

Division of Environmental Response & Revitalization

# Ohio Hazardous Waste Report File Specification Guide Version 1.3

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## 1.0 INTRODUCTION

The material in this guide covers submissions by regulated facilities to Ohio EPA's Division of Environmental Response & Revitalization (DERR) via the import feature of the eBusiness Center's Hazardous Waste Report Service, also known as eDRUMS. This document describes the file specifications to be used to create the import files, which are based on U.S. EPA's *RCRAInfo File Specification Guide: Hazardous Waste Report Submissions (June 2019)* available on [RCRAInfo Web](#).

This document is designed to be used in conjunction with Ohio EPA's Hazardous Waste Report instructions and forms that are referenced throughout this document. You should have a complete copy of the instructions and forms in your possession while using this guide. Adobe Acrobat versions of the instructions and forms are available at <https://epa.ohio.gov/wps/portal/gov/epa/divisions-and-offices/environmental-response-revitalization/reports-and-data/hazardous-waste-reporting>.

### 1.1 Overview of Document

The *Ohio EPA File Specification Guide for Hazardous Waste Report Submissions* is divided into five sections with two appendices. The appendices provide background material as well as detailed technical information necessary to properly prepare file submissions.

*Section 1 (Introduction)* defines the intended audience for this guide, offers a brief description of the forms contained in the Hazardous Waste Report, and describes the general purpose and outline of this document.

*Section 2 (Changes from Previous Cycles)* outlines the major changes to the Hazardous Waste Report from previous report cycles.

*Section 3 (Data Submission Overview)* describes the overall characteristics for a data submission.

*Section 4 (Technical Specifications)* discusses the technical details of the data files and programs necessary for data submission.

*Section 5 (Submission and Status Report Instructions)* will provide detailed instructions on how to submit Report flat files to Ohio EPA via eDRUMS.

*Appendix A – Flat File Specifications and Data Edits*

*Appendix B – Country & Foreign State Code Lists*

### 1.2 Intended Audience

The intended audience for this guide is any hazardous waste facility that is using its own software and procedures to extract hazardous waste data from a system for submission to Ohio EPA for the Hazardous Waste Report, or any commercial software vendor who is creating software for use/purchase by facilities for preparation of Ohio's Hazardous Waste Report.

This document was written assuming the reader is familiar with the Hazardous Waste

Report instructions and forms and understands basic computer concepts and terminology.

### 1.3 Hazardous Waste Report Forms

The Hazardous Waste Biennial Report captures information on the following forms:

#### RCRA Subtitle C Site Identification Form

The Site Identification (Site ID) Form (EPA 9029) collects information on the site completing the Hazardous Waste Report forms package. Because Ohio EPA's version of the Site ID Form is slightly different from U.S. EPA's in content and field lengths, DERR decided not to adopt use of the federal SI files. After the import of the GM and/or WR + OI records is complete, eDRUMS users will enter the Site ID Form directly using the screens provided.

#### GM Form

The Generation and Management (GM) Form (EPA 9028) is used for reporting on-site hazardous waste generation, management, and off-site shipment. The GM Form is divided into four sections that document 1) the source, characteristics, and quantity of hazardous waste generated; 2) the quantity of hazardous waste managed on-site along with the management method used; 3) the quantity of hazardous waste shipped off-site for treatment, disposal, or recycling along with the off-site management method; and 4) the quantity of hazardous waste remaining on-site in permitted storage units or inactive disposal units. The latter is not on the federal forms.

Facilities submit GM Form information via the GM1, GM2, GM4, GM5, GM6, and GM6A flat files. Ohio does not have state-specific waste codes and therefore file GM3 should not be submitted.

#### WR Form

The Waste Received from Off-site (WR) Form (EPA 9026) identifies hazardous wastes that were received from other hazardous waste sites and the method(s) used to manage them. The WR Form is divided into two parts, with the off-site generator's identification information at the top and identical repeating sections below for reporting the quantities and characteristics of each hazardous waste received from that generator during the reporting year.

Facilities submit WR Form information via the WR1 and WR2 flat files. Ohio does not have state-specific waste codes and therefore file WR3 should not be submitted. Note that Ohio's WR form captures generator name and address on the WR Form while in the federal version this data is recorded on the OI Form (see below).

#### OI Form

Ohio EPA's Off-site Transporter and Receiving Facility Information (OI) Form (EPA 9027) captures the names and addresses of off-site receiving facilities and transporters. As noted above for the WR Form, generator name and address information is reported here in the federal OI file rather than in a WR file. The generator's EPA ID is present in both the WR and OI files and links them together. It must be unique for that generator. The generator name and address information in the OI file will be populated into the WR form during the eDRUMS data import process.

### PS Form

Ohio EPA's Process Systems for Treatment, Disposal, or Recycling (PS) Form (EPA 9030) captures the amount of waste commercially processed in each treatment, disposal, or recycling system at facilities that submit WR Forms. Each management method reported in WR records must have a corresponding PS Form. Because there is no federal file specification for this form and the number of records is not large, commercial receiving facilities will directly enter the PS Form(s) using the screens provided, after the import of the other records is complete.

## 1.3 Data Files

Hazardous Waste Report information from a facility is submitted to Ohio EPA via the eBusiness Center service eDRUMS by importing a set of flat files. Each file contains information that relates to the form in a one-to-one (1:1) relationship (e.g., GM Form, Section 1, Box C, Source Code). These data elements are captured in the primary flat file for that form (i.e., GM1, WR1, and OI1). Information that relates to the form in a many-to-one ( $n:1$ ) relationship (e.g., GM Form, Section 1, Box B, hazardous waste codes) is captured in secondary flat files (GM2, GM4, GM5, GM6, GM6A, and WR2).

The remainder of this document describes in detail the steps necessary to ensure a successful data submission including identifying the types of files that must be included with each submission, the content of each file, and technical aspects of the file creation process.

## 1.4 Questions/Comments

Questions about this document or the file import should be directed to Hazardous Waste Information Management Staff in DERR, at 614-644-2924, or [HWannualreport@epa.ohio.gov](mailto:HWannualreport@epa.ohio.gov)

## 2.0 DIFFERENCES BETWEEN OHIO AND U.S. EPA REPORTING FORMS

Ohio's reporting forms are different from U.S. EPA's in certain respects. Refer to the Appendix for file-specific layout details and edit checks.

### Site ID Form

- Because Ohio EPA's version of the Site ID Form is slightly different from U.S. EPA's in content and field lengths, the decision was made to not adopt use of the federal SI files. After the import of the GM and/or WR + OI records is complete, eDRUMS users will enter the Site ID Form directly using the screens provided.
- 72-Hour Recycler: The hazardous waste activity "72-Hour Recycler" is based on state rules adopted 9/5/2010 and is not present on U.S. EPA's Site ID Form.
- Ohio-defined Universal Wastes: Rules adopted 12/21/2017 allow the following to be managed as Universal Waste in Ohio: Aerosol containers; antifreeze; and paint and paint-related waste. The federal Site ID Form doesn't have boxes for these waste types.
- An advantage to direct entry of the Site ID Form is that when changes occur to the form, the translation program to create the flat files doesn't have to be modified.

### GM Form

- *Quantity Generated in Previous Reporting Year.* U.S. EPA's form no longer collects this field and therefore it is not present in the GM1 file. It is optional on Ohio EPA's form and in eDRUMS.

- Ohio has never accepted the *Form Code LABP* for lab packs. You must use W001 or W004.
- *Section 4, On-site Waste Storage and Inactive Disposal Units.* U.S. EPA's form does not collect this information which is required by Ohio Administrative Code (OAC) rules 3745-54-75 and 3745-65-75. You have the option of entering this data after import is complete or creating and importing the Ohio-specific GM6 and GM6A files, which were new for the 2010 cycle.

#### WR Form

- *Page and sub-page numbering.* U.S. EPA's WR form allows multiple customers to be reported on a single paper form with a maximum of three waste records per form. The customer's name and address are reported on the OI Form and is linked to the WR Form by the EPA ID number. Conversely, on Ohio EPA's WR Form, one customer is listed per form with a three-waste maximum on the paper form, and an unlimited number of wastes allowed per customer in the formerly used import file specifications. In Ohio, the customer name and address is reported on the WR Form and not the OI Form. Because the federal sub-page field is one character in length, incrementing this value for unlimited wastes is not possible. Therefore, each WR waste record should be output with a unique page number and a default sub-page value of 1. (See OI Form below for more information on customer identification.)
- Ohio has never accepted the *Form Code LABP* for lab packs. You must use W001 or W004.

#### OI Form

- *Generator Flag.* As explained above, Ohio EPA's WR Form collects the customer name and address information but in U.S. EPA's forms, it appears on the OI Form with the "Generator" check box marked. Because Ohio EPA is using the federal file specifications the customer identification information will need to be imported in the OI Form flat files, not the WR file. During the import process it will be translated back to the WR Form. After the import the user will be able to sort the list of WR records by customer or page number.

#### PS Form

- The PS Form data will not be included as an import file because there is no federal equivalent. After the import of the other records is complete, users will directly enter the PS Form(s) using the screens provided.

### 3.0 CHANGES FROM PREVIOUS REPORTING CYCLES

#### 2021 Cycle

There are no changes to the Site ID, GM, OI, WR, and PS Forms for the 2021 reporting cycle. Ohio EPA adopted the Generator Improvement and Pharmaceutical rules and they were effective on 10/5/2020. eDRUMS had already been updated for the 2019 cycle to include elements added by these rules in case they became effective during 2019.

A new Addendum form is to be used for reporting LQG Consolidation of VSQG Hazardous Waste. Because this is part of the Site ID Form, this data is entered directly, not imported.

Two new GM Form Source Codes were added:

- G51: Hazardous waste received by an LQG from VSQGs under the control of the same person
- G76: Evaluated hazardous waste pharmaceuticals accumulated by a reverse distributor

Reverse Distributors of hazardous waste pharmaceuticals must now file a Report per OAC rule 3745-266-510(C)(9) effective in Ohio on 10/5/2020.

Recyclers who do not store recyclable materials before recycling them now must file a Report per OAC rule 3745-51-06(C)(2)(d) effective in Ohio on 10/5/2020.

The following hazardous waste pharmaceutical data validations were added to the eDRUMS electronic reporting service in Ohio EPA's eBusiness Center:

- The waste code PHRM (Hazardous Waste pharmaceutical) cannot be listed on a Site ID Form because hazardous waste pharmaceuticals do not count toward generator status determination and therefore waste codes for them should not be reported
- The waste code PHRM can only be reported on a GM Form if the Source Code is G61 (transshipped) and the Form Code is W005, Hazardous waste pharmaceutical. Any waste that doesn't count toward generator status determination is not reportable. Only receivers who transfer hazardous waste pharmaceuticals without prior treatment should report this waste on GM Forms with the PHRM waste code.
- The waste code PHRM can only be listed on a WR Form if the Form Code is W005.
- Records that are imported to eDRUMS will be subject to these same GM and WR Form data validations.

## 2019 Cycle

US EPA has moved the Radioactive Mixed Waste Y/N field from the Site ID Form to the GM Form (GM1 file) at the end of the line in column 539. This field cannot be blank.

One new Form Code and multiple Source Codes and Management Method Codes were added. See the report instructions for a list.

## 2017 Cycle - OI Form Content and Field Lengths

For the 2017 cycle, US EPA revised the OI Form specifications and this resulted in changes to the columns after Off-Site Installation Name. They added fields for Street Number (which Ohio EPA does not use) and Country. If the Country is United States, Canada, or Mexico, a State is required.

Some existing fields were given longer lengths. The detailed changes are listed below.

Field Name	Old Starting Column	Old Field Length	New Starting Column	New Field Length	Notes
Name of Off-Site Installation or Transporter	33	40	-	80	Still begins in column 33
Street Number	-	-	113	12	Leave blank since Ohio EPA doesn't have a separate Street Number field
Street Address1	73	30	125	50	Length increased
Street Address2	103	30	175	50	Length increased
City	133	25	225	-	Still 25 characters in length
State	158	2	250	-	Still 2 characters in length
Zip Code	160	9	252	14	Length increased
Country	-	-	266	2	New required field

A Notes field begins in column 268 of the federal flat file but Ohio EPA doesn't have a Notes field for the OI Form, so leave this blank.



Lists of the two-character abbreviations which US EPA and Ohio EPA accept for Country and the states in Canada and Mexico are in Appendix B of this document. They are available as an Excel file upon request.

## 4.0 DATA SUBMISSION OVERVIEW

### 4.1 Data Requirements

Data collected via the Hazardous Waste Report may or may not be required to be included in the submission. For the purposes of this document, “Required” refers to data elements that must be provided and cannot be blank.

Facilities must provide data for required data elements. Flat files containing required data elements include:

- GM Form data (Generation and Management):  
Flat Files GM1, GM2, GM4, GM5
- WR Form data (Waste Received from Off-site):  
Flat Files WR1 and WR2
- OI Form data (Off-site Transporter and Receiving Facility Information)  
Flat File OI1

All data elements must be properly formatted and meet required data quality standards to be loaded via the Hazardous Waste Report Service. The data quality standards for these elements are presented in the Appendix.

### 4.2 User Access and Permissions

The user importing the records must have an eBusiness Center account. They must have one of the following assigned privileges:

- Responsible Official or Delegated Responsible Official who has received approval from DERR to be associated with the facility's data.
- eBusiness Center user who has been delegated the Preparer role for this facility by the approved Responsible Official.
- eBusiness Center user who has been delegated the Read-Only role by the Responsible Official for the facility. However, a Read-Only user will not be able to edit the report after the data is imported.

### 4.3 Flat File Submissions

The Hazardous Waste Report Service provides an interface for submitters to upload a Windows-compatible ZIP file from their local file location. The transfer process extracts the files and stores the data in Oracle database staging tables. The compressed files contained within the ZIP file must be:

- ASCII text;
- column delimited;

- formatted such that each record in the file is followed by a carriage return/line feed;
- formatted per the flat file specifications documented in this booklet.

A submitter is limited to filing data for one facility per ZIP file. The facility's EPA ID number in the first column of the GM1, WR1, and OI1 file must match the facility whose identification information appears in the Create New Hazardous Waste Report screen.

There are no specific file naming conventions that must be followed for the ZIP file, but it is recommended that the name contain the year and an incremental number or the date, in case multiple submissions are attempted. This will help prevent confusion with file identification.

#### 4.4 Amount of Data in a Single Submission

Users may choose to import some of the data and enter the remainder directly after a successful import. For example, the WR and OI files can be imported and then the GM forms entered directly. Once the import completes, the user will enter additional required data (e.g. the Site ID Form) and resolve any errors denoted by red highlighting. Additional cross-form validations occur when the user clicks the Validation button.

#### 4.5 Page and Sub-page Numbering

The GM Form, WR Form, and OI Form allow for multiple form submissions by a facility. Page and sub-page numbers should be assigned as follows:

##### GM Form

The GM Form collects data associated with a single reported waste. Facilities must provide records in the multiple GM files for each waste generated or managed during the reporting cycle. Thus, each page number for the GM flat file records represents a **single** reported waste. All GM flat file records containing data associated with the same waste reported for the same EPA ID will have the same page number. The page number should take the value of "00001" for the first reported waste on the GM Form and is incremented by one (1) for each subsequent reported waste.

##### WR Form

The WR Form collects data associated with each reported waste received from off-site. Translators must provide records in the WR1 and WR2 files for each waste received from off-site. All WR flat file records containing data associated with the same received waste reported for the same handler will have the same page number. The page number takes the value of "00001" for the first received waste on the WR Form and is incremented by one (1) for each separate received waste reported. The sub-page number for the WR Form data must always be assigned the value of "1".

##### OI Form

The OI Form collects data identifying 1) handlers from whom waste was received and/or to whom waste was shipped and 2) all transporters used to ship waste during the reporting cycle. These source, destination, and transporting entities are identified by their EPA ID, name, and address. The EPA ID number of the waste handler is the primary key for the OI Form and not the page number as with GM or WR. Therefore, the page number for all the OI records can be the same. Once imported, the page number is irrelevant because all the OI Form handlers are related to the report document itself rather than to a specific page.

#### 4.6 Data Quality

The imported data must pass a minimum set of data edits as specified in the Appendix. Any data failing to conform to the appropriate data quality edits will result in the rejection of the submission.

#### 4.7 Write Translated Data to Flat Files

Facilities must extract data from their own databases and produce the data in the flat file formats outlined in the Appendix. A complete translation may not necessarily include all flat files. For example, a facility may import WR and OI flat files and enter the GM forms directly.

The flat file specifications for the Hazardous Waste Biennial Report data are based on a series of parent-child relationships. Parent files GM1 and WR1 have one or more child relationships with other flat files. Child records may not exist without the existence of the parent record (e.g., a record for site XYZ cannot exist in the GM2 file if a corresponding record does not exist in the GM1 file).

### 5.0 TECHNICAL SPECIFICATIONS

This section contains the standards that must be met when producing flat files for the Hazardous Waste Report data submission.

#### 5.1 Include Information in National Report Flags

The GM1 and WR1 file specifications include a field labeled “Include Information in the National Hazardous Waste Report”. Its purpose is to allow states to submit to U.S. EPA additional Hazardous Waste Report data (for purposes of data sharing) but keep that data from being included in the National Hazardous Waste Report statistics. Some states have more stringent or broader in scope requirements.

Ohio’s hazardous waste report regulations are the same as U.S. EPA’s and all wastes included on the Hazardous Waste Report forms are required to be reported. Ohio facilities should report “Yes” (Y) for this field.

#### 5.2 Rules and Format Conventions Required for Data Flat Files

The following sub-sections detail the correct field formats for the data in the flat files.

##### 5.2.1 Alphanumeric Fields

Alphanumeric fields are identified in the Appendix as Data Type "A" fields. Data Type "A" fields must be left-justified with all trailing spaces filled with the space character (i.e., ASCII HEX 0x20 or ASCII Decimal 32).

Valid characters for alphanumeric fields are limited to:

~!@#\$%^&\*()\_+={}|~\:;”,.~/1234567890ABCDEFGHIJKLMNQRSTUvwxyz

Invalid characters for alphanumeric fields include:

<>

If the “<” or “>” symbols are used to indicate less than or greater than, it is recommended that these symbols be replaced with “LT” or “GT”.

### 5.2.2 Integer Fields

Integer fields are identified in the Appendix as Data Type "I" fields.

Allowed values for integer fields are numbers 0-9 and the space character (ASCII Hex 0x20 or ASCII Decimal 32).

Examples of incorrect and correct entries for an integer field defined with a length of five (5) are presented in Exhibit 2.

INCORRECT	CORRECT
1A	1
10,000	10000
750.25	750

**Exhibit 2.** Incorrect and Correct Integer Entries

### 5.2.3 Fixed Decimal Fields

Fixed place decimal fields are identified in the Appendix as Data Type "D" fields.

For all "D" field entries, the flat file specifications indicate the number of digits that the data element is allowed before the decimal and after the decimal. For example, D11.6 indicates that the number may have up to 11 digits before the decimal and 6 digits after the decimal (99999999999.999999). The field length includes the decimal character.

Allowed values for fixed decimal fields are numbers 0-9, the decimal character ".", and the space character (ASCII Hex 0x20 or ASCII Decimal 32).

Although some data blocks on the Hazardous Waste Report provide for only one decimal place, the translator flat files may allow additional decimal places to be represented in "D" fields. Exhibit 3 shows incorrect and correct entries in a type "D5.2" field.

INCORRECT	CORRECT
10,032.1	10032.10
10,032A	10032

**Exhibit 3.** Incorrect and Correct Fixed Decimal Entries

### 5.2.4 Sequence Number Fields

Some of the files in the Appendix require a sequence number to be provided for each record. The GM4 file, for example, requires a sequence number for the off-site receiving facility information. The sequence number is needed for data elements which may have more than one value. The sequence number should be assigned the value "0001" for the first occurrence of the sequenced data element in that particular file and should then be incremented by one with each successive occurrence.

### 5.2.5 Negative Numbers

Negative numbers are not allowed in the data submission.

### 5.2.6 Record Termination

Each flat file record must be terminated by a line feed character (ASCII Hex 0x0A or ASCII Decimal 010), or a carriage return character (ASCII Hex 0x0D or ASCII Decimal 013) followed by a line feed character.

### 5.2.7 Empty Fields

For fields that require no response, the field should be filled with the space character (i.e., blanks).

### 5.3 Trade Secret Claims

Facilities who wish to claim that customer identification information reported on Ohio's WR Form should be considered confidential under Ohio's trade secret law must promptly submit a letter substantiating the claim to the Hazardous Waste Report Coordinator in DERR immediately after the Responsible Official has submitted the Hazardous Waste Report electronically to Ohio EPA. The letter must explain how the customer identification information meets the definition of a trade secret per OAC rule 3745-50-30(E). Failure to make a timely confidentiality request constitutes a waiver of the right to prevent public disclosure.

## 6.0 SUBMISSION INSTRUCTIONS

Before attempting a file import, a user should either be a Responsible Official associated with the facility or a user who has been granted access privileges to the data for this facility by the Responsible Official.

### 6.1 Uploading the .ZIP File

- 1) Log in to the State of Ohio Application Portal [OH|ID](#) to access to the Ohio EPA eBusiness Center application. For help in your first visit to the portal, read these [step by step instructions](#).
- 2) In eBusiness Center Home, select the Hazardous Waste Report (eDRUMS) Service.
- 3) Select the facility you wish to import data for. (If you don't see it listed then you haven't been granted any privileges yet by a Responsible Official.)
- 4) In the Create New Hazardous Waste Report screen, scroll down to see the Import Hazardous Waste Report box. Click on the Browse button to locate on your local PC the .zip file you wish to import that contains all the flat files you are submitting.
- 5) Click Upload File.

### 6.2 Error Messages

Error messages will appear in a separate window after the files have been imported. The window has an option for creating a PDF file of the messages. Based on past experience, the more common errors are due to not following the file specifications for field content or length, or populating a field with invalid codes that don't match Ohio EPA's reference list.

### 6.3 Completing the Other Required Forms

After a successful import it is prudent to verify that all the records the user expected to load were indeed imported. In the main eDRUMS screen, a record count appears in parentheses next to the form type label. The user should verify that the last record for each form type was successfully imported. If there are a large number of red-highlighted forms in the main screen, the user may want to investigate those before taking the time to enter the Site ID Form, in case a decision is made to fix errors in the source data and re-create the import files.

The user enters the Site ID Form information by clicking one at a time on the multiple hyperlinks in the Site ID Summary section of the main screen. Other information not imported that also need to be entered as appropriate are PS Form(s) and GM Form Section 4 (On-site Waste Storage and Inactive Disposal Units), if data was not imported for files GM6 and GM6A.

### 6.4 Validation

Once all the required forms are present, click the Validate button at the bottom of the main screen to begin the cross-form validations. Error messages will be displayed at the top of the screen. An example of a cross-form validation is that a receiving facility listed on a GM Form should also be listed as such on an OI Form, and vice versa.

### 6.5 Version Control

There can only be one in-process report stored in eDRUMS at any one time. If a user wishes to perform subsequent imports the current in-process report will need to be deleted first.

### 6.6 Report Deletions

Once successfully imported, users with add/update privileges can delete reports in the Create New Hazardous Waste Report screen at any time prior to the Responsible Official clicking the Submit button to certify the report as final.

### 6.7 Submission to Ohio EPA

A report is officially submitted to Ohio EPA when it is electronically certified by the Responsible Official. This process begins by the Responsible Official's clicking the Submit button at the bottom of the Hazardous Waste Report Summary page. If the report passes all validations for required data, the Responsible Official will then be presented with a screen to enter their PIN and answer one of the security questions they established when they requested the PIN. After the user clicks Submit once more on the Hazardous Waste Report Submission screen the report will officially be submitted to the Ohio EPA and the user will receive a notification email confirming this along with a PDF copy of the report. At this point users will not be able to make changes to their submitted reports without contacting the Hazardous Waste Report Coordinator and requesting that the report status be changed back to Edit.

PINs cannot be shared because they represent the Responsible Official's electronic signature. For additional information on the roles and responsibilities of eBusiness Center users, go to the [Hazardous Waste Reporting web page](#).

## **APPENDIX A - Flat File Specifications and Data Edits**

## A.1 Key for Flat File Tables

### Data Type

A     Alphanumeric

I     Integer

D     Fixed Decimal

## A.2 Flat File Naming Convention

Each file name must contain the file type identification: GM1, GM2, GM4, GM5, GM6, GM6A, WR1, WR2, or OI1.



### A.3 Flat File Specifications and Data Edits

#### FLAT FILE ID# - GM1

**Source Form:** GM      **Description:** Waste Generation and Management Information

This file captures data elements that have 1:1 relationship to the reported waste. These data elements are as follows: GM Sections 1.A and 1.D through 1.G.

Key Fields: Handler ID; Page Number. Each record in the GM1 file must contain a unique combination of the Handler ID and Page Number.

*Note: The GM1 file is REQUIRED for handlers that generated RCRA hazardous waste that was accumulated on-site; managed on-site in a treatment, storage, or disposal unit; shipped off-site for management; and/or remained on-site at the end of the year in a permitted storage area or inactive disposal unit.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM1-190
Page Number	13	5	I	Bottom of Form	Required	GM1-020, GM1-190
Waste Form Code	18	4	A	GM-1-D	Required	GM1-060
Unit of Measure	22	1	A	GM-2-C	Required	GM1-080, GM1-090, GM1-100
Density	23	6	D3.2	GM-2-C	Cond. Required	GM1-090
Density Unit of Measure	29	1	A	GM-2-C	Cond. Required	GM1-100
Management Method (for source code 'G25' only)	30	4	A	GM-1-C	Cond. Required	GM1-050
Waste Minimization Code	34	1	A	GM-1-E	Required	GM1-110
Source Code	35	3	A	GM-1-C	Required	GM1-040, GM1-050
Quantity Generated in Reporting Year	38	18	D11.6	GM-2-B	Required	GM1-070
Include Information in the National Hazardous Waste Report	56	1	A	NA	Required	GM1-180
Waste Stream Description <sup>1</sup>	57	240	A	GM-1-A	Required	GM1-030
Comments/Notes	297	240	A	Middle of back page		

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
Was this Waste Stream Managed On-Site?	537	1	A	GM-2-D	Required	GM1-120, GM1-130, GM1-140
Was this Waste Stream Shipped Off-Site?	538	1	A	GM-3-A	Required	GM1-150, GM1-160, GM1-170
Radioactive Mixed Waste	539	1	A	GM-1-F	Required	GM1-210
<b>Total Record Length:</b>		<b>539</b>				

<sup>1</sup>The length of Waste Stream Description is only 60 characters in Ohio EPA's database but 240 in U.S. EPA's file specifications. Only the first 60 characters will be saved during the import. Be sure to allow a column width of 240 and not 60 or the remaining fields won't be imported properly.

### GM1 Flat File Edit Specifications

Edit Number	Edit Description
GM1-020	Page Number must be greater than zero.
GM1-030	Waste Stream Description must be provided.
GM1-040	Source Code must equal an U.S. EPA-defined source code.
GM1-050	If Source Code equals 'G25' then the Management Method must equal an U.S. EPA-defined management method code else Management Method must equal ''.
GM1-060	Form Code must equal an U.S. EPA-defined form code.
GM1-070	Quantity Generated in Reporting Year must be greater than or equal to zero.
GM1-080	Unit of Measure must equal an Ohio EPA-defined unit of measure (P, T, G, Y, L, or K).
GM1-090	If Unit of Measure equals 'G', 'L', or 'Y', then Density must be greater than zero.
GM1-100	If Unit of Measure equals 'G', 'L', or 'Y', then Density Unit of Measure must equal '1' for lbs/gal or '2' for specific gravity.
GM1-110	Waste Minimization Code must equal an U.S. EPA-defined waste minimization code.
GM1-120	On-Site Management Indicator must equal 'Y' or 'N'.
GM1-130	If On-Site Management Indicator equals 'Y' then at least one corresponding record must exist in GM5.
GM1-140	If On-Site Management Indicator equals 'N' then no corresponding record may exist in GM5.
GM1-150	Off-Site Management Indicator must equal 'Y' or 'N'.
GM1-160	If Off-Site Management Indicator equals 'Y' then at least one corresponding record must exist in GM4.
GM1-170	If Off-Site Management Indicator equals 'N' then no corresponding record may exist in GM4.
GM1-180	Include Information in the National Report must be "Y" for submissions to Ohio EPA.
GM1-190	For each handler and page number in GM1, one record must exist in GM2 or GM3.
GM1-200	If Waste Minimization equals 'Y' or 'N' then Notes must be provided.
GM1-210	Radioactive Mixed Waste must be 'Y' or 'N'

**FLAT FILE ID# - GM2**

**Source Form:** GM                      **Description:** EPA Hazardous Waste Codes

This file captures the information contained in Section 1.B of the GM form. The relationship of these data records to the reported waste is *n:1*, that is, there can be multiple waste codes for each reported waste.

Key Fields: Handler ID; Page Number; EPA Waste Code. Each record in the GM2 file must contain a unique combination of the Handler ID, Page Number, and EPA Waste Code.

*Note: For each waste stream, EPA Hazardous Waste Code information (GM2) is REQUIRED.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM2-010
Page Number	13	5	I	Bottom of form	Required	GM2-010
EPA Hazardous Waste Code	18	4	A	GM-1-B	Required	GM2-020
<b>Total Record Length:</b>		<b>21</b>				

**GM2 Flat File Edit Specifications**

Edit Number	Edit Description
GM2-010	Handler ID and Page Number must exist in GM1.
GM2-020	EPA Waste Code must equal an U.S. EPA-defined waste code.

**FLAT FILE ID# - GM4**

**Source Form:** GM                      **Description:** Off-Site Management Information for the Reported Waste

This file captures off-site treatment information for the reported waste as represented in GM Sections 3.B through 3.D. The relationship of these data records to the reported waste is *n:1*, that is, there can be multiple off-site information for each reported waste.

Key Fields: Handler ID; Page Number; Off-Site Sequence Number. Each record in the GM4 file must contain a unique combination of the Handler ID, Page Number, and Off-Site Sequence Number.

*Note: The GM4 file is REQUIRED for handlers which generated RCRA hazardous waste that was shipped off-site for management.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM4-010
Page Number	13	5	I	Bottom of form	Required	GM4-010
Off-Site Sequence Number	18	5	I	First column Sec. 3	Required	GM4-020
Management Method	23	4	A	GM-3-C	Required	GM4-040
EPA ID Number of the Facility to which Waste was Shipped	27	12	A	GM-3-B	Required	GM4-030
Total Quantity Shipped to EPA ID in Current Reporting Year	39	18	D11.6	GM-3-D	Required	GM4-050
<b>Total Record Length:</b>		<b>56</b>				

### GM4 Flat File Edit Specifications

Edit Number	Edit Description
GM4-010	Handler ID and Page Number must exist in GM1.
GM4-020	Off-Site Sequence must be greater than zero.
GM4-030	EPA ID Number of the Facility to which Waste was Shipped must begin with a state postal code or the letters "FC" and it must be in Ohio EPA's reference list. Contact the Report Coordinator or System Administrator to request that a receiving facility be added to the reference list.
GM4-040	Management Method must equal an U.S. EPA-defined management method code and should (but is not required to) match Ohio EPA's reference information for the facility. Contact the Report Coordinator or System Administrator when you find conflicts that need to be addressed.
GM4-050	Total Quantity Shipped to EPA ID in Current Reporting Year must be greater than zero and less than 99,999,999,999.999999.

**FLAT FILE ID# - GM5**

**Source Form:** GM                      **Description:** On-Site Management Information for the Reported Waste

This file captures on-site treatment information for the reported waste as represented in GM Section 2. The relationship of these data records to the reported waste is *n:1*, that is, there can be multiple off-site information for each reported waste.

Key Fields: Handler ID; Page Number; On-Site Sequence Number. Each record in the GM5 file must contain a unique combination of the Handler ID, Page Number, and On-Site Sequence Number.

*Note: The GM5 file is REQUIRED for handlers that generated RCRA hazardous waste that was accumulated on-site or managed on-site in a treatment, storage, or disposal unit.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM5-010
Page Number	13	5	I	Bottom of form	Required	GM5-010
On-Site Sequence Number	18	5	I		Required	GM5-020
Management Method	23	4	A	GM-2	Required	GM5-030
Total Quantity Treated, Disposed, or Recycled On-Site in Current Reporting Year	27	18	D11.6	GM-2	Required	GM5-040
<b>Total Record Length:</b>		<b>44</b>				

**GM5 Flat File Edit Specifications**

Edit Number	Edit Description
GM5-010	Handler ID and Page Number must exist in GM1.
GM5-020	On-Site Sequence must be greater than zero.
GM5-030	Management Method must equal an U.S. EPA-defined management method code.
GM5-040	Total Quantity Treated, Disposed, or Recycled On-Site in Current Reporting Year must be greater than zero and less than 99,999,999,999.999999.

**FLAT FILE ID# - GM6**

**Source Form:** GM                      **Description:** On-site Storage and Inactive Disposal Units for Reported Waste

This file captures the logic fields associated with GM Section 4, waste remaining on-site at the end of the year in permitted storage units or in storage or disposal units undergoing a formal closure. The relationship of these data records to the reported waste is 1:1.

Key Fields: Handler ID and Page Number. Each record in the GM6 file must contain a unique combination of the Handler ID and Page Number.

*Note: The GM6 file is optional.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM6-010
Page Number	13	5	I	Bottom of form	Required	GM6-010
Greater than 90 Day Storage	18	1	A	GM-4.A.1	Required	GM6-020
Generated or accumulated during reporting year	19	1	A	GM-4.A.1.a	Required	GM6-020
Generated or accumulated prior to reporting year	20	1	A	GM-4.A.1.b	Required	GM6-020
Inactive Disposal Unit	21	1	A	GM-4.A.2	Required	GM6-020
<b>Total Record Length:</b>		<b>21</b>				

**GM6 Flat File Edit Specifications**

Edit Number	Edit Description
GM6-010	Handler ID and Page Number must exist in GM1.
GM6-020	Value must be Y or N.



**FLAT FILE ID# - GM6A**

**Source Form:** GM

**Description:** Handling Methods and Quantities for Waste Reported in the GM6 File

This file captures the quantity and handling method for waste remaining on-site at the end of the year in permitted storage units or in storage or disposal units undergoing a formal closure, for the reported waste represented in GM Section 4. The relationship of these data records to the reported waste is n:1, that is, there can be multiple records for each reported waste.

Key Fields: Handler ID and Page Number. Each record in the GM6A file must have a parent record in GM6 with the same combination of the Handler ID and Page Number.

*Note: The GM6A file is required if a GM6 file is included with the imported files.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	GM6A-010
Page Number	13	5	I	Bottom of form	Required	GM6A-010
Handling Code	18	3	A	GM-4.B	Required	GM6A-020, GM6A-021, GM6A-022
Storage or Disposal Quantity	21	18	D11.6	GM-4.B	Required	GM6A-030
Unit of Measure	39	1	A	GM-4.B	Required	GM6A-040
Density	40	6	D3.2	GM-4.B	Conditionally Required	GM6A-050
Density Unit of Measure	46	1	A	GM-4.B	Conditionally Required	GM6A-060
<b>Total Record Length:</b>		<b>46</b>				

### GM6A Flat File Edit Specifications

Edit Number	Edit Description
GM6A-010	Handler ID and Page Number must exist in GM6.
GM6A-020	The Handling Method Code must be valid: S01, S02, S03, S04, S05, S06, S99, D79, D80, D81, D82, D83, or D99. A list can be found in the biennial report instruction booklet available on DHWM's biennial report web page.
GM6A-021	If the Handling Method Code begins with "S", then the parent record in GM6 should have a "Y" for Greater than 90 Day Storage.
GM6A-022	If the Handling Method Code begins with "D", then the parent record in GM6 should have a "Y" for Inactive Disposal Unit.
GM6A-030	The Storage or Disposal Quantity cannot be blank or zero.
GM6A-040	The Unit of Measure must be a valid code: P, T, K, G, L, or Y.
GM6A-050	The Density is required if the Unit of Measure is volumetric (G, L, or Y).
GM6A-060	The Density Unit of Measure is required if the Unit of Measure is volumetric (G, L, or Y).

**FLAT FILE ID# - WR1**

**Source Form:** WR      **Description:** Waste Received from Off-Site

This file captures the information contained in Item A and Items D through H of the WR form. The relationship of these data records to the reported site is *n:1*, that is, there can be multiple received waste for each site.

Key Fields: Handler ID; Page Number; Waste Number. Each record in the WR1 file must contain a unique combination of the Handler ID, Page Number and Waste Number.

*Note: The WR1 file is REQUIRED for handlers who received RCRA hazardous waste from off-site .*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	WR1-130
Page Number	13	5	I	Bottom of form	Required	WR1-020, WR1-130
Waste Number	18	1	I		Required	WR1-030, WR1-130
Form Code	19	4	A	WR-C	Required	WR1-100
Unit of Measure	23	1	A	WR-E	Required	WR1-070, WR1-080, WR1-090
Density	24	6	D3.2	WR-E	Cond. Required	WR1-080
Density Unit of Measure	30	1	A	WR-E	Cond. Required	WR1-090
Include Information in the National Hazardous Waste Report	31	1	A	NA	Required	WR1-120
Management Method	32	4	A	WR-B	Required	WR1-110
Off-Site Source EPA ID Number	36	12	A	Above waste info	Required	WR1-050
Quantity Received in Current Reporting Year	48	18	D11.6	WR-D	Required	WR1-060
Waste Stream Description	66	60	A	WR-A	Required	WR1-040
<b>Total Record Length:</b>		<b>125</b>				

### WR1 Flat File Edit Specifications

Edit Number	Edit Description
WR1-020	Page Number must be greater than zero and unique.
WR1-030	Waste Number (sub-page) must equal '1'.
WR1-040	Waste Stream Description must be provided.
WR1-050	The first two characters of the Off-Site Handler EPA ID Number must be a state postal code or 'FC' (foreign country)
WR1-060	Total Quantity Received in Current Reporting Year must be greater than zero and less than 99,999,999,999.999999.
WR1-070	Unit of Measure must equal an Ohio EPA-defined unit of measure (P, T, G, Y, L, or K).
WR1-080	If Unit of Measure equals 'G', 'L', or 'Y', then Density must be greater than zero.
WR1-090	If Unit of Measure equals 'G', 'L', or 'Y', then Density Unit of Measure must equal '1' for lbs/gal or '2' for specific gravity.
WR1-100	Form Code must equal an U.S. EPA-defined form code.
WR1-110	Management Method must equal an U.S. EPA-defined management method code.
WR1-120	Include Information in the National Report must be "Y" for submissions to Ohio EPA.
WR1-130	For each handler, page number, and waste number in WR1, one record must exist in WR2.

**FLAT FILE ID# - WR2**

**Source Form:** WR      **Description:** EPA Hazardous Waste Codes

This file captures the information contained in Item B of the WR form. The relationship of these data records to the reported waste is *n:1*, that is, there can be multiple waste codes for each reported waste.

Key Fields: Handler ID; Page Number; Waste Number; EPA Waste Code. Each record in the WR2 file must contain a unique combination of the Handler ID, Page Number, Waste Number, and EPA Waste Code.

*Note: For each waste stream, EPA Hazardous Waste Code information (WR2) is REQUIRED.*

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	WR2-010
Page Number	13	5	I	Bottom of form	Required	WR2-010
Waste Number	18	1	I		Required	WR2-010
EPA Hazardous Waste Code	19	4	A	WR-F	Required	WR2-020
<b>Total Record Length:</b>		<b>22</b>				

**WR2 Flat File Edit Specifications**

Edit Number	Edit Description
WR2-010	Handler ID, Page Number and Waste Number (sub-page) must exist in WR1.
WR2-020	EPA Waste Code must equal an U.S. EPA-defined waste code.

**FLAT FILE ID# - OI1**

**Source Form:** OI    **Description:** Identification of All Handlers to Whom or From Whom Waste was Shipped, and Transporters

This file captures information from the OI form.

Key Field: Handler ID

Note: The Page Number can be the same for all records. Once the records are imported the Generator information is translated to the corresponding WR Form and the Transporter and Receiving Facility information appear as if they all were reported on a single page, regardless of the page number.

Field Name	Starting Column	Field Length	Data Type	Location on Form	Required / Cond. Required	Edit Number(s)
EPA Identification Number	1	12	A	Top of form	Required	
Page Number	13	5	I	Bottom of form	Required	
Off-Site Installation or Transporter EPA ID Number	18	12	A	OI-A	Required	OI1-020
Handler Type = Generator	30	1	A	WR	Required	OI1-030, OI1-040
Handler Type = Transporter	31	1	A	OI-C	Required	OI1-030
Handler Type = Receiving Facility	32	1	A	OI-C	Required	OI1-030
Name of Off-Site Installation or Transporter	33	80	A	OI-B	Required	OI1-050
Street Number	113	12	LEAVE BLANK			Ohio doesn't have a separate street number field. It is included in the specifications for consistency with the federal file format.
Installation or Transporter Street Address1	125	50	A	OI-D	Cond. Required	OI1-060
Installation or Transporter Street Address2	175	50	A	OI-D		
City	225	25	A	OI-D	Cond. Required	OI1-060
State	250	2	A	OI-D	Cond. Required	OI1-060, OI1-070
Zip Code	252	14	A	OI-D	Cond. Required	OI1-060

Country	266	2	A		Required	O11-080
<b>Total Record Length:</b>		<b>267</b>				

### O11 Flat File Edit Specifications

Edit Number	Edit Description
O11-020	The first two characters of the Off-Site Installation or Transporter EPA ID Number must be a state postal code or 'FC' (foreign country).
O11-030	Handler Type must be 'Y' or 'N'.
O11-040	If Handler type = Generator, then the Handler ID should have a matching record in the Off-Site Source EPA ID Number in the WR1 file.
O11-050	Name of Off-Site Installation or Transporter cannot be blank.
O11-060	Address information cannot be blank if Handler Type = Generator or Handler Type = Receiving Facility.
O11-070	If the Country is United States, Canada, or Mexico, State is required.
O11-080	Country is required for all Handler Types. A list of Country Codes is in Appendix B.

## **APPENDIX B – Country & Foreign State Code Lists**



**COUNTRY CODE COUNTRY NAME**

AF	AFGHANISTAN
AL	ALBANIA
DZ	ALGERIA
AS	AMERICAN SAMOA
AD	ANDORRA
AO	ANGOLA
AI	ANGUILLA
AQ	ANTARCTICA
AG	ANTIGUA AND BARBUDA
AR	ARGENTINA
AM	ARMENIA
AW	ARUBA
AU	AUSTRALIA
AT	AUSTRIA
AZ	AZERBAIJAN
BS	BAHAMAS
BH	BAHRAIN
BD	BANGLADESH
BB	BARBADOS
BY	BELARUS
BE	BELGIUM
BZ	BELIZE
BJ	BENIN
BM	BERMUDA
BT	BHUTAN
BO	BOLIVIA
BA	BOSNIA AND HERZEGOVINA
BW	BOTSWANA
BV	BOUVET ISLAND
BR	BRAZIL
IO	BRITISH INDIAN OCEAN TERRITORY
BN	BRUNEI DARUSSALAM
BG	BULGARIA
BF	BURKINA FASO
BI	BURUNDI
KH	CAMBODIA
CM	CAMEROON
CA	CANADA
CV	CAPE VERDE
KY	CAYMAN ISLANDS
CF	CENTRAL AFRICAN REPUBLIC
TD	CHAD
CL	CHILE
CN	CHINA
CX	CHRISTMAS ISLAND
CC	COCOS (KEELING) ISLANDS
CO	COLOMBIA
KM	COMOROS
CG	CONGO

CD	CONGO, THE DEMOCRATIC REPUBLIC OF THE
CK	COOK ISLANDS
CR	COSTA RICA
CI	COTE D'IVOIRE
HR	CROATIA
CU	CUBA
CY	CYPRUS
CZ	CZECH REPUBLIC
DK	DENMARK
DJ	DJIBOUTI
DM	DOMINICA
DO	DOMINICAN REPUBLIC
TP	EAST TIMOR
EC	ECUADOR
EG	EGYPT
SV	EL SALVADOR
GQ	EQUATORIAL GUINEA
ER	ERITREA
EE	ESTONIA
ET	ETHIOPIA
FK	FALKLAND ISLANDS (MALVINAS)
FO	FAROE ISLANDS
FJ	FIJI
FI	FINLAND
FR	FRANCE
GF	FRENCH GUIANA
PF	FRENCH POLYNESIA
TF	FRENCH SOUTHERN TERRITORIES
GA	GABON
GM	GAMBIA
GE	GEORGIA
DE	GERMANY
GH	GHANA
GI	GIBRALTAR
GR	GREECE
GL	GREENLAND
GD	GRENADA
GP	GUADELOUPE
GU	GUAM
GT	GUATEMALA
GN	GUINEA
GW	GUINEA-BISSAU
GY	GUYANA
HT	HAITI
HM	HEARD ISLAND AND MCDONALD ISLANDS
VA	HOLY SEE (VATICAN CITY STATE)
HN	HONDURAS
HK	HONG KONG
HU	HUNGARY
IS	ICELAND

IN	INDIA
ID	INDONESIA
IR	IRAN, ISLAMIC REPUBLIC OF
IQ	IRAQ
IE	IRELAND
IL	ISRAEL
IT	ITALY
JM	JAMAICA
JP	JAPAN
JO	JORDAN
KZ	KAZAKSTAN
KE	KENYA
KI	KIRIBATI
KP	KOREA, DEMOCRATIC PEOPLES REPUBLIC OF
KR	KOREA, REPUBLIC OF
KW	KUWAIT
KG	KYRGYZSTAN
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC
LV	LATVIA
LB	LEBANON
LS	LESOTHO
LR	LIBERIA
LY	LIBYAN ARAB JAMAHIRIYA
LI	LIECHTENSTEIN
LT	LITHUANIA
LU	LUXEMBOURG
MO	MACAU
MK	MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF
MG	MADAGASCAR
MW	MALAWI
MY	MALAYSIA
MV	MALDIVES
ML	MALI
MT	MALTA
MH	MARSHALL ISLANDS
MQ	MARTINIQUE
MR	MAURITANIA
MU	MAURITIUS
YT	MAYOTTE
MX	MEXICO
FM	MICRONESIA, FEDERATED STATES OF
MD	MOLDOVA, REPUBLIC OF
MC	MONACO
MN	MONGOLIA
MS	MONTSERRAT
MA	MOROCCO
MZ	MOZAMBIQUE
MM	MYANMAR
NA	NAMIBIA
NR	NAURU

NP	NEPAL
NL	NETHERLANDS
AN	NETHERLANDS ANTILLES
NC	NEW CALEDONIA
NZ	NEW ZEALAND
NI	NICARAGUA
NE	NIGER
NG	NIGERIA
NU	NIUE
NF	NORFOLK ISLAND
MP	NORTHERN MARIANA ISLANDS
NO	NORWAY
OM	OMAN
PK	PAKISTAN
PW	PALAU
PS	PALESTINIAN TERRITORY, OCCUPIED
PA	PANAMA
PG	PAPUA NEW GUINEA
PY	PARAGUAY
PE	PERU
PH	PHILIPPINES
PN	PITCAIRN
PL	POLAND
PT	PORTUGAL
QA	QATAR
RE	REUNION
RO	ROMANIA
RU	RUSSIAN FEDERATION
RW	RWANDA
SH	SAINT HELENA
KN	SAINT KITTS AND NEVIS
LC	SAINT LUCIA
PM	SAINT PIERRE AND MIQUELON
VC	SAINT VINCENT AND THE GRENADINES
WS	SAMOA
SM	SAN MARINO
ST	SAO TOME AND PRINCIPE
SA	SAUDI ARABIA
SN	SENEGAL
SC	SEYCHELLES
SL	SIERRA LEONE
SG	SINGAPORE
SK	SLOVAKIA
SI	SLOVENIA
SB	SOLOMON ISLANDS
SO	SOMALIA
ZA	SOUTH AFRICA
GS	SOUTH GEORGIA AND THE SOUTH SANDWICH ISLANDS
ES	SPAIN
LK	SRI LANKA

SD	SUDAN
SR	SURINAME
SJ	SVALBARD AND JAN MAYEN
SZ	SWAZILAND
SE	SWEDEN
CH	SWITZERLAND
SY	SYRIAN ARAB REPUBLIC
TW	TAIWAN, PROVINCE OF CHINA
TJ	TAJIKISTAN
TZ	TANZANIA, UNITED REPUBLIC OF
TH	THAILAND
TG	TOGO
TK	TOKELAU
TO	TONGA
TT	TRINIDAD AND TOBAGO
TN	TUNISIA
TR	TURKEY
TM	TURKMENISTAN
TC	TURKS AND CAICOS ISLANDS
TV	TUVALU
UG	UGANDA
UA	UKRAINE
AE	UNITED ARAB EMIRATES
GB	UNITED KINGDOM
US	UNITED STATES
UM	UNITED STATES MINOR OUTLYING ISLANDS
UY	URUGUAY
UZ	UZBEKISTAN
VU	VANUATU
VE	VENEZUELA
VN	VIET NAM
VG	VIRGIN ISLANDS, BRITISH
VI	VIRGIN ISLANDS, U.S.
WF	WALLIS AND FUTUNA
EH	WESTERN SAHARA
YE	YEMEN
YU	YUGOSLAVIA
ZM	ZAMBIA
ZW	ZIMBABWE

### Foreign State List for Canada and Mexico

<u>STATE CODE</u>	<u>COUNTRY CODE</u>	<u>STATE NAME</u>
AB	CA	ALBERTA
BC	CA	BRITISH COLUMBIA
MB	CA	MANITOBA
NB	CA	NEW BRUNSWICK
NL	CA	NEWFOUNDLAND AND LABRRADOR
NT	CA	NORTHWEST TERRITORIES

NS	CA	NOVA SCOTIA
NU	CA	NUNAVUT
ON	CA	ONTARIO
PE	CA	PRINCE EDWARD ISLAND
QC	CA	QUEBEC
SK	CA	SASKATCHEWAN
YT	CA	YUKON
AG	MX	AGUASCALIENTES
BC	MX	BAJA CALIFORNIA NORTE
BS	MX	BAJA CALIFORNIA SUR
CH	MX	CHIHUAHUA
CL	MX	COLIMA
CM	MX	CAMPECHE
CO	MX	COAHUILA
CS	MX	CHIAPAS
DF	MX	DISTRITO FEDERAL
DG	MX	DURANGO
GR	MX	GUERRERO
GT	MX	GUANAJUATO
HG	MX	HIDALGO
JA	MX	JALISCO
MI	MX	MICHOACAN
MO	MX	MORELOS
NA	MX	NAYARIT
NL	MX	NUEVO LEON
OA	MX	OAXACA
PU	MX	PUEBLA
QR	MX	QUINTANA ROO
QT	MX	QUERETARO
SI	MX	SINALOA
SL	MX	SAN LUIS POTOSI
SO	MX	SONORA
TB	MX	TABASCO
TL	MX	TLAXCALA
TM	MX	TAMAULIPAS
VE	MX	VERACRUZ
YU	MX	YUCATAN
ZA	MX	ZACATECAS

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