



**Air Emissions Electronic Reporting System  
(AEERS)  
XML Guide**

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# 1 Introduction

## 1.1 Air Emissions Electronic Reporting System (AEERS)

The Air Emissions Electronic Reporting System (AEERS) is an electronic method for submitting facility emissions data to the Alabama Department of Environmental Management (ADEM) Air Division as required under Title V of the Clean Air Act. This system allows for:

- The retrieval of up-to-date reporting requirements from ADEM's centralized data system;
- Entering and revising emissions data and documentation for the current reporting year;
- Viewing and printing of the current year's data and historical emissions data for the previous two years; and,
- Electronically signing, submitting, and disputing reports (Responsible Officials).

## 1.2 AEERS Goals and Benefits

Responsible Officials (RO) and their designated Preparers will be able to access AEERS at no cost using existing internet connections or Internet Service Providers (ISPs). Electronic reporting provides the following benefits:

- Gives the user greater control over the quality of data flow.
- Offers a streamlined reporting method using readily available computer tools.
- Offers online availability of reports and their processing status.
- Improves data integrity and security.
- Reduces administration and compliance costs for ADEM by minimizing resources required for the oversight of yearly reporting requirements.

## 1.3 Minimum System Requirements

ROs and Preparers will need to have access to the Internet and an active email account. The AEERS application is verified to work with Microsoft Internet Explorer Version 9.0 or greater, which can be downloaded for free from <http://www.microsoft.com/downloads>. Other Internet browsers may work, but ADEM cannot ensure that all of the features for the AEERS will be available. The AEERS application requires JavaScript to be enabled and Popup Blocker to be disabled or an exception added for the website.

## 1.4 Contact Information

The ADEM AEERS Coordinator and other support staff can be reached at:

<b>AEERS</b>
AEERS Help Desk <a href="mailto:AEERS@adem.alabama.gov">AEERS@adem.alabama.gov</a>

## 2 General XML Requirements and Validation

The AEERS application offers users two methods of entering emissions data. The first is using the data entry screens of the application, and the second is by uploading a well-formed XML document containing emissions data for one or more facilities. The following are the general requirements of uploading XML documents. Please note that if any invalid data is found in the uploaded file it will be rejected and you will be required to correct and re-upload the entire file.

### 2.1 Authorized users and facilities

All users linked to a specific facility may upload data for that facility via XML. If a user attempts to upload data via XML for a facility, which has not been linked to the user's account, the XML validation will return the message "You do not have permission to submit on behalf of permit number XXX-XXXX." ADEM cannot view, edit, or upload XML documents on behalf of a reporting facility.

### 2.2 Authorized release points

A user may upload data for one or more release points for a facility. Release points not previously linked to a facility must be linked by that facility's ADEM inspector. Unlinked or incorrect release point codes will produce the XML validation message "Release Point XXX, Stack Indicator XXX, for permit XXX-XXXX is invalid."

### 2.3 Emissions reporting year

Data entry of emissions data, whether by manual data entry or uploading XML data, may only be performed for the current emissions reporting year (current year – 1). When uploading XML data for a year other than the current emissions reporting year, the XML validation message returned will be "Emissions year XXXX is not open for submission at this time."

### 2.4 Pollutant Codes

Each reported pollutant requires the entry of the correct pollutant code. When an incorrect value is entered for the pollutant code, the XML validation message returned will be "Pollutant code XXXXX is not a valid pollutant code." A list of pollutant codes is available in the AEERS application under the XML Documentation menu entry.

### 2.5 Emissions Unit Codes

All emissions should be reported with the emission unit code TY (tons per year). Any values other than TY will result in a validation message of "Unit XX is not a valid unit."

### 2.6 Method Codes

Each pollutant requires the inclusion of a method code. A list of method codes is available in Appendix A. A method code entered that is not in this list or is not formatted correctly will result in the XML validation message of “Method XX is not a valid method.”

### 3 Data Requirements for Air Emissions Reports

The XML Field Name/Description, Schema Mapping, and Validation requirements are listed in the order they are entered in the XML schema by sections: ReportHeader and ReportData. These requirements are set forth in sections 3.1 and 3.2.

3.1 ReportHeader Data Elements

	ID	Field Name / Description	Schema Mapping	Validation
R E P O R T H E A D E R	1	<b>PermitNumber</b> - The facility's Title V operating permit number.	<Document> <Report> <ReportHeader> <PermitNumber>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Must be a valid permit number issued by ADEM</li> <li>3. Letters must be uppercase</li> <li>4. Field must be 8 characters in length (including "-")</li> </ol>
	2	<b>ReleasePoint</b> - The specific source (release point) of which emissions are being reported.	<Document> <Report> <ReportHeader> <ReleasePoint>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Field may not exceed 10 characters</li> </ol>
	3	<b>IsAStackIndicator</b> - Value indicating whether release point is a stack or unit.	<Document> <Report> <ReportHeader> <IsAStackIndicator>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Must be one of the following:                             <ol style="list-style-type: none"> <li>a. true (if stack)</li> <li>b. false (if unit)</li> </ol> </li> </ol>
	4	<b>EmissionsYear</b> - Indicates the 4-digit year for which emissions are being reported.	<Document> <Report> <ReportHeader> <EmissionsYear>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Field must contain 4 digits</li> <li>3. Must be the current emissions reporting year (current - 1)</li> </ol>

3.2 ReportData Data Elements

	ID	Field Name / Description	Schema Mapping	Validation
R E P O R T D A T A	1	<b>PollutantCode</b> - The code of the pollutant for which emissions are being reported. A list of pollutant codes is available in the AEERS application under the XML Documentation menu entry.	<Document> <Report> <ReportData> <Pollutant> <PollutantCode>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Must be a valid pollutant code</li> <li>3. Alphanumeric string</li> <li>4. Field must not exceed 9 characters</li> </ol>
	2	<b>Value</b> - The quantity of pollutant being reported. The quantity is reported in tons per year.	<Document> <Report> <ReportData> <Pollutant> <Value>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Must not exceed 8 leading digits</li> <li>3. Must not exceed 6 decimal positions</li> </ol>
	3	<b>Unit</b> – Indicates the reporting unit of measure. This item will always be reported as TY (tons per year).	<Document> <Report> <ReportData> <Pollutant> <Unit>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Must be TY</li> </ol>
	4	<b>Method</b> – The code used to determine how emissions were calculated, whether it came from testing, emissions factors, etc. A list of method codes can be found in Appendix A of this document.	<Document> <Report> <ReportData> <Pollutant> <Method>	<ol style="list-style-type: none"> <li>1. Required</li> <li>2. Field must contain 2 digits</li> <li>3. Must be a two-digit code from the list in Appendix A</li> </ol>

## Appendix A: Method Codes

Code	Description	Notes
01	Continuous Emission Monitoring System	CEMS
02	Engineering Judgment	Engineering Judgement
03	Material Balance	Material Balance
04	Stack Test (no Control Efficiency used)	use if source is uncontrolled or if test was after controls
05	USEPA Speciation Profile	use where emissions for one pollutant were derived as a fraction of or ratio to another pollutant's emissions
06	S/L/T Speciation Profile	use where emissions for one pollutant were derived as a fraction of or ratio to another pollutant's emissions
07	Manufacturer Specification	Manufacturer Specification
08	USEPA Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
09	S/L/T Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
10	Site-Specific Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
11	Vendor Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
12	Trade Group Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
13	Other Emission Factor (no Control Efficiency used)	use if source and Emission Factor are uncontrolled or if Emission Factor itself accounts for controls without need to apply a control efficiency in emissions calculation
24	Stack Test (pre-control) plus Control Efficiency	use if test was before controls and therefore a control efficiency was also used in emissions calculation
28	USEPA Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation
29	S/L/T Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation
30	Site-Specific Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation
31	Vendor Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation
32	Trade Group Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation
33	Other Emission Factor (pre-control) plus Control Efficiency	use if Emission Factor was before controls and therefore a control efficiency was also used in emissions calculation

## Appendix B: XML Example

```

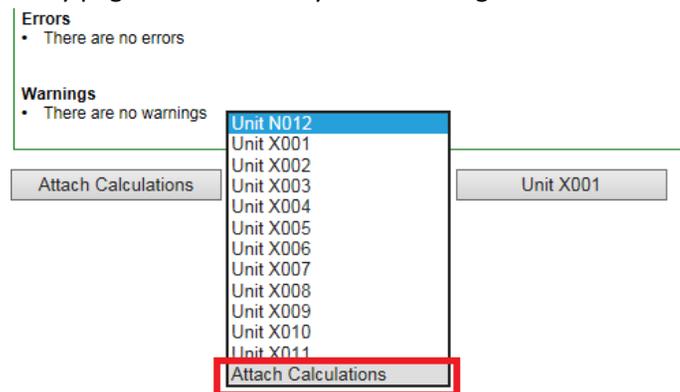
<?xml version="1.0" encoding="UTF-8"?>
<Document xsi:schemaLocation="https://app.adem.alabama.gov/AEERS/Schema AEERSS-1.XSD" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="https://app.adem.alabama.gov/AEERS/Schema">
<Report>
  <ReportHeader>
    <PermitNumber>503-fake</PermitNumber>
    <ReleasePoint>001</ReleasePoint>
    <IsASTackIndicator>true</IsASTackIndicator>
    <EmissionsYear>2014</EmissionsYear>
  </ReportHeader>
  <ReportData>
    <Pollutant>
      <PollutantCode>BZ</PollutantCode>
      <Value>0.258756</Value>
      <Unit>TY</Unit>
      <Method>32</Method>
    </Pollutant>
    <Pollutant>
      <PollutantCode>92524</PollutantCode>
      <Value>1.258756</Value>
      <Unit>TY</Unit>
      <Method>32</Method>
    </Pollutant>
  </ReportData>
</Report>
<Report>
  <ReportHeader>
    <PermitNumber>503-fake</PermitNumber>
    <ReleasePoint>Z008</ReleasePoint>
    <IsASTackIndicator>false</IsASTackIndicator>
    <EmissionsYear>2014</EmissionsYear>
  </ReportHeader>
  <ReportData>
    <Pollutant>
      <PollutantCode>106467</PollutantCode>
      <Value>0.258756</Value>
      <Unit>TY</Unit>
      <Method>32</Method>
    </Pollutant>
    <Pollutant>
      <PollutantCode>75070</PollutantCode>
      <Value>1.258756</Value>
      <Unit>TY</Unit>
      <Method>32</Method>
    </Pollutant>
  </ReportData>
</Report>
</Document>

```

## Appendix C: Frequently Asked Questions

### 1. Can I include the required calculations document(s) when uploading XML data?

No. Each facility for which emissions are reported requires submitting supporting calculations. This can be done by visiting the Emissions Entry page for each facility and selecting “Attach Calculations” from the drop down menu at the bottom of the page.



### 2. If I have manually entered some, or all, emissions data for a facility and decide I would like to upload the emissions data by XML, will the emissions data previously entered be deleted before XML upload?

No. If emissions data currently exists when you upload XML data, the following will happen:

- Existing data that directly correlates to XML data uploaded will be overwritten.
- Existing data that is not included in the XML upload will remain in place as it was prior to the upload.
- If data from the XML upload did not exist prior to the upload, it will be added to the emissions for that facility