

2008 National Emissions Inventory  
Emissions Inventory System  
Implementation Plan

Section 10  
Reporting Instructions for  
Onroad and Nonroad Emissions

**Final**

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## Section 10

### Reporting Instructions for Onroad and Nonroad Emissions

This section provides detailed instructions for reporting onroad and nonroad emissions to the EIS. Onroad, or highway, sources include vehicles used on roads for transportation of passengers or freight. Nonroad sources include vehicles, engines, and equipment used off highways for construction, agriculture, transportation, recreation, and many other purposes.

You are strongly encouraged to submit your onroad and nonroad activity data in the NCD rather than submitting emissions data. See Section 9, "Reporting Instructions for Onroad and Nonroad Activity Data," for information on how to report these data. EPA prefers to receive activity data instead of emissions as they allow for more in-depth analysis and consistent, integrated calculated emissions in the NEI. If you do not report either NCD activity data or emissions for onroad or nonroad, EPA will generate emission estimates using national defaults.

For technical information about preparing an EIS submittal using XML, including instructions for the submittal details component, see Section 5, "Submitting XML Data to the EIS."

The box below shows the open windows for submitting activity and emissions data for the 2008 NEI. For more information, see Section 1, "Introduction to the NEI and EIS."

#### Open Dates for Submitting/Editing 2008 NEI Activity and Emissions Data

Users submit emissions data: *July 1, 2009 - June 1, 2010*  
Stakeholders review and comment on draft NEI: *July 19 - October 30, 2010*

Explanations of key terms for this section are in the box below. Additional terms and acronyms may be found in Appendix 1, "EIS Glossary."

### **Key Terms**

**Activity:** A quantifiable action or function used to calculate emissions for the process. Replaces the narrower term "throughput" used in NIF.

**Component:** A group of related elements reported together within the XML document. (Within the XML schema, this is also known as a complex type.)

**Data category:** A group of data that share similar EIS reporting requirements. The EIS data categories are: Facility Inventory, Point, Nonpoint, Onroad and Nonroad, and Event.

**Data element:** The smallest reportable piece of information in the EIS that in a database would correspond to a field.

**Data type:** The form with which a data element must be compliant in order to be stored properly in the EIS, such as integer, decimal, or character.

**Dataset:** The entire set of data submitted to the EIS by an S/L/T for an inventory year. An S/L/T onroad or nonroad emissions dataset can have only a single value for a given geographic area, process, reporting period, and pollutant. For example, the North Carolina 2008 dataset may contain only one annual total for a given County, process and pollutant.

**Emissions process:** An operation or occurrence by an emissions unit that produces emissions, characterized by an SCC.

**NIF 3.0:** NEI Input Format Version 3.0. The format used to report NEI data in 2002.

**NMIM County Database (NCD):** NMIM is a consolidated emissions modeling system for EPA's MOBILE6 and NONROAD models.

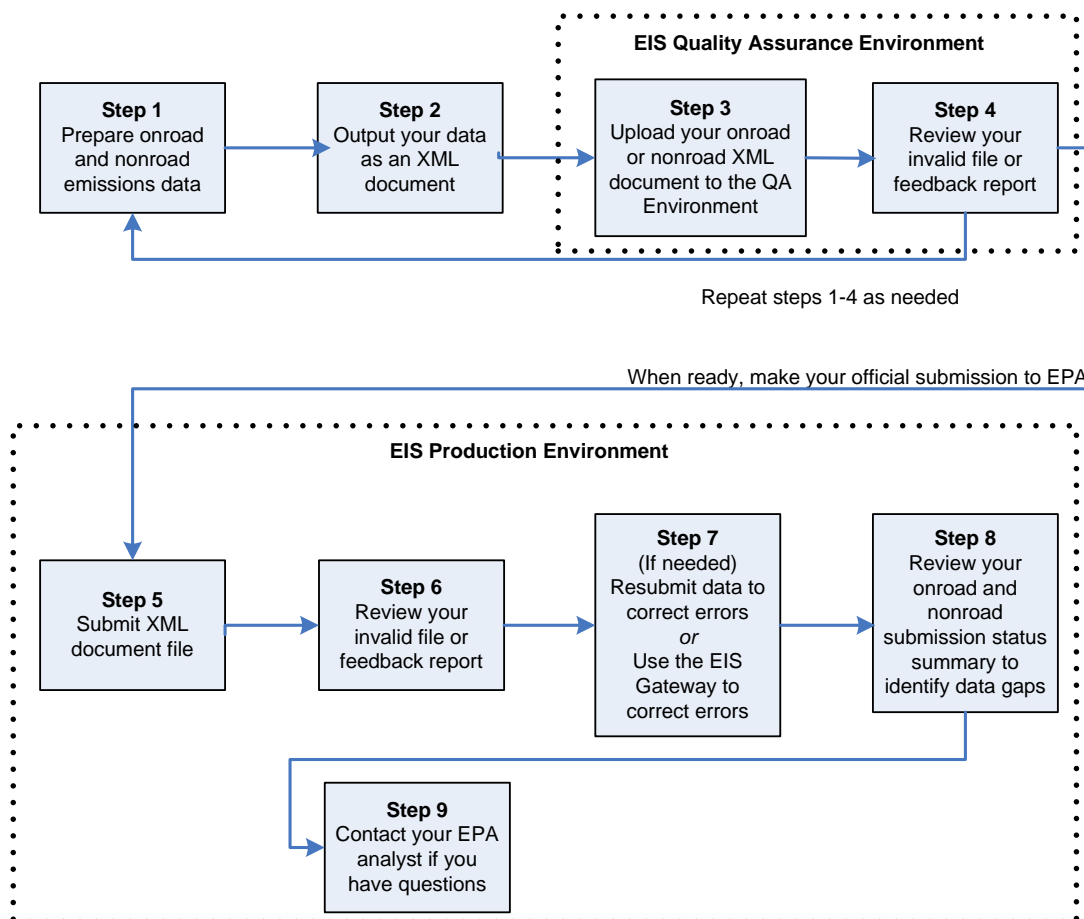
**Source Classification Code (SCC):** The code that characterizes an emissions process. All emissions in the inventory are associated with an SCC.

**Submittal data block:** Within a single batch submission, certain data elements cannot be submitted individually. For these data elements, the submission must also contain other related components and data elements; this group is called the "submittal data block." Any data element that appears within a submittal data block must be submitted in the batch file along with the rest of its block.

## **10.1 Overview of the Onroad and Nonroad Emissions Submission Process**

Figure 10-1 outlines the process steps to prepare and submit onroad and nonroad emissions to EPA.

**Figure 10-1**  
**Onroad and Nonroad Emissions Submission Process**



### 10.1.1 Step 1: Prepare Your Onroad and Nonroad Data

As you prepare your emissions data, including performing calculations, determining the processes and pollutants you should report, and making decisions about what should be reported as onroad and nonroad emissions, please note the following guiding principles and concepts:

#### Resubmitting Activity or Emissions

If you report different pollutants or different activity in subsequent batch submittals, they will overwrite the previous submission and only the most recent submittal and its pollutants will be retained.

**Reporting to an integrated inventory.** The NEI is a comprehensive and integrated inventory, containing emissions estimates for all significant sources of CAPs and HAPs. For those pollutants whose emissions are based on activity data, you are expected to use the same set of activity data to calculate emissions for all pollutants you calculate and report for a given process. This will ensure that the data contained in the inventory are integrated in a consistent fashion. If you submit using the batch submission method, you must submit these emissions for

all your reported pollutants, both CAPs and HAPs, in a single, integrated file with one set of VMT activity data.

If you report different pollutants or emissions based on different activity in subsequent batch submittals, only the last submittal and its pollutants will be retained.

**Onroad and nonroad separation.** Onroad and nonroad data should be prepared for submission in separate files. In addition, please do not submit any other categories of data (such as point or nonpoint) in a file with either onroad or nonroad emissions data.

**Acceptable models.** Onroad and nonroad emissions must be prepared using an EPA approved model. Information regarding the approved models is available at <http://www.epa.gov/otaq/models.htm>. A waiver may be provided for specific versions of other models; you should contact your EPA Regional Office for more information concerning waivers.

**Scope of onroad and nonroad processes and activities.** EPA has identified and published a list of Source Classification Codes (SCCs) which are expected to occur in many if not all States. If reporting entities do not report emissions from these processes, then EPA will populate the EIS with emissions generated at EPA. A complete list of SCCs which can be submitted for each data category can be found in Appendix 6, "EIS Code Tables."

**New EIS Data Format Requirement**

Only data which conform to the EIS CERS XML schema can be submitted to the EIS.

Please consult the appropriate information technology personnel to ensure that your data are properly constructed and formatted as specified in Section 5.

**Processes, emissions, and activities NOT reported as onroad/nonroad.** The following types of emissions should **not** be reported as onroad or nonroad emissions and will be rejected if they are reported in onroad/nonroad category:

- **Point sources.** See Section 7, "Reporting Instructions for Point Emissions."
- **Nonpoint sources.** See Section 8, "Reporting Instructions for Nonpoint Emissions." All onroad SCCs with the emission type code of refueling should be summed together and applied to the SCC 2501060100. This value should be reported in the nonpoint submission.
- **Airports.** No airport activities or emissions should be reported as onroad or nonroad emissions. See both Section 7, "Reporting Instruction for Point Emissions," and Section 12, "Reporting Instructions for Airports, Locomotives, and Commercial Marine Vessels." Refer to these sections to determine the correct reporting category for each airport process.

Ground support equipment must now be reported with airport emissions. These data will not be accepted in onroad or nonroad submissions and will not be automatically apportioned to airports.

- **Locomotives.** See Section 12, "Reporting Instructions for Airports, Locomotives, and Commercial Marine Vessels."
- **Commercial marine vessels.** See Section 12, "Reporting Instructions for Airports, Locomotives, and Commercial Marine Vessels."



- **Events.** These include wildfires, wildland use fires, controlled prescribed burns, wildland and agricultural burns, natural disasters debris burning, and other significant, reportable air emissions that occur in short episodes or that have varying locations. However, for the 2008 inventory cycle, only wildfires, wildland use fires, prescribed burning, agricultural burning, and Native American land use will be accepted as Events. To report these emissions, see Section 11, "Reporting Instructions for Event Emissions."
- **Natural and biogenic emissions.** EPA is responsible for calculating all natural and biogenic emissions to provide consistency. EIS does not support the reporting by S/L/Ts of biogenic emissions.

**Acceptable Pollutants.** The list of acceptable pollutants has been modified for 2008. It was reduced so that fewer assumptions and adjustments need to be made about the reported emissions data for downstream uses. Some previously reported variants of pollutants or aggregated pollutants will no longer be accepted. However, for some pollutants, EPA will still accept either a number of individual species or a single aggregate pollutant group. For a given facility site and process, you may submit either the individual species or the aggregate, but not both. EIS will have to perform some speciation of reported values for downstream modeling users, and will have to perform some aggregations of individual species to report summaries. EPA strongly recommends that you update the pollutant codes in your local system or calculation tools before generating data. For a complete list of the acceptable pollutant codes, see Appendix 6, "EIS Code Tables."

**Activity data vs. emissions.** Reporting NCD activity data is preferred over submitting calculated emissions data. EPA will use the NCD activity data to generate consistent emissions on your behalf.

**Interpreting zero and null values.** The submission of a "zero" emissions value for a process and pollutant will be interpreted in the inventory as an indication that you have calculated the emissions and the result was a zero value. Submit zeros when you intend for the value in the inventory to be zero. A "null" value reported for any data element will be interpreted by the EIS as an absence of data, not that there are zero emissions to report.

#### **Data Conversion Tip**

When historic data were loaded into the EIS, SCCs from prior inventory cycles which are no longer valid were converted to the currently acceptable SCC codes whenever possible. It is your responsibility to use the new SCCs. See Appendix 6 for old-to-new SCC mapping.

### **10.1.2 Step 2: Output Your Data as an XML Document**

A batch submission of onroad and nonroad emissions data to the EIS must be submitted as an XML document. For technical specifications on preparing these documents, see Section 5, "Submitting XML Data to the EIS."

**Transitioning from NIF.** Please see Section 2, "Transitioning from NIF to the 2008 NEI," for more information on:

- Mapping NEI Input Format (NIF) Version 3.0 format to the EIS data elements; and
- A transitional tool EPA is providing that assists in generating an EIS CERS XML document.

### ***XML Terms***

**XML:** *Extensible Markup Language. A markup language for documents containing structured information. The XML specification defines a standard way to add markup to documents. Its primary purpose is to facilitate the sharing of structured data across different information systems, particularly via the Internet.*

**XML schema:** *A document that defines the structure of an XML document and the set of rules to which it must conform in order to be considered valid.*

**XML document:** *A file containing data organized into a structured document using XML markup.*

### **Components and data elements for the Onroad or Nonroad Submittal Data Block.**

Data are reported to the EIS as EIS data elements, which are grouped into components and submittal data blocks and all components used for reporting of onroad and nonroad emissions, and their reporting hierarchy, are shown in Figure 10-3. Figure 10-4 is a table describing each of these components. The CERS is used by several programs, and as such, includes components and data elements not needed by EIS. Components not needed by EIS are indicated according to the CERS Diagram Key in Figure 8-2. For further information on constructing the EIS CERS XML document for submission with the correct hierarchical relationships between the components, see Section 5, "Submitting XML Data to the EIS."

Onroad and nonroad emissions data consist of EIS components that contain the location, emissions process, reporting period, VMT activity data (calculation parameters) for onroad, and emissions for each pollutant based upon the activity data.

This group of components and data elements is referred to as the Onroad/Nonroad Submittal Data Block. For an onroad or nonroad emissions batch submission, the components of this block must be submitted together; no component or data element can be batch-submitted separately. Modifications of any group of data smaller than this block must be made by logging onto the EIS website and modifying the data. Use of other components or data elements from other data categories will result in data rejection.

Later in this section you will find, for each component, a table describing its data elements. Some components and data elements are noted as required while some are optional. Your Onroad/Nonroad Submittal Data Block should contain at a minimum all required components data elements. This applies whether you are submitting data for the first time or resubmitting the data to make additions, corrections, or deletions. It is possible that a critical error in one portion of the Onroad/Nonroad Submittal Data Block may result in rejection of the entire datablock.

### **Example of Processing Resubmissions**

Virginia may report only one set of annual emissions and activity data for 2008 emissions in Fairfax County for SCC code 2270004010. When the EIS receives emissions data for this SCC code for this County for the year 2008, it will first determine whether these emissions have been previously reported. If so, it will delete the previous submission and accept the new values, so that only one set of values submitted by the agency are stored in EIS. For this reason, always submit your entire emissions inventory together, such as all your HAP and CAP emissions.

Within the Onroad/Nonroad Submittal Data Block, there are two distinct groups of components which are reported together and accepted or rejected as a set:

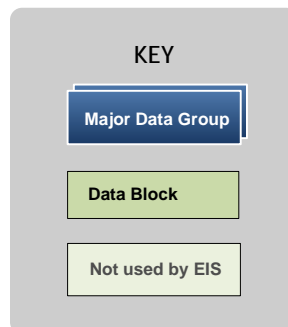
- **Reporting the location.** Whenever you submit emissions for a geographic area, you must define its location using the Location and if needed, the Excluded Location Parameter components. If you are not excluding any locations, the Excluded Location Parameter component is omitted.
- **Reporting the onroad/nonroad emissions.** The activity and emissions data submitted for a process and reporting period is a set of related data and must be submitted together for each reporting period. The activity data is reported in the Reporting Period component using the Calculation Parameter data elements. This set must be reported together within a single batch submission, whether you are submitting data for the first time or resubmitting the data to make corrections, deletions, or additions. Please note that this entire group will be accepted or rejected as a set. A critical error anywhere in this group will result in rejection of this entire set.

**Submittal Data Block Rejection**

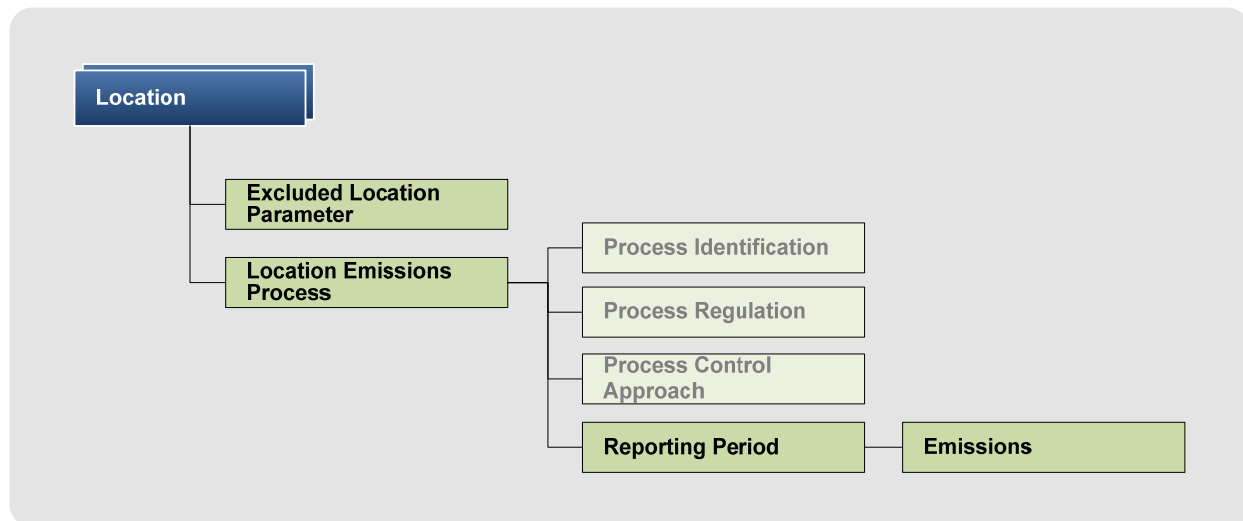
It is possible that a critical error in one portion of the Onroad/Nonroad Submittal Data Block may result in rejection of the entire block.

When you report onroad or nonroad emissions for a specific geographic area, the EIS will integrate the data either as new onroad or nonroad emissions - if emissions data for the location have not been previously reported - or as replacements for previously submitted data. In the latter case, the EIS will delete the emissions data for the same location, process and time period, and add the replacement emissions data from the current batch submission.

**Figure 10-2  
CERS Diagram Key**



**Figure 10-3**  
**Components for Onroad/Nonroad Reporting**



**Figure 10-4**  
**Description of Components for Onroad and Nonroad Emissions**

Component Name	Description
Location	Contains information on the primary geographic area, as well as the State and County or Tribal land associated with the emissions.
ExcludedLocationParameter	Contains information on the geographic location which is excluded from the primary location. There can be multiple excluded locations associated with the primary location. This component is optional.
LocationEmissionsProcess	Contains information on the specific operational activities that produce emissions either directly or indirectly, using SCCs.
ReportingPeriod	Contains information on the time period for which emissions are submitted.
Emissions	Contains information on all the pollutants being reported for the location, process, and time period. This component includes the units of measure, and the amount of emissions.

### 10.1.3 Step 3: Upload Your File to the Quality Assurance (QA) Environment

To check the data you have prepared and formatted for submission to the EIS, you are strongly encouraged to use the EIS Quality Assurance (QA) Environment. The file that you submit to the QA Environment will be stored and tracked only long enough to be evaluated and for you to receive feedback on the results. There will be no permanent record or log of these uploads or the results of the checks. You are encouraged to use this environment as many times as necessary to help you ensure the submission of high-quality data. For more information, see Section 1, "Introduction to the NEI and EIS."

The QA Environment does not allow you to edit your data or to "promote" your data to the EIS Production Environment. You must make changes to your data in your local system or files and use EPA's Central Data Exchange (CDX) to submit these data to the EIS.

To use the QA Environment, you must have an EIS user account and your Agency must have assigned responsibility for the data contained in your submission. You must already have prepared your data to be in an XML document. For more information on requesting an EIS account and accessing the EIS Gateway, see the section of the EIS User's manual entitled "How Do I Request Access to the EIS Gateway."

#### **10.1.4 Step 4: Review Your Invalid File or Feedback Report from QA Environment**

The checks performed on your data in the QA Environment are the same checks that will be performed on your batch submissions to the Production Environment and on any edits you make to your data using the EIS Gateway.

**Quality assurance checks and feedback.** The quality assurance checks for onroad and nonroad emissions data can be initiated at four points during the process:

- (1) In the QA Environment, as a preliminary quality assurance step prior to making a submission to the Production Environment. The QA Environment will apply checks to your data that ensure file integrity for submission purposes, and will apply checks that may reference data stored in the Production Environment.

Most important, this is the stage of quality assurance that will tell you in advance that certain data will be rejected if they are submitted to the Production Environment. It will provide you an efficient way to improve your data outside of the submission process itself.

EPA strongly encourages you to use this environment as your primary quality assurance practice.

- (2) In the Production Environment, as part of the submission. The same checks as those described above will be run on your data during the submission process. The results of these checks will be logged in the EIS.
- (3) In the Production Environment, following additions, deletions, or edits, on the limited set of data affected by these actions. This feature will run the checks only associated with or related to the data which have been changed or added, so that you could immediately see the impact of minor additions to your submission. This approach would allow you to determine whether your changes corrected errors identified as "warnings" during the batch submission to the Production Environment.
- (4) In the Production Environment, following single record additions, deletions, or edits made to the EIS Facility Inventory data on the EIS Gateway. Single record edits would run checks only associated with data that are being changed or added by the online transaction.

**Rejection of data vs. Rejection of the file.** The EIS may reject the entire file if it is not a well-formed EIS CERS XML document. See Section 5, "Submitting XML Data to the EIS" for standards for XML integrity and format. EIS may reject data in a batch submission if the data fail to meet the minimum standards to ensure complete and accurate data. See Appendix 5,

"Checks and Analysis" for all other checks. Data are rejected so that as little data as possible will be lost. Certain critical errors may result in the entire submission being rejected. Other critical errors may result only in the erroneous data element or component, and all dependent data, being rejected. In this case, the rest of the data are retained and stored in EIS. All rejected data will be clearly identified in the feedback report. For example, onroad emissions for a pollutant code which is not recognized by the EIS will be rejected. Detailed information about critical errors and the rejection of data appears below within the context of each component used for reporting.

**Interpreting and responding to quality assurance results.** The submitter is responsible for ensuring the quality of their data. It is expected that achieving this quality will be an iterative process. The feedback reports, this documentation, and the detailed information about processes and pollutants are the resources EPA has provided to assist you. You are encouraged to take advantage of these resources and to make changes in your local information system and procedures that will adhere to the standards contained in these materials.

The QA Environment is the first line of quality assurance for the EIS and allows checks to be run on any or all data prior to submitting to the Production Environment. An alternative approach would be to make an official submission of data to the Production Environment, have the EIS execute the checks, and resubmit a limited set of data designed to correct the identified errors. In addition, you may correct errors which do not result in rejection online using the EIS Gateway (as long as you believe that this is the most efficient way to do so, ensuring that the data in your local information system are also corrected.) Information about the specific checks performed on onroad and nonroad submissions are found later in this section, are available in electronic format through the EIS Gateway, as well as in Appendix 5, "Checks and Analysis."

For more specific information on the QA approach within the EIS, see Section 1, "Introduction to the NEI and EIS."

### 10.1.5 Step 5: Submit Your Data

**Methods of submission.** EPA expects that you will submit your onroad and nonroad emissions data by using the EIS CERS XML format and batch submission process. For more information on batch submissions, see Section 5, "Submitting XML Data to the EIS."

#### Official Submissions

Your "official submission" is comprised of all the emissions-related data in the EIS when the submission window for the inventory cycle closes. This includes data which have been submitted in an EIS CERS XML batch file and data which you provide through the EIS Gateway.

Until the submission window closes, you may continually update your data in the Production Environment without notifying the EPA.

**Partial vs. full submissions.** Batch submissions may be partial; that is, a file does not necessarily have to contain all emissions data for all processes. For example, you may report emissions for two different processes for the same location in two separate files. You may not, however, submit a partial set of emissions data for a specific process and timeframe. All emissions, and VMT activity data where applicable, must be submitted as a complete Onroad/Nonroad Submittal Data Block in a single file for a given process. For example, Delaware must report as a single file all pollutants with their total emissions from Light Duty Diesel Vehicles on rural local roads in Kent County.

Note that you may use the EIS Gateway to add, change, or delete emissions values for individual pollutants, keeping in mind that it is required that you use the same activity data to calculate emissions for all associated pollutants. For example, to correct an erroneous emission value for light duty diesel vehicles, the submitter could either edit the single value through the EIS Gateway, or resubmit the entire Onroad/Nonroad Submittal Data Block, including all pollutants, with the corrected emissions value for light duty diesel vehicles. The EIS will automatically replace any and all emissions and activity data that had previously existed for that process with the new values.

### **10.1.6 Step 6: Review Feedback Report from the Production Environment**

The checks performed on your data in the Production Environment are the same that were run in the QA Environment. For more details, see Step 4.

### **10.1.7 Step 7: Correct Any Errors in Previously Submitted Data**

You may correct errors in previously submitted data during the submission period for an inventory cycle in two ways:

- (1) Resubmit your emissions with the Onroad/Nonroad Submittal Data Block for the location and process in question. This block must include the reporting period, VMT activity (if onroad) and **all** pollutant emissions, with the updated value(s). The EIS will delete all of these previously reported components and replace them with the resubmitted data. You must resubmit all components, even if only one value is changed.
- (2) Use the EIS Gateway to add to, modify, or delete previously submitted data. You may delete online all onroad and nonroad emissions data for a selected location and process, or edit a single emissions value for the location and process in question.

#### **Deleting Erroneous Emissions Values**

It is not possible to use a batch submission to delete emissions for a single pollutant.

You should replace the entire Onroad and Nonroad Submittal Data Block, which contains all related emissions data, with a corrected block that omits the pollutant.

### **10.1.8 Step 8: Review Status of Your Submission**

At any time, you may go to the EIS Gateway and view summary information regarding the status of your onroad and nonroad (and other) submissions. Generally within two business days after the submission of your XML document, the EIS will have processed your data and the results will have been posted to the EIS Gateway.

### **10.1.9 Step 9: Communicate with EPA Analysts**

Throughout this process you are encouraged to contact an EPA analyst by submitting a support request through the EIS Gateway. This process is intended to ensure that all questions, issues, and problems are tracked and responded to on a timely basis. For more information, see the section of the EIS Users Manual entitled "How Do I Submit a Support Request?"



## 10.2 User Roles and Responsibilities

The following is a summary of S/L/T submitter and EPA roles and responsibilities during the pre-submission and submission periods for onroad and nonroad emissions:

### S/L/T Submitter

- Submit onroad and nonroad emissions data for all onroad and nonroad sources for the inventory year *before the close of the submission period*.
- Submit onroad VMT activity data for all onroad sources for the inventory year *before the close of the submission period*.
- Use the QA Environment to check emissions data prior to submission to the Production Environment.
- Review onroad and nonroad emissions data in the EIS through the EIS Gateway.

### EPA Staff

- Publish reporting instructions and code lists in advance of the inventory submission period.
- Provide S/L/T submitters access within the EIS to current and historical inventory data.
- Provide support to S/L/Ts submitters to assist with inventory preparation, quality assurance, and submission.

## 10.3 Overview of Component Tables and Data Elements for Onroad and Nonroad Emissions Reporting

The following sections provide detailed information on the components and their data elements that can be reported for onroad and nonroad emissions data. These components are NOT always listed in the correct hierarchy as explained in Section 5, "Submitting XML Data to the EIS." For each component, there is an explanatory table with the following columns:

- **Column 1: Data element.** The name of the data element.
- **Column 2: Description.** Information needed by the inventory developer to understand the content and purpose of the data element.
- **Column 3: Check description.** Information needed by the inventory developer to understand the checks that will be applied to the data element. For more information on quality assurance checks, see Section 1, "Introduction to the NEI and EIS."
- **Column 4: Check type.** Information on the type of check applied to the data element. For more information on quality assurance checks, see Section 1, "Introduction to the NEI and EIS."



- **Column 5: Check level.** The criticality level of the check. "Critical" checks that are failed result in the rejection of the affected data and all dependent data. "Warning" checks produce a warning message to the submitter, but the data are stored. For more information on quality assurance checks, see Section 1, "Introduction to the NEI and EIS."
- **Column 6: Check number.** The number of the check. For a complete listing of all quality assurance checks, see Appendix 5, "Quality Assurance Checks."

<p><b>Significant figures.</b> Significant figures include all of the digits in a measurement that are known with certainty as well as the last digit, which is considered an approximation.</p> <p>The EIS will assume trailing zeros are significant; leading zeros are not.</p> <p>Examples of numbers with three significant digits include:</p> <table> <tr> <td>0.00253</td> <td>4.00</td> </tr> <tr> <td>100</td> <td>133E-2</td> </tr> <tr> <td>99.9</td> <td>670</td> </tr> <tr> <td>20.3</td> <td>104E5</td> </tr> </table>	0.00253	4.00	100	133E-2	99.9	670	20.3	104E5	<p><b>Rounding.</b> If a value is reported with greater than the maximum stated significant figures, the EIS will round the submitted value and store the modified value instead. Values will not be truncated. The EIS will provide a warning message to the submitter showing the modified value. If you receive this message, you should either:</p> <ol style="list-style-type: none"> <li>Review the modified value to determine if appropriate, and/or</li> <li>Resubmit within maximum significant figures or decimal places to avoid EIS rounding.</li> </ol>
0.00253	4.00								
100	133E-2								
99.9	670								
20.3	104E5								

**Figure 10-5**  
**Data Types**

Data Type	Description	Example
Character ( <i>width</i> )	String data. <i>Width</i> = Maximum allowable width (number of characters).	Data Type: Char (1) Valid: A 1 Invalid: ANNUAL 01
Integer ( <i>width</i> )	Whole number (no decimal places, preceding zeroes not retained). <i>Width</i> = Maximum number of digits allowed, including a negative sign, if present.	Data Type: Int (3) Valid: 2 -15 930 Invalid: 4000 2.7

(cont.)

**Figure 10-5**  
**Data Types (cont.)**

<b>Data Type</b>	<b>Description</b>	<b>Example</b>
Decimal ( <i>width. scale</i> )	<p>Decimal number with fixed maximum number of decimal places.</p> <p><i>Width</i> = Maximum allowable width including digits on both sides of the decimal point, the decimal point itself, and a negative sign, if present.</p> <p><i>Scale</i> = Maximum number of decimal places; that is, digits to the right of the decimal point.</p> <p>The EIS will not store decimal places beyond the maximum stated for the data element; it will round off excess decimal places. See the box above for more information on rounding.</p>	<p>Data Type:      Dec (5.1)</p> <p>Valid:             100.0                       34.6                       0.3                       0.0                       -3.1</p> <p>Invalid:           99.75                       256.45                       -483.3</p>
Float ( <i>significant figures</i> )	<p>Decimal number with floating decimal point; that is, variable number of decimal places. No width is given, as this is variable. Floating decimals may also be represented with scientific notation.</p> <p><i>Significant figures</i> = Maximum number of significant figures reportable (see above).</p> <p>The EIS will not store significant figures beyond the maximum stated for the data element; it will round off excess significant figures. See the boxes above for more information on significant figures and rounding.</p>	<p>Data Type:      Float (3)</p> <p>Valid:             0.00845 <i>or</i>                       8.45E-3                       10.6 <i>or</i>                       1.06E1                       5</p> <p>Invalid:           2,357 <i>or</i>                       2.357E3                       43.50 <i>or</i>                       4.350E1</p>
Date	YYYYMMDD	<p>Data Type:      Date</p> <p>Valid:             20080228</p>

## 10.4 Reporting the Location: The Location Component

The Location component defines the geographic location of the onroad and nonroad emissions. As can be seen in Figure 10-3, it also contains two child components, ExcludedLocationParameter and LocationEmissionsProcess.

A valid geographic location must be reported in order for any emissions data to be accepted into the EIS. For pre-2008 emissions inventories, onroad and nonroad emissions data have been submitted primarily at the County and Tribal level, and it is expected that this will be true for future inventories. However, the EIS supports census tract, census block, and reporting shapefiles for EPA-defined geospatial areas as well.

Important Process Note	
The Nonpoint location block must contain one combination of Tribe; State and County; State, County, and Census Block; State, County, Census Tract and Block; or State and Country.	

**Figure 10-6**  
**Data Elements for Location Component for Onroad and Nonroad Emissions Reporting**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
StateAnd CountyFIPS Code	The list is from FIPS Counties codes used for the identification of the Counties and County equivalents of the United States, from code list in Appendix 6.	If reported, must match value in code list.	Code	Critical	23
TribalCode	The code that represents the American Indian Tribe or Alaskan Native entity, from code list in Appendix 6.	If reported, must match value in code list.	Code	Critical	25
StateAnd CountryFIPS Code	The code that represents a state and country for States in Mexico and Provinces in Canada, from code list in Appendix 6.	If reported, must match value in code list.	Code	Critical	26
CensusBlock Identifier	The identifier that represents the post 2000 census block, which is the smallest geographic entity recognized by the census.	If reported, must match value in code list.	Code	Critical	576

(cont.)

**Figure 10-6**  
**Data Elements for Location Component for Onroad and Nonroad Emissions**  
**Reporting (cont.)**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
CensusTract Identifier	The identifier that represents the post 2000 census tract, which is ideally a neighborhood within a city.	If reported, must match value in code list.	Code	Critical	577
Shape Identifier	The shape file identifier issued by EPA for a predefined geospatial shape.	If reported, must match a shapefile identifier that is in the EIS shape library on the EIS Gateway.	Code	Critical	578
Location Comment	Any comments regarding the location.	If reported, maximum allowable width of 400 characters. Longer submissions will be truncated.	Format	Warning	298

**Figure 10-7**  
**Checks for Location Component**

Description	Type	Criticality	Number
The nonpoint location block must contain one combination of Tribe; State and County; State, County, and Census Block; State, County, Census Tract and Block; or State and Country.	Conditional	Critical	812

### 10.5 Reporting Excluded Locations: The ExcludedLocationParameter Component

The purpose of this optional component is to define a geographic area within the primary geographic location for which emissions are not included in the related process/activity records. The ExcludedLocationParameter component must be submitted as a child component to its related onroad and nonroad location. The possible levels of specificity for excluded location are limited to: (1) Tribal land; (2) census tract; and (3) census block. These locations may be excluded from any type of primary location that overlaps geographically.

**Number of excluded locations.** This is an optional component. Each primary geographic location may have zero, one, or more than one excluded onroad and nonroad locations.

**Tribal lands overlapping Counties.** If the reported excluded location is located in more than one County, then it is assumed that the intention is to exclude only the portion which overlaps the County and the excluded emissions should reflect this assumption. Census blocks and tracts are always within a single County.

**New location blocks.** If you submit data for a primary location and excluded locations which have not been previously reported, the EIS will add this as a new location if the value matches an existing code.

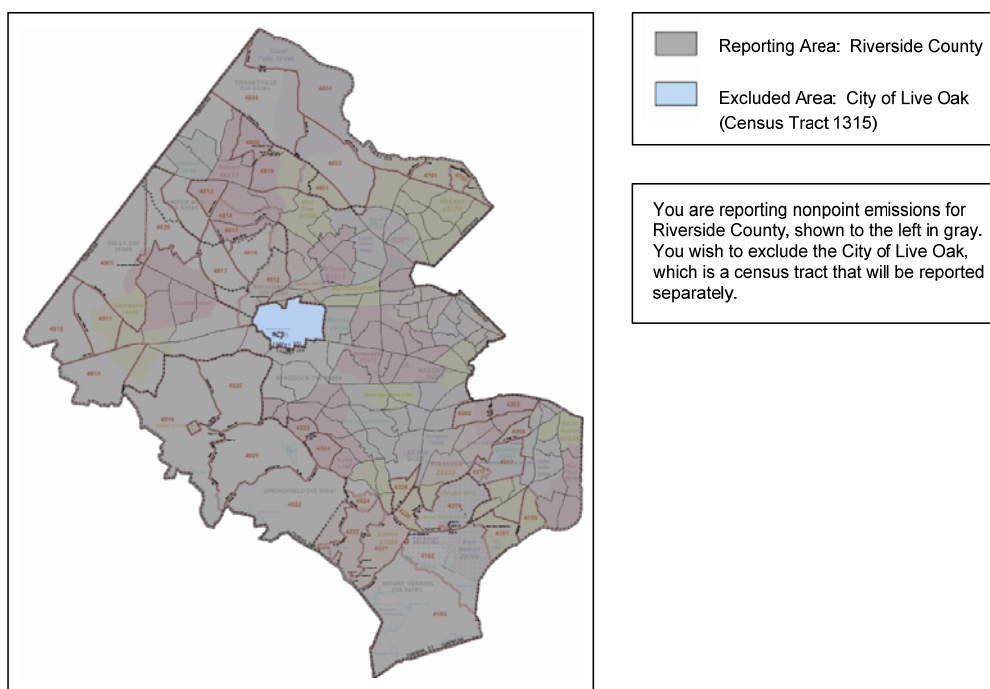
**Erroneous excluded locations.** If you have submitted a primary location or a primary location with excluded locations which is erroneous and you would like to delete the location entirely, submit a support request through the EIS Gateway. You will not be able to delete this information directly, either through a submission or using the EIS Gateway.

**Accounting for emissions from an excluded location.** EPA expects that the same SCCs and pollutants will be reported at the primary location and its related excluded location. At the appropriate time, the EIS will analyze reported emissions data to determine if this has occurred. An EPA analyst has several options to evaluate and address any discrepancies and may contact you if your data indicate a significant problem relating to SCC or pollutant coverage.

### Granularity of Exclusions

A state agency does not need to specifically exclude counties if a local agency is reporting for the county. The state agency may simply not report data for that county.

**Figure 10-8**  
**Example of Excluded Location**



**Figure 10-9**  
**Data Elements for ExcludedLocation Component**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
LocationType Code	Identifies the type of code or identifier that is being excluded, from code list in Appendix 6.	Required when reporting the excluded location parameter component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	1469
		Must match value in code list.	Code	Critical	522
Location Parameter	The code value or the identifier for the location type code. For example, if you are excluding a Census Tract from the county, you would report the code for the Census Tract here.	Required when reporting the excluded location parameter component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	1470
		Maximum allowable width of 20 characters. Longer submissions will be rejected.	Format	Critical	1471
Location Comment	Any comments regarding the excluded location.	If reported, maximum allowable width of 400 characters. Longer submissions may be truncated.	Code	Critical	526

**Figure 10-10**  
**Checks for ExcludedLocation Component**

Description	Type	Criticality	Number
Excluded Location must be a geographical subset of the primary location.	Present	Critical	528

## 10.6 Reporting the Emissions Process: The LocationEmissionsProcess Component

The LocationEmissionsProcess component is used to identify the process for which emissions are being reported. This component has the shared complex type of Process.

**Multiple processes for an onroad or nonroad location.** Although not required, you are encouraged to report all SCCs at an onroad or nonroad location in a single submission. If you are using a model, it is anticipated that all SCCs for a given County will be generated and reported at one time.

**List of acceptable SCCs.** EPA has defined a list of SCCs that are acceptable for onroad and nonroad emissions. Consult the list of onroad and nonroad SCCs in Appendix 6, "EIS Code Tables." If you would like to request that an SCC be added to the list of acceptable processes for onroad or nonroad emissions reporting, submit a support request through the EIS Gateway.

**Completeness.** There is no single list of processes that would be applicable to a specific location that can be used as a definitive check of submission completeness. Information will be provided as part of the quality assurance checks if expected SCCs or previously reported SCCs are **not** reported for a location.

**Alternative SCCs.** There are some emission sectors, such as light duty diesel vehicles, for which you may submit either general codes (duty diesel vehicles all road types), or more specific codes (duty diesel vehicles on urban interstate). You must submit using one or the other approach, not both. For more information on the alternative SCC for a specific sector, see Appendix 6, "EIS Code Tables."

If you submit emissions data using the general SCC in one submission and then use detailed SCCs in a subsequent submission, the EIS will delete the general SCC and all related emissions and activity data and accept the detailed SCCs and their emissions. Similarly, EIS will replace the detailed SCCs and related emissions if general SCCs and emissions are received at a later time.

**Figure 10-11**  
**Data Elements for LocationEmissionsProcess Component for Onroad and Nonroad Emissions Reporting**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
Source Classification Code	The emissions process for which onroad and nonroad source activity and emissions are being reported, as defined by an EPA Source Classification Code, from code list in Appendix 6.	Required when reporting the emissions process component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	187
		Must match value in code list.	Code	Critical	90
EmissionsType Code	The type of emissions being reported, from code list in Appendix 6.	Required when reporting the process component for onroad and nonroad. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	613
		Must match value in code list.	Code	Critical	614
AircraftEngine TypeCode	Not used for EIS Onroad/Nonroad Emissions.				
ProcessType Code	Not used for EIS.				
Process Description	Not used for EIS Onroad/Nonroad Emissions.				
LastEmissions Year	Not used for EIS Onroad/Nonroad Emissions.				
Process Comment	Comment about the emissions process for which activities/emissions are being reported.	If reported, maximum allowable width of 400 characters. Longer submissions will be truncated.	Format	Warning	270

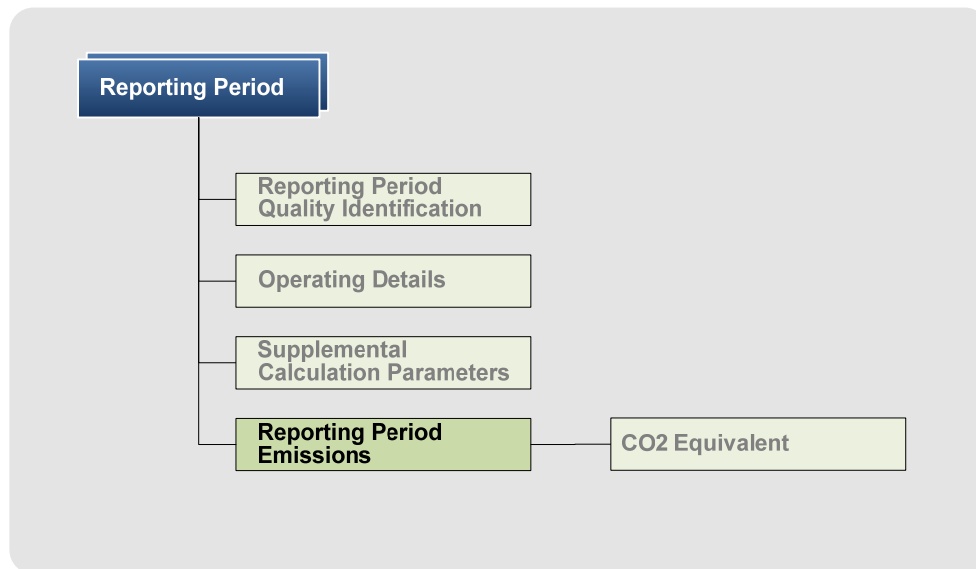
## 10.7 Reporting the Time Period, Activity, and Emissions

To report onroad and nonroad emissions, your Onroad/Nonroad Submittal Data Block may include the following components, as was seen in Figure 10-3:

- ReportingPeriod; and
- ReportingPeriodEmissions.



**Figure 10-12**  
**Components for Reporting Period for Onroad and Nonroad Reporting**



**Minimum components.** ReportingPeriod and ReportingPeriodEmissions are required components that must be included in your Onroad/Nonroad Submittal Data Block.

**Resubmission of the onroad/nonroad submittal data block.** As explained in Section 10.1, you must resubmit an entire Onroad/Nonroad Submittal Data Block if you intend to batch-replace any previously submitted data. The previously submitted data will be automatically overwritten with the new submission.

**Impact of critical errors.** If critical errors are encountered when processing any of the above data, they, along with the dependent data, may be rejected in the following manner:

- A critical error in the ReportingPeriod component results in rejection of the entire Onroad/Nonroad Submittal Data Block.
- Critical errors in the ReportingPeriodEmissions component result in rejection of the emissions for the individual pollutant record only. Reporting period and other valid emissions records will be accepted.

### 10.7.1 Reporting the Time Period: The ReportingPeriod Component

The ReportingPeriod component identifies the time period during which onroad and nonroad emissions occurred. This component is the "parent" component of all emissions. The activity data are reported as part of the ReportingPeriod component using the calculation parameter data elements.

**Consistency with inventory year.** The reporting period must occur within the inventory year for which you are reporting. EPA will consider your reported emissions and activity data as your best representation of activity and emissions for the current inventory year. If the activity

data you used to calculate emissions for the current inventory cycle originated in an earlier year, indicate that in CalculationDataYear.

**Open submission period.** The reporting period must be within an inventory year for which there is an open submission period for the reporting entity. Emissions for the previous or future inventory year will be rejected by EIS.

**Full year reporting.** For onroad and nonroad emissions, a full annual emissions total must be reported, at a minimum, for each location and SCC reported. Additionally, you may also include monthly emissions. No day-specific episodic emissions are accepted for onroad and nonroad sources.

**Monthly reporting.** Emissions reported for certain SCCs are highly dependent upon Local or seasonal conditions, and rely on established models to estimate those variations. These SCCs should be reported as twelve individual months.

**Linkages between activity and emissions data.** Activity is required when reporting onroad emissions but is optional for nonroad emissions. Activity data are the basis for estimating all emissions for the location, process and reporting period. For this reason, you are required to submit the activity data as part of the reporting period with all related emissions data in a submission for onroad emissions.

**Figure 10-13**  
**Data Elements for ReportingPeriod Component for Onroad and Nonroad Reporting**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
Reporting PeriodType Code	The time period type for which emissions are reported, from code list in Appendix 6.	Required when reporting the reporting period component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	1569
		Must match value in code list.	Code	Critical	353
		There must be exactly one annual emissions record with emission operating type code of routine for each location, process, and pollutant reported. Additional records with other reporting period type codes may also be reported.	Cardinality	Critical	809

(cont.)

**Figure 10-13**  
**Data Elements for ReportingPeriod Component for Onroad and Nonroad**  
**Reporting (cont.)**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
Emissions OperatingType Code	Not used for EIS Onroad/Nonroad Emissions.				
StartDate	Not used for EIS Onroad/Nonroad Emissions.				
EndDate	Not used for EIS Onroad/Nonroad Emissions.				
Calculation ParameterType Code	Code indicating whether the material measured is an input to the process, an output of the process or a static count (not a throughput), from code list in Appendix 6.	Required when reporting the reporting period component. The component and all dependent data will not be stored if there are missing required data. Required only for onroad.	Present	Critical	404
		Must match value in code list.	Code	Critical	403
Calculation ParameterValue	Activity or throughput of the process for a given time period.	Required when reporting the reporting period component. The component and all dependent data will not be stored if there are missing required data. Required only for onroad.	Present	Critical	563
		This element must be reported as a float, reported with a maximum of ten significant figures.	Format	Critical	394
		Must be greater than or equal to zero.	Range	Critical	395
Calculation ParameterUnit ofMeasure	Code for the unit of measure for calculation parameter value, from code list in Appendix 6.	Required when reporting the reporting period component. The component and all dependent data will not be stored if there are missing required data. Required only for onroad.	Present	Critical	564
		Must match value in code list.	Code	Critical	397

(cont.)

**Figure 10-13**  
**Data Elements for ReportingPeriod Component for Onroad and Nonroad**  
**Reporting (cont.)**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
Calculation MaterialCode	Code for material or fuel processed, from code list in Appendix 6.	Required when reporting the reporting period component. The component and all dependent data will not be stored if there are missing required data. Required only for onroad.	Present	Critical	402
		Must match value in code list.	Code	Critical	566
Calculation DataYear	The actual year represented by the data if it is different from the emissions year.	If reported, this element must be reported as an integer, reported with a maximum of four digits.	Format	Critical	407
		Must be between 1900 and 2050.	Range	Critical	408
Calculation DataSource	The source of the data used.	If reported, maximum allowable width of 100 characters. Longer submissions will be truncated.	Format	Warning	411
Reporting Period Comment	Any comments regarding the reporting period.	If reported maximum allowable width of 400 characters. Longer submissions will be truncated.	Format	Warning	382

**Figure 10-14**  
**Checks for ReportingPeriod Component for Onroad and Nonroad Reporting**

Description	Type	Criticality	Number
Both Calculation Parameter Values and Emissions are required when reporting the ReportingPeriod component. Required only for onroad.	Present	Critical	383
All 12 months must be submitted together.	Present	Critical	550

### **10.7.2 Reporting Emissions: The ReportingPeriodEmissions Component**

The ReportingPeriodEmissions component is used to report emissions values for a process, reporting period, and pollutant. This component has the shared complex type of Emissions. More detail on emissions reporting is found in Section 10.1.1, "Step 1: Prepare Your Onroad and Nonroad Emissions Data."

**Pollutants to report.** See Section 10.1.1, "Step 1: Prepare Your Onroad and Nonroad Emissions Data."

**Correcting or deleting a single pollutant.** As described earlier, there is no batch method to resubmit, correct, or delete emissions associated with a single pollutant except by resubmitting the complete Onroad/Nonroad Submittal Data Block. An individual pollutant record can, however, be modified through the EIS Gateway.

**Figure 10-15**  
**Data Elements for the Emissions Component for Onroad and Nonroad Reporting**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
PollutantCode	Code identifying the pollutant for which emissions are reported, from code list in Appendix 6.	Required when reporting the Emissions component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	471
		Must match value in code list.	Code	Critical	470
		If PM2.5 Primary and PM10 Primary are both reported pollutants, then PM2.5 Primary should not exceed PM10 Primary for the same reporting period.	Conditional	Warning	832
		If PM2.5 Filterable and PM10 Filterable are both reported pollutants, then PM2.5 Filterable should not exceed PM10 Filterable for the same reporting period.	Conditional	Warning	835
		If PM2.5 is reported, then PM10 should be reported.	Conditional	Warning	836
		If PM Condensable is reported, then PM2.5 and PM10 Filterable should be reported.	Conditional	Warning	839
Total Emissions	Total calculated or estimated amount of the pollutant.	Required when reporting the Emissions component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	473
		Must be inside the critical outlier range.	Range	Critical	474
		Should be inside the moderate outlier range.	Range	Warning	475
		This element must be reported as a float, reported with a maximum of four significant figures.	Format	Critical	569

(cont.)

**Figure 10-15**  
**Data Elements for the Emissions Component for Onroad and Nonroad**  
**Reporting (cont.)**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
EmissionsUnit ofMeasure Code	Unit of measure code for reported emissions, from code list in Appendix 6.	Required when reporting the Emissions component. The component and all dependent data will not be stored if there are missing required data.	Present	Critical	479
		Must match value in code list.	Code	Critical	476
Emission Factor	Not used for EIS Onroad/Nonroad Emissions.				
Emission Factor Numerator Unitof MeasureCode	Not used for EIS Onroad/Nonroad Emissions.				
Emission Factor Denominator Unitof MeasureCode	Not used for EIS Onroad/Nonroad Emissions.				
Emission FactorFormula Code	Not used for EIS Onroad/Nonroad Emissions.				
Emission FactorText	Not used for EIS Onroad/Nonroad Emissions.				
Emission Calculation MethodCode	Not used for EIS Onroad/Nonroad Emissions.				
Emission Factor ReferenceText	Not used for EIS Onroad/Nonroad Emissions.				
Algorithm FormulaText	Not used for EIS Onroad/Nonroad Emissions.				
Algorithm Comment	Not used for EIS Onroad/Nonroad Emissions.				

(cont.)

**Figure 10-15**  
**Data Elements for the Emissions Component for Onroad and Nonroad**  
**Reporting (cont.)**

Data Element		Check			
Name	Description	Description	Type	Criticality	Number
Calculation Method Accuracy Assessment Code	Not used for EIS Onroad/Nonroad Emissions.				
Emissions DeMinimis Status	Not used for EIS Onroad/Nonroad Emissions.				
Emissions Comment	Any comments regarding the emissions, method of calculation, or emission factor.	If reported maximum allowable width of 400 characters. Longer submissions will be truncated.	Format	Warning	487