

Appendix I
HAZUS[®] 99 SR-2 Metadata Document

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1 Introduction

Recognizing the importance of developing a consistent approach to sharing geographic data among all users, President Clinton signed Executive Order 12906, which called for the establishment of the National Spatial Data Infrastructure (NSDI). The NSDI, which is administered by the Federal Geographic Data Committee (FGDC), sets forth policies, standards, and procedures for organizations to cooperatively produce and share geographic data.

Appendix I was developed to comply with the provisions of the Content Standards for Digital Geospatial Data Metadata (FGDC-STD-001-1998). It provides the HAZUS user with information on metadata, or data about the data. Detailed information is provided on the data in HAZUS, including data content, characteristics, spatial reference, data quality, and other information that will enable the HAZUS user to use the program more effectively.

Appendix I addresses thirty-nine (39) datasets that are incorporated in HAZUS (e.g., Medical Care Facilities). The information on HAZUS data is organized under the seven sections that are prescribed in the Content Standards for Digital Geospatial Data Metadata, as set forth below. The “data about the data,” noted in italics, are discussed in more detail in the Glossary of Terms.

1. Identification Information

This section provides general information about the dataset, including *citation information* (originator of the database, name of documents that were produced that describe the database, websites); *description of the database* (contents of the database, sources of data that were used, contact information for the sources of the data, and the purpose of the database); *time period of content* (time period of the data that was used, e.g. 1990 to 2000); *status* (status of the database development, e.g., “complete”); *spatial domain* (the limits of coverage of a dataset); *access and use constraints*; and *point of contact* for further information on HAZUS.

2. Data Quality Information

This section presents a general assessment of the quality of the dataset, including *attribute* and *positional accuracy*; *consistency*; *completeness*; and *lineage* (factors which contributed to the constructed dataset).

3. Spatial Data Organization Information

This section provides information on the mechanism used to represent spatial information in the dataset, including *spatial reference* and *point and vector object information* (types and numbers of vector or nongrid point spatial objects in the dataset).

4. Spatial Reference Information

This section provides the reference frame for, and the means to encode, coordinates in the dataset. Data in this section includes *geographic coordinate units* and *geographic coordinates*.

5. Entity and Attribute Information

This section presents details about the information content of the dataset, including the *Entity Types*, their *Attributes*, and the *Domains* from which attribute values may be assigned.

6. Distribution Information

This section provides information on the Distributor, the Standard Order Process, and Distributor Liability.

7. Metadata Reference Information

This section provides information on the date the metadata was completed (*Metadata Date*); the name of the metadata standard used to document the data (*Metadata Standard Name*); and the party responsible for the metadata information (*Metadata Contact*).

2 Buildings and Facilities

2.1 General Building Stock

2.1.1 Square Footage

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: General Building Stock: Occupancy Square Footage Data

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database contains building square footage information for each census tract in the United States. The data is categorized by the standard HAZUS 28 occupancies that describe the residential, commercial, industrial, and government building information for the United States.

The data was developed using a combination of decennial census data (1990) and information provided by the Dun & Bradstreet Corporation (D&B) in 1996. The census data was used primarily to estimate the residential square footage information, while the D&B data was used to estimate the building square footage for non-residential occupancies.

The contact information for Dun & Bradstreet Corporation is: Dun & Bradstreet Government Services, Rosslyn Center, 1700 North Moore Street Suite 1250, Arlington VA 22209, (703) 276-7856. The D&B website address is: <http://www.dnb.com/>.

The contact information for the United States Census Bureau is: 4700 Silver Hill Road, Suitland, MD 20746, (301) 457-4608. The U.S. Census Bureau website address is: <http://www.census.gov/>.

Purpose:

The database is used by HAZUS to estimate the amount of damage associated with the general building stock for a given earthquake scenario. The building damage estimates are subsequently used to compute the estimated economic impacts, casualties and shelter demands.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

US Census Data:

Beginning_Date: 19900000

Ending_Date: 19900000

Dun & Bradstreet:

Beginning_Date: 19950000

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -187.637 degrees

East_Bounding_Coordinate: -64.570 degrees

North_Bounding_Coordinate: 71.434 degrees

South_Bounding_Coordinate: 17.681 degrees

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: General Building Stock

Theme_Keyword: Square Footage

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: American Samoa

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Guam

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Mariana Islands

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada

Place_Keyword: New Hampshire

Place_Keyword: New Jersey

Place_Keyword: New Mexico

Place_Keyword: New York

Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Information collected at a Census Tract resolution level

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: None

3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The general building stock square footage database file and the individual state and territory files contain 30 fields.

Entity_and_Attribute_Detail_Citation: TRACT	Census Tract
Entity_and_Attribute_Detail_Citation: RES1	Single Family Dwelling
Entity_and_Attribute_Detail_Citation: RES2	Mobile Home
Entity_and_Attribute_Detail_Citation: RES3	Multi Family Dwelling
Entity_and_Attribute_Detail_Citation: RES4	Temporary Lodging
Entity_and_Attribute_Detail_Citation: RES5	Institutional Dormitory
Entity_and_Attribute_Detail_Citation: RES6	Nursing Home
Entity_and_Attribute_Detail_Citation: COM1	Retail Trade
Entity_and_Attribute_Detail_Citation: COM2	Wholesale Trade
Entity_and_Attribute_Detail_Citation: COM3	Personal and Repair Services
Entity_and_Attribute_Detail_Citation: COM4	Professional/Technical Services
Entity_and_Attribute_Detail_Citation: COM5	Banks
Entity_and_Attribute_Detail_Citation: COM6	Hospital
Entity_and_Attribute_Detail_Citation: COM7	Medical Office/Clinic
Entity_and_Attribute_Detail_Citation: COM8	Entertainment & Recreation
Entity_and_Attribute_Detail_Citation: COM9	Theaters
Entity_and_Attribute_Detail_Citation: COM10	Parking
Entity_and_Attribute_Detail_Citation: IND1	Heavy
Entity_and_Attribute_Detail_Citation: IND2	Light
Entity_and_Attribute_Detail_Citation: IND3	Food/Drugs/Chemicals
Entity_and_Attribute_Detail_Citation: IND4	Metals/Minerals Processing
Entity_and_Attribute_Detail_Citation: IND5	High Technology
Entity_and_Attribute_Detail_Citation: IND6	Construction
Entity_and_Attribute_Detail_Citation: AGR1	Agriculture
Entity_and_Attribute_Detail_Citation: REL1	Religion- Church/Non-Profit
Entity_and_Attribute_Detail_Citation: GOV1	Government- General Services
Entity_and_Attribute_Detail_Citation: GOV2	Government- Emergency Response
Entity_and_Attribute_Detail_Citation: EDU1	Education- Grade Schools
Entity_and_Attribute_Detail_Citation: EDU2	Education- Colleges/Universities
Entity_and_Attribute_Detail_Citation: TOTAL	Sum of all Square Footages

6. Distribution_Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup
State or Province: MD
Postal Code: 20794-2012
Contact Voice Telephone: 800-480-2530
Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.2 Essential Facilities

2.2.1 Medical Care Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19991101

Title: HAZUS: Essential Facilities: Medical Care Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from data provided by the American Hospital Association (AHA). AHA provided information on 10,032 hospitals and medical clinics for the entire United States. The attribute information provided by AHA for each medical care facility included: name, address, telephone number, geographical coordinates and number of beds

The contact information for the American Hospital Association is: One North Franklin: 27th Floor, Chicago IL 60606, (800) 242-2626. The AHA website address is: <http://www.aha.org/>.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with medical care facilities for a given earthquake scenario. By evaluating this information in conjunction with casualty estimates, the HAZUS user can determine whether the earthquake scenario may overwhelm the mass care capabilities of the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19980000

Ending_Date: 1999000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -166.720 degrees

East_Bounding_Coordinate: -64.769 degrees

North_Bounding_Coordinate: 70.241 degrees

South_Bounding_Coordinate: 17.711 degrees

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Essential Facilities

Theme_Keyword: Medical Care Facilities

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington
State: D.C.
Postal Code: 20005
Contact_Voice_Telephone: 202-289-7800
Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

- 5.2 Overview_Description
 - 5.2.1 Entity_and_Attribute_Overview:
 - The medical care facilities database file and the individual state and territory files contain 27 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Occupancy Class
Entity_and_Attribute_Detail_Citation: MAPPING	Mapping Scheme
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: BIAS	Construction Quality Flag
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Built
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power
Entity_and_Attribute_Detail_Citation: FUNCTION	Primary Function
Entity_and_Attribute_Detail_Citation: NUM_BEDS	Number of Beds
Entity_and_Attribute_Detail_Citation: AHA_ID	AHA ID Number
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.2.2 Emergency Response Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Essential Facilities: Emergency Response Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA and supplemented with data gathered using the electronic phonebook, ProCD. RMS consolidated the disparate data into a single database containing approximately 38,242 sites.

FEMA provided the data to RMS in late 1994 related to emergency operations centers (EOCs). A total of four (4) databases (stateeoc.dbf, localeoc.dbf, femafrcs.dbf and ebsfema.dbf) were provided by FEMA. For every site in the four databases the geographic coordinates were extracted. From the stateeoc.dbf and localeoc.dbf databases nine additional fields were extracted for each site: city, stateabbrvc, zipcode, name, address, eocspacesf, codea, fipsst, countycode. From the femafrcs.dbf database seven additional fields were extracted for each site: city, stateabbrvc, zipcode, station_id, address_2, state_code & county_cod. . From the femafrcs.dbf database five additional fields were extracted for each site: city, stateabbrvc, zipcode, sitename & countycode. From the ebsfema.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & city. From the femafrcs.dbf database two additional fields were extracted for each site: loc_name & state.

From the electronic phonebook provided by ProCD Inc, the inventory of police and fire stations were developed. The 1996 version of the electronic phonebook was used in the database development. The address of ProCD, Inc. is 222 Rosewood Drive, Danvers, MA 01923-4520.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with emergency response facilities for a given earthquake scenario. By evaluating this information, the HAZUS user can determine whether the emergency response capabilities of the region are likely to be overwhelmed by the earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19900000

Ending_Date: police & fire stations: 19960000, EOCs: 19940000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -171.432 degrees

East_Bounding_Coordinate: -64.881 degrees

North_Bounding_Coordinate: 70.241 degrees

South_Bounding_Coordinate: 17.712 degrees

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Essential Facilities

Theme_Keyword: Emergency Response Facilities

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 38,242

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The emergency response facilities database file and the individual state and territory files contain 29 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Occupancy Class
Entity_and_Attribute_Detail_Citation: MAPPING	Mapping Scheme*
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: BIAS	Construction Quality Flag
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Built
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power
Entity_and_Attribute_Detail_Citation: STORIES	Number of Stories
Entity_and_Attribute_Detail_Citation: NUM_TRUCKS	Number of Fire Trucks
Entity_and_Attribute_Detail_Citation: AREA	Facility Area (sq.ft)
Entity_and_Attribute_Detail_Citation: CAPACITY	Facility Sleeping Capacity
Entity_and_Attribute_Detail_Citation: KITCHEN	Kitchen Available
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

- 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.2.3 Schools

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Essential Facilities: Schools Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

Risk Management Solutions, Inc. (RMS) using the 1996 version of the electronic phonebook, ProCD, developed this database. Based on a screening process using SIC codes, the names and addresses of the schools were extracted from the electronic phonebook. A proprietary geocoding application was then used to assign geographical coordinates to each school based on the address.

The contact information for ProCD, Inc. is 222 Rosewood Drive, Danvers, MA 01923-4520.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with schools for a given earthquake scenario. By evaluating this information in conjunction with estimates of temporary shelter requirements, the HAZUS user can determine whether the earthquake scenario may overwhelm the sheltering capabilities of the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19950000

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -174.430 degrees

East_Bounding_Coordinate: -64.713 degrees

North_Bounding_Coordinate: 70.567 degrees

South_Bounding_Coordinate: 17.697 degrees

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Essential Facilities

Theme_Keyword: Schools

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700
 City: Washington
 State: D.C.
 Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 132,869

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The schools database file and the individual state and territory files contain 30 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: DISTRICT	School District
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Occupancy Class
Entity_and_Attribute_Detail_Citation: MAPPING	Mapping Scheme
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: BIAS	Construction Quality
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Built
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power: Y = Yes, N= No
	Function of School

Entity_and_Attribute_Detail_Citation: FUNCTION	Number of Students
Entity_and_Attribute_Detail_Citation: NUM_STUDENT	Facility Area (sq.ft.)
Entity_and_Attribute_Detail_Citation: AREA	Shelter Capacity (# people)
Entity_and_Attribute_Detail_Citation: SHLT_CAP	Kitchen Available: Y = Yes, N= No
Entity_and_Attribute_Detail_Citation: KITCHEN	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: ELEVAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LAT	Longitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: GEORES	County FIPS Code
Entity_and_Attribute_Detail_Citation: COUNTY	Misc. Comments
Entity_and_Attribute_Detail_Citation: COMMENT	HAZUS Internal ID
Entity_and_Attribute_Detail_Citation: ID_	

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.3 High Potential Loss Facilities

2.3.1 Dams

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: High Potential Loss Facilities: Dams Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

High potential loss facilities are facilities that are likely to cause heavy earthquake losses if damaged. High potential loss (HPL) facilities include nuclear power plants, dams, and some military installations.

The 1995-96 update of the National Inventory of Dams was prepared by Venture Computing Group, Inc., Troy, New York, under a contract to FEMA. There are 74,301 dams in this database. Risk Management Solutions, Inc. (RMS) processed this National Inventory of Dams for HAZUS.

Purpose:

This data is used to identify the dams with the potential for damage from a given earthquake scenario. By overlaying the dams on the severe ground-shaking map, the HAZUS user can determine which of the dams may need immediate inspection.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -215.300

East_Bounding_Coordinate: -64.790

North_Bounding_Coordinate: 71.267

South_Bounding_Coordinate: 13.358

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: High Potential Loss Facilities

Theme_Keyword: Dams

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands

Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
 1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 74,301

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The dams database file and the individual state and territory files contain 31 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: DAM_NAME	Name of Dam
Entity_and_Attribute_Detail_Citation: OWNER	Owner of the Dam
Entity_and_Attribute_Detail_Citation: CLASS	Type of Dam
Entity_and_Attribute_Detail_Citation: COUNTYNAME	County Name
Entity_and_Attribute_Detail_Citation: RIVER	Name of River
Entity_and_Attribute_Detail_Citation: NEAR_CITY	Nearest City to Dam
Entity_and_Attribute_Detail_Citation: DIST_CITY	Distance to Nearest City (mile)
Entity_and_Attribute_Detail_Citation: PURPOSE	Purpose of the Dam
Entity_and_Attribute_Detail_Citation: YEAR_COMPL	Year Dam was Built
Entity_and_Attribute_Detail_Citation: DAM_LENGTH	Length of Dam (ft)
Entity_and_Attribute_Detail_Citation: DAM_HEIGHT	Height of the Dam (ft)
Entity_and_Attribute_Detail_Citation: STRUCT_HGT	Structural Height of Dam (ft)
Entity_and_Attribute_Detail_Citation: HYDR_HGT	Hydraulic Height of Dam (ft)
Entity_and_Attribute_Detail_Citation: MAX_DISCH	Maximum Discharge Rate (ft ³ /sec)
Entity_and_Attribute_Detail_Citation: MAX_STOR	Maximum Storage Area (acre-ft)
Entity_and_Attribute_Detail_Citation: NORM_STOR	Normal Storage Area (acre-ft)
Entity_and_Attribute_Detail_Citation: SURF_AREA	Surface Area of Water (acres)
Entity_and_Attribute_Detail_Citation: DRAIN_AREA	Drainage Area of Dam (sq. miles)
Entity_and_Attribute_Detail_Citation: HAZARD	Relative Hazard Rating
Entity_and_Attribute_Detail_Citation: EAP	Emergency Action Plan
Entity_and_Attribute_Detail_Citation: SPILL_TYPE	Spillway Type on Dam:
Entity_and_Attribute_Detail_Citation: SPILL_WDTH	Spillway Width (ft)
Entity_and_Attribute_Detail_Citation: VOLUME	Spillway Volume (cubic yards)
Entity_and_Attribute_Detail_Citation: COST	Cost of Dam Construction
Entity_and_Attribute_Detail_Citation: PRIMARY_SR	Primary Source Agency
Entity_and_Attribute_Detail_Citation: LAT	Latitude of the Dam
Entity_and_Attribute_Detail_Citation: LONG	Longitude of the Dam
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: NAT_ID	NATDAM ID Number
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.3.2 Levees

No Default HAZUS Data is available. Only a placeholder is provided.

2.3.3 Nuclear Power Plants**1. Identification_Information**

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: High Potential Loss Facilities: Nuclear Power Plants Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>,
<http://www.nrc.gov/NRC/REACTOR/GEOSPATIAL/lvsites.html>.

1.2 Description:

Abstract:

The database was developed from data compiled by the U.S. Nuclear Regulatory Commission on nuclear reactors. There are 70 power plants in this database. Risk Management Solutions, Inc. (RMS) processed this database into HAZUS.

Purpose:

This data is useful in assessing the potential threat these facilities may represent to life and property.

3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: unknown

1.4 Status:

Progress: Complete
Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:
West_Bounding_Coordinate: -122.885
East_Bounding_Coordinate: -69.697
North_Bounding_Coordinate: 46.283
South_Bounding_Coordinate: 25.434

1.6 Keywords:

Theme:
Theme_Keyword: HAZUS
Theme_Keyword: Inventory
Theme_Keyword: High Potential Loss Facilities
Theme_Keyword: Nuclear Power Plants
Theme_Keyword: Nuclear Reactors

Place:
Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey

Place_Keyword: New Mexico
 Place_Keyword: New York
 Place_Keyword: North Carolina
 Place_Keyword: North Dakota
 Place_Keyword: Ohio
 Place_Keyword: Oklahoma
 Place_Keyword: Oregon
 Place_Keyword: Pennsylvania
 Place_Keyword: Puerto Rico
 Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 70

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The nuclear power plant database file and the individual state and territory files contain 24 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Occupancy Class
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: BIAS	Construction Quality
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Built
Entity_and_Attribute_Detail_Citation: COST	Replacement Value
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (MWatts)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

2.3.4 Hazardous Materials Sites

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Hazardous Materials Sites Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>, <http://www.epa.gov/>.

1.2 Description:

Abstract:

Hazardous materials are those chemicals, reagents or substances that exhibit physical or health hazards, whether the materials are in a usable or waste state. The scale, and hence the consequences, of hazardous materials releases can vary from very small, such as a gallon of paint falling off of shelves, to regional, such as release of toxic chemicals from a processing plant. Most hazardous materials incidents have immediately led to human casualties only in cases where explosions have occurred. Non-explosive hazardous materials incidents, which

comprise the vast majority, typically have led to contamination of the environment and temporary health consequences to human beings. Hazardous materials releases can also lead to fires. With specific reference to earthquake caused hazardous materials incidents, the data thus far indicate that there have been no human casualties. The consequences of these incidents have been fires and contamination of the environment, and have led to economic impacts because of the response and clean-up requirements.

Risk Management Solutions, Inc. (RMS), using the 1996 version of the Environmental Protection Agency (EPA) Hazardous Materials database, processed this database for HAZUS.

The contact information for EPA is: Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Tel.: (202) 260-2090

Purpose:

This data is used to identify the hazardous materials sites with the potential for damage and release from a given earthquake scenario. By overlaying the hazardous materials sites on the severe ground-shaking map, the HAZUS user can determine which of the sites may need immediate inspection.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -159.739

East_Bounding_Coordinate: -66.984

North_Bounding_Coordinate: 64.823

South_Bounding_Coordinate: 19.204

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Hazardous Materials

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.
Postal Code: 20005
Contact_Voice_Telephone: 202-289-7800
Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 668,041

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

- 5.2 Overview_Description
 - 5.2.1 Entity_and_Attribute_Overview:
 - The hazardous materials sites database file and the individual state and territory files contain 27 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CAS	CAS Registry Number
Entity_and_Attribute_Detail_Citation: CHEM_NAME	Chemical Name
Entity_and_Attribute_Detail_Citation: CHEM_QUANT	Chemical Quality (lbs.)
Entity_and_Attribute_Detail_Citation: SIC	SIC Number
Entity_and_Attribute_Detail_Citation: CLASS	Class
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: BIAS	Construction Quality
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: EPA_ID	EPA ID Number
Entity_and_Attribute_Detail_Citation: PER_AMNT	Permit Amount (lbs.)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3 Transportation Systems

3.1 Highway Systems

3.1.1 Bridges

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Highway Bridge Database

On-line Linkage:

<http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>, <http://www.fhwa.dot.gov/>.

1.2 Description:

Abstract:

Highway bridges are the most critical components of a transportation network. They are also the most susceptible to damage during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 527,261 bridges from this database into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400 7th Street, SW, Washington, DC 20590.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with bridges for a given earthquake scenario. By evaluating this information, the HAZUS user can determine how the earthquake scenario may affect the transportation network of the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -174.14

East_Bounding_Coordinate: -67.075

North_Bounding_Coordinate: 69.098

South_Bounding_Coordinate: 19.065

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Highways

Theme_Keyword: Transportation

Theme_Keyword: Bridges

Place:

- Place_Keyword: USA
- Place_Keyword: Alabama
- Place_Keyword: Alaska
- Place_Keyword: Arizona
- Place_Keyword: Arkansas
- Place_Keyword: California
- Place_Keyword: Colorado
- Place_Keyword: Connecticut
- Place_Keyword: Delaware
- Place_Keyword: District of Columbia
- Place_Keyword: Florida
- Place_Keyword: Georgia
- Place_Keyword: Hawaii
- Place_Keyword: Idaho
- Place_Keyword: Illinois
- Place_Keyword: Indiana
- Place_Keyword: Iowa
- Place_Keyword: Kansas
- Place_Keyword: Kentucky
- Place_Keyword: Louisiana
- Place_Keyword: Maine
- Place_Keyword: Maryland
- Place_Keyword: Massachusetts
- Place_Keyword: Michigan
- Place_Keyword: Minnesota
- Place_Keyword: Mississippi
- Place_Keyword: Missouri
- Place_Keyword: Montana
- Place_Keyword: Nebraska
- Place_Keyword: Nevada
- Place_Keyword: New Hampshire
- Place_Keyword: New Jersey
- Place_Keyword: New Mexico
- Place_Keyword: New York
- Place_Keyword: North Carolina
- Place_Keyword: North Dakota
- Place_Keyword: Ohio
- Place_Keyword: Oklahoma
- Place_Keyword: Oregon
- Place_Keyword: Pennsylvania
- Place_Keyword: Puerto Rico
- Place_Keyword: Rhode Island
- Place_Keyword: South Carolina
- Place_Keyword: South Dakota
- Place_Keyword: Tennessee
- Place_Keyword: Texas
- Place_Keyword: Utah
- Place_Keyword: Vermont

Place_Keyword: Virgin Islands

Place_Keyword: Virginia

Place_Keyword: Washington

Place_Keyword: West Virginia

Place_Keyword: Wisconsin

Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 527,261

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The highway bridge database file and the individual state and territory files contain 27 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Bridge Name
Entity_and_Attribute_Detail_Citation: OWNER	Bridge Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: TYPE	Structure Type
Entity_and_Attribute_Detail_Citation: WIDTH	Bridge Width (ft)
Entity_and_Attribute_Detail_Citation: LENMAXSPAN	Maximum Span Length (ft)
Entity_and_Attribute_Detail_Citation: LENGTH	Total Bridge Length (ft)
Entity_and_Attribute_Detail_Citation: NUM_SP	Number of Spans
Entity_and_Attribute_Detail_Citation: ANGLE	Skew Angle (degrees)
Entity_and_Attribute_Detail_Citation: SEAT_L	Seat Length (ft)
Entity_and_Attribute_Detail_Citation: SEAT_W	Seat Width (ft)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Bridge Was Built
Entity_and_Attribute_Detail_Citation: YEAR_R	Year Bridge Remodeled
Entity_and_Attribute_Detail_Citation: PIER	Pier Type
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: SCOUR	Scour Index
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (cars/day)
Entity_and_Attribute_Detail_Citation: TRAF_INDEX	Traffic Index
Entity_and_Attribute_Detail_Citation: CONDITION	General Condition Rating
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Bridge (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Bridge
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Bridge
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.1.2 Roads**1. Identification_Information**

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Highway Roads Database

On-line Linkage:

<http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>,
<http://www.census.gov/>, <http://www.wessex.com/wessex/index.cfm>

1.2 Description:

Abstract:

Highway roads are based on the street TIGER files. The TIGER Line Files were originally created using two primary sources: the Census Bureau's 1980 GBF/DIME files and the USGS DLGs (U.S. Geological Survey Digital Line Graphs). The GBF/DIME files had extensive coverage and excellent attribute information in urban areas but little coverage in rural areas. The USGS DLGs had coverage for the entire country but did not have the same attribution. The Census Bureau decided to use a combination of both datasets to create the TIGER Line Files. Risk Management Solutions, Inc. (RMS) extracted the major roads database for HAZUS.

The contact information for Street Tiger files is: WESSEX, 11 Lafayette St., Lebanon, NH 03766.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with roads for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to bridges and tunnels, the HAZUS user can determine which of the highway links may not be accessible.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -159.887

East_Bounding_Coordinate: -64.567

North_Bounding_Coordinate: 65.809

South_Bounding_Coordinate: 17.689

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Highways

Theme_Keyword: Roads

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada

Place_Keyword: New Hampshire

Place_Keyword: New Jersey
 Place_Keyword: New Mexico
 Place_Keyword: New York
 Place_Keyword: North Carolina
 Place_Keyword: North Dakota
 Place_Keyword: Ohio
 Place_Keyword: Oklahoma
 Place_Keyword: Oregon
 Place_Keyword: Pennsylvania
 Place_Keyword: Puerto Rico
 Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Line

3.3 Point_and_Vector_Object_Information: 111,497

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The highway road database file and the individual state and territory files contain 15 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Road Segment Name
Entity_and_Attribute_Detail_Citation: OWNER	Road Segment Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: NUM_LAN	Number of Lanes
Entity_and_Attribute_Detail_Citation: PVMNT	Pavement Type
Entity_and_Attribute_Detail_Citation: WIDTH	Road Width (ft)
Entity_and_Attribute_Detail_Citation: LENGTH	Section Length (km)
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (cars/day)
Entity_and_Attribute_Detail_Citation: CAPACITY	Daily Capacity (cars/day)
Entity_and_Attribute_Detail_Citation: COST	Unit Repair Cost (thous. \$/km)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution_Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this

product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.1.3 Tunnels

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Highway Tunnel Database

On-line Linkage:

<http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>, <http://www.fhwa.dot.gov/>.

1.2 Description:

Abstract:

Highway tunnels are more susceptible to damage from ground failure than ground shaking during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, extracted 226 tunnels from this database into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400 7th Street, SW, Washington, DC 20590.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with tunnels for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -159.667 degrees

East_Bounding_Coordinate: -71.553

North_Bounding_Coordinate: 48.840

South_Bounding_Coordinate: 19.728

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Highways

Theme_Keyword: Transportation

Theme_Keyword: Tunnels

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana
 Place_Keyword: Nebraska
 Place_Keyword: Nevada
 Place_Keyword: New Hampshire
 Place_Keyword: New Jersey
 Place_Keyword: New Mexico
 Place_Keyword: New York
 Place_Keyword: North Carolina
 Place_Keyword: North Dakota
 Place_Keyword: Ohio
 Place_Keyword: Oklahoma
 Place_Keyword: Oregon
 Place_Keyword: Pennsylvania
 Place_Keyword: Puerto Rico
 Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 226

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The highway tunnel database file and the individual state and territory files contain 17 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Name of Tunnel
Entity_and_Attribute_Detail_Citation: OWNER	Owner of Tunnel
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: TYPE	Type of Tunnel
Entity_and_Attribute_Detail_Citation: WIDTH	Tunnel Width (ft)
Entity_and_Attribute_Detail_Citation: LENGTH	Tunnel Length (ft)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Tunnel Was Built
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (cars/day)
Entity_and_Attribute_Detail_Citation: CAPACITY	Daily Capacity (cars/day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Tunnel (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Tunnel
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Tunnel
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution_Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.2 Railway Systems

3.2.1 Bridges

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Railway Bridge Database

On-line Linkage:

<http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>, <http://www.fhwa.dot.gov/>.

1.2 Description:

Abstract:

Railway bridges are susceptible to damage during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 1,277 bridges from this database into HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway bridges for a given earthquake scenario. By evaluating this information, the HAZUS user can determine how the earthquake scenario may affect the railway network of the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -135.206

East_Bounding_Coordinate: -67.429

North_Bounding_Coordinate: 59.604

South_Bounding_Coordinate: 25.777

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Railways

Theme_Keyword: Transportation

Theme_Keyword: Bridges

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota
 Place_Keyword: Mississippi
 Place_Keyword: Missouri
 Place_Keyword: Montana
 Place_Keyword: Nebraska
 Place_Keyword: Nevada
 Place_Keyword: New Hampshire
 Place_Keyword: New Jersey
 Place_Keyword: New Mexico
 Place_Keyword: New York
 Place_Keyword: North Carolina
 Place_Keyword: North Dakota
 Place_Keyword: Ohio
 Place_Keyword: Oklahoma
 Place_Keyword: Oregon
 Place_Keyword: Pennsylvania
 Place_Keyword: Puerto Rico
 Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 1,277

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The railway bridge database file and the individual state and territory files contain 27 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Bridge Name
Entity_and_Attribute_Detail_Citation: OWNER	Bridge Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: TYPE	Structure Type
Entity_and_Attribute_Detail_Citation: WIDTH	Bridge Width (ft)
Entity_and_Attribute_Detail_Citation: LENMAXSPAN	Maximum Span Length (ft)
Entity_and_Attribute_Detail_Citation: LENGTH	Total Bridge Length (ft)
Entity_and_Attribute_Detail_Citation: NUM_SP	Number of Spans
Entity_and_Attribute_Detail_Citation: ANGLE	Skew Angle (degrees)
Entity_and_Attribute_Detail_Citation: SEAT_L	Seat Length (ft)
Entity_and_Attribute_Detail_Citation: SEAT_W	Seat Width (ft)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Bridge Was Built
Entity_and_Attribute_Detail_Citation: YEAR_R	Year Bridge Remodeled
Entity_and_Attribute_Detail_Citation: PIER	Pier Type
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: SCOUR	Scour Index
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (trains/day)
Entity_and_Attribute_Detail_Citation: TRAF_INDEX	Traffic Index
Entity_and_Attribute_Detail_Citation: CONDITION	Condition of Bridge
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Bridge (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Bridge
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Bridge
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

- 6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.2.2 Tracks

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Railway Tracks
On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>,
<http://www.wessex.com/wessex/index.cfm>.

1.2 Description:

Abstract:

Railway Tracks are based on the TIGER files. Risk Management Solutions, Inc. (RMS) extracted the tracks database for HAZUS.

The contact information for Tiger files is: WESSEX, 11 Lafayette St., Lebanon, NH 03766.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway tracks for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to bridges and tunnels, the HAZUS user can determine which of the railway links may not be accessible.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: 151.161

East_Bounding_Coordinate: -66.755

North_Bounding_Coordinate: 64.947

South_Bounding_Coordinate: 20.805

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Transportation

Theme_Keyword: Railway

Theme_Keyword: Tracks

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Line

3.3 Point_and_Vector_Object_Information: 261,804

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The railway track database file and the individual state and territory files contain 12 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Track Segment Name
Entity_and_Attribute_Detail_Citation: OWNER	Owner of Track Segment
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: NUM_TRA	Number of Tracks
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (trains/day)
Entity_and_Attribute_Detail_Citation: LENGTH	Section Length (km)
Entity_and_Attribute_Detail_Citation: COST	Unit Repair Cost (thous. \$/km)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.2.3 Railway Tunnels

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Railway Tunnel Database

On-line Linkage:

<http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>, <http://www.fhwa.dot.gov/>.

1.2 Description:

Abstract:

Railway tunnels are more susceptible to damage from ground failure than from ground shaking during earthquakes. Risk Management Solutions, Inc. (RMS), using the 1996 version of the National Bridge Inventory (NBI) database, processed 384 tunnels into HAZUS.

The contact information for NBI is The Federal Highway Administration, 400 7th Street, SW, Washington, DC 20590.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with tunnels for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -155.469

East_Bounding_Coordinate: -70.893

North_Bounding_Coordinate: 48.967

South_Bounding_Coordinate: 20.094

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Railways

Theme_Keyword: Transportation

Theme_Keyword: Tunnels

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700
 City: Washington
 State: D.C.
 Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 384

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The railway tunnel database file and the individual state and territory files contain 16 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Name of Tunnel
Entity_and_Attribute_Detail_Citation: OWNER	Owner of Tunnel
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: TYPE	Type of Tunnel
Entity_and_Attribute_Detail_Citation: WIDTH	Tunnel Width (ft)
Entity_and_Attribute_Detail_Citation: LENGTH	Tunnel Length (ft)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Tunnel Was Built
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (cars/day)
Entity_and_Attribute_Detail_Citation: CAPACITY	Daily Capacity (cars/day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Tunnel (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Tunnel
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Tunnel
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.2.4 Railway Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Railway Facilities

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from data provided by FEMA for the entire United States. The attribute information provided for each facility included: name, address, geographical coordinates, and year built. Risk Management Solutions, Inc. (RMS) processed this database for HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with railway facilities for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to railway tracks and bridges, the HAZUS user can determine whether the railway network will be affected.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -157.023

East_Bounding_Coordinate: -68.019

North_Bounding_Coordinate: 61.743

South_Bounding_Coordinate: 20.842

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Railway Systems

Theme_Keyword: Railway Facility

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
 1090 Vermont Avenue, NW; Suite 700
 City: Washington
 State: D.C.
 Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 3,218

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The railway facility database file and the individual state and territory files contain 26 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built

Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (trains/day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

3.3 Light Rail Systems

3.3.1 Bridges

No Default HAZUS Data is available. Only a placeholder is provided.

3.3.2 Tracks

No Default HAZUS Data is available. Only a placeholder is provided.

3.3.3 Tunnels

No Default HAZUS Data is available. Only a placeholder is provided.

3.3.4 Facilities

No Default HAZUS Data is available. Only a placeholder is provided.

3.4 Bus Systems

3.4.1 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Systems: Bus Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from data provided by FEMA for the entire United States. The attribute information provided for each facility included: name, address, geographical coordinates, and year built. Risk Management Solutions, Inc. (RMS) processed this database for HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with bus facilities for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: 19960000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -155.067

East_Bounding_Coordinate: --68.021

North_Bounding_Coordinate: 48.554

South_Bounding_Coordinate: 19.710

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Transportation

Theme_Keyword: Bus Facility

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada

Place_Keyword: New Hampshire

Place_Keyword: New Jersey

Place_Keyword: New Mexico

Place_Keyword: New York

Place_Keyword: North Carolina

Place_Keyword: North Dakota

Place_Keyword: Ohio

Place_Keyword: Oklahoma

Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 953

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The bus facility database file and the individual state and territory files contain 26 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: TRAFFIC	Daily Traffic (Busses/day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this

product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.5 Port Systems

3.5.1 Port Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Lifelines: Port Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing approximately 3,767 sites to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with port facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged port facilities.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -166.575

East_Bounding_Coordinate: -64.750

North_Bounding_Coordinate: 61.24

South_Bounding_Coordinate: 17.70

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Transportation

Theme_Keyword: Lifelines

Theme_Keyword: Port Facilities

Theme_Keyword: Ports

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 3,767

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The port facilities database file and the individual state and territory files contain 29 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: PORT_ID	Port Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (tons/day)
Entity_and_Attribute_Detail_Citation: BERTHS	Number of Berths
Entity_and_Attribute_Detail_Citation: CRANE	Number of Cranes
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

- 6.1 Distributor
 - Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.6 Ferry Systems

3.6.1 Ferry Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Lifelines: Ferry Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

Currently this database is empty in HAZUS. A blank database is provided to allow HAZUS users to input ferry facility information for their region.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with ferry facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged ferry facilities.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate:

East_Bounding_Coordinate:

North_Bounding_Coordinate:

South_Bounding_Coordinate:

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Transportation Lifelines

Theme_Keyword: Ferry Facilities

Theme_Keyword: Ferries

Place:

Place_Keyword: None

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The ferry facilities database file and the individual state and territory files contain 26 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power: (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: TRAFFIC	Traffic (Ferris/Day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code

Entity_and_Attribute_Detail_Citation: COUNTY
 Entity_and_Attribute_Detail_Citation: COMMENT
 Entity_and_Attribute_Detail_Citation: ID_

County FIPS Code
 Misc. Comments
 HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.7 Airport Systems

3.7.1 Airport Facilities

1. Identification_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Lifelines: Airport Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing 16,930 airports sites to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with airport facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged airport facilities.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -176.648

East_Bounding_Coordinate: -64.799

North_Bounding_Coordinate: 71.339

South_Bounding_Coordinate: 17.704

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Transportation Lifelines

Theme_Keyword: Airport Facilities

Theme_Keyword: Airports

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:**Contact_Person_Primary:**

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 16,930

4. Spatial_Reference_Information

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The airport facilities database file and the individual state and territory files contain 29 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: ARPT_ID	Airport Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class

Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: FLIGHTS	Capacity (flights/day)
Entity_and_Attribute_Detail_Citation: PASSENGERS	Capacity (passengers/day)
Entity_and_Attribute_Detail_Citation: CARGO	Capacity (tons/day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIPS Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700
City: Washington
State: D.C.
Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

3.7.2 Airport Runways

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Transportation Lifelines: Airport Runways Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database containing 16,930 airports to RMS in late 1994. RMS converted to database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with airport runways for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged airport runways.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: 19920000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -176.648

East_Bounding_Coordinate: -64.799

North_Bounding_Coordinate: 71.339

South_Bounding_Coordinate: 17.704

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Transportation Lifelines

Theme_Keyword: Airport Runways

Theme_Keyword: Airports

Theme_Keyword: Runways

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont

Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 16,930

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The airport runways database file and the individual state and territory files contain 15 fields.

Entity_and_Attribute_Detail_Citation: ID	Runway Identifier
Entity_and_Attribute_Detail_Citation: NAME	Runway Name
Entity_and_Attribute_Detail_Citation: A_NAME	Airport Name
Entity_and_Attribute_Detail_Citation: ARPT_ID	Airport Identifier
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: RNWY_L	Runway Length (ft)
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (Flights/day)
Entity_and_Attribute_Detail_Citation: PAVMNT	Pavement Type
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Airport
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Airport
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4 Utility Systems

4.1 Potable Water Supply Systems

4.1.1 Transmission Pipelines

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Transmission Pipelines

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>,
<http://www.atcouncil.org/>.

1.2 Description:

Abstract:

The database was developed from The ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water pipelines for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water facilities, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -122.969

East_Bounding_Coordinate: --122.847

North_Bounding_Coordinate: 41.061

South_Bounding_Coordinate: 33.528

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS
Theme_Keyword: Inventory
Theme_Keyword: Lifelines
Theme_Keyword: Utility Systems
Theme_Keyword: Pipelines

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico

Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Line

3.3 Point_and_Vector_Object_Information: 62

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The transmission pipeline database file and the individual state and territory files contain 22 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: SYSTEMID	Identifier for the System
Entity_and_Attribute_Detail_Citation: NAME	Pipeline Name
Entity_and_Attribute_Detail_Citation: OWNER	Pipeline Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: G_CLASS	Class Type for Network Analysis
Entity_and_Attribute_Detail_Citation: STATUS	Status
Entity_and_Attribute_Detail_Citation: UP_NODE	Upper Node
Entity_and_Attribute_Detail_Citation: DN_NODE	Lower Node
Entity_and_Attribute_Detail_Citation: ROUGH	Roughness Coefficient
Entity_and_Attribute_Detail_Citation: MIN_LOSS	Losses
Entity_and_Attribute_Detail_Citation: DIAMETER	Nominal Pipe Diameter (inches)
Entity_and_Attribute_Detail_Citation: LENGTH	Section Length (km)
Entity_and_Attribute_Detail_Citation: MATRL	Pipe Material
Entity_and_Attribute_Detail_Citation: JOINT	Joint Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Pipe Installed
Entity_and_Attribute_Detail_Citation: YEAR_UPG	Year Pipe Upgraded
Entity_and_Attribute_Detail_Citation: COST	Repair Cost (thous. \$/segment)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.1.2 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Potable Water Facilities

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water facilities for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water pipelines, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: unknown

Ending_Date: unknown

1.4 Status:

Progress: Complete
Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -123.558
East_Bounding_Coordinate: -79.332
North_Bounding_Coordinate: 47.882
South_Bounding_Coordinate: 30.358

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS
Theme_Keyword: Inventory
Theme_Keyword: Lifelines
Theme_Keyword: Utility Systems
Theme_Keyword: Potable Water Facilities
Theme_Keyword: Treatment Plants
Theme_Keyword: Wells
Theme_Keyword: Storage Tanks
Theme_Keyword: Pumping Plants

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska

Place_Keyword: Nevada
 Place_Keyword: New Hampshire
 Place_Keyword: New Jersey
 Place_Keyword: New Mexico
 Place_Keyword: New York
 Place_Keyword: North Carolina
 Place_Keyword: North Dakota
 Place_Keyword: Ohio
 Place_Keyword: Oklahoma
 Place_Keyword: Oregon
 Place_Keyword: Pennsylvania
 Place_Keyword: Puerto Rico
 Place_Keyword: Rhode Island
 Place_Keyword: South Carolina
 Place_Keyword: South Dakota
 Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 1,597

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The potable water facilities database file and the individual state and territory files contain 31 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: SYSTEMID	Identifier for Water System
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: TRACT	Census Tract
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: G_CLASS	Class for the Network Analysis
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Built
Entity_and_Attribute_Detail_Citation: YEAR_UPG	Year Upgraded
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (Million Gallons/Day)
Entity_and_Attribute_Detail_Citation: DEMAND	Daily Demand
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.1.3 Distribution Pipelines

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Distribution Pipelines

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database, which is aggregated at the census tract level, was developed based on the assumption that the number of distribution lines is correlated to the number of local streets. This approximation is fairly accurate in urban areas, however, in rural areas it is conceivable that water supply utilizes primarily wells and therefore this assumption may not hold true. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with water distribution pipelines for a given earthquake scenario. By evaluating this information in conjunction with estimates of damage to water facilities, the HAZUS user can determine the extent of disruption the earthquake scenario may cause to the water system in the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -187.637 degrees

East_Bounding_Coordinate: -64.570 degrees

North_Bounding_Coordinate: 71.434 degrees

South_Bounding_Coordinate: 17.681 degrees

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Water Distribution Pipes

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Polygon

3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The potable water distribution database file and the individual state and territory files contain 4 fields.

Entity_and_Attribute_Detail_Citation: TRACT

Census Tract

Entity_and_Attribute_Detail_Citation: PW_DUCT

Ductile Distribution Pipes (km)

Entity_and_Attribute_Detail_Citation: PW_BRIT

Brittle Distribution Pipes (km)

Entity_and_Attribute_Detail_Citation: PW_TOTL

Total Distribution Pipes (km)

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012
 Contact Voice Telephone: 800-480-2530
 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.2 Wastewater Systems

4.2.1 Transmission Sewers

No Default HAZUS Data is available. Only a placeholder is provided.

4.2.2 Facilities

1. Identification_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Transmission Sewers

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. RMS converted this database into a format that was compatible with the HAZUS software.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with wastewater facilities for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -158.042 degrees

East_Bounding_Coordinate: --66.074

North_Bounding_Coordinate: 59.250

South_Bounding_Coordinate: 18.426

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Wastewater facilities

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 1,265

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The wastewater facilities database file and the individual state and territory files contain 26 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (= Yes, No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (Million Gallons/Day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous.)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility

Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.2.3 Distribution Sewers

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Distribution Sewers

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database, which was aggregated at the census tract level, was developed based on the assumption that the number of distribution sewers is strongly correlated to the number of local streets. This approximation is fairly accurate in urban areas, however, in rural areas it is conceivable that residences may be using septic tanks and therefore this assumption may not hold true. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

Purpose:

Currently, this data is not used in any analyses.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -187.637 degrees

East_Bounding_Coordinate: -64.570

North_Bounding_Coordinate: 71.434

South_Bounding_Coordinate: 17.681

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Distribution Sewers

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:
Contact_Person: Philip Schneider
Contact_Address:
Address_Type: mailing and physical address
Address:
National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700
City: Washington
State: D.C.
Postal Code: 20005
Contact_Voice_Telephone: 202-289-7800
Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Polygon
- 3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
Geographic Coordinate System (Longitude/Latitude)
Latitude Resolution: Unknown
Longitude Resolution: Unknown
Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

- 5.2 Overview_Description
 - 5.2.1 Entity_and_Attribute_Overview:
The distribution sewers database file and the individual state and territory files contain 4 fields.

Entity_and_Attribute_Detail_Citation: TRACT	Census Tract
Entity_and_Attribute_Detail_Citation: WW_DUCT	Ductile Distribution Sewers (km)
Entity_and_Attribute_Detail_Citation: WW_BRIT	Brittle Distribution Sewers (km)
Entity_and_Attribute_Detail_Citation: WW_TOTL	Total Distribution Sewers (km)

6. Distribution Information

- 6.1 Distributor
 - Contact Organization Primary: FEMA Distribution Center
 - Contact Address:
Address_Type: mailing address

Address: P.O. Box 2012
 City: Jessup
 State or Province: MD
 Postal Code: 20794-2012
 Contact Voice Telephone: 800-480-2530
 Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.3 Oil Systems

4.3.1 Pipelines

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Oil Pipelines

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with oil pipelines for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -152.202

East_Bounding_Coordinate: -70.458

North_Bounding_Coordinate: 61.889

South_Bounding_Coordinate: 27.485

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Oil Pipelines

Theme_Keyword: Crude Oil

Theme_Keyword: Refined Oil

Theme_Keyword: Brittle Pipe

Theme_Keyword: Ductile Pipe

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

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1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Line

3.3 Point_and_Vector_Object_Information: 3661

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The oil pipelines database file and the individual state and territory files contain 14 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Pipeline Name
Entity_and_Attribute_Detail_Citation: OWNER	Pipeline Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: MATRL	Material Type
Entity_and_Attribute_Detail_Citation: DIAMETER	Nominal Pipe Diameter (inches)
Entity_and_Attribute_Detail_Citation: LENGTH	Section Length (km)

Entity_and_Attribute_Detail_Citation: JOINT	Joint Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Pipe Installed
Entity_and_Attribute_Detail_Citation: COST	Repair Cost (thous. \$/segment)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.3.2 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Oil Facilities

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The oil facilities database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with oil facilities for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -165.431

East_Bounding_Coordinate: -64.758

North_Bounding_Coordinate: 66.900

South_Bounding_Coordinate: 17.715

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Oil Facilities

Theme_Keyword: Tank Farms

Theme_Keyword: Refineries

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

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1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 2,006

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The oil facilities database file and the individual state and territory files contain 26 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner

Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design Level
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (Thous. Barrels/Day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700
City: Washington
State: D.C.
Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.4 Natural Gas Systems

4.4.1 Pipelines

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Natural Gas Pipelines

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. The data were combined and reduced through two operations: (1) reduction in the number of links by a factor of about ten to reduce the size of the database to a manageable size for analysis (i.e., minor curvatures at the local level have been eliminated); and (2) continuity corrections so that transmission lines between separately digitized sections (e.g., across state boundaries) would be continuous. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

The contact information for ATC is: Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065. Phone: (650) 595-1542. Fax: (650) 593-2320. E-mail: atc@atcouncil.org.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with natural gas pipelines for a given earthquake scenario.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -122.908

East_Bounding_Coordinate: -71.200

North_Bounding_Coordinate: 48.878

South_Bounding_Coordinate: 25.351

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Natural Gas Pipelines

Theme_Keyword: Brittle Pipelines

Theme_Keyword: Ductile Pipelines

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada

Place_Keyword: New Hampshire

Place_Keyword: New Jersey

Place_Keyword: New Mexico

Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Line

3.3 Point_and_Vector_Object_Information: 2,229

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The natural gas pipeline database file and the individual state and territory files contain 14 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Pipeline Name
Entity_and_Attribute_Detail_Citation: OWNER	Pipeline Owner
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: MATRL	Material Type
Entity_and_Attribute_Detail_Citation: DIAMETER	Nominal Pipe Diameter (inches)
Entity_and_Attribute_Detail_Citation: LENGTH	Section Length (km)
Entity_and_Attribute_Detail_Citation: JOINT	Joint Type
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Pipe Installed
Entity_and_Attribute_Detail_Citation: COST	Repair Cost (thous. \$/segment)
Entity_and_Attribute_Detail_Citation: ELEVAT	Minimum Elevation (ft)
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

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The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.4.2 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Systems: Natural Gas Facilities

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The database was developed from the ATC-25 inventory of lifeline transmission facilities for the conterminous United States. The data were used in the development of the ATC-25 report, Seismic Vulnerability and Impact of Disruption of Lifelines in the Conterminous United States, which was published by the Applied Technology Council in 1991. With the exception of oil and gas pipeline data provided by the National Petroleum Council, the inventory of data generally were provided by the Federal Emergency Management Agency (FEMA) and date from about 1966, unless later updated by FEMA. Risk Management Solutions, Inc. (RMS) processed this data into HAZUS.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with natural gas facilities.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -150.733

East_Bounding_Coordinate: -76.833

North_Bounding_Coordinate: 60.533

South_Bounding_Coordinate: 26.421

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Lifelines

Theme_Keyword: Utility Systems

Theme_Keyword: Natural Gas Facilities

Theme_Keyword: Compressor Stations

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii

Place_Keyword: Idaho

Place_Keyword: Illinois

Place_Keyword: Indiana

Place_Keyword: Iowa

Place_Keyword: Kansas

Place_Keyword: Kentucky

Place_Keyword: Louisiana

Place_Keyword: Maine

Place_Keyword: Maryland

Place_Keyword: Massachusetts

Place_Keyword: Michigan

Place_Keyword: Minnesota

Place_Keyword: Mississippi

Place_Keyword: Missouri

Place_Keyword: Montana

Place_Keyword: Nebraska

Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 1,007

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The natural gas facilities database file and the individual state and territory files contain 27 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (in Million ft ³ /Day)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012
City: Jessup
State or Province: MD
Postal Code: 20794-2012
Contact Voice Telephone: 800-480-2530
Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.5 Electric Power Systems

4.5.1 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Lifelines: Electric Power Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided a single database (electric.dbf) containing 1,183 electric power generation sites to RMS in late 1994. For every site the geographic coordinates were extracted. Eight (8) additional fields were extracted for each site: city, stateabbrvc, zipcode, plantname, utilname, totalcap, fipsstate and fipscounty.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with electric power facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged facilities. In addition, the damage information can also be used to estimate the electrical power availability to households within the region.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: Unknown

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -159.564 degrees

East_Bounding_Coordinate: -65.828

North_Bounding_Coordinate: 64.847

South_Bounding_Coordinate: 18.130

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Utility Lifelines

Theme_Keyword: Electric Power Facilities

Theme_Keyword: Electric Power Generation Plants

Theme_Keyword: Substations

Theme_Keyword: Power Plants

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Connecticut

Place_Keyword: Delaware

Place_Keyword: District of Columbia

Place_Keyword: Florida

Place_Keyword: Georgia

Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences
 1090 Vermont Avenue, NW; Suite 700
 City: Washington
 State: D.C.
 Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 1,183

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The electric power facilities database file and the individual state and territory files contain 25 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design (L, M, or H)
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored (Y or N)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built

Entity_and_Attribute_Detail_Citation: CAPACITY	Capacity (Volts/Watts)
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

4.6 Communication Systems

4.6.1 Facilities

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Utility Lifelines: Communication Facilities Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

This database was developed from data provided to Risk Management Solutions, Inc. (RMS) by FEMA. FEMA provided the data to RMS in late 1994. A total of four (4) databases (ebsbroad.dbf, network.dbf, nodesnet.dbf and weather.dbf) were provided by FEMA. RMS consolidated the data into a single database containing 31,521 sites. For every site in the four databases the geographic coordinates were extracted. From the ebsbroad.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & mediatype. From the network.dbf database one additional fields were extracted for each site: netabbrname. From the nodesnet.dbf database three additional fields were extracted for each site: nodename, stateabbrvc, & city. From the weather.dbf database two additional fields were extracted for each site: loc_name & state.

Purpose:

This data is used to estimate the damage (and resulting loss of functionality) associated with communication facilities for a given earthquake scenario. The damage estimates are subsequently used to compute the estimated cost to repair or replace the damaged communication facilities.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: 19920000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -176.813 degrees

East_Bounding_Coordinate: -64.697

North_Bounding_Coordinate: 71.319

South_Bounding_Coordinate: 17.724

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Utility Lifelines

Theme_Keyword: Communication Facilities

Theme_Keyword: Central Offices
Theme_Keyword: Radio Stations
Theme_Keyword: TV Stations
Theme_Keyword: Television Stations

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: American Samoa
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota

Place_Keyword: Tennessee
 Place_Keyword: Texas
 Place_Keyword: Utah
 Place_Keyword: Vermont
 Place_Keyword: Virgin Islands
 Place_Keyword: Virginia
 Place_Keyword: Washington
 Place_Keyword: West Virginia
 Place_Keyword: Wisconsin
 Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Point

3.3 Point_and_Vector_Object_Information: 31,521

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description:

5.2.1 Entity_and_Attribute_Overview:

The communication facilities database file and the individual state and territory files contain 25 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: NAME	Facility Name
Entity_and_Attribute_Detail_Citation: ADDRESS	Facility Address
Entity_and_Attribute_Detail_Citation: CITY	City
Entity_and_Attribute_Detail_Citation: STATE	State
Entity_and_Attribute_Detail_Citation: ZIPCODE	ZIP Code
Entity_and_Attribute_Detail_Citation: OWNER	Facility Owner
Entity_and_Attribute_Detail_Citation: CONTACT	Contact Person
Entity_and_Attribute_Detail_Citation: PHONE	Telephone Number
Entity_and_Attribute_Detail_Citation: CLASS	Analysis Class
Entity_and_Attribute_Detail_Citation: FUNCTION	Function of Facility
Entity_and_Attribute_Detail_Citation: BLDG_TYPE	Model Building Type
Entity_and_Attribute_Detail_Citation: DESIGNLVL	Seismic Design (L, M, or H)
Entity_and_Attribute_Detail_Citation: FOUNDATION	Foundation Type
Entity_and_Attribute_Detail_Citation: BU_PWR	Back-up Power (Y = Yes, N= No)
Entity_and_Attribute_Detail_Citation: ANCHOR	Equipment Anchored (Y or N)
Entity_and_Attribute_Detail_Citation: YEAR_B	Year Facility Was Built
Entity_and_Attribute_Detail_Citation: COST	Replacement Cost (thous. \$)
Entity_and_Attribute_Detail_Citation: ELEVAT	Elevation of Facility (ft)
Entity_and_Attribute_Detail_Citation: LAT	Latitude of Facility
Entity_and_Attribute_Detail_Citation: LONG	Longitude of Facility
Entity_and_Attribute_Detail_Citation: GEORES	Geocoding Results Code
Entity_and_Attribute_Detail_Citation: COUNTY	County FIP Code
Entity_and_Attribute_Detail_Citation: COMMENT	Misc. Comments
Entity_and_Attribute_Detail_Citation: ID_	HAZUS Internal ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

5 Social Parameters

5.1 Demographic Data

1. Identification_Information:

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Social Parameters: Demographic Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>,
<http://www.census.gov/>.

1.2 Description:

Abstract:

The database was developed from data provided by the U.S. Census Bureau at the census tract level. Risk Management Solutions, Inc. (RMS) processed the 1990 version of this data into HAZUS.

The contact information for the U.S. Census Bureau is: U.S. Census Bureau, 4700 Silver Hill Road, Suitland, MD 20746.

Purpose:

This data is used to estimate the social losses. These include expected casualties and shelter demand.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19900000

Ending_Date: 19900000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -187.637 degrees

East_Bounding_Coordinate: -64.570

North_Bounding_Coordinate: 71.434

South_Bounding_Coordinate: 17.681

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Inventory

Theme_Keyword: Demographics

Theme_Keyword: Population

Theme_Keyword: Households

Place:

Place_Keyword: USA

Place_Keyword: Alabama

Place_Keyword: Alaska

Place_Keyword: Arizona

Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Connecticut
Place_Keyword: Delaware
Place_Keyword: District of Columbia
Place_Keyword: Florida
Place_Keyword: Georgia
Place_Keyword: Hawaii
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Iowa
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Louisiana
Place_Keyword: Maine
Place_Keyword: Maryland
Place_Keyword: Massachusetts
Place_Keyword: Michigan
Place_Keyword: Minnesota
Place_Keyword: Mississippi
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: Puerto Rico
Place_Keyword: Rhode Island
Place_Keyword: South Carolina
Place_Keyword: South Dakota
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virgin Islands
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: West Virginia
Place_Keyword: Wisconsin
Place_Keyword: Wyoming

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1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Polygon

3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

Geographic Coordinate System (Longitude/Latitude)

Latitude Resolution: Unknown

Longitude Resolution: Unknown

Geographic Coordinate Units: Decimal Degrees

4.1.4 Geodetic_Model:

Horizontal Datum Name: North American Datum of 1983

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

5.2 Overview_Description

5.2.1 Entity_and_Attribute_Overview:

The demographics database file and the individual state and territory files contain 38 fields.

Entity_and_Attribute_Detail_Citation: TRACT

Census Tract Number

Entity_and_Attribute_Detail_Citation: POP

Total Population in Census Tract

Entity_and_Attribute_Detail_Citation: HHLD

Total Household in Census Tract

Entity_and_Attribute_Detail_Citation: GQ

Total Number of People in General Quarter

Entity_and_Attribute_Detail_Citation: AGE_16

Total Number of People < 16 years old

Entity_and_Attribute_Detail_Citation: AGE16_65

Total Number of People 16-65 years old

Entity_and_Attribute_Detail_Citation: AGE_65

Total Number of People > 65 years old

Entity_and_Attribute_Detail_Citation: RC_W	Total Number of People - White
Entity_and_Attribute_Detail_Citation: RC_B	Total Number of People - Black
Entity_and_Attribute_Detail_Citation: RC_NA	Total Number of People - Native American
Entity_and_Attribute_Detail_Citation: RC_A	Total Number of People - Asian
Entity_and_Attribute_Detail_Citation: RC_H	Total Number of People - Hispanic
Entity_and_Attribute_Detail_Citation: INC_10	Total # of Households with Income < \$10,000
Entity_and_Attribute_Detail_Citation: INC10_15	Total # of Households with Income \$10 - \$15K
Entity_and_Attribute_Detail_Citation: INC15_25	Total # of Households with Income \$15 - \$25K
Entity_and_Attribute_Detail_Citation: INC25_35	Total # of Households with Income \$25 - \$35K
Entity_and_Attribute_Detail_Citation: INC_35	Total # of Households with Income > \$35,000
Entity_and_Attribute_Detail_Citation: RES_D	Total in Residential Property during Day
Entity_and_Attribute_Detail_Citation: RES_N	Total in Residential Property at Night
Entity_and_Attribute_Detail_Citation: COM_WRK	Total Working Population in Commercial Industry
Entity_and_Attribute_Detail_Citation: IND_WRK	Total Working Population in industrial Industry
Entity_and_Attribute_Detail_Citation: COMM	Total Commuting at 5 PM
Entity_and_Attribute_Detail_Citation: HUOO_SHU	Total Owner Occupied - Single Household Units
Entity_and_Attribute_Detail_Citation: HUOO_MHU	Total Owner Occupied - Multi-Household Units
Entity_and_Attribute_Detail_Citation: HUOO_MHS	Total Owner Occupied - Multi-Household Structure
Entity_and_Attribute_Detail_Citation: HUOO_MOB	Total Owner Occupied - Mobile Homes
Entity_and_Attribute_Detail_Citation: HURO_SHU	Total Renter Occupied - Single Household Units
Entity_and_Attribute_Detail_Citation: HURO_MHU	Total Renter Occupied - Multi-Household Units
Entity_and_Attribute_Detail_Citation: HURO_MHS	Total Renter Occupied - Multi-Household Structure
Entity_and_Attribute_Detail_Citation: HURO_MOB	Total Renter Occupied - Mobile Homes
Entity_and_Attribute_Detail_Citation: HUV_SHU	Total Vacant - Single Household Units
Entity_and_Attribute_Detail_Citation: HUV_MHU	Total Vacant - Multi-Household Units
Entity_and_Attribute_Detail_Citation: HUV_MHS	Total Vacant - Multi-Household Structure
Entity_and_Attribute_Detail_Citation: HUV_MOB	Total Vacant - Mobile Homes
Entity_and_Attribute_Detail_Citation: HU_U40	Structures Built Prior to 1940
Entity_and_Attribute_Detail_Citation: HU_O40	Structures Built After 1940
Entity_and_Attribute_Detail_Citation: HURO_AV	Average Rent per Rented Occupied Unit
Entity_and_Attribute_Detail_Citation: HUOO_AV	Average Value per Owner Occupied Unit

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

6 Potential Earth Science Hazards (PESH) Data

6.1 Historical Epicenter

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19970601

Title: HAZUS: Hazard Data: Historical Epicenter Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The National Geophysical Data Center (NGDC) in Boulder Colorado provided the data used to develop this database. The NGDC seismicity catalog contains over 4 million earthquakes dating from 2100bc to 1985. The NGDC data information of epicentral time of origin, location, magnitude, depth and other earthquake related parameters.

To develop the HAZUS historic epicenter database, earthquakes with magnitude equal to 5.0 or greater were selected from the NGDC database. The earthquake epicenters ($M \geq 5.0$) were plotted and epicenters that were not expected to cause significant ground motion in the United States were discarded. For the remaining epicenters, the date, magnitude, depth and catalog information was extracted. The HAZUS epicenter database contains 3,497 epicenters.

To order an updated seismicity catalog from the NGDC, contact NOAA EGCC/1, 325 Broadway, Boulder, CO 8030. The phone number is (303) 497-6277 and the email address is seginfo@ngdc.noaa.gov. The NGDC website is: <http://www.ngdc.noaa.gov/>

Purpose:

This data is used in HAZUS to define an earthquake scenario. It is often of interest for the HAZUS user to estimate the effects of a historical earthquake on the region using the current economic and demographic conditions

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 2100 BC

Ending_Date: 19850000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -179.97 degrees

East_Bounding_Coordinate: -50.0

North_Bounding_Coordinate: 73.0

South_Bounding_Coordinate: 21.12

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Hazard

Theme_Keyword: Historical Epicenters

Theme_Keyword: Earthquake Epicenters

Theme_Keyword: Epicenter
Theme_Keyword: Hypocenter
Theme_Keyword: Seismology

Place:

Place_Keyword: USA
Place_Keyword: Alabama
Place_Keyword: Alaska
Place_Keyword: Arizona
Place_Keyword: Arkansas
Place_Keyword: California
Place_Keyword: Colorado
Place_Keyword: Delaware
Place_Keyword: Idaho
Place_Keyword: Illinois
Place_Keyword: Indiana
Place_Keyword: Kansas
Place_Keyword: Kentucky
Place_Keyword: Maine
Place_Keyword: Minnesota
Place_Keyword: Missouri
Place_Keyword: Montana
Place_Keyword: Nebraska
Place_Keyword: Nevada
Place_Keyword: New Hampshire
Place_Keyword: New Jersey
Place_Keyword: New Mexico
Place_Keyword: New York
Place_Keyword: North Carolina
Place_Keyword: North Dakota
Place_Keyword: Ohio
Place_Keyword: Oklahoma
Place_Keyword: Oregon
Place_Keyword: Pennsylvania
Place_Keyword: South Carolina
Place_Keyword: Tennessee
Place_Keyword: Texas
Place_Keyword: Utah
Place_Keyword: Vermont
Place_Keyword: Virginia
Place_Keyword: Washington
Place_Keyword: Wyoming

1.7 Access_Constraints: None

1.8 Use_Constraints: None

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:
Contact_Person: Philip Schneider

Contact_Address:
Address_Type: mailing and physical address
Address:

National Institute of Building Sciences
 1090 Vermont Avenue, NW; Suite 700
 City: Washington
 State: D.C.
 Postal Code: 20005
 Contact_Voice_Telephone: 202-289-7800
 Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

- 2.1 Attribute_Accuracy: Unknown
- 2.2 Logical_Consistency_Report: Unknown
- 2.3 Completeness_Report: Unknown
- 2.4 Positional_Accuracy: Unknown
- 2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

- 3.1 Indirect_Spatial_Reference:
- 3.2 Direct_Spatial_Reference_Method: Point
- 3.3 Point_and_Vector_Object_Information: 3,497

4. Spatial_Reference_Information

- 4.1 Horizontal_Coordinate_System_Definition:
 - 4.1.1 Geographic:
 - Geographic Coordinate System (Longitude/Latitude)
 - Latitude Resolution: Unknown
 - Longitude Resolution: Unknown
 - Geographic Coordinate Units: Decimal Degrees
 - 4.1.4 Geodetic_Model:
 - Horizontal Datum Name: North American Datum of 1983
- 4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information

- 5.2 Overview_Description:
 - 5.2.1 Entity_and_Attribute_Overview:
 - The historical epicenter database file contains 8 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: STATE	State where Earthquake happened
Entity_and_Attribute_Detail_Citation: MAGNITUDE	Historical Earthquake Magnitude
Entity_and_Attribute_Detail_Citation: YEAR	Year of the Historical Earthquake
Entity_and_Attribute_Detail_Citation: MONTH	Month of the Historical Earthquake
Entity_and_Attribute_Detail_Citation: DATE	Date of the Historical Earthquake
Entity_and_Attribute_Detail_Citation: DEPTH	Depth of the Earthquake
Entity_and_Attribute_Detail_Citation: CATOLOG	Earthquake-based catalog

6. Distribution Information

- 6.1 Distributor
 - Contact Organization Primary: FEMA Distribution Center
 - Contact Address:
 - Address_Type: mailing address
 - Address: P.O. Box 2012
 - City: Jessup

State or Province: MD
Postal Code: 20794-2012
Contact Voice Telephone: 800-480-2530
Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata_Reference_Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

6.2 National Earthquake Fault Database

1. Identification_Information

1.1 Citation:

Citation Information:

Originator: Risk Management Solutions, Inc. Menlo Park CA developed this database under contract to the National Institute of Building Sciences.

Publication_Date: 19991101

Title: HAZUS: Hazard Data: National Earthquake Fault Database

On-line Linkage: <http://www.fema.gov/hazus/>, <http://www.nibs.org/hazus/>.

1.2 Description:

Abstract:

The United States Geological Survey (USGS) in Golden Colorado provided comprehensive fault database that was used to create the database. The database is consistent with the earthquake fault data used to develop the National Seismic Hazard Maps.

In addition to the national earthquake fault data, the USGS project website, <http://geohazards.cr.usgs.gov/eq/>, has a comprehensive set of information on seismic hazard.

The HAZUS fault database is public domain information that can be freely distributed, except for the portion of the faults located in California and Nevada. Both states have provided limitations on the distribution of the data specific to their respective states.

For earthquake fault data (or related information) in California, contact California Department of Mines and Geology (CDMG), 801 K Street, MS14-34, Sacramento, CA 95814 (916) 327-1850. The CDMG website address is: <http://www.consrv.ca.gov/dmg/>.

For earthquake fault data (or related information) in Nevada, contact Nevada Bureau of Mines and Geology (NBMG), Mail Stop 178, University of Nevada, Reno NV 89557 (775) 784-6691. The NBMG website address is: <http://www.nbmgs.unr.edu/>.

Purpose:

This data is used in HAZUS to define an earthquake scenario. It is often of interest for the HAZUS user to estimate the effects of a historical earthquake on the region using the current economic and demographic conditions.

1.3 Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: Unknown

Ending_Date: 19980000

1.4 Status:

Progress: Complete

Maintenance_and_Update_Frequency: As needed

1.5 Spatial_Domain

Bounding_Coordinates:

West_Bounding_Coordinate: -126.388

East_Bounding_Coordinate: -104.595

North_Bounding_Coordinate: 48.089

South_Bounding_Coordinate: 30.457

1.6 Keywords:

Theme:

Theme_Keyword: HAZUS

Theme_Keyword: Hazard

Theme_Keyword: Earthquake Faults

Theme_Keyword: Fault Traces

Theme_Keyword: Faults

Place:

Place_Keyword: USA

Place_Keyword: Arizona

Place_Keyword: California

Place_Keyword: Colorado

Place_Keyword: Idaho

Place_Keyword: Montana

Place_Keyword: Nevada

Place_Keyword: New Mexico

Place_Keyword: Oregon

Place_Keyword: Texas

Place_Keyword: Utah

Place_Keyword: Washington

Place_Keyword: Wyoming

1.7 Access_Constraints: Access to database requires password: The point of contact can provide the required password.

1.8 Use_Constraints: Use of this information is limited by the United States Geological Survey, California Department of Mines and Geology and the Nevada Department of Mines and Geology.

1.9 Point_of_Contact

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

2. Data_Quality_Information

2.1 Attribute_Accuracy: Unknown

2.2 Logical_Consistency_Report: Unknown

2.3 Completeness_Report: Unknown

2.4 Positional_Accuracy: Unknown

2.5 Lineage: Unknown

3. Spatial_Data_Organization_Information

3.1 Indirect_Spatial_Reference:

3.2 Direct_Spatial_Reference_Method: Polyline

3.3 Point_and_Vector_Object_Information:

4. Spatial_Reference_Information

4.1 Horizontal_Coordinate_System_Definition:

4.1.1 Geographic:

4.1.4 Geodetic_Model:

4.2 Vertical_Coordinate_System_Definition: Not Applicable

5. Entity_and_Attribute_Information:

5.2 Overview_Description:

5.2.1 Entity_and_Attribute_Overview:

The national earthquake fault database file contains 14 fields.

Entity_and_Attribute_Detail_Citation: ID	Identifier
Entity_and_Attribute_Detail_Citation: STATE	State where the Fault is Located
Entity_and_Attribute_Detail_Citation: FAULT_NAME	Name of the fault
Entity_and_Attribute_Detail_Citation: MAX_MAG	Maximum Magnitude
Entity_and_Attribute_Detail_Citation: FAULT_TYPE	Fault Mechanism
Entity_and_Attribute_Detail_Citation: LENGTH	Length of the Fault
Entity_and_Attribute_Detail_Citation: DIP	Dip Angle

Entity_and_Attribute_Detail_Citation: WIDTH	Width of the Fault Plane
Entity_and_Attribute_Detail_Citation: CHAR_MAG	Characteristic Magnitude
Entity_and_Attribute_Detail_Citation: DEPTH	Depth of the Fault Plane
Entity_and_Attribute_Detail_Citation: BEGNODE	Starting Node
Entity_and_Attribute_Detail_Citation: ENDNODE	Ending Node
Entity_and_Attribute_Detail_Citation: BEGID	Beginning ID
Entity_and_Attribute_Detail_Citation: ENDID	Ending ID

6. Distribution Information

6.1 Distributor

Contact Organization Primary: FEMA Distribution Center

Contact Address:

Address_Type: mailing address

Address: P.O. Box 2012

City: Jessup

State or Province: MD

Postal Code: 20794-2012

Contact Voice Telephone: 800-480-2530

Contact FAX Number: 301-362-5335

6.2 Resource Description

N/A

6.3 Distribution Liability

No warranty expressed or implied is made by FEMA regarding the utility of the data on any other system nor shall the act of distribution constitute any such warranty. FEMA will warrant the delivery of this product in a computer-readable format, and will replace if the product is determined unusable, or when the physical medium is delivered in damaged condition.

6.4 Standard Order Process

The HAZUS order form can be downloaded from the FEMA website (<http://www.fema.gov/hazus/hazus6c.htm>). Completed order forms should be mailed or faxed to the FEMA distribution center.

6.5 Custom Order Process

N/A

7. Metadata Reference Information

7.1 Metadata_Date: 20010301

7.2 Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Philip Schneider

Contact_Address:

Address_Type: mailing and physical address

Address:

National Institute of Building Sciences

1090 Vermont Avenue, NW; Suite 700

City: Washington

State: D.C.

Postal Code: 20005

Contact_Voice_Telephone: 202-289-7800

Contact_Electronic_Mail_Address: pschneider@nibs.org

7.3 Metadata_Standard_Name: FGDC Content Standard for Digital Geospatial Metadata

7.4 Metadata_Standard_Version: FGDC-STD-001-1998

7 Glossary

Most of the terms and definitions are from Department of Commerce, 1992, Spatial Data Transfer Standard (SDTS) (Federal Information Processing Standard 173): Washington: Department of Commerce, National Institute of Standards and Technology.

Accuracy

The closeness of results of observations, computations or estimates to the values accepted as true.

Attribute

A defined characteristic of an entity type (e.g., composition).

Attribute Domain Values

The valid values that can be assigned for an attribute.

Bounding Coordinates

The limits of coverage of a dataset expressed by latitude and longitude values in the order western-most, eastern-most, northern-most, and southern-most. For datasets that include a complete band of latitude around the earth, the West Bounding Coordinate shall be assigned the value -180.0, and the East Bounding Coordinate shall be assigned the value 180.0.

Citation Information

The recommended reference to be used for the dataset.

Completeness Report

Information about omissions, selection criteria, generalization, definitions used, and other rules used to derive the dataset.

Coordinates

Pairs of numbers expressing horizontal distances along orthogonal axes; alternatively, triplets of numbers measuring horizontal and vertical distances.

Data Quality Information

A general assessment of the quality of the dataset.

Description

A characterization of the dataset, including its intended use and limitations.

Distribution Liability

Statement of the liability assumed by the distributor.

Domain

In the definition of the elements in the metadata standard, the domain identifies valid values for a data element.

Lineage

Information about the events, parameters, and source data, which constructed the dataset, and information about the responsible parties.

Point and Vector Object Information

The types and numbers of vector or nongridDED point spatial objects in the dataset.

Geographic

The quantities of latitude and longitude, which define the position of a point on the Earth's surface with respect to a reference spheroid

Geospatial data

Information that identifies the geographic location and characteristics of natural or constructed features and boundaries on the earth. This information may be derived from, among other things, remote sensing, mapping, and surveying technologies.

Horizontal

Tangent to the geoid or parallel to a plane that is tangent to the geoid.

Horizontal Coordinate System Definition

The reference frame or system from which linear or angular quantities are measured and assigned to the position that a point occupies

Horizontal Positional Accuracy Report

An explanation of the accuracy of the horizontal coordinate measurements and a description of the tests used.

Latitude

Angular distance measured on a meridian north or south from the equator.

Lineage

Information about the events, parameters, and source data, which constructed the dataset, and information about the responsible parties.

Longitude

Angular distance between the plane of a meridian east or west from the plane of the meridian of Greenwich.

Maintenance and Update Frequency

The frequency with which changes and additions are made to the dataset after the initial dataset is completed.

Map

A spatial representation, usually graphic on a flat surface, of spatial phenomena.

Map Projection

The systematic representation of all or part of the surface of the Earth on a plane or developable surface.

Metadata

Data about the content, quality, condition, and other characteristics of data.

Metadata Contact

The party responsible for the metadata information.

Metadata Standard Name

The name of the metadata standard used to document the dataset.

Metadata Standard Version

Identification of the version of the metadata standard used to document the dataset.

National Geospatial Data Clearinghouse

A distributed network of geospatial data producers, managers, and users linked electronically. Building on initiatives such as the national information infrastructure, the clearinghouse uses a distributed, electronically connected network, such as the Internet. Each data provider will describe available data in an electronic form, and provide these descriptions (or "metadata") using means that can be accessed over a communications network. Thus, the data for the clearinghouse are located at the sites of data producers (or, where more efficient, at the sites of intermediaries) throughout the country. Using the network, users will search these descriptions to locate data that are suitable for their applications.

Point of Contact

Contact information for an individual or organization that is knowledgeable about the dataset.

Place

Geographic locations characterized by the dataset.

Place Keyword

The geographic name of a location covered by a dataset.

Positional Accuracy

An assessment of the accuracy of the positions of spatial objects.

Resolution

The minimum difference between two independently measured or computed values, which can be distinguished by the measurement or analytical method being considered or used.

Source Contribution

Brief statement identifying the information contributed by the source to the dataset.

Spatial Reference Information

The description of the reference frame for, and the means to encode, coordinates in the dataset.

Standard Order Process

Ways in which the dataset may be obtained or received, and related instructions and fee information.

Status

The state of and maintenance information for the dataset.

Temporal

Time period(s) characterized by the dataset.

Theme

Subjects covered by the dataset

Theme Keyword

Common-use word or phrase used to describe the subject of the dataset.

Time Period of Content

Time period(s) for which the dataset corresponds to the currentness reference.

Use Constraints

Restrictions and legal prerequisites for using the dataset after access is granted. These include any use constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on using the dataset.

8 References

The following is a list of links that contain useful information on Metadata and which were reviewed while preparing this Appendix:

1. <http://www.fgdc.gov/metadata/metadata.html>
2. <http://www.sdvc.uwyo.edu/metadata/>
3. <http://www.epa.gov/epahome/aboutepa.htm>
4. <http://biology.usgs.gov/fgdc.metadata/version2/>
5. <http://www.wessex.com/wessex/index.cfm>
6. <http://corpsgeo1.usace.army.mil/>
7. <http://www.sdvc.uwyo.edu/metadata/education.html>
8. <http://oaspub.epa.gov/>
9. <http://neic.usgs.gov/neis/states/states.html>
10. <http://www.dnb.com/>
11. <http://geohazards.cr.usgs.gov/eq/html/data.shtml>
12. <http://edc.usgs.gov/doc/edchome/datasets/edcdata.html>
13. <http://www.fhwa.dot.gov/>
14. <http://crunch.tec.army.mil/nid/webpages/nid.cfm>
15. <http://www.census.gov/>
16. <http://www.atcouncil.org/>
17. <http://www.ngdc.noaa.gov/products/fliers.html>
18. <http://www.nrc.gov/NRC/REACTOR/GEOSPATIAL/lvsites.html>