archiving Tables). To illustrate how the data records accumulate, we will use the example of 10 towers with each tower providing 4 data records every hour. Each record is about 100 bytes so this amounts to nearly 3MB a month.

$$10 \text{ towers} \times \frac{4 \text{ records}}{\text{hr}} \times \frac{24 \text{ hr}}{\text{day}} \times \frac{30 \text{ day}}{\text{month}} = \frac{28,800 \text{ records}}{\text{month}}$$

Note: If you do not archive the meteorological (Met) data weekly, you may not be able to delete the data because the rollback segment will be too small.

If site policy requires that the old information has to be saved, then the data must be copied to a permanent media for the archiving.

Table 7.1. METTOWER.DAT File Example

Type	Description	Data Units
1	Wind Speed	m/sec, km/hr, ft/sec, miles/hr, knots
2	Wind Direction	deg
3	Wind Gust Speed	m/sec, km/hr, ft/sec, miles/hr, knots
4	Wind Gust Direction	deg
5	Wind Sigma	deg
6	Air Temperature	C, F
7	Relative Humidity	%
8	Atmospheric Pressure	mm_hg, in_hg, atm, bar, mil bar, psi
9	Height of Mixing Layer	m, km, ft
10	Cloud Height	m, km, ft
11	Cloud Cover	%
12	Rain Gauge	mm, cm, inches
13	Tipping Bucket	#
14-98	Unused/Unknown	
99	Battery Voltage	(volts)

TOWER_ID towerid lat(deg min sec dir) lon(deg min sec dir)
 CLUSTER clusterid height-in-meters
 SENSOR sensorid type units

TOWER_ID 00000001 37 44 03.85 N 084 11 45.70 W
 CLUSTER 00000001 15
 SENSOR 01 99 volts
 SENSOR 61 01 m/sec
 SENSOR 63 02 deg
 SENSOR 64 04 deg
 SENSOR 66 06 C

TOWER_ID 00000002 37 41 35.94 N 084 11 09.52 W
 CLUSTER 00000001 15
 SENSOR 01 99 volts
 SENSOR 51 01 m/sec
 SENSOR 53 02 deg
 SENSOR 54 04 deg
 SENSOR 56 06 C

8.0 Evacuation (Evac) Data

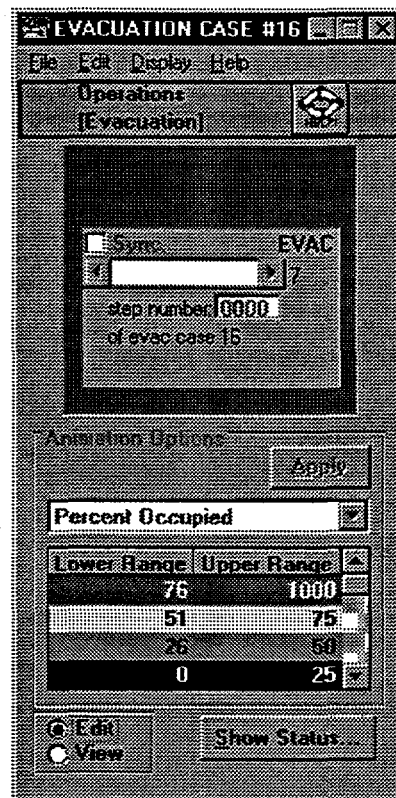
Evacuation model case data is managed from the Evacuation Case interface by activating the **Edit** radio button and then selecting an option under the pull-down **File** menu. These options enable you to 1) Create a new evacuation case, 2) Open an existing case, 3) Save an existing case with a new case number, 4) Delete a case, 5) Import a case, and 6) Export a case.

8.1 Creating an Evacuation Case

CAUTION

Creating a new evacuation case is an involved process and is not recommended for those without FEMIS evacuation software training.

To create a case, click the **New Case** menu item under the **File** pull-down menu on the Evacuation Case window.



The New Case window displays with a suggested case number for the new case. You can enter your own case number, if you do not want to use the suggested case number. After you click **OK**, a window to enter a case description, affected evacuation zones, and case conditions will display. Once you have entered this information and clicked the **OK** button, the (Add) Case Parameters:

Evac Case # window is displayed. This window contains high level case information, such as case identification, run control, and time period/output control. Once you fill out this form, click the OK button. The next step is to actually build the evacuation network and add a traffic load to it. To create the network, use the Add options under the Edit pull-down menu. To modify the network, use the Modify options under Edit pull-down menu.

8.2 Opening an Existing Case

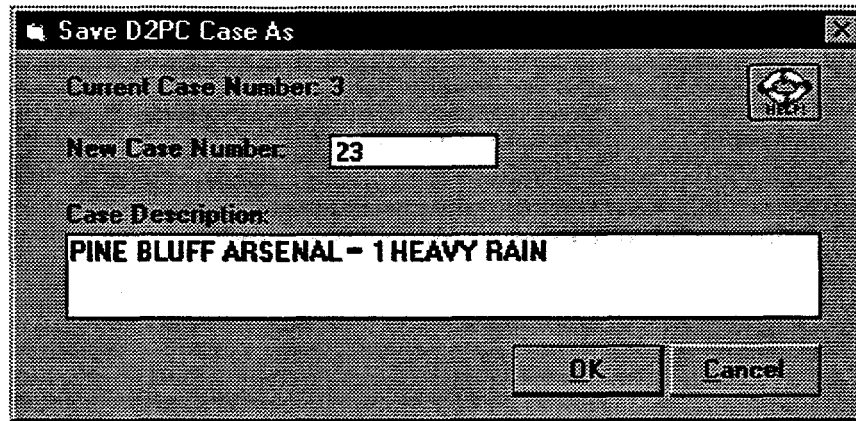
When you select Open Case from the File pull-down list, the Open Evacuation Case window displays with a list of available evacuation cases. Select a case from the list and click on the OK button to open the case.

If you want to preview a complete description of a case, highlight the case and then click the View Desc button. If you want your current case to be highlighted, you can click the Show Current button. To clear highlighted cases, click on the Clear button.

Case #	Description	Weather	Season
1	1 PINE BLUFF ARSENAL SCENARIO 1 GOOD WEATHER		
2	2 PINE BLUFF ARSENAL SCENARIO 1 RAIN		
3	3 PINE BLUFF ARSENAL SCENARIO 1 HEAVY RAIN		
4	4 PINE BLUFF ARSENAL SCENARIO 2 GOOD WEATHER		
5	5 PINE BLUFF ARSENAL SCENARIO 2 RAIN		
6	6 PINE BLUFF ARSENAL SCENARIO 2 HEAVY RAIN		
7	7 PINE BLUFF ARSENAL SCENARIO 3 GOOD WEATHER		
8	8 PINE BLUFF ARSENAL SCENARIO 3 RAIN		
9	9 PINE BLUFF ARSENAL SCENARIO 3 HEAVY RAIN		

8.3 Saving an Evacuation Case

Changes made to an evacuation case are saved as you modify the case. It is therefore unnecessary to have a special save option for the evacuation case shown in the interface. If you want to save your current case with a new case number, use the Save Case As option from the File pull-down menu. This option will copy all the input of your current case to a new case number, and you can then modify the new case as desired.



Save D2PC Case As

Current Case Number: 3

New Case Number:

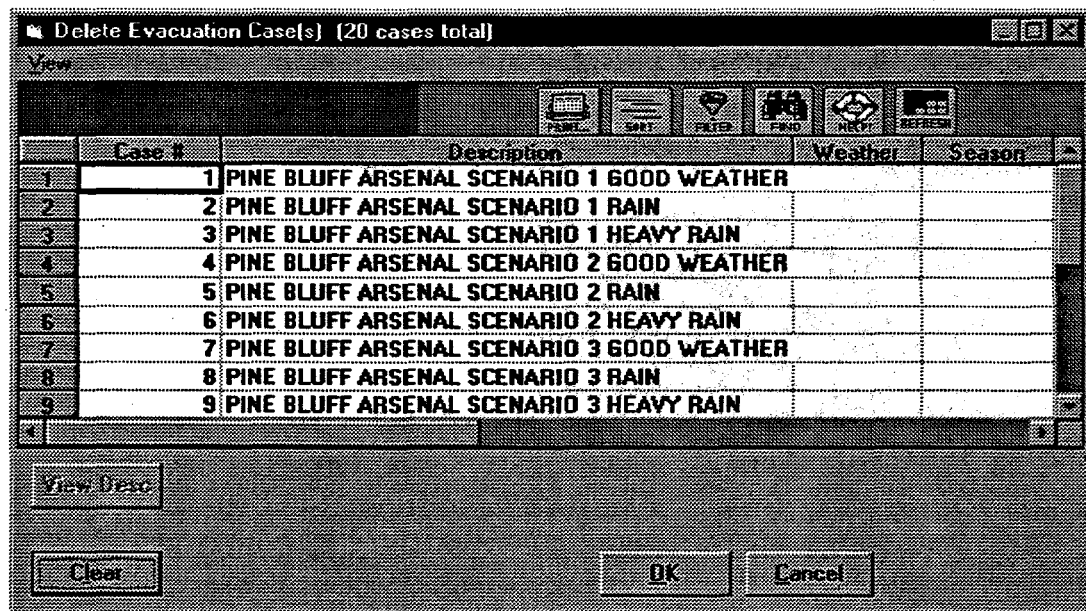
Case Description:

OK Cancel

8.4 Deleting an Evacuation Case

To delete an evacuation case, complete the following steps.

1. Select **Delete Case** from the **File** pull-down menu. A window with a listing of evacuation cases will display.



Delete Evacuation Case(s) (20 cases total)

View

Case #	Description	Weather	Season
1	1 PINE BLUFF ARSENAL SCENARIO 1 GOOD WEATHER		
2	2 PINE BLUFF ARSENAL SCENARIO 1 RAIN		
3	3 PINE BLUFF ARSENAL SCENARIO 1 HEAVY RAIN		
4	4 PINE BLUFF ARSENAL SCENARIO 2 GOOD WEATHER		
5	5 PINE BLUFF ARSENAL SCENARIO 2 RAIN		
6	6 PINE BLUFF ARSENAL SCENARIO 2 HEAVY RAIN		
7	7 PINE BLUFF ARSENAL SCENARIO 3 GOOD WEATHER		
8	8 PINE BLUFF ARSENAL SCENARIO 3 RAIN		
9	9 PINE BLUFF ARSENAL SCENARIO 3 HEAVY RAIN		

View Desc

Clear OK Cancel

2. Select the case or cases you want to delete. If you want to delete more than one case, hold down the **<CTRL>** key while you click in the row number column of the additional cases. To delete contiguous rows (cases), you can either hold down the **<Shift>** key while you click in the row number column of the first and last cases to be deleted or drag the cursor over the rows to select the range of cases to be deleted. Click the **OK** button. A message will display requesting verification of the cases to be deleted. Click the **Yes** button to delete, or click the **No** button to cancel.

8.5 Importing an Evacuation Case

FEMIS can import existing ESIM or IDYNEV (Interactive DYNamic EVacuation) input files for execution. Generally, IDYNEV input files come from IBS, and ESIM input files come from OREMS. Before you can import a file, you must know whether it is an ESIM or IDYNEV file. The import file must also be accessible from your PC.

CAUTION

If you transfer an input file from one platform to another, verify that the carriage returns were properly converted and the first column in the file was not deleted.

To verify, bring up the new PC file into a DOS editor and compare it with the original file on the other platform. If they are different, the import utility will not be able to import the file without some cleanup.

To import an evacuation case, complete the following steps.

1. Select the **Import Case** option from the **File** pull-down menu, and the **Import File Selection** window will display.

Note: Evacuation case files will usually have a **.in**, **.dat**, or **.tdt** file name extension.

2. To find the file you want to import, click on the drive and file path names until the file you want is listed. Select the file from the list and click on the **OK** button. The **Import Case** window will display.

Import Case

New Case Number:

Source Case Type

☒ ESIM (OREMS, FEMIS)

☐ IDYNEV (IBS)

Pick Area of the World

☒ North West (North America)

☐ South West (South America)

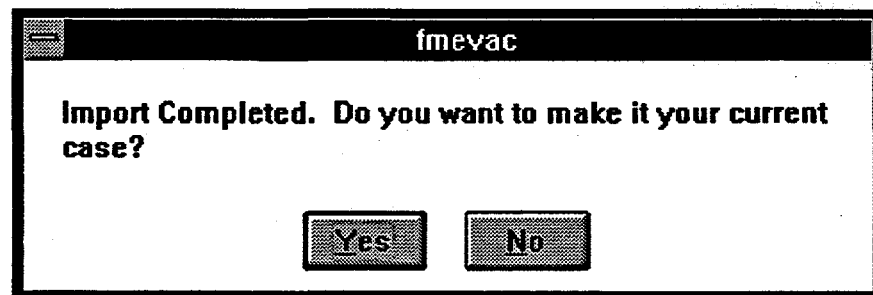
☐ North East (Europe, Asia, Northern Africa)

☐ South East (Southern Africa, Australia)

3. A new suggested case number will be displayed in the New Case Number field. You can accept this case number or enter your own. Case numbers must be unique within an EOC for a particular exercise. If you select a case number which is already in use, you will be warned, and a new case number will be suggested.

Indicate the type of file you are importing: ESIM (OREMS, FEMIS) or IDYNEV (IBS) by clicking on the radio button next to the appropriate file type. Verify that the case is in the correct area of the world, and click the OK button to complete the import process.

When the file import is complete, the system will display a message box similar to the following.



4. To make the imported case your current case, click on the Yes button. Click the No button to keep your current case (the imported case will be added to your evacuation case list where you can open it later).

Note: The import function only imports input information. You will need to run the case before output information can be viewed.

8.6 Importing Incomplete Evacuation Cases

Generally evacuation cases must be complete to be used. The following exceptions have been accounted for in the import utility.

1. If you import a case that lacks complete specification of node coordinates. This will happen if IDYNEV type 36 node offset specifications are provided but no type 6 record model origin is provided because the system cannot provide actual longitude and latitudes for nodes. It will use a default value for the model origin (based on hemisphere) to create node locations. You will then need to use the map tools to move the network into alignment with the map although the system will automatically place it in your map area, if you so specify. A window with one or more diagnostics will be presented. The first diagnostic should be

No type 6 case origin record was found yet record type 36 offsets were present. A default origin based on hemisphere was used.

2. If you import a case that lacks type 36 coordinate offsets and also lacks type 195 node coordinate specifications, you will get a diagnostic, such as

No type 36 offsets were present and no type 195 coordinates were found. Although the case may be imported, it will not be possible to create a meaningful map graphic.

In addition, a variety of turn movement and other adjustments are attempted for IDYNEV cases that do not follow all the rules of case topology required by ESIM. Such corrections will produce diagnostics and provide before and after values for the fields modified.

8.7 Exporting an Evacuation Case

The export function allows a user to create an ESIM input file based on an evacuation case stored in the database. This function may be useful if you want to share cases with another EOC. The case could be exported from one EOC database and imported to another EOC database.

To export a case, open the case, and select the **Export Case** option from the **File** pull-down menu. Enter the filename you want to be created and select the directory in which the new file is to be placed. Once this is done, click the **OK** button and the file will be exported.

9.0 Managing D2PC Model Data

D2PC model data is managed from the D2PC interface by selecting an option under the pull-down **File** menu. These options enable you to: 1) Open Case(s), 2) Save Case or Save Case As, 3) Delete Case(s), 4) Archive D2PC Case(s), and 5) Import Case(s).

The screenshot shows the 'D2PC Interface [sjohns@PBCA: Ver 1.4.5] - Case #1023 (PBCA)' window. The 'File' menu is open, showing options like 'Open Case(s)', 'Open Last Case Sent Offpost', 'Save Case', 'Save Case As...', 'Delete Case(s)', 'Make Case Current Operational', 'Site Defaults', 'Import Case(s)', 'Print Area', 'Print Screen', and 'Exit'. The 'Now' button is highlighted. The 'LOCATION' section shows 'Lat Lon: 34.3517 -92.1336' and 'Map Locate'. The 'METEOROLOGICAL CONDITIONS' section includes 'Season: Spring', 'Stability Class: C = Slightly Unst', 'Wind Dir. (from): 180 degrees', 'Wind Speed: 8.948 MPH', 'Temperature - Air: 44 F', 'Surface: 77', 'Hgt. Mix. Layer: 0.6618 mi', and 'Atm. Pressure: 755 mm Hg'. The 'CASE DESCRIPTION' section shows 'VX M55-77 4.m/s@180 INS atb:C'. The 'Tower Configuration...' and 'Load Tower Data' buttons are at the bottom right. The 'Close' button is at the bottom right.

9.1 Opening a D2PC Case

When you select **Open case(s)**, the Open D2PC Case window displays with a list of the available D2PC cases. You have two options to open a case. To open a case from the list, either double-clicking on the case you want to open or click once to highlight the case and then click the **OK** button. When this window displays, the **Last Case Sent Offpost** is highlighted. If you want to clear the highlighted case, click on the **Clear** button. To redisplay the current case, click on the **Show Current** button and the **Last Case Sent Offpost** will be highlighted.

By opening more than one D2PC case, you can have these cases plotted on the map. To open more than one case, hold down the **<CTRL>** key while clicking on additional cases. To open contiguous rows (cases), either hold down the **<Shift>** key while you click in the row number column of the first and last cases to be opened or drag the cursor over the rows to select a range of cases. Each case number will be added to the **Current Case** a pull-down list on the Open D2PC Case window above the **OK** button. From this list, select the D2PC case you actually want to view in the D2PC interface. The other cases will not display in the D2PC interface but will be plotted on the map the next time you select the **Run and Plot Model Results** option.

Open D2PC Case (30 cases total)

View

	Case #	Description	Agent	Munition	Release	Season
10	1000	VX M55-10 7.2KPH@090 INS stb:C	VX	M55	INS	SPR
11	1002	GB 525-5 4.5MPH@030 SEM stb:D	GB	525	SEM	SUM
12	1003	GB 525-5 2.m/sec@180 SEM stb:D	GB	525	SEM	SUM
13	1004	GB 525-5 4.5MPH@270 SEM stb:D	GB	525	SEM	SUM
14	1005	GB 525-5 4.5MPH@060 SEM stb:D	GB	525	SEM	SUM
15	1008	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	FAL
16	1008	VX M55-10 7.2KPH@270 INS stb:E	VX	M55	INS	FAL
17	1010	(EMIS:RUN:001:00120) VX M55-77 2.0m	VX	M55	INS	SPR
18	1011	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	WIN
19	1012	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	FAL
20	1013	(EMIS:RUN:040:00000) VX M55-100 4.5M	VX	M55	INS	SPR
21	1014	(EMIS:RUN:048:00000) VX M55-99 2.0m	VX	M55	INS	SPR

☒ Data from this EDC
☐ Data from all EDCs

Clear Show Current OK Cancel

9.2 Saving a D2PC Case

The **Save Case(s)** option enables you to save any changes to the current D2PC case. You must activate the **Edit** radio button on the D2PC interface. The **Save Case(s)** option saves your changes to the case you currently have open. To save D2PC case changes to a new case, use the **Save Case As** option.

The **Save Case As** option enables you to save D2PC case changes to a new case number which creates a new D2PC case.

1. When you select this option, a window similar to the following example will display.

Save D2PC Case As

Current Case Number: 1023

New Case Number: 1024

Case Description:
VX M55-77 4.m/s@180 INS stb:C

OK Cancel

2. A suggested new case number will be displayed in the New Case Number field. If the suggested case number is not acceptable, enter your own number.
3. Type a case description in the Case Description field. You can enter details such as type of release, wind speed, and temperature.
4. Click on the OK button to save the D2PC case to the new case number, or click on the Cancel button to quit without saving the case.

9.3 Deleting a D2PC Case

1. Select Delete Case(s) from the File pull-down menu. A window similar to the following will display.

Delete D2PC Case(s) (30 cases total)

View

	Case #	Description	Agent	Munition	Release	Status
10	1000	VX M55-10 7.2KPH@090 INS stb:C	VX	M55	INS	SPI
11	1002	GB 525-5 4.5MPH@030 SEM stb:D	GB	525	SEM	SUI
12	1003	GB 525-5 2.m/sec@180 SEM stb:D	GB	525	SEM	SUI
13	1004	GB 525-5 4.5MPH@270 SEM stb:D	GB	525	SEM	SUI
14	1005	GB 525-5 4.5MPH@060 SEM stb:D	GB	525	SEM	SUI
15	1008	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	FAL
16	1008	VX M55-10 7.2KPH@270 INS stb:E	VX	M55	INS	FAL
17	1010	(EMIS:RUN:001:00120) VX M55-77 2.0m	VX	M55	INS	SPI
18	1011	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	WII
19	1012	VX M55-10 7.2KPH@210 INS stb:E	VX	M55	INS	FAL
20	1013	(EMIS:RUN:040:00000) VX M55-100 4.5M	VX	M55	INS	SPI
21	1014	(EMIS:RUN:048:00000) VX M55-99 2.0m	VX	M55	INS	SPI

Clear OK Cancel

2. Select the D2PC case or cases you want to delete. If you want to delete more than one case, hold down the <CTRL> key while you click in the row number column of the additional cases. To delete contiguous rows (cases), you can either hold down the <shift> key while you click in the row number column of the first and last cases to be deleted or drag the cursor over the rows to select the range of cases to be deleted. Click the OK button. A message will display requesting verification of the cases to be deleted. Click the Yes button to delete, or click the No button to cancel.
3. You cannot delete the current operational case. If the case you want to delete is the current case, select a different case to be your current case; then you can delete the other case.

9.4 Archiving D2PC Cases

If a database is accumulating a large number of D2PC cases, some of the older cases should be archived to free up database space and improve the performance of the software. The `archive_d2.sh` script has been written to do this. This script has two parts: 1) it does a database export of all the D2PC tables to a dump file, and 2) it deletes old D2PC cases from the database.

WARNING: Do not archive cases if you think you will need to quickly retrieve them. Running this script will write all the D2PC cases to a dump file and delete them from the database.

9.4.1 Using the `archive_d2.sh` Script

The `archive_d2.sh` script should be located in the `/home/femis/database/eocdba` directory along with the following support files: `archive_d2.exp`, `archive_d2.sql`, and `archive_d2_n.sql`. Move to the appropriate directory and start the script as shown below:

```
% cd /home/femis/database/eocdba
% archive_d2.sh
```

A menu will display the possible databases on which to perform the D2PC archive. Below is an example of what this menu would look like for Oregon/Washington. Enter the four character site code for which you want to perform D2PC archiving.

```
Databases
=====
umcd
cben
cmor
cuma
sore
swas
=====
Choice ==>
```

Then the following menu presents two options for deleting cases. If you wish to delete cases older than a certain date, enter the number 1. If you wish to keep a certain number of the most recent cases, enter the number 2. Sections 9.4.2, Archiving D2PC by Date, and 9.4.3, Archiving D2PC by Number of Cases, provide details for using these options.

Note: Option 2 is not recommended for an onpost FEMIS database unless it is getting its cases from EMIS. See Section 9.4.5, Archiving Limitations, for more information.

```
Archive D2PC Menu
=====
1) Archive D2PC by date
2) Archive D2PC by number of cases
=====
Choice ==>
```

At this point, the script will export all of the D2PC database tables to a dump file with a filename form of <site code> <year>—<month>—<day>—<hour>—<minute>_d2.dmp. For example, if the current date/time is March 6, 1997 09:11, and you are exporting from the swas database, the filename would be swas_1997-03-06-09-11_d2.dmp. If you watch during processing, a message will display with the specific filename created by this script.

Once the export has completed, you will receive the following prompt.

```
Did the export complete successfully? [N] ==>
```

If a message saying the export was terminated without warnings or errors, enter the letter y.

From this point on, the script behaves differently based on whether you have chosen to archive by date or by the number of cases. Please see the appropriate sections for details.

9.4.2 Archiving D2PC by Date

If archiving by date, you will receive the following prompt.

```
Archive cases not modified in how many days? [7] ==>
```

If you accept the default, the script will remove any cases older than 7 days. You can change this default number of days to the number of days you want.

Note: If you have a specific date in mind and do not know how many days ago it was, you may also simply press <enter> and wait for the verification date prompt coming up next.

Next, you will be prompted for verification of the cutoff date for deleting D2PC cases. Below is an example of this prompt.

```
The date 7 days ago was 02/19/97.  
Enter archive date if date shown is incorrect (MM/DD/YY)  
[02/19/97] ==>
```

Once you have accepted the cutoff date for D2PC case deletion, you will be given one more chance for verification. Remember, any D2PC cases older than the displayed date will be deleted from the system. Another prompt displays the following:

```
Do you really want to delete records older than 02/19/97? [N] ==>
```

The script will then perform the D2PC deletions and return with the following message.

```
* * * MSG: Archive of D2PC in <site> is complete.
```

9.4.3 Archiving D2PC by Number of Cases

If archiving by number of cases, you will be prompted for the number of cases you want to keep in the database for a particular exercise.

```
How many D2PC cases to you want to keep [1000] ==>
```

Enter any number of cases you want to keep. If you accept the default value of 1000, then all but the most recent 1000 D2PC cases for that exercise will be deleted.

You will be prompted for an exercise number on which to perform the archive:

```
What exercise number do you wish to archive? [0] ==>
```

Normal operations is exercise number 0 (zero). You can accept this number or enter another exercise number.

The script will then perform the D2PC deletions and return with the following message.

```
* * * MSG: Archive of D2PC in <site> is complete
```

9.4.4 Running D2PC Archiving from the Command Line

If no command line options are specified, `archive_d2.sh` runs with user-interactive prompts. It is possible, however, to run the script with the following command line options.

- h will display syntax help
- n will allow you to archive all but a certain number of the most recent cases for an exercise.
- d will allow you to archive all cases older than a certain number of days.

The syntax for the -n option is

```
-n <database> <num cases> <exercise> [export dir]
```

<database> is the four character database code in lower case (i.e., umcd, sore, swas).

<num cases> is the number of the most recently modified cases you want to keep.

<exercise> is the exercise number for which you want to perform the archive. Exercise number 0 is normal operations.

[export dir] is an optional parameter specifying the output directory for the export dump file. If a directory is not specified, the export will be placed in your current working directory.

The `-n` option archives all but the most recent 55 cases found in exercise number 0 on the sore database. The following command line will write the export file to the `/tmp/` directory.

```
archive_d2.sh -n sore 55 0 /tmp/
```

The syntax for the `-d` option is:

```
-d <database> <num days> [export dir]
```

`<database>` is the four character database code in lower case (i.e., `umcd`, `sore`, `swas`).

`<num days>` is the number days cases you wish to keep in the database. Cases older than the number of days specified will be deleted from the database.

`[export dir]` is an optional parameter specifying the output directory for the export dump file. If a directory is not specified, the export will be placed in your current working directory.

An example for the `-d` option:

The following command would archive all cases more than 7 days old on the sore database. It would write the export file to the `/tmp/` directory.

```
archive_d2.sh -d sore 7 /tmp/
```

9.4.5 Archiving Limitations

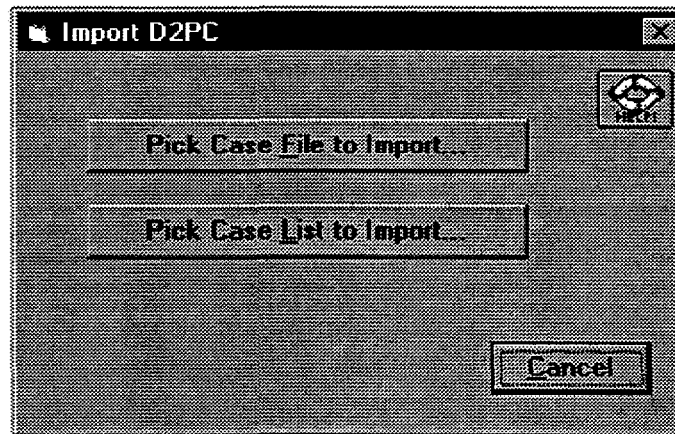
This archiving script deletes cases based on the `XMIT_INIT_DATE` found in the `D2_INPUT` database table. The purpose of this field is to trigger replication of information from one EOC to another, and as such, this date is only set for cases which have been marked for replication. If this date is not set, the archive script cannot tell how old the unmarked case is. In this instance, the behavior of the archive script can be unpredictable for the option to archive D2PC by number of cases. This set of circumstances should only arise for onpost databases in which users have created cases within FEMIS but have not sent them offpost via the FEMIS navigator. Because all offpost cases are automatically replicated, the archive script should work fine for all offpost databases. Also, because all cases sent from EMIS to FEMIS are replicated, the script should also work on all onpost FEMIS databases connected to EMIS.

CAUTION

This script will archive the current operational D2PC case if it matches the criteria selected for archival.

9.5 Importing a D2PC Case

1. Select the **Import Case(s)** option from the **File** pull-down menu. An **Import D2PC** window similar to the following example will display.



2. The two options available are 1) **Pick Case File to Import** that will load a single case, or 2) **Pick Case List to Import**, which will load multiple cases.

Option 1: Click the **Pick Case File to Import** button to import a single case. The default extension for a D2PC Case File is **.dat**.

Option 2: Click the **Pick Case List to Import** button to import multiple cases. Before you can import this list, you will need to create a Case List. You must use an editor and produce a file that contains the full path name for each D2PC case included in the Case List. The default list file extension is ***.lst**; an example filename is **myd2list.lst**.

Files with other extensions can be displayed by changing the extension in the List files of type box on the **Pick D2PC Case Import** window.

3. To find the file you want to import, click on the drive and file path name until the file you want is listed. Select the file from the list, and click on the **OK** button.

For more details regarding managing D2PC cases, see the **FEMIS Online Help**.

Appendix A
Site Survey Form

Appendix A – Site Survey Form

Because FEMIS encompasses different functionality than IBS and EMIS, some site-specific information that is essential for FEMIS is not present electronically. This type of information is obtained during the database kickoff meetings held at each site. The Site Survey form, designed by Innovative Emergency Management, Inc. (IEM) and Pacific Northwest National Laboratory (PNNL), is used to gather this information. The surveys are tailored for each site.

An example of a Site Survey is included to indicate the types of information needed for FEMIS. This example is for the Umatilla site in Oregon.

Umatilla Site FEMIS Database Survey: Priority 1 Data, *Umatilla Chemical Depot*

INTRODUCTION

The Federal Emergency Management Information System (FEMIS) is under development by Battelle Memorial Institute, Pacific Northwest National Laboratory (PNNL). The system's purpose is to serve as the automation system in support of the Chemical Stockpile Emergency Preparedness Program (CSEPP).

The government is preparing to field FEMIS v1.2 at the Umatilla, OR site. For FEMIS to work properly at the Umatilla site, the software must have site-specific geographical data. IEM has been tasked by the government to populate a FEMIS database for the Umatilla site.

To start this task, IEM is hosting a Umatilla FEMIS database meeting at PNNL facilities on July 9, 1996. The meeting will be attended by representatives from the Umatilla jurisdictions and from PNNL. Meeting participants will generate a list of requested data for the FEMIS database. The final data list will be included in the *Umatilla FEMIS Database Meeting: After-Action Report*, to be distributed July 12.

In that report, the requested data will be ranked according to a set of priorities:

- Priority 1: These data are *required* data and must be present in the database for FEMIS to operate.
- Priority 2: These data are supporting data that are not needed for FEMIS to operate, but are *critical* to planning and response in FEMIS, and are *easy* to gather and maintain.
- Priority 3: These data are supporting data that are not needed for FEMIS to operate, and are *critical* to planning and response in FEMIS, but are *difficult* to gather or maintain.
- Priority 4: These data are supporting data that are not needed for FEMIS to operate, and are *not critical* to planning and response in FEMIS, but are *easy* to gather and maintain.
- Priority 5: These data are supporting data that are not needed for FEMIS to operate, and are *not critical* to planning and response in FEMIS, and are *difficult* to gather or maintain.

To facilitate the gathering of Priority 1 data, IEM is distributing this survey to all Umatilla jurisdictions. The survey results are needed as soon as possible, but no later than July 26, 1996, to expedite fielding of the FEMIS database. A survey for gathering data at Priority 2-5 will be provided later, based on guidance from the CSEPP Core Team.

HOW TO USE THIS SURVEY

PLEASE ANSWER THE QUESTIONS IN THIS SURVEY AS COMPLETELY AS POSSIBLE

When done, please return the survey to IEM by mail or fax. Send the survey to the attention of Todd Pierce at the following address.

Dr. Todd M. Pierce
IEM, Inc.
7423 Picardy Avenue, Suite E
Baton Rouge, LA 70808
504/767-8191 (phone)
504/767-8122 (fax)

If you need help answering any of the survey questions, please contact Todd Pierce at the same address.



PLEASE BEGIN SURVEY ON THE NEXT



EOC INFORMATION

Please review the following information about your Emergency Operating Center. This information will be used to identify your FEMIS database. Please correct any erroneous information.

1. EOC Agency Name: **Umatilla Chemical Depot**
2. EOC Code: **UMCD (for UMatilla Chemical Depot)**
(4 letters maximum)

Please review the following information about your EOC response functions. This information will be used to group tasks by function in an electronic plan in FEMIS. Please correct any erroneous information.

3. Listed below are the emergency support functions for response that are currently in FEMIS. Please review the list and perform the following actions:

- A. Delete any unneeded functions by drawing a line through the function in column A, *FUNCTION*.
- B. Edit a function by drawing a line through the function and writing the new function next to the old one in column B, *EDIT FUNCTION*.
- C. List any new functions by writing them in column C, *NEW FUNCTIONS*.

A. FUNCTION	B. EDIT FUNCTION	C. NEW FUNCTIONS
Alert Notification		
Communications		
Damage Assessment		
Direction Control		
Energy		
EOC Activation		
Evacuation		
Firefighting		
Food		
Hazard Analysis		
Hazardous Materials		
Health and Medical Services		
Information and Planning		
Law Enforcement		
Mass Care		
Public Information		
Public Works and Engineering		
Resource Support		
Sheltering		
Transportation		
Urban Search and Rescue		

EMERGENCY PLANNING ZONES

Please answer the following question about your Emergency Planning Zones. This information will be used when you make a Protective Action Decision in FEMIS.

4. Which Emergency Planning Zones (EPZs) are your EOC responsible for? In other words, what are the EPZs for which your EOC can make a Protective Action Decision (PAD)? Please list them below.

EMERGENCY PLANNING ZONES FOR YOUR EOC

--	--



PLEASE TURN PAGE TO BEGIN NEXT

EOC POSITIONS

Please review the following information about your EOC positions. This information will be used when creating the FEMIS personnel database. Please correct any erroneous information.

5. Listed below are the EOC positions currently in FEMIS. Please review the list and perform the following actions:

- A. Delete any unneeded positions by drawing a line through the position in column A, *EOC POSITION*.
- B. Edit a position by drawing a line through the position and writing the new position next to the old one in column B, *EDIT EOC POSITION*.
- C. Add any new positions by writing them in column C, *NEW EOC POSITION*.

A. EOC POSITION	B. EDIT EOC POSITION	C. NEW EOC POSITION
Accounting Personnel		
Administration Clerk		
Administration Officer		
Agriculture Department Representative		
Ammunition Branch Representative		
Assistant EOC Coordinator/Director		
Automation System Manager		
Auditor		
Chemical Accident or Incident Control Officer		
Casualty Coordinator		
Chemical Changehouse Operator		
Chart Control Operator		
Chemical Lab Representative		
Chemical Operations Director		
Chief Plotter		
City Government Representative		
Civil Defense Director		
Claims Officer		
Communications Coordinator		
Communications Representative		
Command Post Officer		
Community Affairs Representative		
Chemical Containment Team Representative		
County Government Representative		
CSEPP Coordinator		
Deputy Director of Operations		
Depot Commander		
Department of Environmental Quality Representative		
Director of Operations		
Dispatcher		
Department of Natural Resources Representative		
Emergency Aid Organization Representative		

A. EOC POSITION	B. EDIT EOC POSITION	C. NEW EOC POSITION
Emergency Medical Personnel		
Emergency Team Captain		

A. EOC POSITION	B. EDIT EOC POSITION	C. NEW EOC POSITION
EMIS System Manager		
Engineering Assistant		
Environmental Branch Representative		
EOC Coordinator		
EOC Coordinator/Director		
EOC Operations Officer		
Environmental Protection Agency Representative		
Equipment Coordinator		
Evacuation Coordinator		
Exercise Controller		
Exercise Evaluator		
Explosive Ordnance Disposal Representative		
Facilities Coordinator		
Federal Emergency Management Agency Representative		
Fire Protection/Prevention Representative		
Governor's Representative		
Hazard Analyst/Modeler		
Hazard Plotter		
Health Department Representative		
Human Resource Coordinator		
Information Systems Command Representative		
Information Coordinator/Manager		
Insurance Commission Representative		
Inventory Management Representative		
Initial Response Force (IRF) Commander		
Law Enforcement Representative		
Legal Counselor		
Legal Officer		
Logistics Director/Officer		
Medical Facility Representative		
Message Controller		
Military Affairs Representative		
Monitoring Team Coordinator		
National Guard Coordinator		
On-Scene Coordinator (OSC)		
Operations Analyst		
Operations Officer		
Personnel Coordinator		

A. EOC POSITION	B. EDIT EOC POSITION	C. NEW EOC POSITION
Planner		
Production and Planning Control Representative		
Plotter		
Post Sergeant Major		

A. EOC POSITION	B. EDIT EOC POSITION	C. NEW EOC POSITION
Public Information/Public Affairs Officer		
Public Information Coordinator		
Public Safety Representative		
Public Works/Infrastructure Representative		
Quality Assurance Representative		
Radio Operator		
Recorder		
Records Section Representative		
Report Coordinator		
Resource Coordinator		
Resource Management Officer		
Safety Representative		
Sampling Specialist		
School Superintendent		
Security Guard		
Security/Intelligence Officer		
Shelter Coordinator		
Social Services Representative		
Special Population Coordinator		
Service Response Force Commander (SRF)		
State Coordinating Officer		
State Emergency Management Director		
State Emergency Management Liaison		
Storage Section Representative		
Surety Officer		
Training Officer		
Transportation/Highway Department Representative		



PLEASE TURN PAGE TO BEGIN NEXT

RESOURCE CATEGORIES

Please review the following information about resource categories. This information will be used when creating the FEMIS resource database. Please correct any erroneous information.

6. Listed below are the resource categories currently in FEMIS. Please review the list and perform the following actions:

- A. Delete any unneeded categories by drawing a line through the position in column A, **RESOURCE CATEGORY**.
- B. Edit a category by drawing a line through the category and writing the new category next to the old one in column B, **EDIT RESOURCE CATEGORY**.
- C. Add any new categories by writing them in column C, **NEW RESOURCE CATEGORY**.

A. RESOURCE CATEGORY	B. EDIT RESOURCE CATEGORY	C. NEW RESOURCE CATEGORY
Barricades		
Cars		
Communication Equipment		
Construction Equipment		
Dry Goods		
Emergency Equipment		
First Aid Supplies		
Food		
Generators		
Hand Tools		
Heavy Equipment		
Lights		
Medical Equipment		
Office Machines		
Paving Equipment		
People		
Power Tools		
Prefabricated Buildings		
Rescue Squad		
Scales		
Siren-Non-rotating		
Siren-Rotating		
Transport Vehicles		
Trucks		
Water		
Weapons		



PLEASE TURN PAGE TO BEGIN NEXT

ACCIDENT CATEGORIES

Please answer the following question about your accident categories. This information will be used when creating the FEMIS map database.

7. Please list below the accident categories for your site. For each category, please indicate the range of downwind No Effects distances (for example, from 0 km to 2 km, or 2 km to 6 km). Add more categories if needed.

Category I	Downwind No Effects distance from	km to	km
Category II	Downwind No Effects distance from	km to	km
Category III	Downwind No Effects distance from	km to	km
Category IV	Downwind No Effects distance from	km to	km
Category V	Downwind No Effects distance from	km to	km
Category	Downwind No Effects distance from	km to	km
Category	Downwind No Effects distance from	km to	km

FACILITIES

Please answer the following question about your facilities. This information will be used when creating the FEMIS facilities database.

8. Use the attached Table 1 to list basic information about facilities you would like to have in your FEMIS facilities database. For the Priority 1 data, IEM needs only the following information:

- A. Facility Name
- B. Facility Address
- C. Latitude and Longitude (if known)
- D. EPZ Containing the Facility

You may also provide this information electronically in a word processor or spreadsheet format, if desired.

If you have more facilities than can fit in Table 1, please make extra copies of Table 1.

Further facility information would be gathered as Priority 2 data.

CONTACT INFORMATION

Please provide the requested contact information.

9. Name of Person Who Completed This Survey:

10. Phone # of Person Who Completed This Survey:





YOU HAVE NOW COMPLETED THIS SURVEY.
THANK YOU FOR YOUR TIME

Appendix B

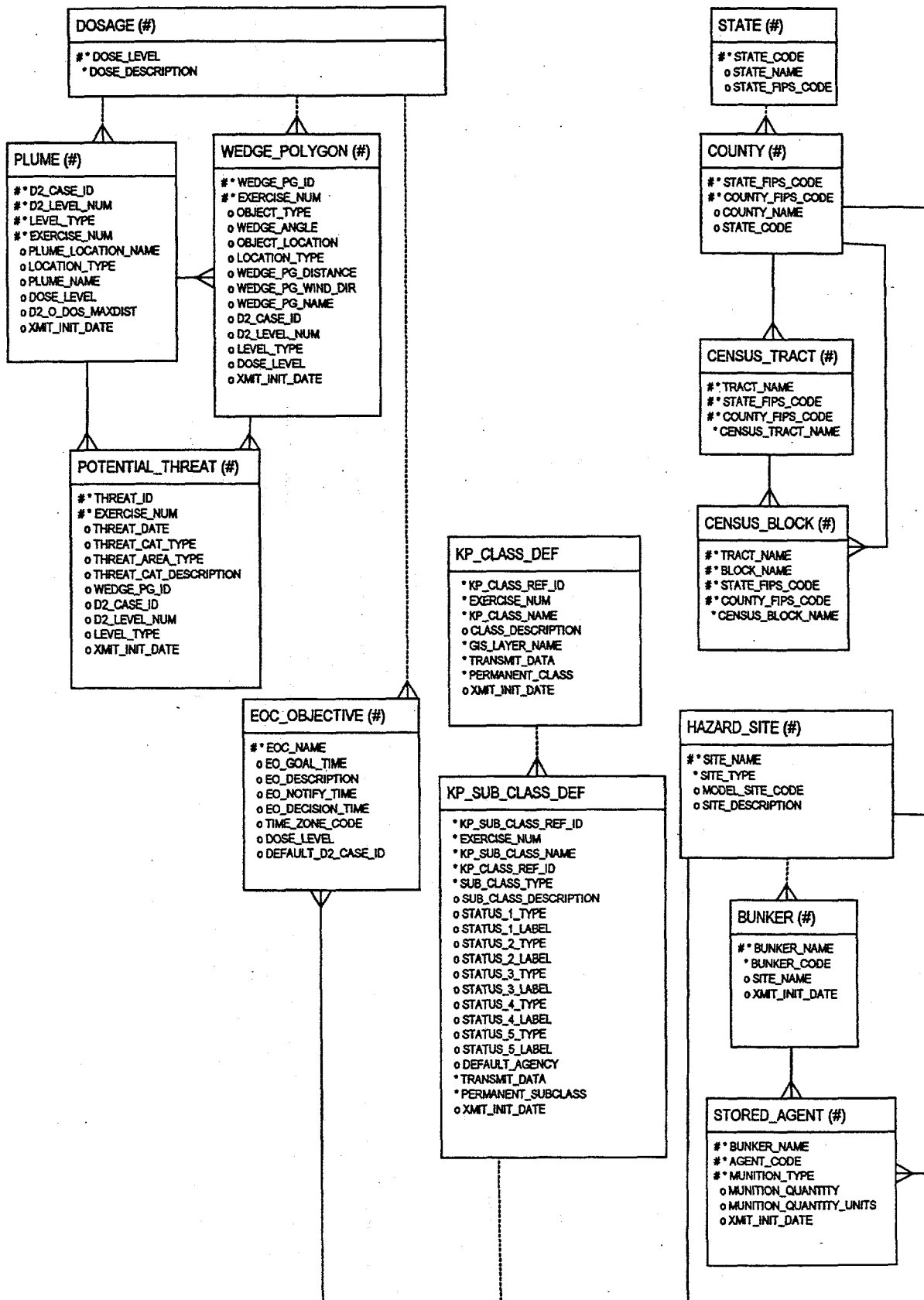
Database Data Models

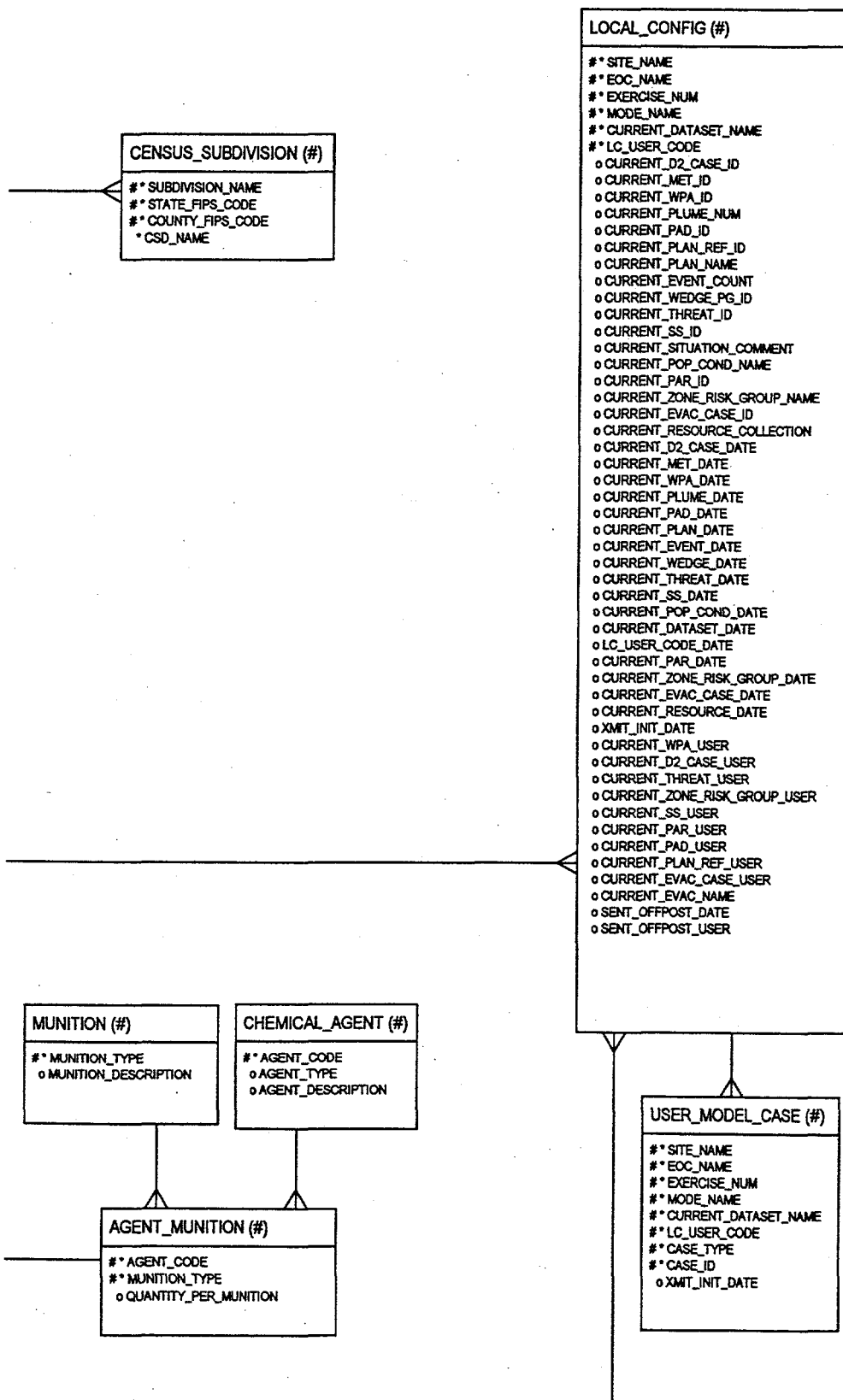
Appendix B – Database Data Models

Diagrams for the logical data model illustrates what information is present and how the data objects are interrelated.

The data model can be assembled so you can view the entire schema. For the data model, pages B-2 through B-21 should be assembled like the following.

B-2	B-3	B-4	B-5
B-6	B-7	B-8	B-9
B-10	B-11	B-12	B-13
B-14	B-15	B-16	B-17
B-18	B-19	B-20	B-21





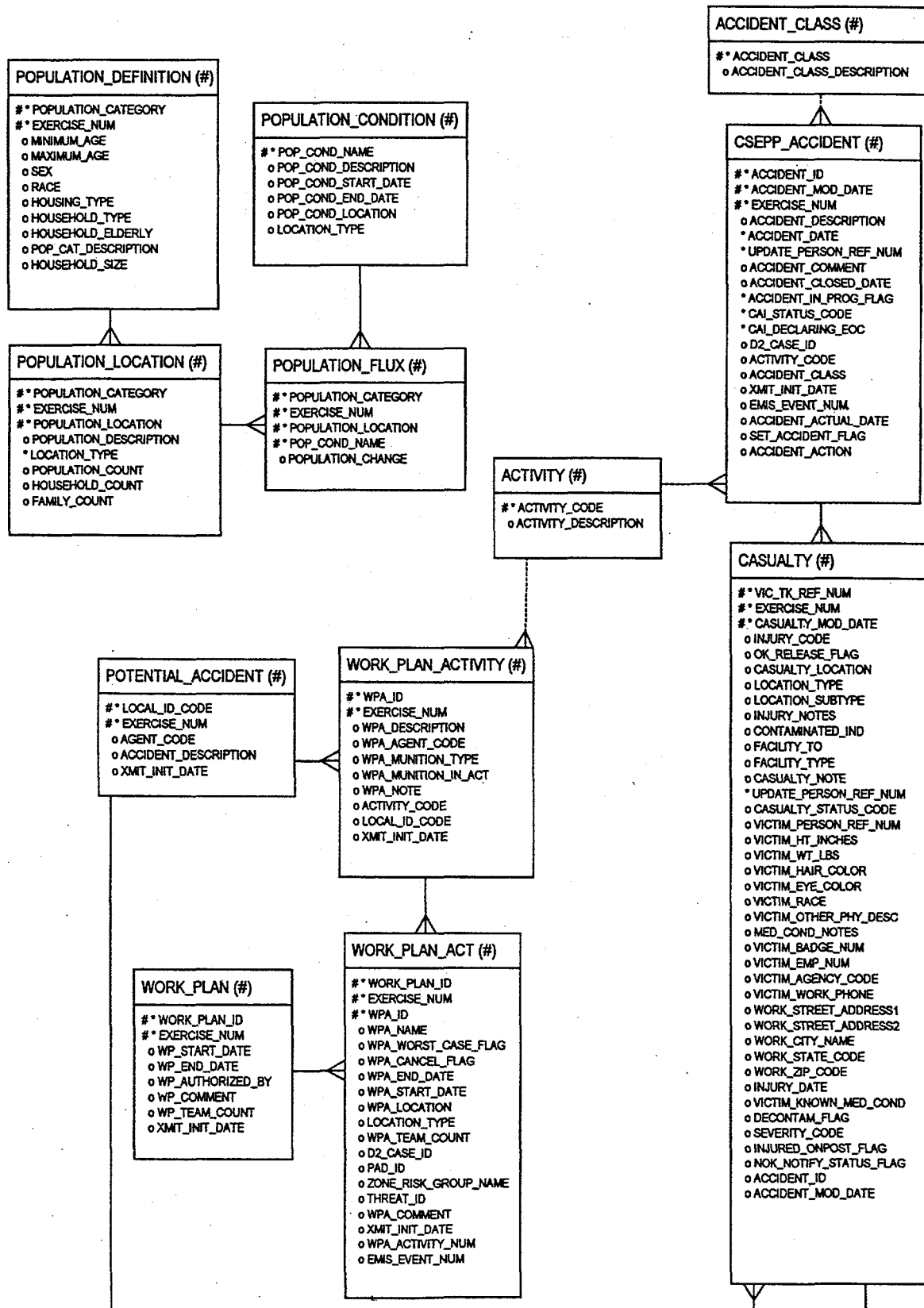
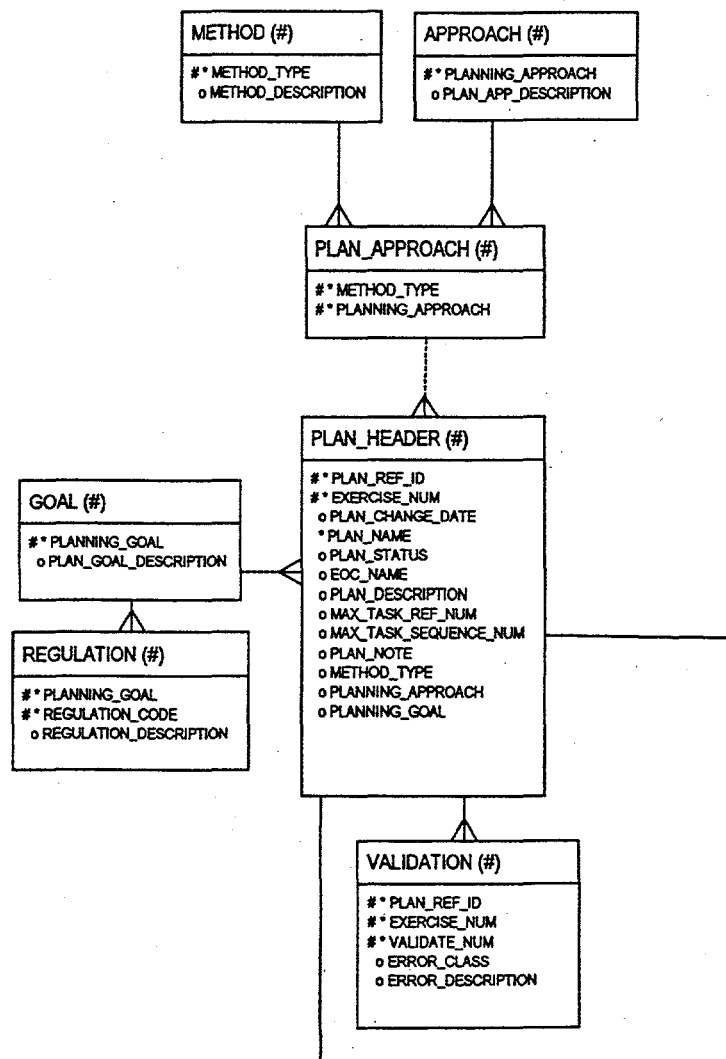
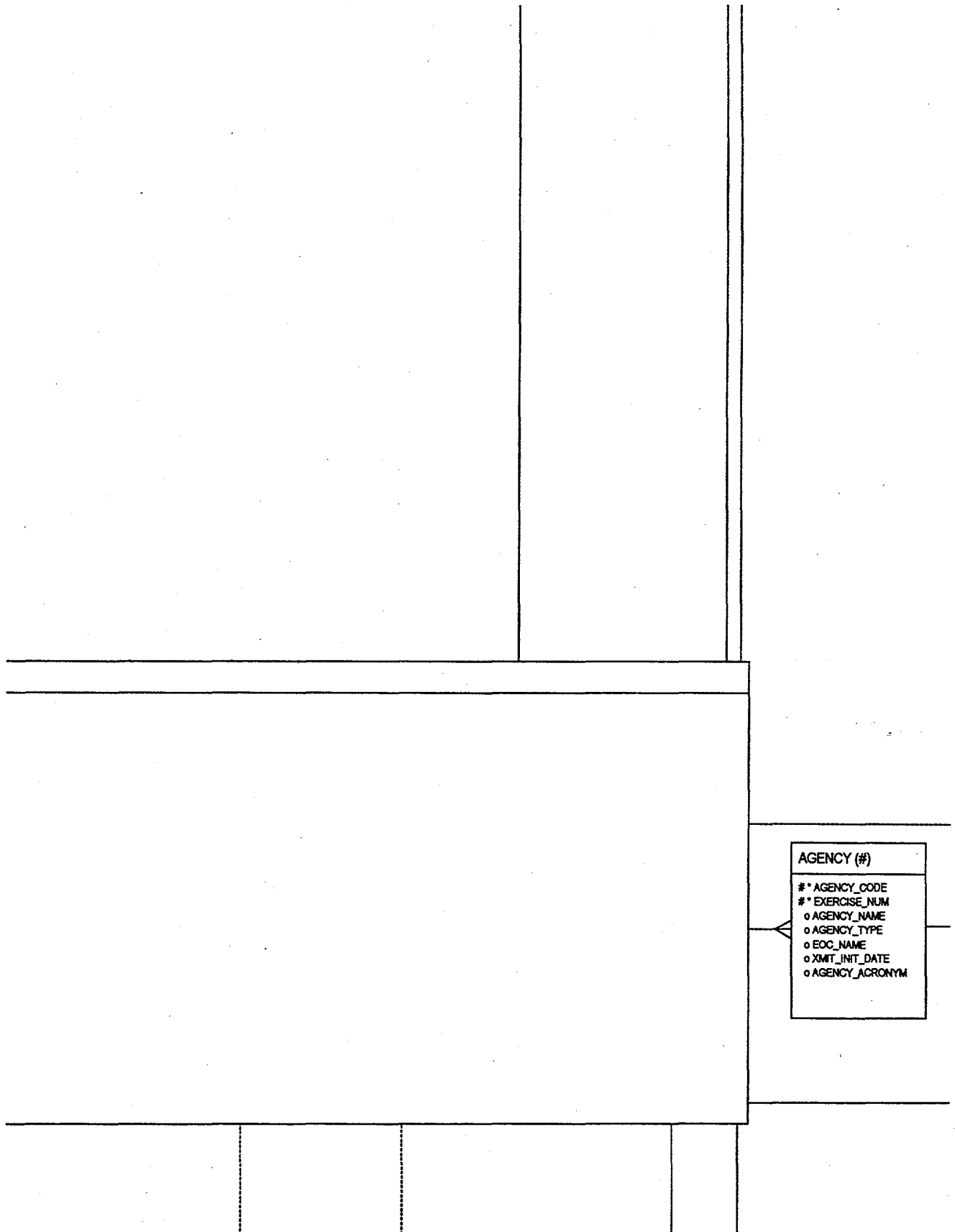
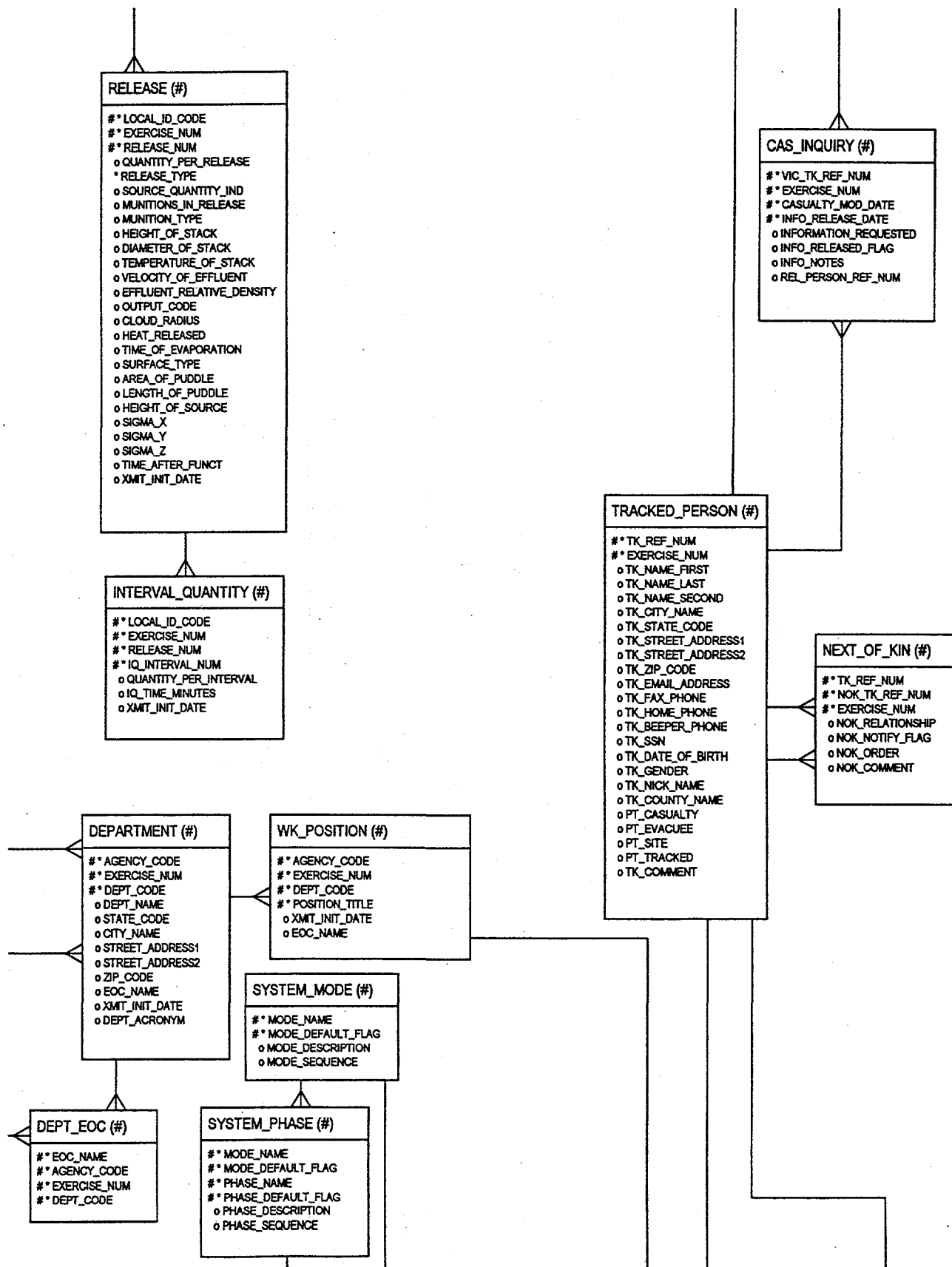


Diagram : FEMIS_DSD1
Title : FEMIS Data Structure Diagram Version 1.4.5
Created : 06 January 1998 13:41:47
Modified : 01 June 1998 09:53:24
Author : Bern Anderson, Bob Loveall

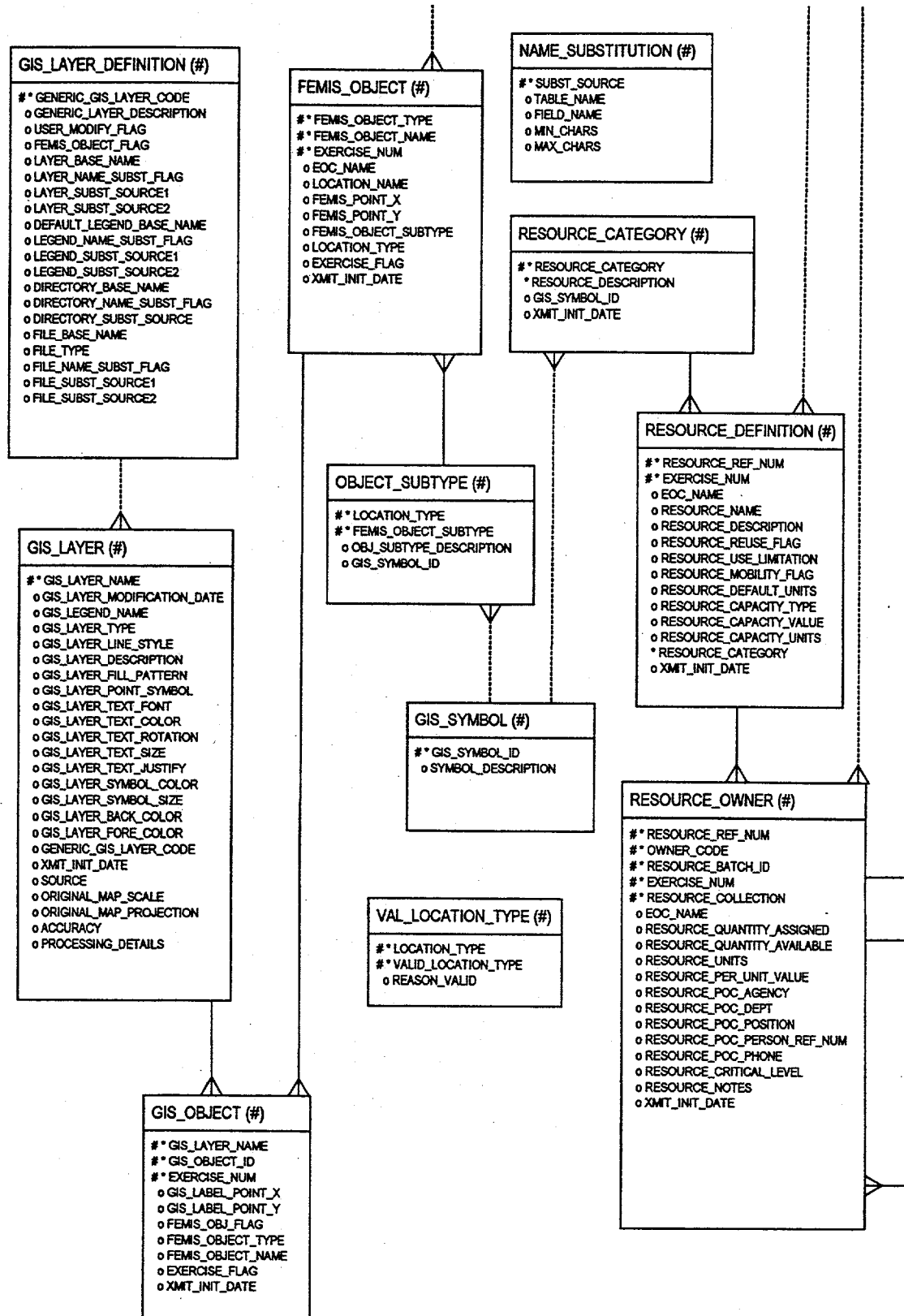


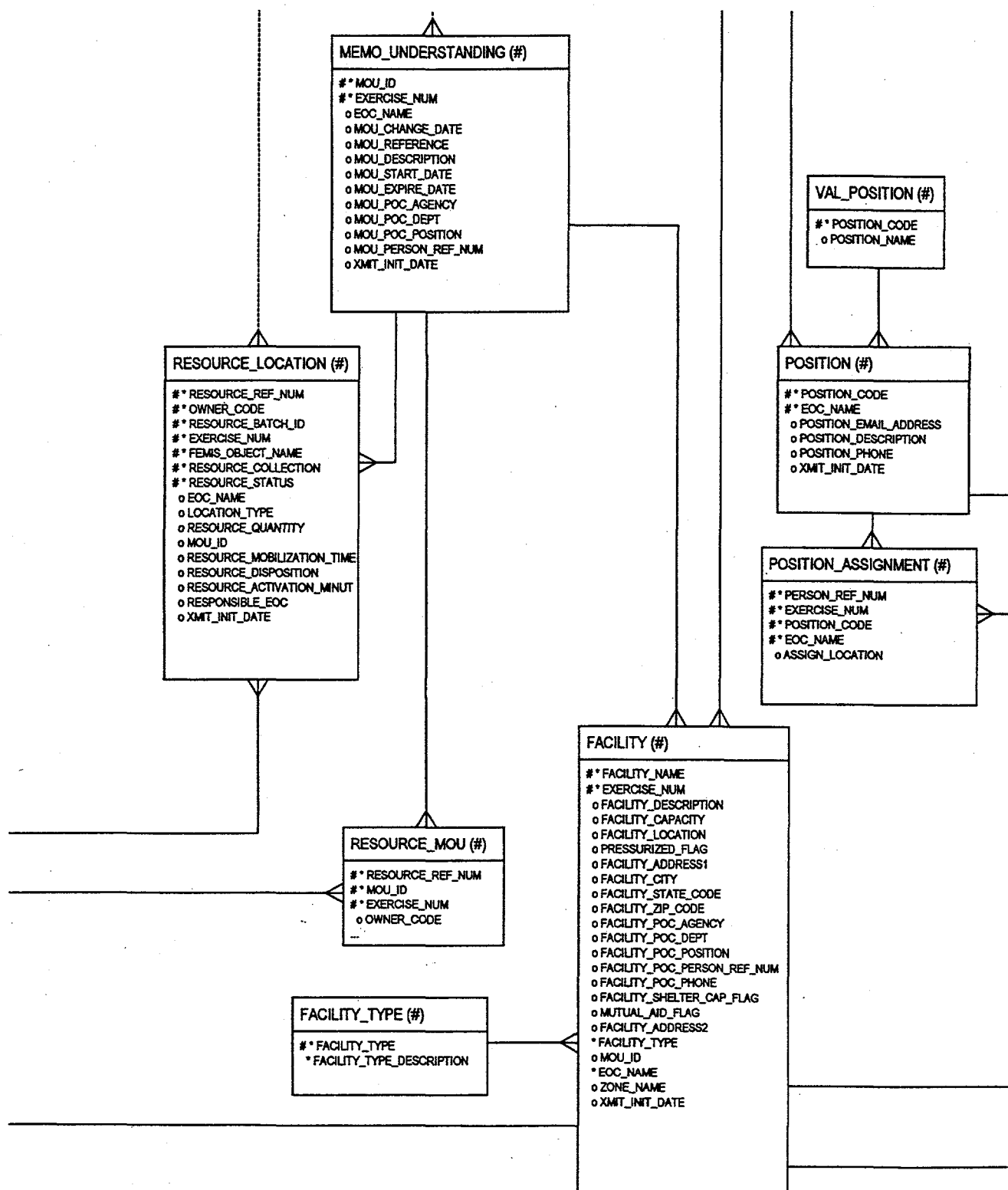


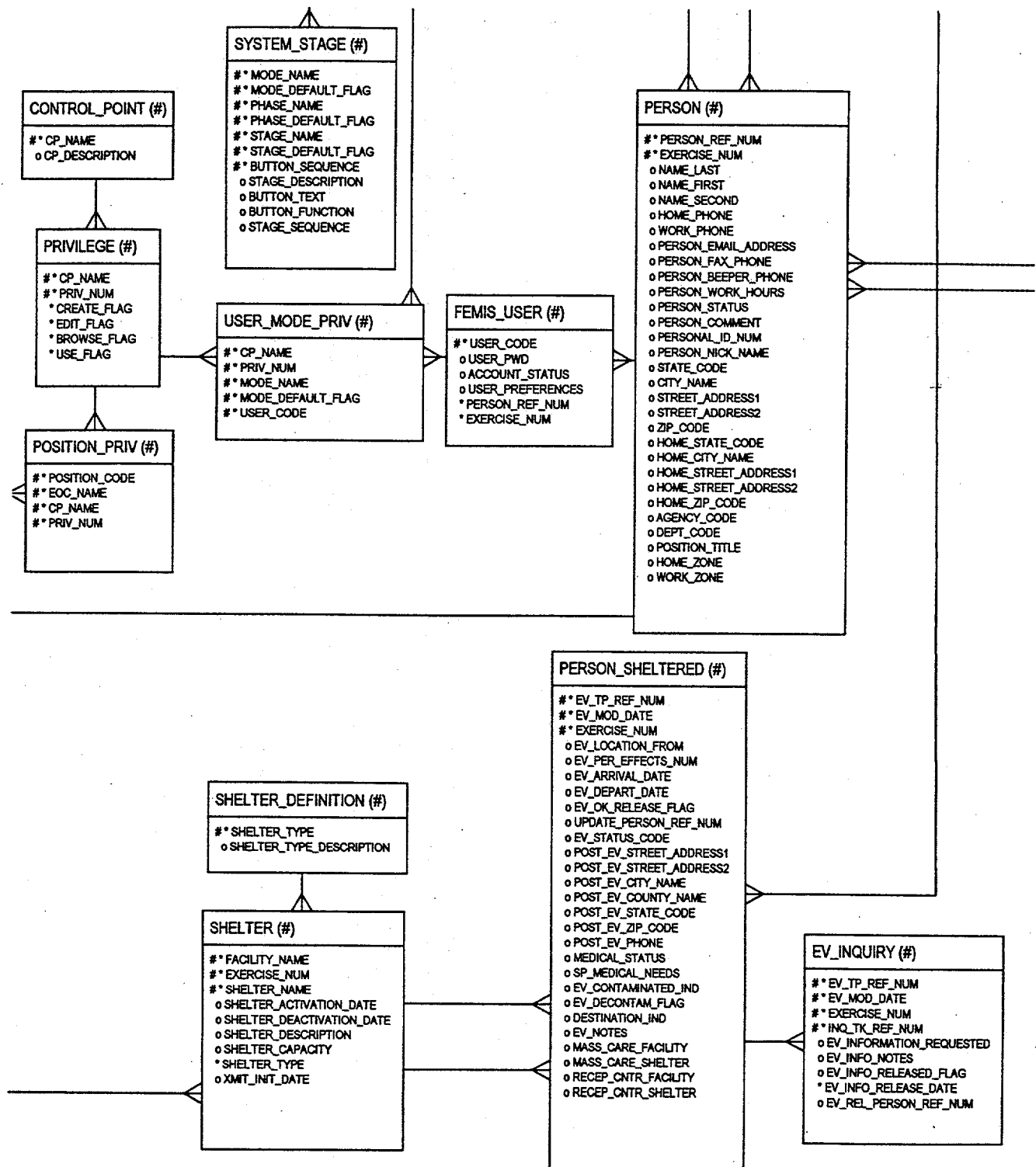


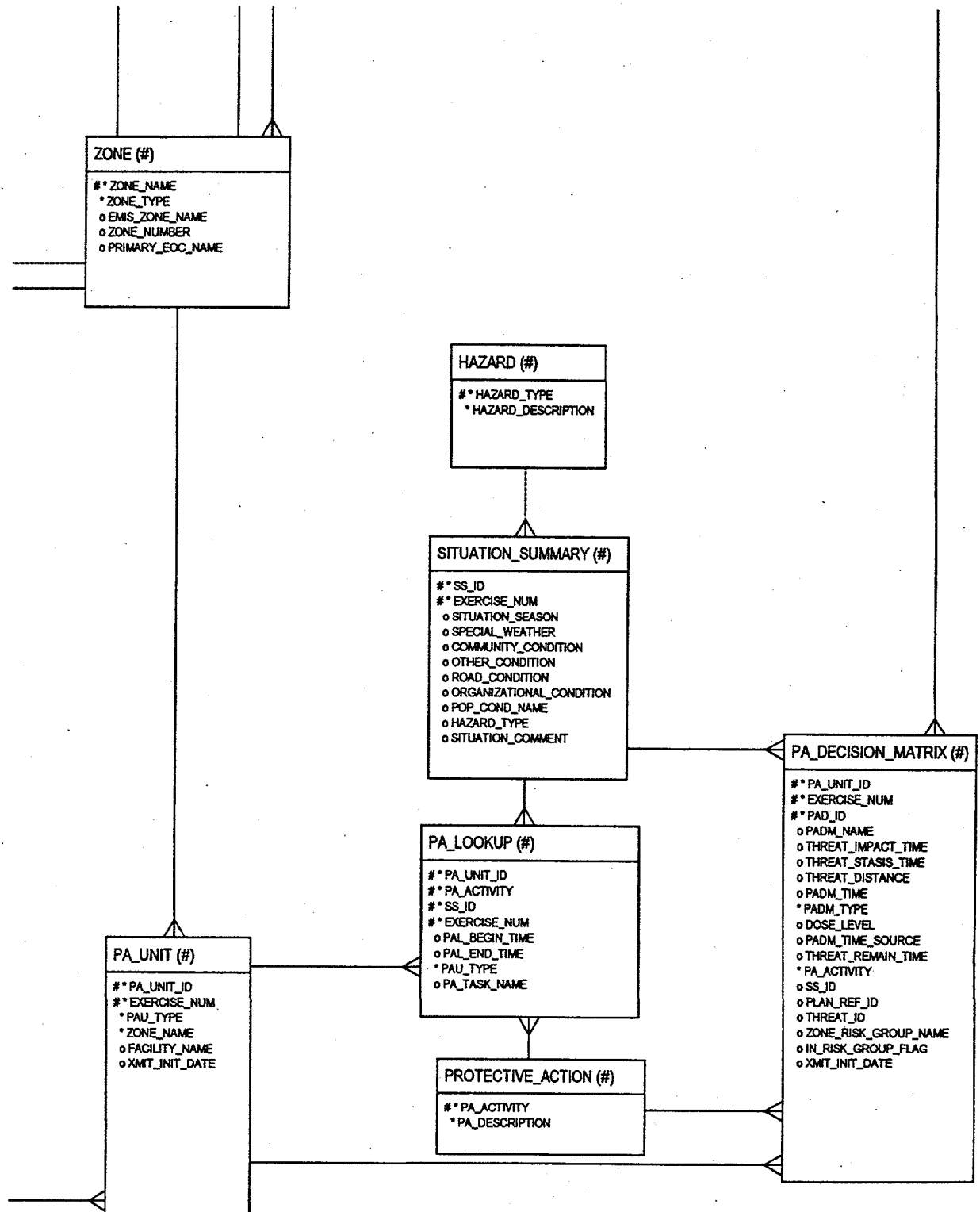


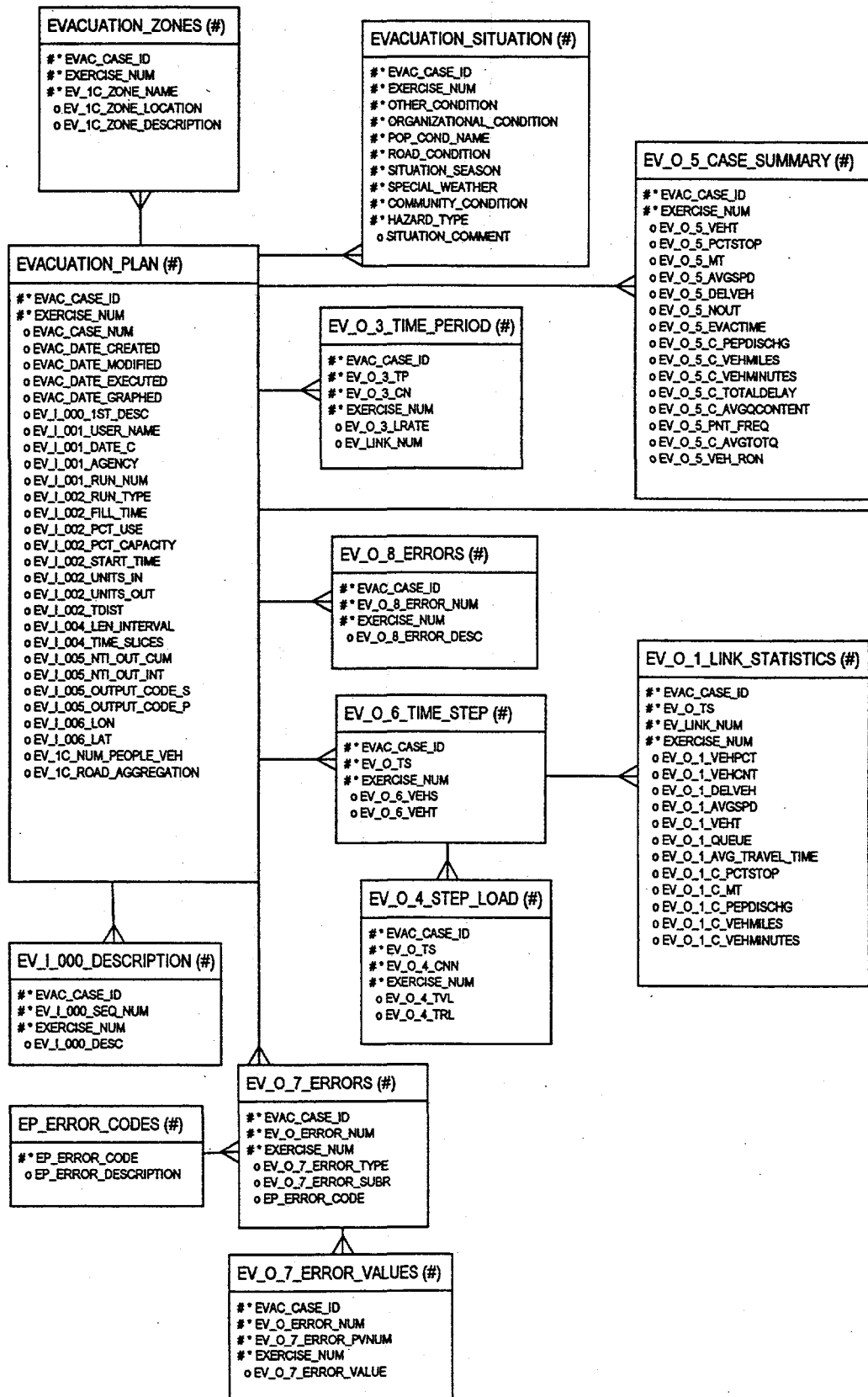


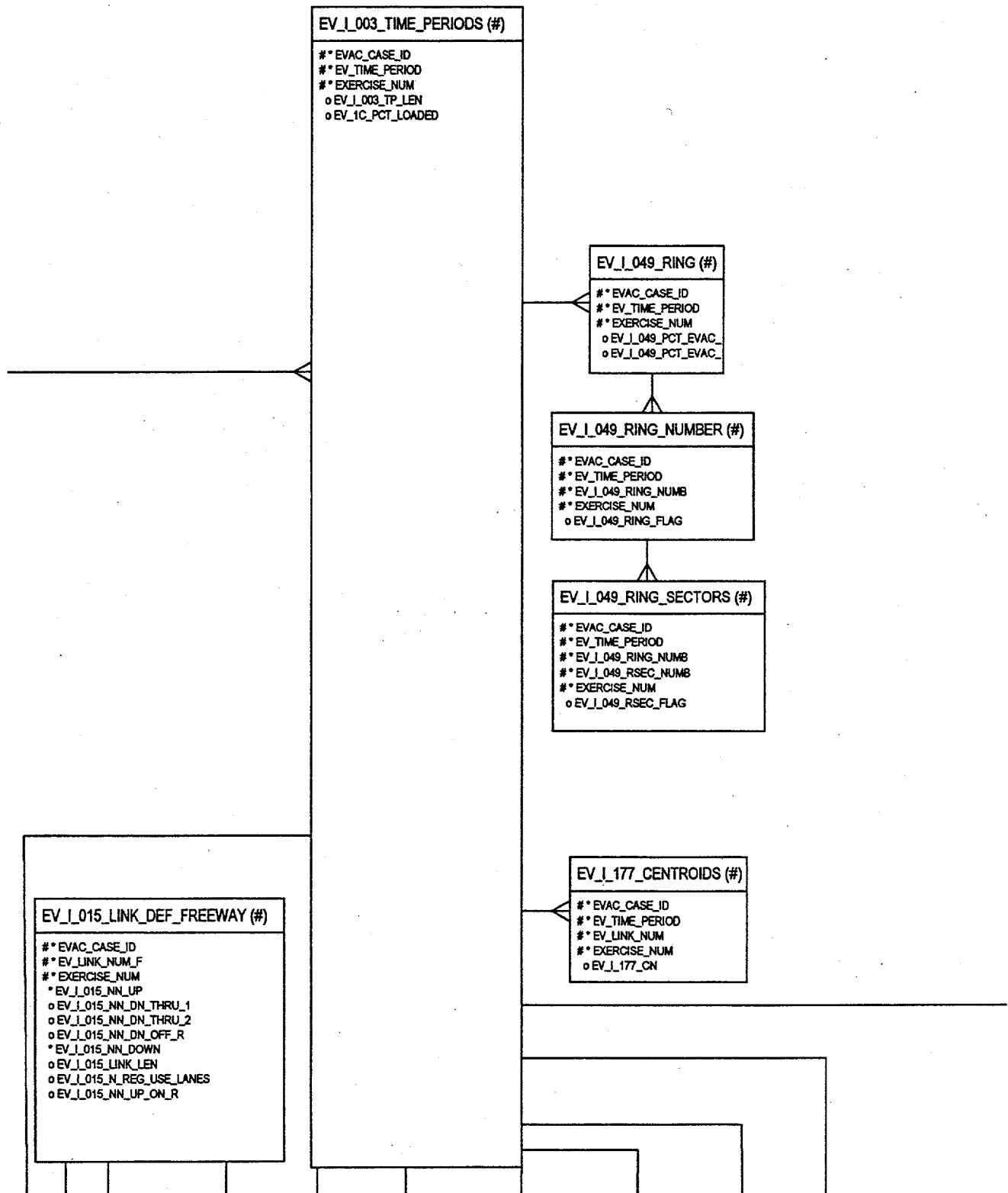


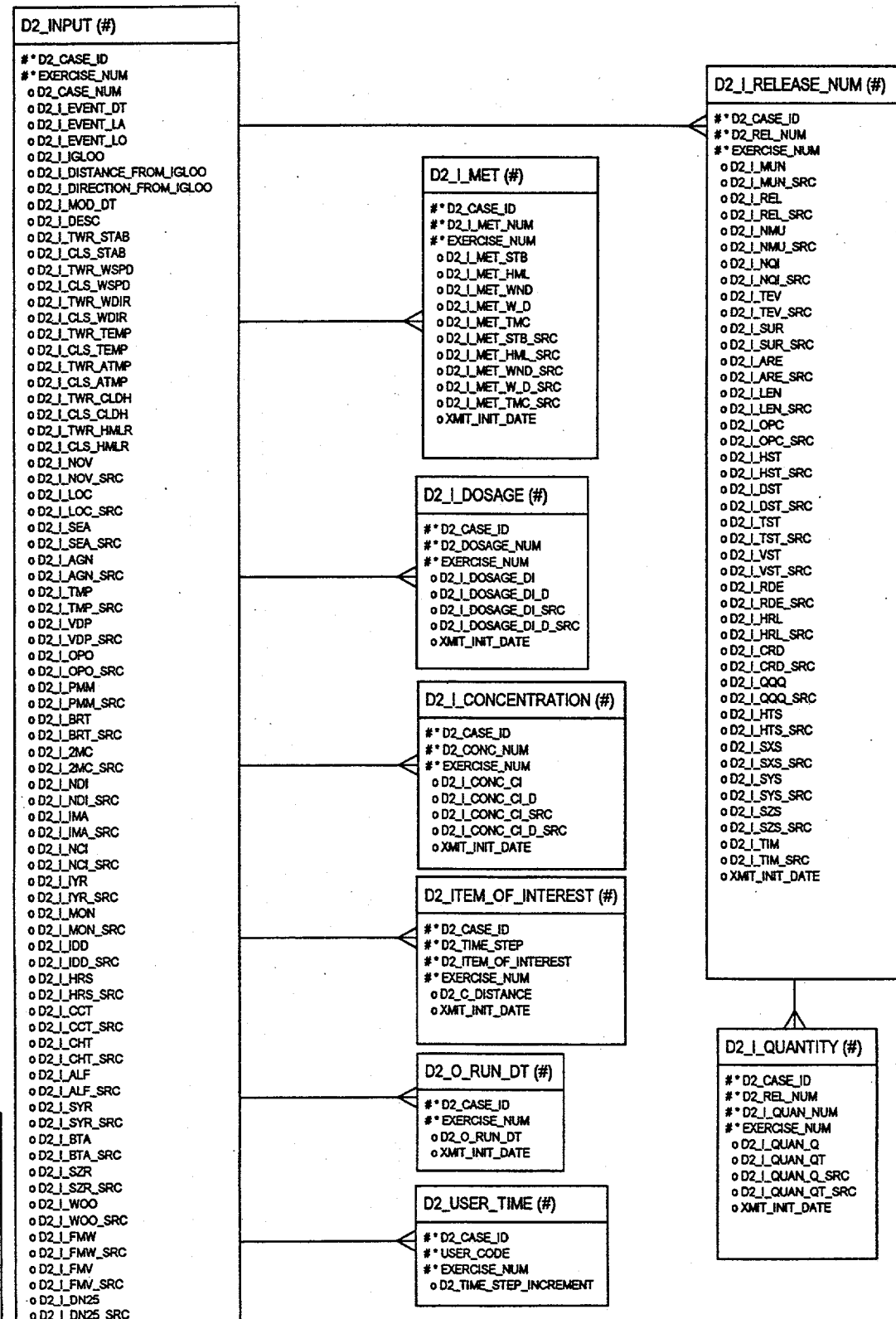


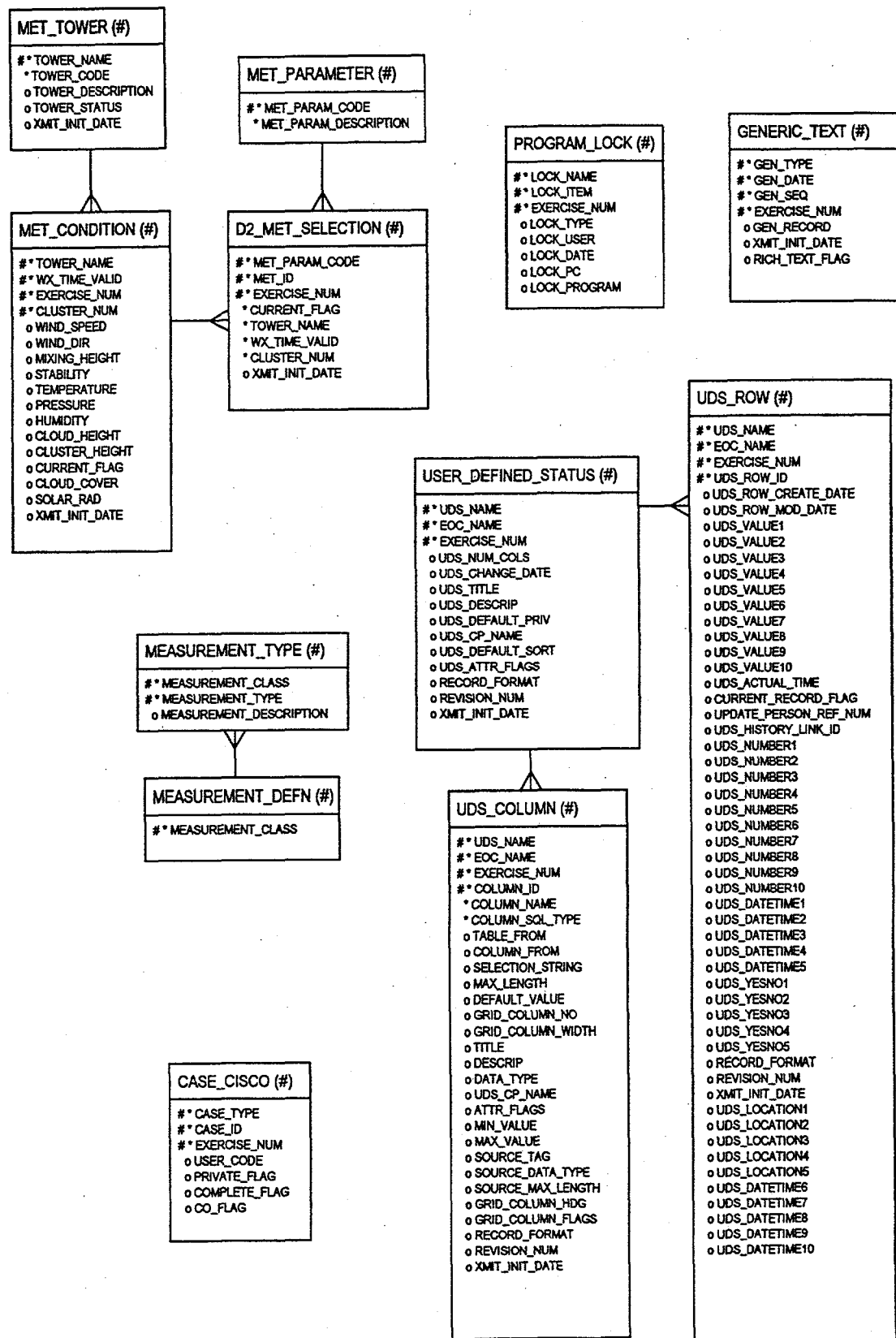












ROUTE (#)

EXERCISE_NUM
ROUTE_NAME
o ROUTE_DESCRIPTION
o ROUTE_FLAG
o ROUTE_TO_LOCATION
o ROUTE_FROM_LOCATION

ROUTE_SEGMENT (#)

EXERCISE_NUM
ROUTE_NAME
ROUTE_SEG_NUM
o ROUTE_SEG_LOCATION
o RS_TO_LOCATION
o RS_FROM_LOCATION
o RS_ID

EV_I_035_036_SIGNAL (#)

EVAC_CASE_ID
EV_NODE_NUM
EXERCISE_NUM
o EV_I_035_REF_OFFSET
o EV_I_035_NN_UP_1
o EV_I_035_NN_UP_2
o EV_I_035_NN_UP_3
o EV_I_035_NN_UP_4
o EV_I_035_NN_UP_5
o EV_I_035_SIG_INT_1
o EV_I_035_SIG_INT_2
o EV_I_035_SIG_INT_3
o EV_I_035_SIG_INT_4
o EV_I_035_SIG_INT_5
o EV_I_035_SIG_INT_6
o EV_I_035_SIG_INT_7
o EV_I_035_SIG_INT_8
o EV_I_035_SIG_INT_9
o EV_I_036_CONTROL_CODE

EV_I_175_TA_PARMs (#)

EVAC_CASE_ID
EV_TIME_PERIOD
EXERCISE_NUM
o EV_I_175_EXP_VAL
o EV_I_175_MAX_INNER_ITER
o EV_I_175_COEFF_A
o EV_I_175_COEFF_B
o EV_I_175_KALMAN_FILTER
o EV_I_175_MAX_OUTER_ITER
o EV_I_175_LS_ACC
o EV_I_175_IMP_CODE
o EV_I_175_OPT_CODE
o EV_I_175_TA_CODE
o EV_I_175_PCT_DISCHARGE
o EV_I_175_PCT_IMP

ROAD_QUALIFICATION (#)

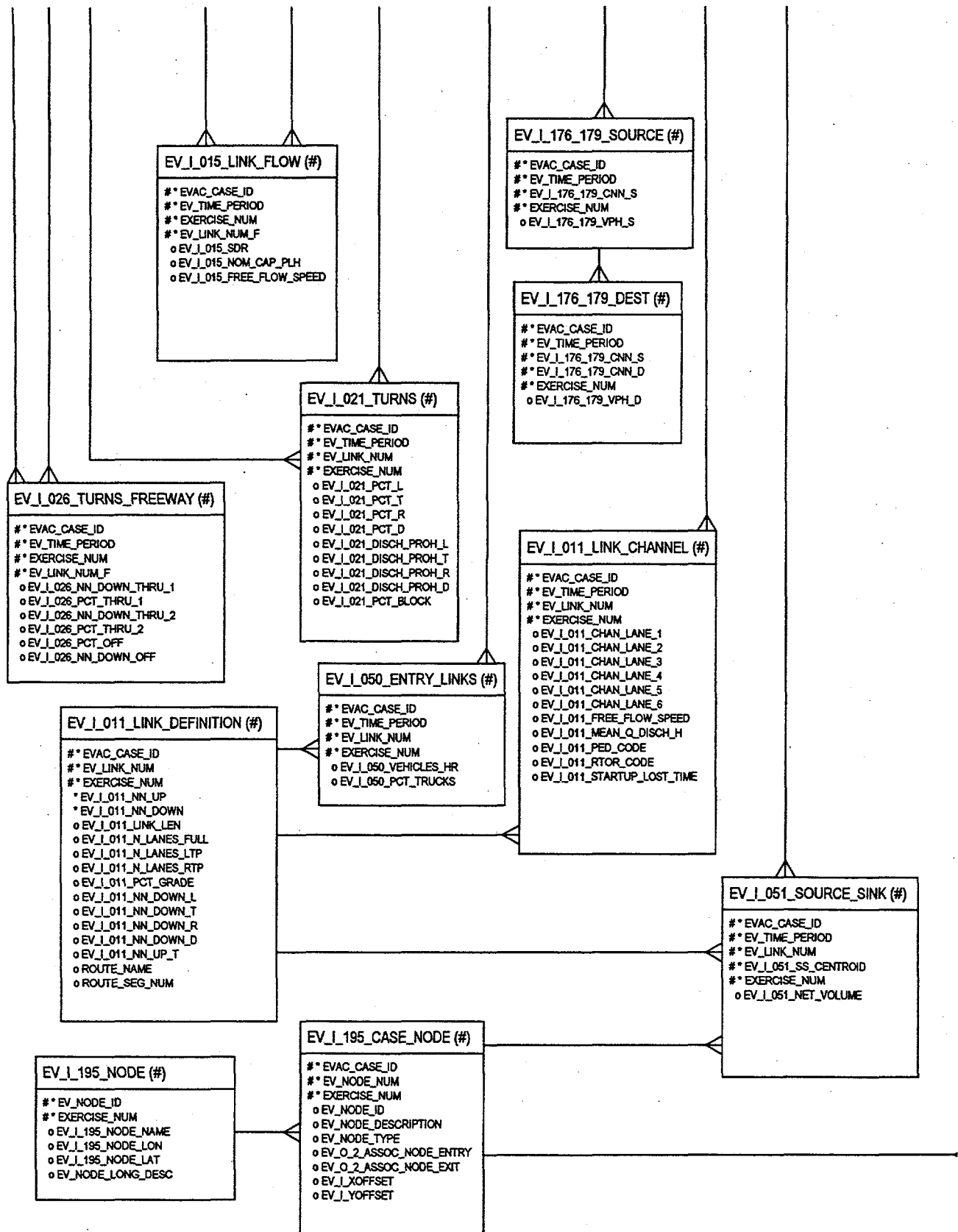
EXERCISE_NUM
ROAD_CLASS
o RQ_INCLUDE_FLAG
o RQ_FREE_FLOW_SPEED
o RQ_LANE_COUNT
o RQ_DIVIDED_FLAG
o RQ_DEFAULT_FLAG

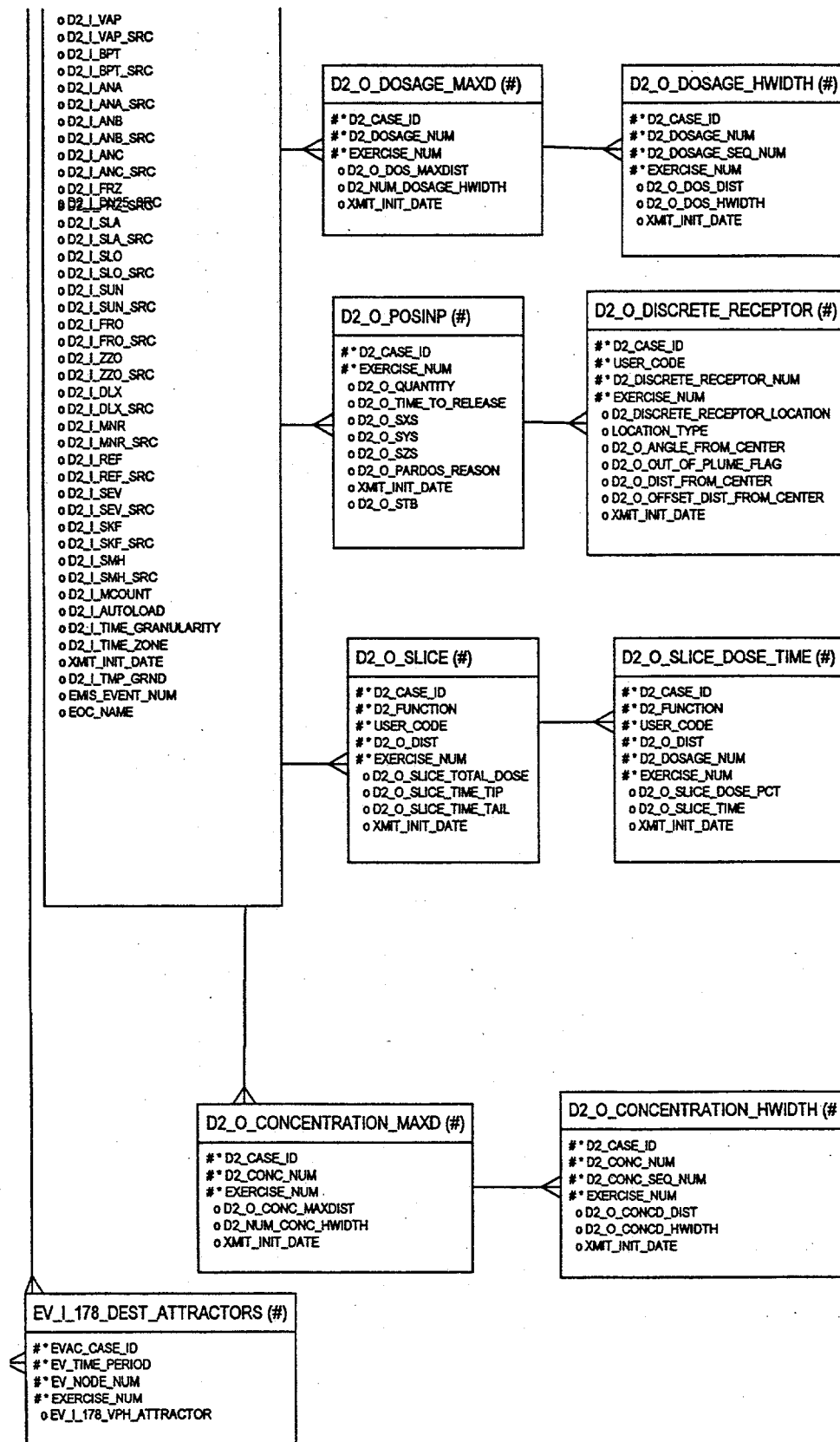
EV_I_052_LOAD_FACTORS (#)

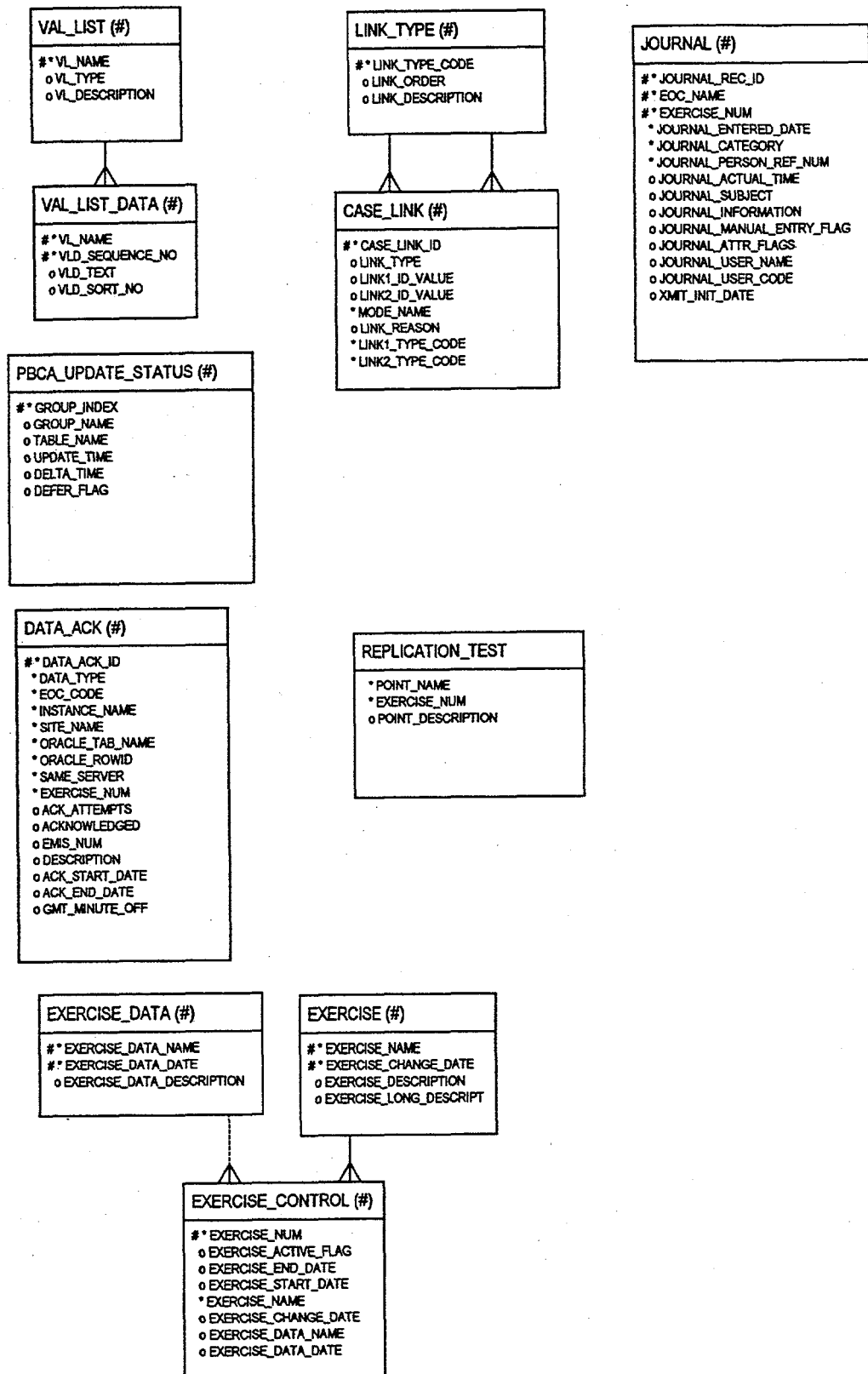
EVAC_CASE_ID
EV_TIME_PERIOD
EXERCISE_NUM
o EV_I_052_AVG_PER_AUTO
o EV_I_052_AVG_PER_POOL
o EV_I_052_AVG_PER_TRUCK
o EV_I_052_AVG_PER_BUS

EV_I_034_FREEWAY_SUB_PARM (#)

EVAC_CASE_ID
EXERCISE_NUM
o EV_I_034_REL_T_COEF
o EV_I_034_ANT_COEF
o EV_I_034_MAX_DUR_TS
o EV_I_034_1ST_SDRG_R1
o EV_I_034_1ST_SDRG_R2
o EV_I_034_1ST_SDRG_R3
o EV_I_034_2ND_SDRG_R1
o EV_I_034_2ND_SDRG_R2
o EV_I_034_2ND_SDRG_R3
o EV_I_034_3RD_SDRG_R1
o EV_I_034_3RD_SDRG_R2
o EV_I_034_3RD_SDRG_R3
o EV_I_034_4TH_SDRG_R1
o EV_I_034_4TH_SDRG_R2
o EV_I_034_4TH_SDRG_R3
o EV_I_034_5TH_SDRG_R3
o EV_I_034_JAM_DEN







Appendix C

FEMIS Database Schema Changes

Appendix C – FEMIS Database Schema Changes

The following list details all the database schema changes that have been implemented to update the database from FEMIS v1.4 to the current version, v1.4.5.

Table Name	Column Name/Definition	Description of Change
AGENCY	AGENCY_ACRONYM, XMIT_INIT_DATE	Added columns
BUNKER	XMIT_INIT_DATE	Added column
CAS_INQUIRY	INQ_TK_REF_NUM	Delete column
CSEPP_ACCIDENT	SET_ACCIDENT_FLAG, ACCIDENT_ACTION	Added columns
D2_INPUT	D2_I_ZZO	Increase format to (7,3)
D2_MET_SELECTION	XMIT_INIT_DATE	Added column
DEPARTMENT	XMIT_INIT_DATE, DEPT_ACRONYM	Added columns
FACILITY	XMIT_INIT_DATE, FACILITY_POC_POSITION	Added column Lengthened to 40 chars
FEMIS_OBJECT	XMIT_INIT_DATE	Added column
GIS_LAYER	XMIT_INIT_DATE, SOURCE, ORIGINAL_MAP_SCALE, ORIGINAL_MAP_PROJECTION, ACCURACY, PROCESSING_DETAILS	Added columns
GIS_OBJECT	XMIT_INIT_DATE	Added column
JOURNAL	JOURNAL_USER_NAME, JOURNAL_USER_CODE	Added columns
KNOWN_POINT	(See new definition in Data Dictionary)	Replaced old table
KP_HISTORY	(See new definition in Data Dictionary)	Added new table
KP_CLASS_DEF	(See new definition in Data Dictionary)	Added new table
KP_SUB_CLASS_DEF	(See new definition in Data Dictionary)	Added new table

MEMO_UNDERSTANDING	XMIT_INIT_DATE, MOU_POC_POSITION	Added column Lengthen to 40 chars
MET_CONDITION	XMIT_INIT_DATE	Added column
MET_TOWER	XMIT_INIT_DATE	Added column
NEXT_OF_KIN	CASUALTY_MOD_DATE, NOK_COMMENT, NOK_ORDER NOK_RELATIONSHIP	Delete column Added columns Change to Number
PA_UNIT	XMIT_INIT_DATE	Added column
PERSON_SHELTERED	XMIT_INIT_DATE	Added column
POSITION	XMIT_INIT_DATE	Added column
REPLICATION_TEST	(See new definition in Data Dictionary)	Added new table
RESOURCE_CATEGORY	XMIT_INIT_DATE	Added column
RESOURCE_DEFINITION	XMIT_INIT_DATE	Added column
RESOURCE_FACILITY	(Renamed to RESOURCE_OWNER)	Deleted table
RESOURCE_LOCATION	FEMIS_OBJECT_NAME, OWNER_CODE, RESOURCE_DISPOSITION, RESOURCE_MOBILIZATION_TIME, RESOURCE_CRITICAL_LEVEL, RESOURCE_ACTIVATION_MINUTES, RESPONSIBLE_EOC	Was RESOURCE_LOCATION Was FACILITY_NAME Added columns
RESOURCE_MOU	OWNER_CODE, RESOURCE_BATCH_ID RESOURCE_COLLECTION, XMIT_INIT_DATE	Added columns
RESOURCE_OWNER	(See new definition in Data Dictionary)	Added new table
SHELTER	XMIT_INIT_DATE	Added column
STORED_AGENT	XMIT_INIT_DATE	Added column
TRACKED_PERSON	(Revised see Data Dictionary)	Major revision
TRAFFIC_CONTROL_POINT	(Table deleted)	Table deleted
UDS_ROW	(Revised see Data Dictionary)	Table expanded
WK_POSITION	XMIT_INTI_DATE, EOC_NAME	Added columns

ZONE	ZONE_NUMBER, PRIMARY_EOC_NAME	Added columns
ZONE_CLUSTER_IN_GROUP	(See new definition in Data Dictionary)	Added new table
ZONE_IN_GROUP	XMIT_INIT_DATE	Added column
ZONE_RISK_GROUP	XMIT_INIT_DATE, EOC_CLUSTER_ID	Added columns

Appendix D

FEMIS Data Dictionary

Appendix D – FEMIS Data Dictionary

For the FEMIS data dictionary, the following lists the table name (in bold), a description of the table, and the headings for the fields of the table. The Sequence heading lists the order of the field in each table; the Name heading is the name of the field; the N heading is the null field, where N means not null and Y means null; and the Format heading shows the Oracle data format of the field.

Table Name

ACCIDENT_CLASS

The Accident Class table is a validation table for different types of accidents.

Sequence	Name	N	Format
1	ACCIDENT_CLASS	N	VARCHAR2(20)
2	ACCIDENT_CLASS_DESCRIPTION	Y	VARCHAR2(127)

Table Name

ACTIVITY

The Activity table contains a list of valid CSEPP activities.

Sequence	Name	N	Format
1	ACTIVITY_CODE	N	VARCHAR2(20)
2	ACTIVITY_DESCRIPTION	Y	VARCHAR2(127)

Table Name

AGENCY

The Agency table contains CSEPP agencies and other agencies that are important to the mission of FEMIS.

Sequence	Name	N	Format
1	AGENCY_CODE	N	VARCHAR2(20)
2	EXERCISE_NUM	N	NUMBER(9,0)
3	AGENCY_NAME	Y	VARCHAR2(64)
4	AGENCY_TYPE	Y	VARCHAR2(20)
5	EOC_NAME	Y	VARCHAR2(30)
6	XMIT_INIT_DATE	Y	DATE 7
7	AGENCY_ACRONYM	Y	VARCHAR2(20)

Table Name

AGENT_MUNITION

The Agent Munition table maintains combinations of agents and munitions.

Sequence	Name	N Format
1	AGENT_CODE	N VARCHAR2(2)
2	MUNITION_TYPE	N VARCHAR2(4)
3	QUANTITY_PER_MUNITION	Y NUMBER(13,2)

Table Name

APPROACH

The Approach table has a list of valid approaches to accomplish the mission of FEMIS.

Sequence	Name	N Format
1	PLANNING_APPROACH	N VARCHAR2(40)
2	PLAN_APP_DESCRIPTION	Y VARCHAR2(127)

Table Name

BTB_DEPENDENCE

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PRED_PLAN_REF_ID	N NUMBER(9,0)
5	PRED_PD_UNIQUE_REF_NUM	N NUMBER(7,0)
6	DEPENDENCY_TYPE	Y VARCHAR2(10)
7	LEAD_LAG_TIME	Y NUMBER(6,2)

Table Name

BTB_PLAN_DETAIL

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PD_NAME	Y VARCHAR2(254)
5	PD_DESCRIPTION	Y VARCHAR2(2000)
6	RESPONSIBLE_AGENCY	Y VARCHAR2(20)
7	RESPONSIBLE_DEPT	Y VARCHAR2(20)
8	RESPONSIBLE_POSITION	Y VARCHAR2(20)
9	RESP_PERSON_REF_NUM	Y NUMBER(9,0)
10	DECISION_POINT	Y VARCHAR2(1)
11	LOCATION_TO	Y VARCHAR2(30)
12	START_TIME_TARGET	Y DATE 7
13	FINISH_TIME_TARGET	Y DATE 7
14	DURATION_TARGET	Y NUMBER(8,0)
15	START_TIME_CALC	Y DATE 7
16	FINISH_TIME_CALC	Y DATE 7
17	DURATION_CALC	Y NUMBER(8,0)
18	PD_PRIORITY	Y NUMBER(2,0)
19	EXTERNAL_INTERFACE	Y VARCHAR2(1)
20	PD_NOTES	Y VARCHAR2(1999)
21	PD_COST	Y NUMBER(10,2)

22	LOCATION_TYPE	Y VARCHAR2(8)
23	START_TIME_ACTUAL	Y DATE 7
24	FINISH_TIME_ACTUAL	Y DATE 7
25	DURATION_ACTUAL	Y NUMBER(8,0)
26	PD_ORIGIN	Y VARCHAR2(10)
27	PD_OPS_STATUS	Y VARCHAR2(15)
28	LOGGED_EVENT_FLAG	Y VARCHAR2(1)
29	PD_SEQUENCE_NUM	Y NUMBER(10,0)
30	START_TIME_BASELINE	Y DATE 7
31	FINISH_TIME_BASELINE	Y DATE 7
32	DURATION_BASELINE	Y NUMBER(8,0)
33	PLANNING_STAGE	Y VARCHAR2(30)
34	PLANNING_PHASE	Y VARCHAR2(20)
35	LEVEL_NUM	N NUMBER(1,0)
36	EMERGENCY_SUPPORT_FN	Y VARCHAR2(30)

Table Name
BTB_PLAN_HEADER

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PLAN_CHANGE_DATE	Y DATE 7
4	PLAN_NAME	N VARCHAR2(64)
5	PLAN_STATUS	Y VARCHAR2(11)
6	EOC_NAME	Y VARCHAR2(30)
7	PLAN_DESCRIPTION	Y VARCHAR2(254)
8	MAX_TASK_REF_NUM	Y NUMBER(7,0)
9	MAX_TASK_SEQUENCE_NUM	Y NUMBER(10,0)
10	PLAN_NOTE	Y VARCHAR2(1999)
11	METHOD_TYPE	Y VARCHAR2(20)
12	PLANNING_APPROACH	Y VARCHAR2(40)
13	PLANNING_GOAL	Y VARCHAR2(40)

Table Name
BTB_RESOURCE_ASSIGNMENT

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PD_RESOURCE_NUM	N NUMBER(3,0)
5	RESOURCE_REF_NUM	Y NUMBER(9,0)
6	RESOURCE_QUANTITY	Y NUMBER(10,0)
7	RESOURCE_NOTE	Y VARCHAR2(127)
8	LOCATION_FROM	Y VARCHAR2(30)
9	LOCATION_TYPE	Y VARCHAR2(8)
10	RESPONSIBLE_EOC	Y VARCHAR2(30)
11	PLAN_RESOURCE_DISPOS	Y VARCHAR2(30)
12	PLAN_RESOURCE_ID	Y NUMBER(9,0)
13	PLAN_POC_AGENCY	Y VARCHAR2(30)
14	PLAN_POC_DEPT	Y VARCHAR2(30)
15	PLAN_POC_POSITION	Y VARCHAR2(30)

Table Name

BUNKER

The Bunker table contains information about the sites where chemical weapons are stored.

Sequence	Name	N Format
1	BUNKER_NAME	N VARCHAR2(30)
2	BUNKER_CODE	N VARCHAR2(7)
3	SITE_NAME	Y VARCHAR2(30)
4	XMIT_INIT_DATE	Y DATE 7

Table Name

CASE_CISCO

The Case Check-in-check_out table contains information about case that are in use.

Sequence	Name	N Format
1	CASE_TYPE	N VARCHAR2(4)
2	CASE_ID	N NUMBER(9,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	USER_CODE	Y VARCHAR2(8)
5	PRIVATE_FLAG	Y VARCHAR2(1)
6	COMPLETE_FLAG	Y VARCHAR2(1)
7	CO_FLAG	Y VARCHAR2(1)

Table Name

CASE_LINK

The Case Link table contains information about how cases are related.

Sequence	Name	N Format
1	CASE_LINK_ID	N NUMBER(9,0)
2	LINK_TYPE	Y VARCHAR2(15)
3	LINK1_ID_VALUE	Y NUMBER(9,0)
4	LINK2_ID_VALUE	Y NUMBER(9,0)
5	MODE_NAME	N VARCHAR2(10)
6	LINK_REASON	Y VARCHAR2(127)
7	LINK1_TYPE_CODE	N VARCHAR2(10)
8	LINK2_TYPE_CODE	N VARCHAR2(10)

Table Name

CASUALTY

The Casualty table contains summary information about the victims of an accident.

Sequence	Name	N Format
1	VIC_TK_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	CASUALTY_MOD_DATE	N DATE 7
4	INJURY_CODE	Y VARCHAR2(20)
5	OK_RELEASE_FLAG	Y VARCHAR2(1)

6	CASUALTY_LOCATION	Y VARCHAR2(92)
7	LOCATION_TYPE	Y VARCHAR2(8)
8	LOCATION_SUBTYPE	Y VARCHAR2(40)
9	INJURY_NOTES	Y VARCHAR2(254)
10	CONTAMINATED_IND	Y VARCHAR2(1)
11	FACILITY_TO	Y VARCHAR2(30)
12	FACILITY_TYPE	Y VARCHAR2(40)
13	CASUALTY_NOTE	Y VARCHAR2(254)
14	UPDATE_PERSON_REF_NUM	N NUMBER(9,0)
15	CASUALTY_STATUS_CODE	Y NUMBER(1,0)
16	VICTIM_PERSON_REF_NUM	Y NUMBER(9,0)
17	VICTIM_HT_INCHES	Y NUMBER(3,0)
18	VICTIM_WT_LBS	Y NUMBER(3,0)
19	VICTIM_HAIR_COLOR	Y VARCHAR2(10)
20	VICTIM_EYE_COLOR	Y VARCHAR2(10)
21	VICTIM_RACE	Y VARCHAR2(20)
22	VICTIM_OTHER_PHY_DESC	Y VARCHAR2(127)
23	MED_COND_NOTES	Y VARCHAR2(1999)
24	VICTIM_BADGE_NUM	Y VARCHAR2(10)
25	VICTIM_EMP_NUM	Y VARCHAR2(10)
26	VICTIM_AGENCY_CODE	Y VARCHAR2(20)
27	VICTIM_WORK_PHONE	Y VARCHAR2(17)
28	WORK_STREET_ADDRESS1	Y VARCHAR2(40)
29	WORK_STREET_ADDRESS2	Y VARCHAR2(40)
30	WORK_CITY_NAME	Y VARCHAR2(20)
31	WORK_STATE_CODE	Y VARCHAR2(2)
32	WORK_ZIP_CODE	Y VARCHAR2(10)
33	INJURY_DATE	Y DATE 7
34	VICTIM_KNOWN_MED_COND	Y VARCHAR2(127)
35	DECONTAM_FLAG	Y VARCHAR2(1)
36	SEVERITY_CODE	Y VARCHAR2(12)
37	INJURED_ONPOST_FLAG	Y VARCHAR2(1)
38	NOK_NOTIFY_STATUS_FLAG	Y VARCHAR2(1)
39	ACCIDENT_ID	Y NUMBER(9,0)
40	ACCIDENT_MOD_DATE	Y DATE 7

Table Name

CAS_INQUIRY

The Casualty Inquiry table contains information about accident inquiries.

Sequence	Name	N Format
1	VIC_TK_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	CASUALTY_MOD_DATE	N DATE 7
4	INFO_RELEASE_DATE	N DATE 7
5	INFORMATION_REQUESTED	Y VARCHAR2(127)
6	INFO_RELEASED_FLAG	Y VARCHAR2(1)
7	INFO_NOTES	Y VARCHAR2(254)
8	REL_PERSON_REF_NUM	Y NUMBER(9,0)

Table Name

CENSUS_BLOCK

The Census Block table defines a block name within a tract.

Sequence	Name	N Format
1	TRACT_NAME	N VARCHAR2(30)
2	BLOCK_NAME	N VARCHAR2(30)
3	STATE_FIPS_CODE	N VARCHAR2(2)
4	COUNTY_FIPS_CODE	N VARCHAR2(3)
5	CENSUS_BLOCK_NAME	N VARCHAR2(30)

Table Name

CENSUS_SUBDIVISION

The Census Subdivision table defines a subdivisions within a county.

Sequence	Name	N Format
1	SUBDIVISION_NAME	N VARCHAR2(30)
2	STATE_FIPS_CODE	N VARCHAR2(2)
3	COUNTY_FIPS_CODE	N VARCHAR2(3)
4	CSD_NAME	N VARCHAR2(30)

Table Name

CENSUS_TRACT

The Census Tract table defines a tract within a district.

Sequence	Name	N Format
1	TRACT_NAME	N VARCHAR2(30)
2	STATE_FIPS_CODE	N VARCHAR2(2)
3	COUNTY_FIPS_CODE	N VARCHAR2(3)
4	CENSUS_TRACT_NAME	N VARCHAR2(30)

Table Name

CHEMICAL_AGENT

The Chemical Agent table describes the agents stored at a CSEPP site.

Sequence	Name	N Format
1	AGENT_CODE	N VARCHAR2(2)
2	AGENT_TYPE	Y VARCHAR2(30)
3	AGENT_DESCRIPTION	Y VARCHAR2(127)

Table Name

CONTROL_POINT

The Control Point table contains the software branch points used to control user access privileges.

Sequence	Name	N Format
1	CP_NAME	N VARCHAR2(30)
2	CP_DESCRIPTION	Y VARCHAR2(127)

Table Name

COUNTY

The County table contains the name of counties and the state they are in.

Sequence	Name	N Format
1	STATE_FIPS_CODE	N VARCHAR2(2)
2	COUNTY_FIPS_CODE	N VARCHAR2(3)
3	COUNTY_NAME	Y VARCHAR2(30)
4	STATE_CODE	Y VARCHAR2(2)

Table Name

CSEPP_ACCIDENT

The CSEPP_Accident table describes the chemical or other type of accident that has occurred.

Sequence	Name	N Format
1	ACCIDENT_ID	N NUMBER(9,0)
2	ACCIDENT_MOD_DATE	N DATE 7
3	EXERCISE_NUM	N NUMBER(9,0)
4	ACCIDENT_DESCRIPTION	Y VARCHAR2(127)
5	ACCIDENT_DATE	N DATE 7
6	UPDATE_PERSON_REF_NUM	N NUMBER(9,0)
7	ACCIDENT_COMMENT	Y VARCHAR2(1999)
8	ACCIDENT_CLOSED_DATE	Y DATE 7
9	ACCIDENT_IN_PROG_FLAG	N VARCHAR2(1)
10	CAI_STATUS_CODE	N NUMBER(1,0)
11	CAI_DECLARING_EOC	N VARCHAR2(30)
12	D2_CASE_ID	Y NUMBER(9,0)
13	ACTIVITY_CODE	Y VARCHAR2(20)
14	ACCIDENT_CLASS	Y VARCHAR2(20)
15	XMIT_INIT_DATE	Y DATE 7
16	EMIS_EVENT_NUM	Y NUMBER(4,0)
17	ACCIDENT_ACTUAL_DATE	Y DATE 7
18	SET_ACCIDENT_FLAG	Y VARCHAR2(1)
19	ACCIDENT_ACTION	Y VARCHAR2(256)

Table Name

D2_INPUT

The table that contains common D2 input parameters and other control information.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	D2_CASE_NUM	Y NUMBER(9,0)
4	D2_I_EVENT_DT	Y VARCHAR2(28)
5	D2_I_EVENT_LA	Y NUMBER(12,6)
6	D2_I_EVENT_LO	Y NUMBER(12,6)
7	D2_I_IGLOO	Y VARCHAR2(30)
8	D2_I_DISTANCE_FROM_IGLOO	Y NUMBER(8,2)
9	D2_I_DIRECTION_FROM_IGLOO	Y VARCHAR2(2)

10	D2_I_MOD_DT	Y VARCHAR2(28)
11	D2_I_DESC	Y VARCHAR2(127)
12	D2_I_TWR_STAB	Y VARCHAR2(9)
13	D2_I_CLS_STAB	Y NUMBER(2,0)
14	D2_I_TWR_WSPD	Y VARCHAR2(9)
15	D2_I_CLS_WSPD	Y NUMBER(2,0)
16	D2_I_TWR_WDIR	Y VARCHAR2(9)
17	D2_I_CLS_WDIR	Y NUMBER(2,0)
18	D2_I_TWR_TEMP	Y VARCHAR2(9)
19	D2_I_CLS_TEMP	Y NUMBER(2,0)
20	D2_I_TWR_ATMP	Y VARCHAR2(9)
21	D2_I_CLS_ATMP	Y NUMBER(2,0)
22	D2_I_TWR_CLDH	Y VARCHAR2(9)
23	D2_I_CLS_CLDH	Y NUMBER(2,0)
24	D2_I_TWR_HMLR	Y VARCHAR2(9)
25	D2_I_CLS_HMLR	Y NUMBER(2,0)
26	D2_I_NOV	Y NUMBER(1,0)
27	D2_I_NOV_SRC	Y VARCHAR2(1)
28	D2_I_LOC	Y VARCHAR2(3)
29	D2_I_LOC_SRC	Y VARCHAR2(1)
30	D2_I_SEA	Y VARCHAR2(3)
31	D2_I_SEA_SRC	Y VARCHAR2(1)
32	D2_I_AGN	Y VARCHAR2(2)
33	D2_I_AGN_SRC	Y VARCHAR2(1)
34	D2_I_TMP	Y NUMBER(8,4)
35	D2_I_TMP_SRC	Y VARCHAR2(1)
36	D2_I_VDP	Y NUMBER(1,0)
37	D2_I_VDP_SRC	Y VARCHAR2(1)
38	D2_I_OPO	Y NUMBER(1,0)
39	D2_I_OPO_SRC	Y VARCHAR2(1)
40	D2_I_PMM	Y NUMBER(6,2)
41	D2_I_PMM_SRC	Y VARCHAR2(1)
42	D2_I_BRT	Y NUMBER(6,2)
43	D2_I_BRT_SRC	Y VARCHAR2(1)
44	D2_I_2MC	Y NUMBER(1,0)
45	D2_I_2MC_SRC	Y VARCHAR2(1)
46	D2_I_NDI	Y NUMBER(2,0)
47	D2_I_NDI_SRC	Y VARCHAR2(1)
48	D2_I_IMA	Y NUMBER(1,0)
49	D2_I_IMA_SRC	Y VARCHAR2(1)
50	D2_I_NCI	Y NUMBER(2,0)
51	D2_I_NCI_SRC	Y VARCHAR2(1)
52	D2_I_IYR	Y NUMBER(4,0)
53	D2_I_IYR_SRC	Y VARCHAR2(1)
54	D2_I_MON	Y VARCHAR2(3)
55	D2_I_MON_SRC	Y VARCHAR2(1)
56	D2_I_IDD	Y NUMBER(2,0)
57	D2_I_IDD_SRC	Y VARCHAR2(1)
58	D2_I_HRS	Y NUMBER(4,0)
59	D2_I_HRS_SRC	Y VARCHAR2(1)
60	D2_I_CCT	Y NUMBER(2,0)
61	D2_I_CCT_SRC	Y VARCHAR2(1)
62	D2_I_CHT	Y NUMBER(8,2)
63	D2_I_CHT_SRC	Y VARCHAR2(1)
64	D2_I_ALF	Y NUMBER(6,2)

65	D2_I_ALF_SRC	Y VARCHAR2(1)
66	D2_I_SYR	Y NUMBER(6,2)
67	D2_I_SYR_SRC	Y VARCHAR2(1)
68	D2_I_BTA	Y NUMBER(6,2)
69	D2_I_BTA_SRC	Y VARCHAR2(1)
70	D2_I_SZR	Y NUMBER(6,2)
71	D2_I_SZR_SRC	Y VARCHAR2(1)
72	D2_I_WOO	Y VARCHAR2(2)
73	D2_I_WOO_SRC	Y VARCHAR2(1)
74	D2_I_FMW	Y NUMBER(6,3)
75	D2_I_FMW_SRC	Y VARCHAR2(1)
76	D2_I_FMV	Y NUMBER(6,3)
77	D2_I_FMV_SRC	Y VARCHAR2(1)
78	D2_I_DN25	Y NUMBER(6,3)
79	D2_I_DN25_SRC	Y VARCHAR2(1)
80	D2_I_VAP	Y NUMBER(6,3)
81	D2_I_VAP_SRC	Y VARCHAR2(1)
82	D2_I_BPT	Y NUMBER(6,2)
83	D2_I_BPT_SRC	Y VARCHAR2(1)
84	D2_I_ANA	Y NUMBER(6,2)
85	D2_I_ANA_SRC	Y VARCHAR2(1)
86	D2_I_ANB	Y NUMBER(6,2)
87	D2_I_ANB_SRC	Y VARCHAR2(1)
88	D2_I_ANC	Y NUMBER(6,2)
89	D2_I_ANC_SRC	Y VARCHAR2(1)
90	D2_I_FRZ	Y NUMBER(6,2)
91	D2_I_FRZ_SRC	Y VARCHAR2(1)
92	D2_I_SLA	Y NUMBER(12,6)
93	D2_I_SLA_SRC	Y VARCHAR2(1)
94	D2_I_SLO	Y NUMBER(12,6)
95	D2_I_SLO_SRC	Y VARCHAR2(1)
96	D2_I_SUN	Y NUMBER(6,3)
97	D2_I_SUN_SRC	Y VARCHAR2(1)
98	D2_I_FRO	Y NUMBER(6,3)
99	D2_I_FRO_SRC	Y VARCHAR2(1)
100	D2_I_ZZO	Y NUMBER(7,3)
101	D2_I_ZZO_SRC	Y VARCHAR2(1)
102	D2_I_DLX	Y NUMBER(6,2)
103	D2_I_DLX_SRC	Y VARCHAR2(1)
104	D2_I_MNR	Y NUMBER(1,0)
105	D2_I_MNR_SRC	Y VARCHAR2(1)
106	D2_I_REF	Y NUMBER(6,2)
107	D2_I_REF_SRC	Y VARCHAR2(1)
108	D2_I_SEV	Y NUMBER(6,2)
109	D2_I_SEV_SRC	Y VARCHAR2(1)
110	D2_I_SKF	Y NUMBER(6,3)
111	D2_I_SKF_SRC	Y VARCHAR2(1)
112	D2_I_SMH	Y NUMBER(8,2)
113	D2_I_SMH_SRC	Y VARCHAR2(1)
114	D2_I_MCOUNT	Y NUMBER(3,0)
115	D2_I_AUTOLOAD	Y VARCHAR2(1)
116	D2_I_TIME_GRANULARITY	Y NUMBER(3,0)
117	D2_I_TIME_ZONE	Y VARCHAR2(4)
118	XMIT_INIT_DATE	Y DATE 7
119	D2_I_TMP_GRND	Y NUMBER(8,4)

120	EMIS_EVENT_NUM	Y	NUMBER(4,0)
121	EOC_NAME	Y	VARCHAR2(30)

Table Name

D2_ITEM_OF_INTEREST

This table contains D2 input parameters and other control information.

Sequence	Name	N	Format
1	D2_CASE_ID	N	NUMBER(9,0)
2	D2_TIME_STEP	N	NUMBER(4,0)
3	D2_ITEM_OF_INTEREST	N	VARCHAR2(6)
4	EXERCISE_NUM	N	NUMBER(9,0)
5	D2_C_DISTANCE	Y	NUMBER(6,0)
6	XMIT_INIT_DATE	Y	DATE 7

Table Name

D2_I_CONCENTRATION

This table contains D2 input parameters and other control information.

Sequence	Name	N	Format
1	D2_CASE_ID	N	NUMBER(9,0)
2	D2_CONC_NUM	N	NUMBER(3,0)
3	EXERCISE_NUM	N	NUMBER(9,0)
4	D2_I_CONC_CI	Y	NUMBER(15,9)
5	D2_I_CONC_CI_D	Y	VARCHAR2(127)
6	D2_I_CONC_CI_SRC	Y	VARCHAR2(1)
7	D2_I_CONC_CI_D_SRC	Y	VARCHAR2(1)
8	XMIT_INIT_DATE	Y	DATE 7

Table Name

D2_I_DOSAGE

This table contains D2 input parameters and other control information.

Sequence	Name	N	Format
1	D2_CASE_ID	N	NUMBER(9,0)
2	D2_DOSAGE_NUM	N	NUMBER(2,0)
3	EXERCISE_NUM	N	NUMBER(9,0)
4	D2_I_DOSAGE_DI	Y	NUMBER(15,9)
5	D2_I_DOSAGE_DI_D	Y	VARCHAR2(127)
6	D2_I_DOSAGE_DI_SRC	Y	VARCHAR2(1)
7	D2_I_DOSAGE_DI_D_SRC	Y	VARCHAR2(1)
8	XMIT_INIT_DATE	Y	DATE 7

Table Name

D2_I_MET

This table contains D2 input parameters and other control information.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_I_MET_NUM	N NUMBER(3,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	D2_I_MET_STB	Y VARCHAR2(1)
5	D2_I_MET_HML	Y NUMBER(8,2)
6	D2_I_MET_WND	Y NUMBER(6,3)
7	D2_I_MET_W_D	Y NUMBER(6,3)
8	D2_I_MET_TMC	Y NUMBER(6,2)
9	D2_I_MET_STB_SRC	Y VARCHAR2(1)
10	D2_I_MET_HML_SRC	Y VARCHAR2(1)
11	D2_I_MET_WND_SRC	Y VARCHAR2(1)
12	D2_I_MET_W_D_SRC	Y VARCHAR2(1)
13	D2_I_MET_TMC_SRC	Y VARCHAR2(1)
14	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_I_QUANTITY

This table contains D2 input parameters and other control information.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_REL_NUM	N NUMBER(3,0)
3	D2_I_QUAN_NUM	N NUMBER(2,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	D2_I_QUAN_Q	Y NUMBER(13,2)
6	D2_I_QUAN_QT	Y NUMBER(6,2)
7	D2_I_QUAN_Q_SRC	Y VARCHAR2(1)
8	D2_I_QUAN_QT_SRC	Y VARCHAR2(1)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_I_RELEASE_NUM

This table contains D2 input parameters and other control information.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_REL_NUM	N NUMBER(3,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	D2_I_MUN	Y VARCHAR2(3)
5	D2_I_MUN_SRC	Y VARCHAR2(1)
6	D2_I_REL	Y VARCHAR2(3)
7	D2_I_REL_SRC	Y VARCHAR2(1)
8	D2_I_NMU	Y NUMBER(6,2)
9	D2_I_NMU_SRC	Y VARCHAR2(1)

10	D2_I_NQI	Y NUMBER(1,0)
11	D2_I_NQI_SRC	Y VARCHAR2(1)
12	D2_I_TEV	Y NUMBER(6,2)
13	D2_I_TEV_SRC	Y VARCHAR2(1)
14	D2_I_SUR	Y VARCHAR2(3)
15	D2_I_SUR_SRC	Y VARCHAR2(1)
16	D2_I_ARE	Y NUMBER(7,3)
17	D2_I_ARE_SRC	Y VARCHAR2(1)
18	D2_I_LEN	Y NUMBER(7,3)
19	D2_I_LEN_SRC	Y VARCHAR2(1)
20	D2_I_OPC	Y NUMBER(1,0)
21	D2_I_OPC_SRC	Y VARCHAR2(1)
22	D2_I_HST	Y NUMBER(7,3)
23	D2_I_HST_SRC	Y VARCHAR2(1)
24	D2_I_DST	Y NUMBER(7,3)
25	D2_I_DST_SRC	Y VARCHAR2(1)
26	D2_I_TST	Y NUMBER(6,3)
27	D2_I_TST_SRC	Y VARCHAR2(1)
28	D2_I_VST	Y NUMBER(6,3)
29	D2_I_VST_SRC	Y VARCHAR2(1)
30	D2_I_RDE	Y NUMBER(6,3)
31	D2_I_RDE_SRC	Y VARCHAR2(1)
32	D2_I_HRL	Y NUMBER(11,2)
33	D2_I_HRL_SRC	Y VARCHAR2(1)
34	D2_I_CRD	Y NUMBER(8,2)
35	D2_I_CRD_SRC	Y VARCHAR2(1)
36	D2_I_OQQ	Y NUMBER(13,2)
37	D2_I_OQQ_SRC	Y VARCHAR2(1)
38	D2_I_HTS	Y NUMBER(8,2)
39	D2_I_HTS_SRC	Y VARCHAR2(1)
40	D2_I_SXS	Y NUMBER(8,2)
41	D2_I_SXS_SRC	Y VARCHAR2(1)
42	D2_I_SYS	Y NUMBER(8,2)
43	D2_I_SYS_SRC	Y VARCHAR2(1)
44	D2_I_SZS	Y NUMBER(8,2)
45	D2_I_SZS_SRC	Y VARCHAR2(1)
46	D2_I_TIM	Y NUMBER(6,2)
47	D2_I_TIM_SRC	Y VARCHAR2(1)
48	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_MET_SELECTION

This table determines which combination of met parameters are used.

Sequence	Name	N Format
1	MET_PARAM_CODE	N VARCHAR2(2)
2	MET_ID	N NUMBER(9,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	CURRENT_FLAG	N VARCHAR2(1)
5	TOWER_NAME	N VARCHAR2(30)
6	WX_TIME_VALID	N DATE 7
7	CLUSTER_NUM	N NUMBER(2,0)
8	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_CONCENTRATION_HWIDTH

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_CONC_NUM	N NUMBER(3,0)
3	D2_CONC_SEQ_NUM	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	D2_O_CONCD_DIST	Y NUMBER(10,2)
6	D2_O_CONCD_HWIDTH	Y NUMBER(10,2)
7	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_CONCENTRATION_MAXD

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_CONC_NUM	N NUMBER(3,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	D2_O_CONC_MAXDIST	Y NUMBER(10,2)
5	D2_NUM_CONC_HWIDTH	Y NUMBER(4,0)
6	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_DISCRETE_RECEPTOR

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	USER_CODE	N VARCHAR2(7)
3	D2_DISCRETE_RECEPTOR_NUM	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	D2_DISCRETE_RECEPTOR_LOCATION	Y VARCHAR2(92)
6	LOCATION_TYPE	Y VARCHAR2(4)
7	D2_O_ANGLE_FROM_CENTER	Y NUMBER(6,3)
8	D2_O_OUT_OF_PLUME_FLAG	Y VARCHAR2(3)
9	D2_O_DIST_FROM_CENTER	Y NUMBER(10,2)
10	D2_O_OFFSET_DIST_FROM_CENTER	Y NUMBER(10,2)
11	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_DOSAGE_HWIDTH

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_DOSAGE_NUM	N NUMBER(2,0)
3	D2_DOSAGE_SEQ_NUM	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)

5	D2_O_DOS_DIST	Y NUMBER(10,2)
6	D2_O_DOS_HWIDTH	Y NUMBER(10,2)
7	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_DOSAGE_MAXD

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_DOSAGE_NUM	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	D2_O_DOS_MAXDIST	Y NUMBER(10,2)
5	D2_NUM_DOSAGE_HWIDTH	Y NUMBER(4,0)
6	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_POSINP

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	D2_O_QUANTITY	Y NUMBER(13,2)
4	D2_O_TIME_TO_RELEASE	Y NUMBER(6,2)
5	D2_O_SXS	Y NUMBER(8,2)
6	D2_O_SYS	Y NUMBER(8,2)
7	D2_O_SZS	Y NUMBER(8,2)
8	D2_O_PARDOS_REASON	Y VARCHAR2(80)
9	XMIT_INIT_DATE	Y DATE 7
10	D2_O_STB	Y VARCHAR2(1)

Table Name

D2_O_RUN_DT

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	D2_O_RUN_DT	Y DATE 7
4	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_SLICE

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_FUNCTION	N VARCHAR2(14)
3	USER_CODE	N VARCHAR2(7)
4	D2_O_DIST	N NUMBER(10,2)

5	EXERCISE_NUM	N NUMBER(9,0)
6	D2_O_SLICE_TOTAL_DOSE	Y NUMBER(10,4)
7	D2_O_SLICE_TIME_TIP	Y NUMBER(8,2)
8	D2_O_SLICE_TIME_TAIL	Y NUMBER(8,2)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_O_SLICE_DOSE_TIME

This table contains D2 output results.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_FUNCTION	N VARCHAR2(14)
3	USER_CODE	N VARCHAR2(7)
4	D2_O_DIST	N NUMBER(10,2)
5	D2_DOSAGE_NUM	N NUMBER(2,0)
6	EXERCISE_NUM	N NUMBER(9,0)
7	D2_O_SLICE_DOSE_PCT	Y NUMBER(5,2)
8	D2_O_SLICE_TIME	Y NUMBER(10,4)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

D2_USER_TIME

This table contains D2 control parameters.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	USER_CODE	N VARCHAR2(7)
3	EXERCISE_NUM	N NUMBER(9,0)
4	D2_TIME_STEP_INCREMENT	Y NUMBER(3,0)

Table Name

DATA_ACK

Sequence	Name	N Format
1	DATA_ACK_ID	N NUMBER(9,0)
2	DATA_TYPE	N VARCHAR2(9)
3	EOC_CODE	N VARCHAR2(4)
4	INSTANCE_NAME	N VARCHAR2(4)
5	SITE_NAME	N VARCHAR2(30)
6	ORACLE_TAB_NAME	N VARCHAR2(30)
7	ORACLE_ROWID	N ROWID 6
8	SAME_SERVER	N CHAR(1)
9	EXERCISE_NUM	N NUMBER(9,0)
10	ACK_ATTEMPTS	Y NUMBER(2,0)
11	ACKNOWLEDGED	Y CHAR(1)
12	EMIS_NUM	Y NUMBER(8,0)
13	DESCRIPTION	Y VARCHAR2(2000)
14	ACK_START_DATE	Y DATE 7
15	ACK_END_DATE	Y DATE 7
16	GMT_MINUTE_OFF	Y NUMBER(4,0)

Table Name

DEPARTMENT

The Department table names the departments in agencies that are concerned with the FEMIS mission.

Sequence	Name	N Format
1	AGENCY_CODE	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	DEPT_CODE	N VARCHAR2(20)
4	DEPT_NAME	Y VARCHAR2(30)
5	STATE_CODE	Y VARCHAR2(2)
6	CITY_NAME	Y VARCHAR2(20)
7	STREET_ADDRESS1	Y VARCHAR2(40)
8	STREET_ADDRESS2	Y VARCHAR2(40)
9	ZIP_CODE	Y VARCHAR2(10)
10	EOC_NAME	Y VARCHAR2(30)
11	XMIT_INIT_DATE	Y DATE 7
12	DEPT_ACRONYM	Y VARCHAR2(20)

Table Name

DEPENDENCE

The Dependence table shows the plan detail task(s) that must be finished before the indicated task is done.

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PRED_PLAN_REF_ID	N NUMBER(9,0)
5	PRED_PD_UNIQUE_REF_NUM	N NUMBER(7,0)
6	DEPENDENCY_TYPE	Y VARCHAR2(10)
7	LEAD_LAG_TIME	Y NUMBER(6,2)

Table Name

DEPT_EOC

The Dept Eoc table contains the departments of agencies located within an EOC.

Sequence	Name	N Format
1	EOC_NAME	N VARCHAR2(30)
2	AGENCY_CODE	N VARCHAR2(20)
3	EXERCISE_NUM	N NUMBER(9,0)
4	DEPT_CODE	N VARCHAR2(20)

Table Name

DOSAGE

The Dosage table is a validation of the dose levels used to run the D2 model.

Sequence	Name	N Format
1	DOSE_LEVEL	N VARCHAR2(40)
2	DOSE_DESCRIPTION	N VARCHAR2(127)

Table Name

EMERGENCY_SUPPORT

The Emergency Support table contains valid support functions for use in an electronic plan.

Sequence	Name	N Format
1	EMERGENCY_SUPPORT_FN	N VARCHAR2(30)
2	EMS_DESCRIPTION	N VARCHAR2(127)

Table Name

EOC

The EOC table contains information about EOCs at a CSEPP site.

Sequence	Name	N Format
1	EOC_NAME	N VARCHAR2(30)
2	EOC_CODE	Y VARCHAR2(4)
3	EOC_TYPE	Y VARCHAR2(30)
4	EOC_DESCRIPTION	Y VARCHAR2(127)
5	EOC_RESPONSIBILITY_AREA	Y VARCHAR2(92)
6	EOC_NUM	Y NUMBER(3,0)
7	EOC_SERVER_NAME	Y VARCHAR2(30)
8	EOC_PWD	Y VARCHAR2(10)
9	EOC_NOTIFY_PORT	Y NUMBER(9,0)
10	EOC_UNIX_PORT	Y NUMBER(9,0)
11	SITE_NAME	N VARCHAR2(30)
12	DEI_USED	Y CHAR(1)
13	INSTANCE_NAME	Y VARCHAR2(4)

Table Name

EOC_OBJECTIVE

The EOC Objective table contains operational objectives for center.

Sequence	Name	N Format
1	EOC_NAME	N VARCHAR2(30)
2	EO_GOAL_TIME	Y NUMBER(6,2)
3	EO_DESCRIPTION	Y VARCHAR2(127)
4	EO_NOTIFY_TIME	Y NUMBER(6,2)
5	EO_DECISION_TIME	Y NUMBER(6,2)
6	TIME_ZONE_CODE	Y VARCHAR2(3)
7	DOSE_LEVEL	Y VARCHAR2(40)
8	DEFAULT_D2_CASE_ID	Y NUMBER(9,0)

Table Name

EOC_ZONE

The EOC Zone table contains the mapping of zones to EOCs.

Sequence	Name	N Format
1	EOC_NAME	N VARCHAR2 (30)
2	ZONE_NAME	N VARCHAR2 (30)

Table Name

EP_ERROR_CODES

These are the error codes used in the Evac model.

Sequence	Name	N Format
1	EP_ERROR_CODE	N NUMBER(5,0)
2	EP_ERROR_DESCRIPTION	Y VARCHAR2 (900)

Table Name

EVACUATION_PLAN

The Evacuation Plan table contains data describing how an evacuation should take place.

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EVAC_CASE_NUM	Y NUMBER(9,0)
4	EVAC_DATE_CREATED	Y DATE 7
5	EVAC_DATE_MODIFIED	Y DATE 7
6	EVAC_DATE_EXECUTED	Y DATE 7
7	EVAC_DATE_GRAPHED	Y DATE 7
8	EV_I_000_1ST_DESC	Y VARCHAR2 (72)
9	EV_I_001_USER_NAME	Y VARCHAR2 (36)
10	EV_I_001_DATE_C	Y DATE 7
11	EV_I_001_AGENCY	Y VARCHAR2 (24)
12	EV_I_001_RUN_NUM	Y NUMBER(4,0)
13	EV_I_002_RUN_TYPE	Y NUMBER(1,0)
14	EV_I_002_FILL_TIME	Y NUMBER(4,0)
15	EV_I_002_PCT_USE	Y NUMBER(3,0)
16	EV_I_002_PCT_CAPACITY	Y NUMBER(3,0)
17	EV_I_002_START_TIME	Y DATE 7
18	EV_I_002_UNITS_IN	Y VARCHAR2 (1)
19	EV_I_002_UNITS_OUT	Y VARCHAR2 (1)
20	EV_I_002_TDIST	Y VARCHAR2 (1)
21	EV_I_004_LEN_INTERVAL	Y NUMBER(4,0)
22	EV_I_004_TIME_SLICES	Y NUMBER(4,0)
23	EV_I_005_NTI_OUT_CUM	Y NUMBER(4,0)
24	EV_I_005_NTI_OUT_INT	Y NUMBER(4,0)
25	EV_I_005_OUTPUT_CODE_S	Y VARCHAR2 (1)
26	EV_I_005_OUTPUT_CODE_P	Y VARCHAR2 (1)
27	EV_I_006_LON	Y NUMBER(13,8)
28	EV_I_006_LAT	Y NUMBER(13,8)
29	EV_1C_NUM_PEOPLE_VEH	Y NUMBER(4,2)
30	EV_1C_ROAD_AGGREGATION	Y VARCHAR2 (30)

Table Name

EVACUATION_SITUATION

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	OTHER_CONDITION	N VARCHAR2(256)
4	ORGANIZATIONAL_CONDITION	N VARCHAR2(256)
5	POP_COND_NAME	N VARCHAR2(30)
6	ROAD_CONDITION	N VARCHAR2(256)
7	SITUATION_SEASON	N VARCHAR2(6)
8	SPECIAL_WEATHER	N VARCHAR2(15)
9	COMMUNITY_CONDITION	N VARCHAR2(256)
10	HAZARD_TYPE	N VARCHAR2(15)
11	SITUATION_COMMENT	Y VARCHAR2(127)

Table Name

EVACUATION_ZONES

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EV_1C_ZONE_NAME	N VARCHAR2(30)
4	EV_1C_ZONE_LOCATION	Y VARCHAR2(92)
5	EV_1C_ZONE_DESCRIPTION	Y VARCHAR2(127)

Table Name

EV_INQUIRY

Sequence	Name	N Format
1	EV_TP_REF_NUM	N NUMBER(9,0)
2	EV_MOD_DATE	N DATE 7
3	EXERCISE_NUM	N NUMBER(9,0)
4	INQ_TK_REF_NUM	N NUMBER(9,0)
5	EV_INFORMATION_REQUESTED	Y VARCHAR2(127)
6	EV_INFO_NOTES	Y VARCHAR2(254)
7	EV_INFO_RELEASED_FLAG	Y VARCHAR2(1)
8	EV_INFO_RELEASE_DATE	N DATE 7
9	EV_REL_PERSON_REF_NUM	Y NUMBER(9,0)

Table Name

EV_I_000_DESCRIPTION

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_I_000_SEQ_NUM	N NUMBER(4,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_000_DESC	Y VARCHAR2(72)

Table Name

EV_I_003_TIME_PERIODS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_003_TP_LEN	Y NUMBER(4,0)
5	EV_1C_PCT_LOADED	Y NUMBER(3,0)

Table Name

EV_I_011_LINK_CHANNEL

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_LINK_NUM	N NUMBER(5,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_011_CHAN_LANE_1	Y VARCHAR2(1)
6	EV_I_011_CHAN_LANE_2	Y VARCHAR2(1)
7	EV_I_011_CHAN_LANE_3	Y VARCHAR2(1)
8	EV_I_011_CHAN_LANE_4	Y VARCHAR2(1)
9	EV_I_011_CHAN_LANE_5	Y VARCHAR2(1)
10	EV_I_011_CHAN_LANE_6	Y VARCHAR2(1)
11	EV_I_011_FREE_FLOW_SPEED	Y NUMBER(2,0)
12	EV_I_011_MEAN_Q_DISCH_H	Y NUMBER(4,0)
13	EV_I_011_PED_CODE	Y VARCHAR2(1)
14	EV_I_011_RTOR_CODE	Y VARCHAR2(1)
15	EV_I_011_STARTUP_LOST_TIME	Y NUMBER(3,0)

Table Name

EV_I_011_LINK_DEFINITION

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_LINK_NUM	N NUMBER(5,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_011_NN_UP	N NUMBER(4,0)
5	EV_I_011_NN_DOWN	N NUMBER(4,0)
6	EV_I_011_LINK_LEN	Y NUMBER(5,0)
7	EV_I_011_N LANES_FULL	Y NUMBER(1,0)
8	EV_I_011_N LANES_LTP	Y NUMBER(1,0)
9	EV_I_011_N LANES_RTP	Y NUMBER(1,0)
10	EV_I_011_PCT_GRADE	Y NUMBER(3,0)
11	EV_I_011_NN_DOWN_L	Y NUMBER(4,0)
12	EV_I_011_NN_DOWN_T	Y NUMBER(4,0)
13	EV_I_011_NN_DOWN_R	Y NUMBER(4,0)
14	EV_I_011_NN_DOWN_D	Y NUMBER(5,0)
15	EV_I_011_NN_UP_T	Y NUMBER(4,0)
16	ROUTE_NAME	Y VARCHAR2(30)
17	ROUTE_SEG_NUM	Y NUMBER(6,0)

Table Name

EV_I_015_LINK_DEF_FREEWAY

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_LINK_NUM_F	N NUMBER(5,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_015_NN_UP	N NUMBER(4,0)
5	EV_I_015_NN_DN_THRU_1	Y NUMBER(4,0)
6	EV_I_015_NN_DN_THRU_2	Y NUMBER(4,0)
7	EV_I_015_NN_DN_OFF_R	Y NUMBER(4,0)
8	EV_I_015_NN_DOWN	N NUMBER(4,0)
9	EV_I_015_LINK_LEN	Y NUMBER(4,0)
10	EV_I_015_N_REG_USE_LANES	Y NUMBER(1,0)
11	EV_I_015_NN_UP_ON_R	Y NUMBER(4,0)

Table Name

EV_I_015_LINK_FLOW

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_LINK_NUM_F	N NUMBER(5,0)
5	EV_I_015_SDR	Y NUMBER(1,0)
6	EV_I_015_NOM_CAP_PLH	Y NUMBER(4,0)
7	EV_I_015_FREE_FLOW_SPEED	Y NUMBER(3,0)

Table Name

EV_I_021_TURNS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_LINK_NUM	N NUMBER(5,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_021_PCT_L	Y NUMBER(4,0)
6	EV_I_021_PCT_T	Y NUMBER(4,0)
7	EV_I_021_PCT_R	Y NUMBER(4,0)
8	EV_I_021_PCT_D	Y NUMBER(4,0)
9	EV_I_021_DISCH_PROH_L	Y VARCHAR2(1)
10	EV_I_021_DISCH_PROH_T	Y VARCHAR2(1)
11	EV_I_021_DISCH_PROH_R	Y VARCHAR2(1)
12	EV_I_021_DISCH_PROH_D	Y VARCHAR2(1)
13	EV_I_021_PCT_BLOCK	Y NUMBER(3,0)

Table Name
EV_I_026_TURNS_FREEWAY

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_LINK_NUM_F	N NUMBER(5,0)
5	EV_I_026_NN_DOWN_THRU_1	Y NUMBER(4,0)
6	EV_I_026_PCT_THRU_1	Y NUMBER(3,0)
7	EV_I_026_NN_DOWN_THRU_2	Y NUMBER(4,0)
8	EV_I_026_PCT_THRU_2	Y NUMBER(3,0)
9	EV_I_026_PCT_OFF	Y NUMBER(3,0)
10	EV_I_026_NN_DOWN_OFF	Y NUMBER(4,0)

Table Name
EV_I_034_FREEWAY_SUB_PARM

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EV_I_034_REL_T_COEF	Y NUMBER(4,0)
4	EV_I_034_ANT_COEF	Y NUMBER(4,0)
5	EV_I_034_MAX_DUR_TS	Y NUMBER(4,0)
6	EV_I_034_1ST_SDRG_R1	Y NUMBER(4,0)
7	EV_I_034_1ST_SDRG_R2	Y NUMBER(4,0)
8	EV_I_034_1ST_SDRG_R3	Y NUMBER(4,0)
9	EV_I_034_2ND_SDRG_R1	Y NUMBER(4,0)
10	EV_I_034_2ND_SDRG_R2	Y NUMBER(4,0)
11	EV_I_034_2ND_SDRG_R3	Y NUMBER(4,0)
12	EV_I_034_3RD_SDRG_R1	Y NUMBER(4,0)
13	EV_I_034_3RD_SDRG_R2	Y NUMBER(4,0)
14	EV_I_034_3RD_SDRG_R3	Y NUMBER(4,0)
15	EV_I_034_4TH_SDRG_R1	Y NUMBER(4,0)
16	EV_I_034_4TH_SDRG_R2	Y NUMBER(4,0)
17	EV_I_034_4TH_SDRG_R3	Y NUMBER(4,0)
18	EV_I_034_5TH_SDRG_R3	Y NUMBER(4,0)
19	EV_I_034_JAM_DEN	Y NUMBER(4,0)

Table Name
EV_I_035_036_SIGNAL

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_NODE_NUM	N NUMBER(4,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_035_REF_OFFSET	Y NUMBER(4,0)
5	EV_I_035_NN_UP_1	Y NUMBER(4,0)
6	EV_I_035_NN_UP_2	Y NUMBER(4,0)
7	EV_I_035_NN_UP_3	Y NUMBER(4,0)
8	EV_I_035_NN_UP_4	Y NUMBER(4,0)
9	EV_I_035_NN_UP_5	Y NUMBER(4,0)

10	EV_I_035_SIG_INT_1	Y NUMBER(4,0)
11	EV_I_035_SIG_INT_2	Y NUMBER(4,0)
12	EV_I_035_SIG_INT_3	Y NUMBER(4,0)
13	EV_I_035_SIG_INT_4	Y NUMBER(4,0)
14	EV_I_035_SIG_INT_5	Y NUMBER(4,0)
15	EV_I_035_SIG_INT_6	Y NUMBER(4,0)
16	EV_I_035_SIG_INT_7	Y NUMBER(4,0)
17	EV_I_035_SIG_INT_8	Y NUMBER(4,0)
18	EV_I_035_SIG_INT_9	Y NUMBER(4,0)
19	EV_I_036_CONTROL_CODE	Y VARCHAR2(45)

Table Name
EV_I_049_RING

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_049_PCT_EVAC_MAN	Y NUMBER(3,0)
5	EV_I_049_PCT_EVAC_VOL	Y NUMBER(3,0)

Table Name
EV_I_049_RING_NUMBER

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_I_049_RING_NUMB	N NUMBER(1,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_049_RING_FLAG	Y VARCHAR2(1)

Table Name
EV_I_049_RING_SECTORS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_I_049_RING_NUMB	N NUMBER(1,0)
4	EV_I_049_RSEC_NUMB	N NUMBER(2,0)
5	EXERCISE_NUM	N NUMBER(9,0)
6	EV_I_049_RSEC_FLAG	Y VARCHAR2(1)

Table Name
EV_I_050_ENTRY_LINKS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_LINK_NUM	N NUMBER(5,0)

4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_050_VEHICLES_HR	Y NUMBER(4,0)
6	EV_I_050_PCT_TRUCKS	Y NUMBER(3,0)

Table Name
EV_I_051_SOURCE_SINK

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_LINK_NUM	N NUMBER(5,0)
4	EV_I_051_SS_CENTROID	N NUMBER(4,0)
5	EXERCISE_NUM	N NUMBER(9,0)
6	EV_I_051_NET_VOLUME	Y NUMBER(4,0)

Table Name
EV_I_052_LOAD_FACTORS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_052_AVG_PER_AUTO	Y NUMBER(4,0)
5	EV_I_052_AVG_PER_POOL	Y NUMBER(4,0)
6	EV_I_052_AVG_PER_TRUCK	Y NUMBER(4,0)
7	EV_I_052_AVG_PER_BUS	Y NUMBER(4,0)

Table Name
EV_I_175_TA_PARMS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_I_175_EXP_VAL	Y NUMBER(4,0)
5	EV_I_175_MAX_INNER_ITER	Y NUMBER(4,0)
6	EV_I_175_COEFF_A	Y NUMBER(4,0)
7	EV_I_175_COEFF_B	Y NUMBER(4,0)
8	EV_I_175_KALMAN_FILTER	Y NUMBER(4,0)
9	EV_I_175_MAX_OUTER_ITER	Y NUMBER(4,0)
10	EV_I_175_LS_ACC	Y NUMBER(4,0)
11	EV_I_175_IMP_CODE	Y VARCHAR2(1)
12	EV_I_175_OPT_CODE	Y VARCHAR2(1)
13	EV_I_175_TA_CODE	Y VARCHAR2(1)
14	EV_I_175_PCT_DISCHARGE	Y NUMBER(3,0)
15	EV_I_175_PCT_IMP	Y NUMBER(3,0)

Table Name
EV_I_176_179_DEST

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_I_176_179_CNN_S	N NUMBER(4,0)
4	EV_I_176_179_CNN_D	N NUMBER(4,0)
5	EXERCISE_NUM	N NUMBER(9,0)
6	EV_I_176_179_VPH_D	Y NUMBER(4,0)

Table Name
EV_I_176_179_SOURCE

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_I_176_179_CNN_S	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_176_179_VPH_S	Y NUMBER(4,0)

Table Name
EV_I_177_CENTROIDS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_LINK_NUM	N NUMBER(5,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_177_CN	Y NUMBER(4,0)

Table Name
EV_I_178_DEST_ATTRACTORS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_TIME_PERIOD	N NUMBER(2,0)
3	EV_NODE_NUM	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_I_178_VPH_ATTRACTOR	Y NUMBER(4,0)

Table Name
EV_I_195_CASE_NODE

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_NODE_NUM	N NUMBER(4,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_NODE_ID	Y NUMBER(9,0)
5	EV_NODE_DESCRIPTION	Y VARCHAR2(127)

6	EV_NODE_TYPE	Y VARCHAR2(1)
7	EV_O_2_ASSOC_NODE_ENTRY	Y NUMBER(4,0)
8	EV_O_2_ASSOC_NODE_EXIT	Y NUMBER(4,0)
9	EV_I_XOFFSET	Y NUMBER(6,0)
10	EV_I_YOFFSET	Y NUMBER(6,0)

Table Name
EV_I_195_NODE

Sequence	Name	N Format
1	EV_NODE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EV_I_195_NODE_NAME	Y VARCHAR2(20)
4	EV_I_195_NODE_LON	Y NUMBER(13,8)
5	EV_I_195_NODE_LAT	Y NUMBER(13,8)
6	EV_NODE_LONG_DESC	Y VARCHAR2(127)

Table Name
EV_O_1_LINK_STATISTICS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_TS	N NUMBER(3,0)
3	EV_LINK_NUM	N NUMBER(5,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_O_1_VEH_PCT	Y NUMBER(3,0)
6	EV_O_1_VEH_CNT	Y NUMBER(6,0)
7	EV_O_1_DEL_VEH	Y NUMBER(8,0)
8	EV_O_1_AVG_SPD	Y NUMBER(3,1)
9	EV_O_1_VEH_T	Y NUMBER(8,0)
10	EV_O_1_QUEUE	Y NUMBER(6,0)
11	EV_O_1_AVG_TRAVEL_TIME	Y NUMBER(8,2)
12	EV_O_1_C_PCT_STOP	Y NUMBER(3,0)
13	EV_O_1_C_MT	Y NUMBER(7,1)
14	EV_O_1_C_PEPDISCHG	Y NUMBER(10,0)
15	EV_O_1_C_VEH_MILES	Y NUMBER(10,0)
16	EV_O_1_C_VEH_MINUTES	Y NUMBER(10,0)

Table Name
EV_O_3_TIME_PERIOD

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_3_TP	N NUMBER(2,0)
3	EV_O_3_CN	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_O_3_LRATE	Y NUMBER(4,0)
6	EV_LINK_NUM	Y NUMBER(5,0)

Table Name
EV_O_4_STEP_LOAD

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_TS	N NUMBER(3,0)
3	EV_O_4_CNN	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_O_4_TVL	Y NUMBER(5,0)
6	EV_O_4_TRL	Y NUMBER(5,0)

Table Name
EV_O_5_CASE_SUMMARY

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EV_O_5_VEHT	Y NUMBER(8,0)
4	EV_O_5_PCTSTOP	Y NUMBER(3,0)
5	EV_O_5_MT	Y NUMBER(7,1)
6	EV_O_5_AVGSPD	Y NUMBER(3,1)
7	EV_O_5_DELVEH	Y NUMBER(8,0)
8	EV_O_5_NOUT	Y NUMBER(3,0)
9	EV_O_5_EVACTIME	Y NUMBER(6,0)
10	EV_O_5_C_PEPDISCHG	Y NUMBER(10,0)
11	EV_O_5_C_VEHMILES	Y NUMBER(10,0)
12	EV_O_5_C_VEHMINUTES	Y NUMBER(10,0)
13	EV_O_5_C_TOTALDELAY	Y NUMBER(10,0)
14	EV_O_5_C_AVGQCONTENT	Y NUMBER(6,1)
15	EV_O_5_PNT_FREQ	Y NUMBER(8,0)
16	EV_O_5_C_AVGTOTQ	Y NUMBER(9,1)
17	EV_O_5_VEH_ROM	Y NUMBER(9,4)

Table Name
EV_O_6_TIME_STEP

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_TS	N NUMBER(3,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_O_6_VEHS	Y NUMBER(8,0)
5	EV_O_6_VEHT	Y NUMBER(8,0)

Table Name
EV_O_7_ERRORS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_ERROR_NUM	N NUMBER(4,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_O_7_ERROR_TYPE	Y VARCHAR2(12)

5	EV_O_7_ERROR_SUBR	Y VARCHAR2(6)
6	EP_ERROR_CODE	Y NUMBER(5,0)

Table Name
EV_O_7_ERROR_VALUES

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_ERROR_NUM	N NUMBER(4,0)
3	EV_O_7_ERROR_PVNUM	N NUMBER(1,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	EV_O_7_ERROR_VALUE	Y NUMBER(9,0)

Table Name
EV_O_8_ERRORS

Sequence	Name	N Format
1	EVAC_CASE_ID	N NUMBER(9,0)
2	EV_O_8_ERROR_NUM	N NUMBER(4,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_O_8_ERROR_DESC	Y VARCHAR2(2000)

Table Name
EXERCISE

The Exercise table contains scenario parameters for the exercises.

Sequence	Name	N Format
1	EXERCISE_NAME	N VARCHAR2(20)
2	EXERCISE_CHANGE_DATE	N DATE 7
3	EXERCISE_DESCRIPTION	Y VARCHAR2(127)
4	EXERCISE_LONG_DESCRIPTOR	Y VARCHAR2(1999)

Table Name
EXERCISE_CONTROL

The Exercise Control table is the link between the exercise data and the exercise scenario data.

Sequence	Name	N Format
1	EXERCISE_NUM	N NUMBER(9,0)
2	EXERCISE_ACTIVE_FLAG	Y VARCHAR2(1)
3	EXERCISE_END_DATE	Y DATE 7
4	EXERCISE_START_DATE	Y DATE 7
5	EXERCISE_NAME	N VARCHAR2(20)
6	EXERCISE_CHANGE_DATE	Y DATE 7
7	EXERCISE_DATA_NAME	Y VARCHAR2(20)
8	EXERCISE_DATA_DATE	Y DATE 7

Table Name

EXERCISE_DATA

The Exercise Data describes when the exercise data base was created and a description of the data.

Sequence	Name	N Format
1	EXERCISE_DATA_NAME	N VARCHAR2(20)
2	EXERCISE_DATA_DATE	N DATE 7
3	EXERCISE_DATA_DESCRIPTION	Y VARCHAR2(127)

Table Name

FACILITY

The Facility table contains information about a building or structure that may need to be considered for some protective action.

Sequence	Name	N Format
1	FACILITY_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	FACILITY_DESCRIPTION	Y VARCHAR2(127)
4	FACILITY_CAPACITY	Y NUMBER(5,0)
5	FACILITY_LOCATION	Y VARCHAR2(92)
6	PRESSURIZED_FLAG	Y VARCHAR2(1)
7	FACILITY_ADDRESS1	Y VARCHAR2(40)
8	FACILITY_CITY	Y VARCHAR2(20)
9	FACILITY_STATE_CODE	Y VARCHAR2(2)
10	FACILITY_ZIP_CODE	Y VARCHAR2(10)
11	FACILITY_POC_AGENCY	Y VARCHAR2(30)
12	FACILITY_POC_DEPT	Y VARCHAR2(30)
13	FACILITY_POC_POSITION	Y VARCHAR2(40)
14	FACILITY_POC_PERSON_REF_NUM	Y NUMBER(9,0)
15	FACILITY_POC_PHONE	Y VARCHAR2(17)
16	FACILITY_SHELTER_CAP_FLAG	Y VARCHAR2(1)
17	MUTUAL_AID_FLAG	Y VARCHAR2(1)
18	FACILITY_ADDRESS2	Y VARCHAR2(40)
19	FACILITY_TYPE	N VARCHAR2(40)
20	MOU_ID	Y NUMBER(9,0)
21	EOC_NAME	N VARCHAR2(30)
22	ZONE_NAME	Y VARCHAR2(30)
23	XMIT_INIT_DATE	Y DATE 7

Table Name

FACILITY_TYPE

The Facility table contains the valid list of facility types that may be used.

Sequence	Name	N Format
1	FACILITY_TYPE	N VARCHAR2(40)
2	FACILITY_TYPE_DESCRIPTION	N VARCHAR2(127)

Table Name

FEMIS_OBJECT

The FEMIS Object table contains positional information about all objects that can be viewed by the GIS.

Sequence	Name	N Format
1	FEMIS_OBJECT_TYPE	N VARCHAR2(8)
2	FEMIS_OBJECT_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	EOC_NAME	Y VARCHAR2(30)
5	LOCATION_NAME	Y VARCHAR2(30)
6	FEMIS_POINT_X	Y NUMBER(20,6)
7	FEMIS_POINT_Y	Y NUMBER(20,6)
8	FEMIS_OBJECT_SUBTYPE	Y VARCHAR2(40)
9	LOCATION_TYPE	Y VARCHAR2(8)
10	EXERCISE_FLAG	Y VARCHAR2(1)
11	XMIT_INIT_DATE	Y DATE 7

Table Name

FEMIS_USER

The FEMIS User table contains information about all users of the system.

Sequence	Name	N Format
1	USER_CODE	N VARCHAR2(8)
2	USER_PWD	Y VARCHAR2(10)
3	ACCOUNT_STATUS	Y VARCHAR2(30)
4	USER_PREFERENCES	Y LONG
5	PERSON_REF_NUM	N NUMBER(9,0)
6	EXERCISE_NUM	N NUMBER(9,0)

Table Name

GENERIC_TEXT

Sequence	Name	N Format
1	GEN_TYPE	N VARCHAR2(30)
2	GEN_DATE	N DATE 7
3	GEN_SEQ	N NUMBER(4,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	GEN_RECORD	Y VARCHAR2(512)
6	XMIT_INIT_DATE	Y DATE 7
7	RICH_TEXT_FLAG	Y VARCHAR2(1)

Table Name

GIS_LAYER

This table defines the GIS layers or themes available.

Sequence	Name	N Format
1	GIS_LAYER_NAME	N VARCHAR2(30)
2	GIS_LAYER_MODIFICATION_DATE	Y DATE 7
3	GIS_LEGEND_NAME	Y VARCHAR2(16)

4	GIS_LAYER_TYPE	Y VARCHAR2(10)
5	GIS_LAYER_LINE_STYLE	Y NUMBER(3,0)
6	GIS_LAYER_DESCRIPTION	Y VARCHAR2(127)
7	GIS_LAYER_FILL_PATTERN	Y NUMBER(,)
8	GIS_LAYER_POINT_SYMBOL	Y NUMBER(3,0)
9	GIS_LAYER_TEXT_FONT	Y NUMBER(3,0)
10	GIS_LAYER_TEXT_COLOR	Y NUMBER(3,0)
11	GIS_LAYER_TEXT_ROTATION	Y NUMBER(3,0)
12	GIS_LAYER_TEXT_SIZE	Y NUMBER(3,0)
13	GIS_LAYER_TEXT_JUSTIFY	Y VARCHAR2(2)
14	GIS_LAYER_SYMBOL_COLOR	Y NUMBER(3,0)
15	GIS_LAYER_SYMBOL_SIZE	Y NUMBER(3,0)
16	GIS_LAYER_BACK_COLOR	Y NUMBER(3,0)
17	GIS_LAYER_FORE_COLOR	Y NUMBER(3,0)
18	GENERIC_GIS_LAYER_CODE	Y VARCHAR2(2)
19	XMIT_INIT_DATE	Y DATE 7
20	SOURCE	Y VARCHAR2(127)
21	ORIGINAL_MAP_SCALE	Y NUMBER(9,0)
22	ORIGINAL_MAP_PROJECTION	Y VARCHAR2(127)
23	ACCURACY	Y VARCHAR2(127)
24	PROCESSING_DETAILS	Y VARCHAR2(2000)

Table Name

GIS_LAYER_DEFINITION

This table contains parameters that control a GIS layer presentation.

Sequence	Name	N Format
1	GENERIC_GIS_LAYER_CODE	N VARCHAR2(2)
2	GENERIC_LAYER_DESCRIPTION	Y VARCHAR2(40)
3	USER_MODIFY_FLAG	Y VARCHAR2(1)
4	FEMIS_OBJECT_FLAG	Y VARCHAR2(1)
5	LAYER_BASE_NAME	Y VARCHAR2(8)
6	LAYER_NAME_SUBST_FLAG	Y VARCHAR2(1)
7	LAYER_SUBST_SOURCE1	Y VARCHAR2(12)
8	LAYER_SUBST_SOURCE2	Y VARCHAR2(12)
9	DEFAULT_LEGEND_BASE_NAME	Y VARCHAR2(16)
10	LEGEND_NAME_SUBST_FLAG	Y VARCHAR2(1)
11	LEGEND_SUBST_SOURCE1	Y VARCHAR2(12)
12	LEGEND_SUBST_SOURCE2	Y VARCHAR2(12)
13	DIRECTORY_BASE_NAME	Y VARCHAR2(8)
14	DIRECTORY_NAME_SUBST_FLAG	Y VARCHAR2(1)
15	DIRECTORY_SUBST_SOURCE	Y VARCHAR2(12)
16	FILE_BASE_NAME	Y VARCHAR2(8)
17	FILE_TYPE	Y VARCHAR2(10)
18	FILE_NAME_SUBST_FLAG	Y VARCHAR2(1)
19	FILE_SUBST_SOURCE1	Y VARCHAR2(12)
20	FILE_SUBST_SOURCE2	Y VARCHAR2(12)

Table Name

GIS_OBJECT

This table contains parameters describing the GIS objects.

Sequence	Name	N Format
1	GIS_LAYER_NAME	N VARCHAR2(30)
2	GIS_OBJECT_ID	N NUMBER(9,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	GIS_LABEL_POINT_X	Y NUMBER(20,6)
5	GIS_LABEL_POINT_Y	Y NUMBER(20,6)
6	FEMIS_OBJ_FLAG	Y VARCHAR2(1)
7	FEMIS_OBJECT_TYPE	Y VARCHAR2(8)
8	FEMIS_OBJECT_NAME	Y VARCHAR2(30)
9	EXERCISE_FLAG	Y VARCHAR2(1)
10	XMIT_INIT_DATE	Y DATE 7

Table Name

GIS_SYMBOL

Sequence	Name	N Format
1	GIS_SYMBOL_ID	N NUMBER(9,0)
2	SYMBOL_DESCRIPTION	Y VARCHAR2(127)

Table Name

GOAL

The Goal table is used to validate CSEPP goals.

Sequence	Name	N Format
1	PLANNING_GOAL	N VARCHAR2(40)
2	PLAN_GOAL_DESCRIPTION	Y VARCHAR2(128)

Table Name

HAZARD

The Hazard table describes common hazards that are possible during the CSEPP mission.

Sequence	Name	N Format
1	HAZARD_TYPE	N VARCHAR2(15)
2	HAZARD_DESCRIPTION	N VARCHAR2(127)

Table Name

HAZARD_SITE

The Hazard Site table has general information about the FEMIS site.

Sequence	Name	N Format
1	SITE_NAME	N VARCHAR2(30)
2	SITE_TYPE	N VARCHAR2(20)
3	MODEL_SITE_CODE	Y VARCHAR2(30)
4	SITE_DESCRIPTION	Y VARCHAR2(127)

Table Name
INTERVAL_QUANTITY

Sequence	Name	N Format
1	LOCAL_ID_CODE	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	RELEASE_NUM	N NUMBER(2,0)
4	IQ_INTERVAL_NUM	N NUMBER(2,0)
5	QUANTITY_PER_INTERVAL	Y NUMBER(13,2)
6	IQ_TIME_MINUTES	Y NUMBER(6,2)
7	XMIT_INIT_DATE	Y DATE 7

Table Name
JOURNAL

The Journal table is used to save significant events that occurred while the FEMIS system was in operation.

Sequence	Name	N Format
1	JOURNAL_REC_ID	N NUMBER(9,0)
2	EOC_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	JOURNAL_ENTERED_DATE	N DATE 7
5	JOURNAL_CATEGORY	N VARCHAR2(15)
6	JOURNAL_ACTUAL_TIME	Y DATE 7
7	JOURNAL_SUBJECT	Y VARCHAR2(30)
8	JOURNAL_INFORMATION	Y VARCHAR2(2000)
9	JOURNAL_MANUAL_ENTRY_FLAG	Y VARCHAR2(1)
10	JOURNAL_ATTR_FLAGS	Y VARCHAR2(10)
11	JOURNAL_USER_NAME	Y VARCHAR2(40)
12	JOURNAL_USER_CODE	Y VARCHAR2(8)
13	XMIT_INIT_DATE	Y DATE 7

Table Name
KNOWN_POINT

A control table that describes an area defined by a point on a map.

Sequence	Name	N Format
1	KP_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	KP_NAME	N VARCHAR2(32)
4	KP_SUB_CLASS_REF_ID	N NUMBER(9,0)
5	KP_DESCRIPTION	Y VARCHAR2(127)
6	EOC_NAME	N VARCHAR2(30)
7	ZONE_NAME	Y VARCHAR2(30)
8	POC_AGENCY_NAME	Y VARCHAR2(64)
9	STATUS_1	Y VARCHAR2(32)
10	STATUS_2	Y VARCHAR2(32)
11	STATUS_3	Y VARCHAR2(32)
12	STATUS_4	Y VARCHAR2(32)
13	STATUS_5	Y VARCHAR2(32)
14	NOTES	Y VARCHAR2(2000)
15	CREATION_DATE	N DATE 7

16	LAST_CHANGE_DATE	N DATE 7
17	TRANSMIT_DATA	N VARCHAR2(1)
18	XMIT_INIT_DATE	Y DATE 7

Table Name

KNOWN_POLYGON

A control table that describes an area defined by a polygon on a map.

Sequence	Name	N Format
1	POLYGON_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	POLYGON_DESCRIPTION	Y VARCHAR2(127)

Table Name

KP_CLASS_DEF

Sequence	Name	N Format
1	KP_CLASS_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	KP_CLASS_NAME	N VARCHAR2(32)
4	CLASS_DESCRIPTION	Y VARCHAR2(127)
5	GIS_LAYER_NAME	N VARCHAR2(30)
6	TRANSMIT_DATA	N VARCHAR2(1)
7	PERMANENT_CLASS	N VARCHAR2(1)
8	XMIT_INIT_DATE	Y DATE 7

Table Name

KP_HISTORY

Sequence	Name	N Format
1	KP_HISTORY_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	KP_REF_ID	N NUMBER(9,0)
4	USERNAME	N VARCHAR2(44)
5	DATE_TIME	N DATE 7
6	FIELD	Y VARCHAR2(32)
7	OLD_VALUE	N VARCHAR2(1000)
8	NEW_VALUE	N VARCHAR2(1000)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

KP_SUB_CLASS_DEF

Sequence	Name	N Format
1	KP_SUB_CLASS_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	KP_SUB_CLASS_NAME	N VARCHAR2(32)
4	KP_CLASS_REF_ID	N NUMBER(9,0)
5	SUB_CLASS_TYPE	N VARCHAR2(32)
6	SUB_CLASS_DESCRIPTION	Y VARCHAR2(127)
7	STATUS_1_TYPE	Y VARCHAR2(32)

8	STATUS_1_LABEL	Y VARCHAR2(16)
9	STATUS_2_TYPE	Y VARCHAR2(32)
10	STATUS_2_LABEL	Y VARCHAR2(16)
11	STATUS_3_TYPE	Y VARCHAR2(32)
12	STATUS_3_LABEL	Y VARCHAR2(16)
13	STATUS_4_TYPE	Y VARCHAR2(32)
14	STATUS_4_LABEL	Y VARCHAR2(16)
15	STATUS_5_TYPE	Y VARCHAR2(32)
16	STATUS_5_LABEL	Y VARCHAR2(16)
17	DEFAULT_AGENCY	Y VARCHAR2(64)
18	TRANSMIT_DATA	N VARCHAR2(1)
19	PERMANENT_SUBCLASS	N VARCHAR2(1)
20	XMIT_INIT_DATE	Y DATE 7

Table Name

LINK TYPE

The Link Type table contains information about the relationship between cases.

Sequence	Name	N Format
1	LINK_TYPE_CODE	N VARCHAR2(10)
2	LINK_ORDER	Y NUMBER(2,0)
3	LINK_DESCRIPTION	Y VARCHAR2(127)

Table Name

LOCAL_CONFIG

The Local Configuration table contains information about the current state of the system.

Sequence	Name	N Format
1	SITE_NAME	N VARCHAR2(30)
2	EOC_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	MODE_NAME	N VARCHAR2(10)
5	CURRENT_DATASET_NAME	N VARCHAR2(20)
6	LC_USER_CODE	N VARCHAR2(8)
7	CURRENT_D2_CASE_ID	Y NUMBER(9,0)
8	CURRENT_MET_ID	Y NUMBER(9,0)
9	CURRENT_WPA_ID	Y NUMBER(9,0)
10	CURRENT_PLUME_NUM	Y NUMBER(9,0)
11	CURRENT_PAD_ID	Y NUMBER(9,0)
12	CURRENT_PLAN_REF_ID	Y NUMBER(9,0)
13	CURRENT_PLAN_NAME	Y VARCHAR2(64)
14	CURRENT_EVENT_COUNT	Y NUMBER(2,0)
15	CURRENT_WEDGE_PG_ID	Y NUMBER(9,0)
16	CURRENT_THREAT_ID	Y NUMBER(9,0)
17	CURRENT_SS_ID	Y NUMBER(9,0)
18	CURRENT_SITUATION_COMMENT	Y VARCHAR2(127)
19	CURRENT_POP_COND_NAME	Y VARCHAR2(30)
20	CURRENT_PAR_ID	Y NUMBER(9,0)
21	CURRENT_ZONE_RISK_GROUP_NAME	Y VARCHAR2(30)
22	CURRENT_EVAC_CASE_ID	Y NUMBER(9,0)
23	CURRENT_RESOURCE_COLLECTION	Y VARCHAR2(20)

24	CURRENT_D2_CASE_DATE	Y DATE 7
25	CURRENT_MET_DATE	Y DATE 7
26	CURRENT_WPA_DATE	Y DATE 7
27	CURRENT_PLUME_DATE	Y DATE 7
28	CURRENT_PAD_DATE	Y DATE 7
29	CURRENT_PLAN_DATE	Y DATE 7
30	CURRENT_EVENT_DATE	Y DATE 7
31	CURRENT_WEDGE_DATE	Y DATE 7
32	CURRENT_THREAT_DATE	Y DATE 7
33	CURRENT_SS_DATE	Y DATE 7
34	CURRENT_POP_COND_DATE	Y DATE 7
35	CURRENT_DATASET_DATE	Y DATE 7
36	LC_USER_CODE_DATE	Y DATE 7
37	CURRENT_PAR_DATE	Y DATE 7
38	CURRENT_ZONE_RISK_GROUP_DATE	Y DATE 7
39	CURRENT_EVAC_CASE_DATE	Y DATE 7
40	CURRENT_RESOURCE_DATE	Y DATE 7
41	XMIT_INIT_DATE	Y DATE 7
42	CURRENT_WPA_USER	Y VARCHAR2(8)
43	CURRENT_D2_CASE_USER	Y VARCHAR2(8)
44	CURRENT_THREAT_USER	Y VARCHAR2(8)
45	CURRENT_ZONE_RISK_GROUP_USER	Y VARCHAR2(8)
46	CURRENT_SS_USER	Y VARCHAR2(8)
47	CURRENT_PAR_USER	Y VARCHAR2(8)
48	CURRENT_PAD_USER	Y VARCHAR2(8)
49	CURRENT_PLAN_REF_USER	Y VARCHAR2(8)
50	CURRENT_EVAC_CASE_USER	Y VARCHAR2(8)
51	CURRENT_EVAC_NAME	Y VARCHAR2(80)
52	SENT_OFFPOST_DATE	Y DATE 7
53	SENT_OFFPOST_USER	Y VARCHAR2(8)

Table Name

LOCATION_TYPE

The Location Type table describes the kinds of objects that can be displayed in the GIS.

Sequence	Name	N Format
1	LOCATION_TYPE	N VARCHAR2(8)
2	LOC_TYPE_DESCRIPTION	Y VARCHAR2(127)

Table Name

MEASUREMENT_DEFN

The Measurement Definition table describes the valid units of measurements.

Sequence	Name	N Format
1	MEASUREMENT_CLASS	N VARCHAR2(10)

Table Name

MEASUREMENT_TYPE

The Measurement Type table describes the valid classes of measurements.

Sequence	Name	N Format
1	MEASUREMENT_CLASS	N VARCHAR2(10)
2	MEASUREMENT_TYPE	N VARCHAR2(10)
3	MEASUREMENT_DESCRIPTION	Y VARCHAR2(127)

Table Name

MEMO_UNDERSTANDING

The Memo of Understanding table documents an agreement to supply resources, services, etc.

Sequence	Name	N Format
1	MOU_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EOC_NAME	Y VARCHAR2(30)
4	MOU_CHANGE_DATE	Y DATE 7
5	MOU_REFERENCE	Y VARCHAR2(10)
6	MOU_DESCRIPTION	Y VARCHAR2(127)
7	MOU_START_DATE	Y DATE 7
8	MOU_EXPIRE_DATE	Y DATE 7
9	MOU_POC_AGENCY	Y VARCHAR2(20)
10	MOU_POC_DEPT	Y VARCHAR2(20)
11	MOU_POC_POSITION	Y VARCHAR2(40)
12	MOU_PERSON_REF_NUM	Y NUMBER(9,0)
13	XMIT_INIT_DATE	Y DATE 7

Table Name

METHOD

The Method table contains the valid list of methods for FEMIS operations.

Sequence	Name	N Format
1	METHOD_TYPE	N VARCHAR2(20)
2	METHOD_DESCRIPTION	Y VARCHAR2(127)

Table Name

MET_CONDITION

The Met Condition table has the current weather parameters from towers in operation.

Sequence	Name	N Format
1	TOWER_NAME	N VARCHAR2(30)
2	WX_TIME_VALID	N DATE 7
3	EXERCISE_NUM	N NUMBER(9,0)
4	CLUSTER_NUM	N NUMBER(2,0)
5	WIND_SPEED	Y NUMBER(5,2)
6	WIND_DIR	Y NUMBER(3,0)

7	MIXING_HEIGHT	Y NUMBER(5,0)
8	STABILITY	Y VARCHAR2(1)
9	TEMPERATURE	Y NUMBER(5,1)
10	PRESSURE	Y NUMBER(6,2)
11	HUMIDITY	Y NUMBER(4,1)
12	CLOUD_HEIGHT	Y NUMBER(5,0)
13	CLUSTER_HEIGHT	Y NUMBER(5,0)
14	CURRENT_FLAG	Y VARCHAR2(1)
15	CLOUD_COVER	Y NUMBER(2,0)
16	SOLAR_RAD	Y NUMBER(7,1)
17	XMIT_INIT_DATE	Y DATE 7

Table Name

MET_PARAMETER

This is the Weather database area that contains weather related information.

Sequence	Name	N Format
1	MET_PARAM_CODE	N VARCHAR2(2)
2	MET_PARAM_DESCRIPTION	N VARCHAR2(127)

Table Name

MET_TOWER

The Met Tower table contains information about the sensors on the tower.

Sequence	Name	N Format
1	TOWER_NAME	N VARCHAR2(30)
2	TOWER_CODE	N VARCHAR2(9)
3	TOWER_DESCRIPTION	Y VARCHAR2(127)
4	TOWER_STATUS	Y VARCHAR2(127)
5	XMIT_INIT_DATE	Y DATE 7

Table Name

MUNITION

The Munition table describes the munitions that are commonly stored with chemical weapons.

Sequence	Name	N Format
1	MUNITION_TYPE	N VARCHAR2(4)
2	MUNITION_DESCRIPTION	Y VARCHAR2(127)

Table Name

NAME_SUBSTITUTION

The Name Substitution table controls how case numbers are formulated.

Sequence	Name	N Format
1	SUBST_SOURCE	N VARCHAR2(12)
2	TABLE_NAME	Y VARCHAR2(30)

3	FIELD_NAME	Y VARCHAR2(30)
4	MIN_CHARS	Y NUMBER(2,0)
5	MAX_CHARS	Y NUMBER(2,0)

Table Name

NEXT_OF_KIN

The Next of Kin table contains information about a victims relatives or NOK.

Sequence	Name	N Format
1	TK_REF_NUM	N NUMBER(9,0)
2	NOK_TK_REF_NUM	N NUMBER(9,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	NOK_RELATIONSHIP	Y NUMBER(2,0)
5	NOK_NOTIFY_FLAG	Y VARCHAR2(1)
6	NOK_ORDER	Y NUMBER(2,0)
7	NOK_COMMENT	Y VARCHAR2(254)

Table Name

OBJECT_SUBTYPE

The Object Subtype table contains valid subtypes for GIS objects.

Sequence	Name	N Format
1	LOCATION_TYPE	N VARCHAR2(8)
2	FEMIS_OBJECT_SUBTYPE	N VARCHAR2(40)
3	OBJ_SUBTYPE_DESCRIPTION	Y VARCHAR2(127)
4	GIS_SYMBOL_ID	Y NUMBER(9,0)

Table Name

PA_DECISION_MATRIX

The PA Decision Matrix table contains many of the parameters describing the threat that are used to make protective action decisions and recommendations.

Sequence	Name	N Format
1	PA_UNIT_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PAD_ID	N NUMBER(9,0)
4	PADM_NAME	Y VARCHAR2(30)
5	THREAT_IMPACT_TIME	Y NUMBER(6,2)
6	THREAT_STASIS_TIME	Y NUMBER(6,2)
7	THREAT_DISTANCE	Y NUMBER(7,0)
8	PADM_TIME	Y NUMBER(6,2)
9	PADM_TYPE	N VARCHAR2(3)
10	DOSE_LEVEL	Y VARCHAR2(40)
11	PADM_TIME_SOURCE	Y VARCHAR2(2)
12	THREAT_REMAIN_TIME	Y NUMBER(6,2)
13	PA_ACTIVITY	N VARCHAR2(12)
14	SS_ID	Y NUMBER(9,0)
15	PLAN_REF_ID	Y NUMBER(9,0)
16	THREAT_ID	Y NUMBER(9,0)
17	ZONE_RISK_GROUP_NAME	Y VARCHAR2(30)

18	IN_RISK_GROUP_FLAG	Y VARCHAR2(1)
19	XMIT_INIT_DATE	Y DATE 7

Table Name

PA_LOOKUP

The PA Lookup table contains protective action recommendations for each protective action unit.

Sequence	Name	N Format
1	PA_UNIT_ID	N NUMBER(9,0)
2	PA_ACTIVITY	N VARCHAR2(12)
3	SS_ID	N NUMBER(9,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	PAL_BEGIN_TIME	Y NUMBER(6,2)
6	PAL_END_TIME	Y NUMBER(6,2)
7	PAU_TYPE	N VARCHAR2(10)
8	PA_TASK_NAME	Y VARCHAR2(50)

Table Name

PA_UNIT

The PA Unit table contains a list of protective action units for use in planning.

Sequence	Name	N Format
1	PA_UNIT_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PAU_TYPE	N VARCHAR2(10)
4	ZONE_NAME	N VARCHAR2(30)
5	FACILITY_NAME	Y VARCHAR2(30)
6	XMIT_INIT_DATE	Y DATE 7

Table Name

PBCA_UPDATE_STATUS

Sequence	Name	N Format
1	GROUP_INDEX	N NUMBER(3,0)
2	GROUP_NAME	Y VARCHAR2(10)
3	TABLE_NAME	Y VARCHAR2(30)
4	UPDATE_TIME	Y DATE 7
5	DELTA_TIME	Y NUMBER(3,0)
6	DEFER_FLAG	Y VARCHAR2(1)

Table Name

PD_LEVEL

The PD Level table contains identifying information for each level of the plan.

Sequence	Name	N Format
1	LEVEL_NUM	N NUMBER(1,0)
2	LEVEL_NAME	N VARCHAR2(30)

Table Name

PERSON

The Person table contains information about people that interact with FEMIS.

Sequence	Name	N Format
1	PERSON_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	NAME_LAST	Y VARCHAR2(20)
4	NAME_FIRST	Y VARCHAR2(12)
5	NAME_SECOND	Y VARCHAR2(12)
6	HOME_PHONE	Y VARCHAR2(17)
7	WORK_PHONE	Y VARCHAR2(17)
8	PERSON_EMAIL_ADDRESS	Y VARCHAR2(40)
9	PERSON_FAX_PHONE	Y VARCHAR2(17)
10	PERSON_BEEPER_PHONE	Y VARCHAR2(17)
11	PERSON_WORK_HOURS	Y VARCHAR2(30)
12	PERSON_STATUS	Y VARCHAR2(30)
13	PERSON_COMMENT	Y VARCHAR2(255)
14	PERSONAL_ID_NUM	Y VARCHAR2(15)
15	PERSON_NICK_NAME	Y VARCHAR2(12)
16	STATE_CODE	Y VARCHAR2(2)
17	CITY_NAME	Y VARCHAR2(20)
18	STREET_ADDRESS1	Y VARCHAR2(40)
19	STREET_ADDRESS2	Y VARCHAR2(40)
20	ZIP_CODE	Y VARCHAR2(10)
21	HOME_STATE_CODE	Y VARCHAR2(2)
22	HOME_CITY_NAME	Y VARCHAR2(20)
23	HOME_STREET_ADDRESS1	Y VARCHAR2(40)
24	HOME_STREET_ADDRESS2	Y VARCHAR2(40)
25	HOME_ZIP_CODE	Y VARCHAR2(10)
26	AGENCY_CODE	Y VARCHAR2(20)
27	DEPT_CODE	Y VARCHAR2(20)
28	POSITION_TITLE	Y VARCHAR2(40)
29	HOME_ZONE	Y VARCHAR2(30)
30	WORK_ZONE	Y VARCHAR2(30)

Table Name

PERSON_SHELTERED

The Person Sheltered table contains identifying information about the evacuee.

Sequence	Name	N Format
1	EV_TP_REF_NUM	N NUMBER(9,0)
2	EV_MOD_DATE	N DATE 7
3	EXERCISE_NUM	N NUMBER(9,0)
4	EV_LOCATION_FROM	Y VARCHAR2(60)
5	EV_PER_EFFECTS_NUM	Y VARCHAR2(12)
6	EV_ARRIVAL_DATE	Y DATE 7
7	EV_DEPART_DATE	Y DATE 7
8	EV_OK_RELEASE_FLAG	Y VARCHAR2(1)
9	UPDATE_PERSON_REF_NUM	Y NUMBER(9,0)
10	EV_STATUS_CODE	Y NUMBER(1,0)

11	POST_EV_STREET_ADDRESS1	Y VARCHAR2(40)
12	POST_EV_STREET_ADDRESS2	Y VARCHAR2(40)
13	POST_EV_CITY_NAME	Y VARCHAR2(20)
14	POST_EV_COUNTY_NAME	Y VARCHAR2(20)
15	POST_EV_STATE_CODE	Y VARCHAR2(2)
16	POST_EV_ZIP_CODE	Y VARCHAR2(10)
17	POST_EV_PHONE	Y VARCHAR2(17)
18	MEDICAL_STATUS	Y VARCHAR2(40)
19	SP_MEDICAL_NEEDS	Y VARCHAR2(127)
20	EV_CONTAMINATED_IND	Y VARCHAR2(1)
21	EV_DECONTAM_FLAG	Y VARCHAR2(1)
22	DESTINATION_IND	Y VARCHAR2(1)
23	EV_NOTES	Y VARCHAR2(256)
24	MASS_CARE_FACILITY	Y VARCHAR2(30)
25	MASS_CARE_SHELTER	Y VARCHAR2(30)
26	RECEP_CNTR_FACILITY	Y VARCHAR2(30)
27	RECEP_CNTR_SHELTER	Y VARCHAR2(30)
28	XMIT_INIT_DATE	Y DATE 7

Table Name

PLAN_APPROACH

The Plan Approach table contains the pairing of a method and an approach for an electronic plan.

Sequence	Name	N Format
1	METHOD_TYPE	N VARCHAR2(20)
2	PLANNING_APPROACH	N VARCHAR2(40)

Table Name

PLAN_CONTROL

The Plan Control table contains control information about an electronic plan.

Sequence	Name	N Format
1	DATASET_NAME	N VARCHAR2(20)
2	DATASET_END_DATE	Y DATE 7
3	DATASET_START_DATE	Y DATE 7
4	DATASET_DESCRIPTION	Y VARCHAR2(127)

Table Name

PLAN_DETAIL

The Plan Detail table contains the lower level detail of an electronic plan.

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PD_NAME	Y VARCHAR2(254)
5	PD_DESCRIPTION	Y VARCHAR2(2000)
6	RESPONSIBLE_AGENCY	Y VARCHAR2(20)

7	RESPONSIBLE_DEPT	Y VARCHAR2(20)
8	RESPONSIBLE_POSITION	Y VARCHAR2(20)
9	RESP_PERSON_REF_NUM	Y NUMBER(9,0)
10	DECISION_POINT	Y VARCHAR2(1)
11	LOCATION_TO	Y VARCHAR2(30)
12	START_TIME_TARGET	Y DATE 7
13	FINISH_TIME_TARGET	Y DATE 7
14	DURATION_TARGET	Y NUMBER(8,0)
15	START_TIME_CALC	Y DATE 7
16	FINISH_TIME_CALC	Y DATE 7
17	DURATION_CALC	Y NUMBER(8,0)
18	PD_PRIORITY	Y NUMBER(2,0)
19	EXTERNAL_INTERFACE	Y VARCHAR2(1)
20	PD_NOTES	Y VARCHAR2(1999)
21	PD_COST	Y NUMBER(10,2)
22	LOCATION_TYPE	Y VARCHAR2(8)
23	START_TIME_ACTUAL	Y DATE 7
24	FINISH_TIME_ACTUAL	Y DATE 7
25	DURATION_ACTUAL	Y NUMBER(8,0)
26	PD_ORIGIN	Y VARCHAR2(10)
27	PD_OPS_STATUS	Y VARCHAR2(15)
28	LOGGED_EVENT_FLAG	Y VARCHAR2(1)
29	PD_SEQUENCE_NUM	Y NUMBER(10,0)
30	START_TIME_BASELINE	Y DATE 7
31	FINISH_TIME_BASELINE	Y DATE 7
32	DURATION_BASELINE	Y NUMBER(8,0)

Table Name

PLAN_DETAIL

The Plan Detail table contains the lower level detail of an electronic plan.

Sequence	Name	N Format

33	PLANNING_STAGE	Y VARCHAR2(30)
34	PLANNING_PHASE	Y VARCHAR2(20)
35	LEVEL_NUM	N NUMBER(1,0)
36	EMERGENCY_SUPPORT_FN	Y VARCHAR2(30)

Table Name

PLAN_HEADER

The Plan Header table contains high level, header information about an electronic plan.

Sequence	Name	N Format

1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PLAN_CHANGE_DATE	Y DATE 7
4	PLAN_NAME	N VARCHAR2(64)
5	PLAN_STATUS	Y VARCHAR2(11)
6	EOC_NAME	Y VARCHAR2(30)
7	PLAN_DESCRIPTION	Y VARCHAR2(254)
8	MAX_TASK_REF_NUM	Y NUMBER(7,0)
9	MAX_TASK_SEQUENCE_NUM	Y NUMBER(10,0)

10	PLAN_NOTE	Y VARCHAR2(1999)
11	METHOD_TYPE	Y VARCHAR2(20)
12	PLANNING_APPROACH	Y VARCHAR2(40)
13	PLANNING_GOAL	Y VARCHAR2(40)

Table Name

PLUME

The Plume table contains the identifier and location of a plume from a D2 model.

Sequence	Name	N Format
1	D2_CASE_ID	N NUMBER(9,0)
2	D2_LEVEL_NUM	N NUMBER(2,0)
3	LEVEL_TYPE	N VARCHAR2(1)
4	EXERCISE_NUM	N NUMBER(9,0)
5	PLUME_LOCATION_NAME	Y VARCHAR2(30)
6	LOCATION_TYPE	Y VARCHAR2(8)
7	PLUME_NAME	Y VARCHAR2(30)
8	DOSE_LEVEL	Y VARCHAR2(40)
9	D2_O_DOS_MAXDIST	Y NUMBER(10,2)
10	XMIT_INIT_DATE	Y DATE 7

Table Name

POPULATION_CONDITION

The Population Condition table contains the valid modifying conditions for population data.

Sequence	Name	N Format
1	POP_COND_NAME	N VARCHAR2(30)
2	POP_COND_DESCRIPTION	Y VARCHAR2(127)
3	POP_COND_START_DATE	Y DATE 7
4	POP_COND_END_DATE	Y DATE 7
5	POP_COND_LOCATION	Y VARCHAR2(92)
6	LOCATION_TYPE	Y VARCHAR2(8)

Table Name

POPULATION_DEFINITION

The Population Definition table describes categories of populations based on age, sex and race.

Sequence	Name	N Format
1	POPULATION_CATEGORY	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	MINIMUM_AGE	Y NUMBER(3,0)
4	MAXIMUM_AGE	Y NUMBER(3,0)
5	SEX	Y VARCHAR2(1)
6	RACE	Y VARCHAR2(20)
7	HOUSING_TYPE	Y VARCHAR2(60)
8	HOUSEHOLD_TYPE	Y VARCHAR2(2)
9	HOUSEHOLD_ELDERLY	Y VARCHAR2(2)
10	POP_CAT_DESCRIPTION	Y VARCHAR2(127)
11	HOUSEHOLD_SIZE	Y NUMBER(2,0)

Table Name

POPULATION_FLUX

The Population Flux table contains the actual change value from the Population Condition.

Sequence	Name	N Format
1	POPULATION_CATEGORY	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	POPULATION_LOCATION	N VARCHAR2(30)
4	POP_COND_NAME	N VARCHAR2(30)
5	POPULATION_CHANGE	Y NUMBER(5,0)

Table Name

POPULATION_LOCATION

The Population Location table describes the population at a given location.

Sequence	Name	N Format
1	POPULATION_CATEGORY	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	POPULATION_LOCATION	N VARCHAR2(30)
4	POPULATION_DESCRIPTION	Y VARCHAR2(127)
5	LOCATION_TYPE	N VARCHAR2(8)
6	POPULATION_COUNT	Y NUMBER(8,0)
7	HOUSEHOLD_COUNT	Y NUMBER(8,0)
8	FAMILY_COUNT	Y NUMBER(8,0)

Table Name

POSITION

The Position table has a description of the operator positions for users from an agency.

Sequence	Name	N Format
1	POSITION_CODE	N VARCHAR2(20)
2	EOC_NAME	N VARCHAR2(30)
3	POSITION_EMAIL_ADDRESS	Y VARCHAR2(40)
4	POSITION_DESCRIPTION	Y VARCHAR2(127)
5	POSITION_PHONE	Y VARCHAR2(17)
6	XMIT_INIT_DATE	Y DATE 7

Table Name

POSITION_ASSIGNMENT

The Assignment table shows the valid operator positions that a person may assume.

Sequence	Name	N Format
1	PERSON_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	POSITION_CODE	N VARCHAR2(20)
4	EOC_NAME	N VARCHAR2(30)
5	ASSIGN_LOCATION	Y VARCHAR2(92)

Table Name

POSITION_PRIV

The Position Privilege table has the mapping of operator positions and privileges.

Sequence	Name	N Format
1	POSITION_CODE	N VARCHAR2(20)
2	EOC_NAME	N VARCHAR2(30)
3	CP_NAME	N VARCHAR2(30)
4	PRIV_NUM	N NUMBER(2,0)

Table Name

POTENTIAL_ACCIDENT

The Potential Accident table describes the potential accident arising from a work plan activity.

Sequence	Name	N Format
1	LOCAL_ID_CODE	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	AGENT_CODE	Y VARCHAR2(2)
4	ACCIDENT_DESCRIPTION	Y VARCHAR2(127)
5	XMIT_INIT_DATE	Y DATE 7

Table Name

POTENTIAL_THREAT

The Potential Threat table describes potential threats arising from an accident.

Sequence	Name	N Format
1	THREAT_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	THREAT_DATE	Y DATE 7
4	THREAT_CAT_TYPE	Y VARCHAR2(20)
5	THREAT_AREA_TYPE	Y VARCHAR2(20)
6	THREAT_CAT_DESCRIPTION	Y VARCHAR2(127)
7	WEDGE_PG_ID	Y NUMBER(9,0)
8	D2_CASE_ID	Y NUMBER(9,0)
9	D2_LEVEL_NUM	Y NUMBER(2,0)
10	LEVEL_TYPE	Y VARCHAR2(1)
11	XMIT_INIT_DATE	Y DATE 7

Table Name

PRIVILEGE

The Privilege table describes the authorities and roles of the user.

Sequence	Name	N Format
1	CP_NAME	N VARCHAR2(30)
2	PRIV_NUM	N NUMBER(2,0)
3	CREATE_FLAG	N VARCHAR2(1)

4	EDIT_FLAG	N VARCHAR2(1)
5	BROWSE_FLAG	N VARCHAR2(1)
6	USE_FLAG	N VARCHAR2(1)

Table Name

PROGRAM_LOCK

The Program Locking table controls multi-user locking.

Sequence	Name	N Format
1	LOCK_NAME	N VARCHAR2(40)
2	LOCK_ITEM	N VARCHAR2(80)
3	EXERCISE_NUM	N NUMBER(9,0)
4	LOCK_TYPE	Y VARCHAR2(10)
5	LOCK_USER	Y VARCHAR2(8)
6	LOCK_DATE	Y DATE 7
7	LOCK_PC	Y VARCHAR2(40)
8	LOCK_PROGRAM	Y VARCHAR2(8)

Table Name

PROTECTIVE_ACTION

The Protective Action tables describes the protective action activities that are to be used or have been recommended for use.

Sequence	Name	N Format
1	PA_ACTIVITY	N VARCHAR2(12)
2	PA_DESCRIPTION	N VARCHAR2(127)

Table Name

REGULATION

The Regulation table contains a list of regulations that relate to FEMIS operations.

Sequence	Name	N Format
1	PLANNING_GOAL	N VARCHAR2(40)
2	REGULATION_CODE	N VARCHAR2(20)
3	REGULATION_DESCRIPTION	Y VARCHAR2(127)

Table Name

RELEASE

The Release table describes the agent released from a potential accident.

Sequence	Name	N Format
1	LOCAL_ID_CODE	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	RELEASE_NUM	N NUMBER(2,0)
4	QUANTITY_PER_RELEASE	Y NUMBER(13,2)
5	RELEASE_TYPE	N VARCHAR2(3)
6	SOURCE_QUANTITY_IND	Y VARCHAR2(1)
7	MUNITIONS_IN_RELEASE	Y NUMBER(6,2)
8	MUNITION_TYPE	Y VARCHAR2(4)

9	HEIGHT_OF_STACK	Y NUMBER(7,3)
10	DIAMETER_OF_STACK	Y NUMBER(7,3)
11	TEMPERATURE_OF_STACK	Y NUMBER(6,3)
12	VELOCITY_OF_EFFLUENT	Y NUMBER(6,3)
13	EFFLUENT_RELATIVE_DENSITY	Y NUMBER(6,3)
14	OUTPUT_CODE	Y NUMBER(1,0)
15	CLOUD_RADIUS	Y NUMBER(8,2)
16	HEAT_RELEASED	Y NUMBER(11,2)
17	TIME_OF_EVAPORATION	Y NUMBER(6,2)
18	SURFACE_TYPE	Y VARCHAR2(3)
19	AREA_OF_PUDDLE	Y NUMBER(7,3)
20	LENGTH_OF_PUDDLE	Y NUMBER(7,3)
21	HEIGHT_OF_SOURCE	Y NUMBER(8,2)
22	SIGMA_X	Y NUMBER(8,2)
23	SIGMA_Y	Y NUMBER(8,2)
24	SIGMA_Z	Y NUMBER(8,2)
25	TIME_AFTER_FUNCT	Y NUMBER(6,2)
26	XMIT_INIT_DATE	Y DATE 7

Table Name
REPLICATION_TEST

Sequence	Name	N Format
1	POINT_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	POINT_DESCRIPTION	Y VARCHAR2(127)

Table Name
RESOURCE_ASSIGNMENT

The Resource Assignment table show the resources assigned to the details of an electronic plan.

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	PD_UNIQUE_REF_NUM	N NUMBER(7,0)
4	PD_RESOURCE_NUM	N NUMBER(3,0)
5	RESOURCE_REF_NUM	Y NUMBER(9,0)
6	RESOURCE_QUANTITY	Y NUMBER(10,0)
7	RESOURCE_NOTE	Y VARCHAR2(127)
8	LOCATION_FROM	Y VARCHAR2(30)
9	LOCATION_TYPE	Y VARCHAR2(8)
10	RESPONSIBLE_EOC	Y VARCHAR2(30)
11	PLAN_RESOURCE_DISPOS	Y VARCHAR2(30)
12	PLAN_RESOURCE_ID	Y NUMBER(9,0)
13	PLAN_POC_AGENCY	Y VARCHAR2(30)
14	PLAN_POC_DEPT	Y VARCHAR2(30)
15	PLAN_POC_POSITION	Y VARCHAR2(30)

Table Name

RESOURCE_CATEGORY

This is the validation data for the types of resources.

Sequence	Name	N Format
1	RESOURCE_CATEGORY	N VARCHAR2(20)
2	RESOURCE_DESCRIPTION	N VARCHAR2(127)
3	GIS_SYMBOL_ID	Y NUMBER(9,0)
4	XMIT_INIT_DATE	Y DATE 7

Table Name

RESOURCE_DEFINITION

This is the validation data for the types of resources.

Sequence	Name	N Format
1	RESOURCE_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EOC_NAME	Y VARCHAR2(30)
4	RESOURCE_NAME	Y VARCHAR2(40)
5	RESOURCE_DESCRIPTION	Y VARCHAR2(127)
6	RESOURCE_REUSE_FLAG	Y VARCHAR2(1)
7	RESOURCE_USE_LIMITATION	Y VARCHAR2(254)
8	RESOURCE_MOBILITY_FLAG	Y VARCHAR2(1)
9	RESOURCE_DEFAULT_UNITS	Y VARCHAR2(10)
10	RESOURCE_CAPACITY_TYPE	Y VARCHAR2(10)
11	RESOURCE_CAPACITY_VALUE	Y NUMBER(10,0)
12	RESOURCE_CAPACITY_UNITS	Y VARCHAR2(10)
13	RESOURCE_CATEGORY	N VARCHAR2(20)
14	XMIT_INIT_DATE	Y DATE 7

Table Name

RESOURCE_LOCATION

The Resource Location table describes the amount and kind of resource found at a secondary facility.

Sequence	Name	N Format
1	RESOURCE_REF_NUM	N NUMBER(9,0)
2	OWNER_CODE	N VARCHAR2(20)
3	RESOURCE_BATCH_ID	N NUMBER(9,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	FEMIS_OBJECT_NAME	N VARCHAR2(30)
6	RESOURCE_COLLECTION	N VARCHAR2(20)
7	RESOURCE_STATUS	N VARCHAR2(10)
8	EOC_NAME	Y VARCHAR2(30)
9	LOCATION_TYPE	Y VARCHAR2(8)
10	RESOURCE_QUANTITY	Y NUMBER(9,0)
11	MOU_ID	Y NUMBER(9,0)
12	RESOURCE_MOBILIZATION_TIME	Y NUMBER(5,0)
13	RESOURCE_DISPOSITION	Y VARCHAR2(20)
14	RESOURCE_ACTIVATION_MINUTES	Y NUMBER(5,0)
15	RESPONSIBLE_EOC	Y VARCHAR2(30)
16	XMIT_INIT_DATE	Y DATE 7

Table Name

RESOURCE_MOU

The Resource MOU table describes Memos of Understanding for a resource.

Sequence	Name	N Format
1	RESOURCE_REF_NUM	N NUMBER(9,0)
2	MOU_ID	N NUMBER(9,0)
3	EXERCISE_NUM	N NUMBER(9,0)
4	OWNER_CODE	N VARCHAR2(20)
5	RESOURCE_BATCH_ID	N NUMBER(9,0)
6	RESOURCE_COLLECTION	N VARCHAR2(20)
7	XMIT_INIT_DATE	Y DATE 7

Table Name

RESOURCE_OWNER

Sequence	Name	N Format
1	RESOURCE_REF_NUM	N NUMBER(9,0)
2	OWNER_CODE	N VARCHAR2(20)
3	RESOURCE_BATCH_ID	N NUMBER(9,0)
4	EXERCISE_NUM	N NUMBER(9,0)
5	RESOURCE_COLLECTION	N VARCHAR2(20)
6	EOC_NAME	Y VARCHAR2(30)
7	RESOURCE_QUANTITY_ASSIGNED	Y NUMBER(10,2)
8	RESOURCE_QUANTITY_AVAILABLE	Y NUMBER(10,2)
9	RESOURCE_UNITS	Y VARCHAR2(10)
10	RESOURCE_PER_UNIT_VALUE	Y NUMBER(10,2)
11	RESOURCE_POC_AGENCY	Y VARCHAR2(20)
12	RESOURCE_POC_DEPT	Y VARCHAR2(20)
13	RESOURCE_POC_POSITION	Y VARCHAR2(40)
14	RESOURCE_POC_PERSON_REF_NUM	Y NUMBER(9,0)
15	RESOURCE_POC_PHONE	Y VARCHAR2(17)
16	RESOURCE_CRITICAL_LEVEL	Y NUMBER(9,0)
17	RESOURCE_NOTES	Y VARCHAR2(254)
18	XMIT_INIT_DATE	Y DATE 7

Table Name

ROAD_QUALIFICATION

The Road Qualification table contains information about a roadway used for Evac modeling.

Sequence	Name	N Format
1	EXERCISE_NUM	N NUMBER(9,0)
2	ROAD_CLASS	N VARCHAR2(2)
3	RQ_INCLUDE_FLAG	Y CHAR(10)
4	RQ_FREE_FLOW_SPEED	Y CHAR(10)
5	RQ_LANE_COUNT	Y CHAR(10)
6	RQ_DIVIDED_FLAG	Y CHAR(10)
7	RQ_DEFAULT_FLAG	Y CHAR(10)

Table Name

ROUTE

The Route table contains information about a road or highway used for Evac modeling.

Sequence	Name	N Format
1	EXERCISE_NUM	N NUMBER(9,0)
2	ROUTE_NAME	N VARCHAR2(30)
3	ROUTE_DESCRIPTION	Y VARCHAR2(127)
4	ROUTE_FLAG	Y VARCHAR2(1)
5	ROUTE_TO_LOCATION	Y VARCHAR2(30)
6	ROUTE_FROM_LOCATION	Y VARCHAR2(30)

Table Name

ROUTE_SEGMENT

The Route Segment table contains information about a road segment used for Evac modeling.

Sequence	Name	N Format
1	EXERCISE_NUM	N NUMBER(9,0)
2	ROUTE_NAME	N VARCHAR2(30)
3	ROUTE_SEG_NUM	N NUMBER(6,0)
4	ROUTE_SEG_LOCATION	Y VARCHAR2(92)
5	RS_TO_LOCATION	Y VARCHAR2(92)
6	RS_FROM_LOCATION	Y VARCHAR2(92)
7	RS_ID	Y NUMBER(7,0)

Table Name

SHELTER

The Shelter table contains information about a facility that can operate as a shelter.

Sequence	Name	N Format
1	FACILITY_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	SHELTER_NAME	N VARCHAR2(30)
4	SHELTER_ACTIVATION_DATE	Y DATE 7
5	SHELTER_DEACTIVATION_DATE	Y DATE 7
6	SHELTER_DESCRIPTION	Y VARCHAR2(127)
7	SHELTER_CAPACITY	Y NUMBER(5,0)
8	SHELTER_TYPE	N VARCHAR2(10)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

SHELTER_DEFINITION

The Shelter Definition table defines capabilities of a shelter used for evacuation.

Sequence	Name	N Format
1	SHELTER_TYPE	N VARCHAR2(10)
2	SHELTER_TYPE_DESCRIPTION	Y VARCHAR2(127)

Table Name

SITUATION_SUMMARY

The Situation Summary table contains information about conditions present at the onset of a planned or actual emergency.

Sequence	Name	N Format
1	SS_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	SITUATION_SEASON	Y VARCHAR2(6)
4	SPECIAL_WEATHER	Y VARCHAR2(15)
5	COMMUNITY_CONDITION	Y VARCHAR2(256)
6	OTHER_CONDITION	Y VARCHAR2(256)
7	ROAD_CONDITION	Y VARCHAR2(256)
8	ORGANIZATIONAL_CONDITION	Y VARCHAR2(256)
9	POP_COND_NAME	Y VARCHAR2(30)
10	HAZARD_TYPE	Y VARCHAR2(15)
11	SITUATION_COMMENT	Y VARCHAR2(127)

Table Name

STATE

The State table contains information about the states of the USA.

Sequence	Name	N Format
1	STATE_CODE	N VARCHAR2(2)
2	STATE_NAME	Y VARCHAR2(15)
3	STATE_FIPS_CODE	Y VARCHAR2(2)

Table Name

STORED_AGENT

The Stored Agent table contains information about agents stored at a CSEPP site.

Sequence	Name	N Format
1	BUNKER_NAME	N VARCHAR2(30)
2	AGENT_CODE	N VARCHAR2(2)
3	MUNITION_TYPE	N VARCHAR2(4)
4	MUNITION_QUANTITY	Y NUMBER(6,0)
5	MUNITION_QUANTITY_UNITS	Y VARCHAR2(30)
6	XMIT_INIT_DATE	Y DATE 7

Table Name

SYSTEM_MODE

The System Mode table contains a list of the modes that FEMIS can assume.

Sequence	Name	N Format
1	MODE_NAME	N VARCHAR2(10)
2	MODE_DEFAULT_FLAG	N VARCHAR2(1)
3	MODE_DESCRIPTION	Y VARCHAR2(127)
4	MODE_SEQUENCE	Y NUMBER(2,0)

Table Name

SYSTEM_PHASE

The System Phase table contains a list of the Phases that FEMIS can assume.

Sequence	Name	N Format
1	MODE_NAME	N VARCHAR2(10)
2	MODE_DEFAULT_FLAG	N VARCHAR2(1)
3	PHASE_NAME	N VARCHAR2(20)
4	PHASE_DEFAULT_FLAG	N VARCHAR2(1)
5	PHASE_DESCRIPTION	Y VARCHAR2(127)
6	PHASE_SEQUENCE	Y NUMBER(2,0)

Table Name

SYSTEM_STAGE

The System Stage table contains a list of the stages that FEMIS can assume.

Sequence	Name	N Format
1	MODE_NAME	N VARCHAR2(10)
2	MODE_DEFAULT_FLAG	N VARCHAR2(1)
3	PHASE_NAME	N VARCHAR2(20)
4	PHASE_DEFAULT_FLAG	N VARCHAR2(1)
5	STAGE_NAME	N VARCHAR2(30)
6	STAGE_DEFAULT_FLAG	N VARCHAR2(1)
7	BUTTON_SEQUENCE	N NUMBER(2,0)
8	STAGE_DESCRIPTION	Y VARCHAR2(127)
9	BUTTON_TEXT	Y VARCHAR2(32)
10	BUTTON_FUNCTION	Y VARCHAR2(10)
11	STAGE_SEQUENCE	Y NUMBER(2,0)

Table Name

TRACKED_PERSON

The Tracked Person table contains the names and addresses of accident victims or their next of kins.

Sequence	Name	N Format
1	TK_REF_NUM	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	TK_NAME_FIRST	Y VARCHAR2(12)
4	TK_NAME_LAST	Y VARCHAR2(20)
5	TK_NAME_SECOND	Y VARCHAR2(12)
6	TK_CITY_NAME	Y VARCHAR2(20)
7	TK_STATE_CODE	Y VARCHAR2(2)
8	TK_STREET_ADDRESS1	Y VARCHAR2(40)
9	TK_STREET_ADDRESS2	Y VARCHAR2(40)
10	TK_ZIP_CODE	Y VARCHAR2(10)
11	TK_EMAIL_ADDRESS	Y VARCHAR2(40)
12	TK_FAX_PHONE	Y VARCHAR2(17)
13	TK_HOME_PHONE	Y VARCHAR2(17)
14	TK_BEEPER_PHONE	Y VARCHAR2(17)
15	TK_SSN	Y VARCHAR2(15)

16	TK_DATE_OF_BIRTH	Y DATE 7
17	TK_GENDER	Y VARCHAR2(1)
18	TK_NICK_NAME	Y VARCHAR2(12)
19	TK_COUNTY_NAME	Y VARCHAR2(20)
20	PT_CASUALTY	Y CHAR(1)
21	PT_EVACUEE	Y CHAR(1)
22	PT_SITE	Y CHAR(1)
23	PT_TRACKED	Y CHAR(1)
24	TK_COMMENT	Y VARCHAR2(254)

Table Name

UDS_COLUMN

Maintains data areas that can be used for the column data for a User Defined Status Board.

Sequence	Name	N Format
1	UDS_NAME	N VARCHAR2(30)
2	EOC_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	COLUMN_ID	N NUMBER(9,0)
5	COLUMN_NAME	N VARCHAR2(30)
6	COLUMN_SQL_TYPE	N VARCHAR2(15)
7	TABLE_FROM	Y VARCHAR2(60)
8	COLUMN_FROM	Y VARCHAR2(250)
9	SELECTION_STRING	Y VARCHAR2(1000)
10	MAX_LENGTH	Y NUMBER(6,0)
11	DEFAULT_VALUE	Y VARCHAR2(127)
12	GRID_COLUMN_NO	Y NUMBER(6,0)
13	GRID_COLUMN_WIDTH	Y NUMBER(4,0)
14	TITLE	Y VARCHAR2(30)
15	DESCRIP	Y VARCHAR2(127)
16	DATA_TYPE	Y VARCHAR2(30)
17	UDS_CP_NAME	Y VARCHAR2(30)
18	ATTR_FLAGS	Y VARCHAR2(30)
19	MIN_VALUE	Y VARCHAR2(127)
20	MAX_VALUE	Y VARCHAR2(127)
21	SOURCE_TAG	Y VARCHAR2(30)
22	SOURCE_DATA_TYPE	Y VARCHAR2(30)
23	SOURCE_MAX_LENGTH	Y VARCHAR2(4)
24	GRID_COLUMN_HDG	Y VARCHAR2(30)
25	GRID_COLUMN_FLAGS	Y VARCHAR2(30)
26	RECORD_FORMAT	Y VARCHAR2(30)
27	REVISION_NUM	Y NUMBER(,)
28	XMIT_INIT_DATE	Y DATE 7

Table Name

UDS_ROW

This table contains data areas that can be used for the row data for User Defined Status Boards.

Sequence	Name	N Format
1	UDS_NAME	N VARCHAR2(30)
2	EOC_NAME	N VARCHAR2(30)

3	EXERCISE_NUM	N	NUMBER(9,0)
4	UDS_ROW_ID	N	NUMBER(9,0)
5	UDS_ROW_CREATE_DATE	Y	DATE 7
6	UDS_ROW_MOD_DATE	Y	DATE 7
7	UDS_VALUE1	Y	VARCHAR2(2000)
8	UDS_VALUE2	Y	VARCHAR2(2000)
9	UDS_VALUE3	Y	VARCHAR2(2000)
10	UDS_VALUE4	Y	VARCHAR2(2000)
11	UDS_VALUE5	Y	VARCHAR2(2000)
12	UDS_VALUE6	Y	VARCHAR2(2000)
13	UDS_VALUE7	Y	VARCHAR2(2000)
14	UDS_VALUE8	Y	VARCHAR2(2000)
15	UDS_VALUE9	Y	VARCHAR2(2000)
16	UDS_VALUE10	Y	VARCHAR2(2000)
17	UDS_ACTUAL_TIME	Y	DATE 7
18	CURRENT_RECORD_FLAG	Y	VARCHAR2(1)
19	UPDATE_PERSON_REF_NUM	Y	NUMBER(9,0)
20	UDS_HISTORY_LINK_ID	Y	NUMBER(9,0)
21	UDS_NUMBER1	Y	NUMBER(,)
22	UDS_NUMBER2	Y	NUMBER(,)
23	UDS_NUMBER3	Y	NUMBER(,)
24	UDS_NUMBER4	Y	NUMBER(,)
25	UDS_NUMBER5	Y	NUMBER(,)
26	UDS_NUMBER6	Y	NUMBER(,)
27	UDS_NUMBER7	Y	NUMBER(,)
28	UDS_NUMBER8	Y	NUMBER(,)
29	UDS_NUMBER9	Y	NUMBER(,)
30	UDS_NUMBER10	Y	NUMBER(,)
31	UDS_DATETIME1	Y	DATE 7
32	UDS_DATETIME2	Y	DATE 7
33	UDS_DATETIME3	Y	DATE 7
34	UDS_DATETIME4	Y	DATE 7
35	UDS_DATETIME5	Y	DATE 7
36	UDS_YESNO1	Y	VARCHAR2(1)
37	UDS_YESNO2	Y	VARCHAR2(1)
38	UDS_YESNO3	Y	VARCHAR2(1)
39	UDS_YESNO4	Y	VARCHAR2(1)
40	UDS_YESNO5	Y	VARCHAR2(1)
41	RECORD_FORMAT	Y	VARCHAR2(30)
42	REVISION_NUM	Y	NUMBER(,)
43	XMIT_INIT_DATE	Y	DATE 7
44	UDS_LOCATION1	Y	NUMBER(20,6)
45	UDS_LOCATION2	Y	NUMBER(20,6)
46	UDS_LOCATION3	Y	NUMBER(20,6)
47	UDS_LOCATION4	Y	NUMBER(20,6)
48	UDS_LOCATION5	Y	NUMBER(20,6)
49	UDS_DATETIME6	Y	DATE 7
50	UDS_DATETIME7	Y	DATE 7
51	UDS_DATETIME8	Y	DATE 7
52	UDS_DATETIME9	Y	DATE 7
53	UDS_DATETIME10	Y	DATE 7

Table Name

USER_DEFINED_STATUS

This is the high level description table of a User Defined Status Board.

Sequence	Name	N Format
1	UDS_NAME	N VARCHAR2(30)
2	EOC_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	UDS_NUM_COLS	Y NUMBER(4,0)
5	UDS_CHANGE_DATE	Y DATE 7
6	UDS_TITLE	Y VARCHAR2(127)
7	UDS_DESCRIP	Y VARCHAR2(255)
8	UDS_DEFAULT_PRIV	Y VARCHAR2(15)
9	UDS_CP_NAME	Y VARCHAR2(30)
10	UDS_DEFAULT_SORT	Y VARCHAR2(255)
11	UDS_ATTR_FLAGS	Y VARCHAR2(30)
12	RECORD_FORMAT	Y VARCHAR2(30)
13	REVISION_NUM	Y NUMBER(,)
14	XMIT_INIT_DATE	Y DATE 7

Table Name

USER_MODEL_CASE

The User Model Case table is used to track the cases that a FEMIS user is currently accessing.

Sequence	Name	N Format
1	SITE_NAME	N VARCHAR2(30)
2	EOC_NAME	N VARCHAR2(30)
3	EXERCISE_NUM	N NUMBER(9,0)
4	MODE_NAME	N VARCHAR2(10)
5	CURRENT_DATASET_NAME	N VARCHAR2(20)
6	LC_USER_CODE	N VARCHAR2(8)
7	CASE_TYPE	N VARCHAR2(4)
8	CASE_ID	N NUMBER(9,0)
9	XMIT_INIT_DATE	Y DATE 7

Table Name

USER_MODE_PRIV

The User Mode Privilege table maps the privileges available to a user in the current mode.

Sequence	Name	N Format
1	CP_NAME	N VARCHAR2(30)
2	PRIV_NUM	N NUMBER(2,0)
3	MODE_NAME	N VARCHAR2(10)
4	MODE_DEFAULT_FLAG	N VARCHAR2(1)
5	USER_CODE	N VARCHAR2(8)

Table Name
VALIDATION

Sequence	Name	N Format
1	PLAN_REF_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	VALIDATE_NUM	N NUMBER(3,0)
4	ERROR_CLASS	Y VARCHAR2(40)
5	ERROR_DESCRIPTION	Y VARCHAR2(127)

Table Name
VAL_LIST

The Val List table is used to validate various sets of user entered values.

Sequence	Name	N Format
1	VL_NAME	N VARCHAR2(30)
2	VL_TYPE	Y VARCHAR2(10)
3	VL_DESCRIPTION	Y VARCHAR2(127)

Table Name
VAL_LIST_DATA

The Val List Data table contains validate sets of system values.

Sequence	Name	N Format
1	VL_NAME	N VARCHAR2(30)
2	VLD_SEQUENCE_NO	N NUMBER(7,0)
3	VLD_TEXT	Y VARCHAR2(80)
4	VLD_SORT_NO	Y NUMBER(7,0)

Table Name
VAL_LOCATION_TYPE

The Val Location Type table contains validate location types for objects that can be located at or near another object.

Sequence	Name	N Format
1	LOCATION_TYPE	N VARCHAR2(8)
2	VALID_LOCATION_TYPE	N VARCHAR2(8)
3	REASON_VALID	Y VARCHAR2(127)

Table Name
VAL_POSITION

The Val Position table is used to validate position descriptions.

Sequence	Name	N Format
1	POSITION_CODE	N VARCHAR2(20)
2	POSITION_NAME	Y VARCHAR2(50)

Table Name

WEDGE_POLYGON

The Wedge or Polygon table contains parameters about the wedge or user defined polygon used for threat analysis.

Sequence	Name	N Format
1	WEDGE_PG_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	OBJECT_TYPE	Y VARCHAR2(4)
4	WEDGE_ANGLE	Y NUMBER(3,0)
5	OBJECT_LOCATION	Y VARCHAR2(92)
6	LOCATION_TYPE	Y VARCHAR2(8)
7	WEDGE_PG_DISTANCE	Y NUMBER(10,2)
8	WEDGE_PG_WIND_DIR	Y NUMBER(3,0)
9	WEDGE_PG_NAME	Y VARCHAR2(30)
10	D2_CASE_ID	Y NUMBER(9,0)
11	D2_LEVEL_NUM	Y NUMBER(2,0)
12	LEVEL_TYPE	Y VARCHAR2(1)
13	DOSE_LEVEL	Y VARCHAR2(40)
14	XMIT_INIT_DATE	Y DATE 7

Table Name

WK_POSITION

The Work Position table has information about the positions within a department.

Sequence	Name	N Format
1	AGENCY_CODE	N VARCHAR2(20)
2	EXERCISE_NUM	N NUMBER(9,0)
3	DEPT_CODE	N VARCHAR2(20)
4	POSITION_TITLE	N VARCHAR2(40)
5	XMIT_INIT_DATE	Y DATE 7
6	EOC_NAME	Y VARCHAR2(30)

Table Name

WORK_PLAN

The Work Plan table has header information about a work plan.

Sequence	Name	N Format
1	WORK_PLAN_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	WP_START_DATE	Y DATE 7
4	WP_END_DATE	Y DATE 7
5	WP_AUTHORIZED_BY	Y VARCHAR2(20)
6	WP_COMMENT	Y VARCHAR2(254)
7	WP_TEAM_COUNT	Y NUMBER(6,0)
8	XMIT_INIT_DATE	Y DATE 7

Table Name

WORK_PLAN_ACT

The Work Plan Act is a link between the Work Plan and the activities on the Work plan.

Sequence	Name	N Format
1	WORK_PLAN_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	WPA_ID	N NUMBER(9,0)
4	WPA_NAME	Y VARCHAR2(30)
5	WPA_WORST_CASE_FLAG	Y VARCHAR2(1)
6	WPA_CANCEL_FLAG	Y VARCHAR2(1)
7	WPA_END_DATE	Y DATE 7
8	WPA_START_DATE	Y DATE 7
9	WPA_LOCATION	Y VARCHAR2(92)
10	LOCATION_TYPE	Y VARCHAR2(8)
11	WPA_TEAM_COUNT	Y NUMBER(3,0)
12	D2_CASE_ID	Y NUMBER(9,0)
13	PAD_ID	Y NUMBER(9,0)
14	ZONE_RISK_GROUP_NAME	Y VARCHAR2(30)
15	THREAT_ID	Y NUMBER(9,0)
16	WPA_COMMENT	Y VARCHAR2(512)
17	XMIT_INIT_DATE	Y DATE 7
18	WPA_ACTIVITY_NUM	Y NUMBER(2,0)
19	EMIS_EVENT_NUM	Y NUMBER(4,0)

Table Name

WORK_PLAN_ACTIVITY

The Work Plan Activity table contains information a specific work plan item.

Sequence	Name	N Format
1	WPA_ID	N NUMBER(9,0)
2	EXERCISE_NUM	N NUMBER(9,0)
3	WPA_DESCRIPTION	Y VARCHAR2(254)
4	WPA_AGENT_CODE	Y VARCHAR2(2)
5	WPA_MUNITION_TYPE	Y VARCHAR2(4)
6	WPA_MUNITION_IN_ACT	Y NUMBER(7,0)
7	WPA_NOTE	Y VARCHAR2(254)
8	ACTIVITY_CODE	Y VARCHAR2(20)
9	LOCAL_ID_CODE	Y VARCHAR2(20)
10	XMIT_INIT_DATE	Y DATE 7

Table Name

ZONE

The Zone table contains the zones that have been defined for a site.

Sequence	Name	N Format
1	ZONE_NAME	N VARCHAR2(30)
2	ZONE_TYPE	N VARCHAR2(5)

3	EMIS_ZONE_NAME	Y VARCHAR2(80)
4	ZONE_NUMBER	Y NUMBER(9,0)
5	PRIMARY_EOC_NAME	N VARCHAR2(30)

Table Name
ZONE_CLUSTER_IN_GROUP

Sequence	Name	N Format
1	ZONE_RISK_GROUP_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	EOC_NAME	N VARCHAR2(30)
4	ZONE_CLUSTER_ID	Y NUMBER(9,0)
5	XMIT_INIT_DATE	Y DATE 7

Table Name
ZONE_IN_GROUP

The Zone In Group table contains the zones that are in a risk group.

Sequence	Name	N Format
1	ZONE_RISK_GROUP_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	ZONE_NAME	N VARCHAR2(30)
4	XMIT_INIT_DATE	Y DATE 7

Table Name
ZONE_RISK_GROUP

The Zone Risk Group table contains the names of risk groups commonly used at an EOC.

Sequence	Name	N Format
1	ZONE_RISK_GROUP_NAME	N VARCHAR2(30)
2	EXERCISE_NUM	N NUMBER(9,0)
3	ZONE_RISK_GP_DESCRIPTION	Y VARCHAR2(127)
4	XMIT_INIT_DATE	Y DATE 7
5	EOC_CLUSTER_ID	Y NUMBER(9,0)

Table Name
ZONE_TYPE

The Zone Type table contains the valid list of zone types that may be used.

Sequence	Name	N Format
1	ZONE_TYPE	N VARCHAR2(5)
2	ZONE_DESCRIPTION	Y VARCHAR2(127)

SQL> spool off