

# Michigan Air Emissions Reporting System

# MAERS

# *User Guide & Workbook*

**A Guide for Completing an Electronic MAERS Report**

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Office of Environmental Assistance

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# 1 Introduction

## Overview of the Michigan Air Emissions Reporting System:

The federal Clean Air Act requires that each state maintain an inventory of air pollution emissions for certain facilities and update this inventory every year. Michigan's emission inventory is collected annually using the Michigan Air Emissions Reporting System (MAERS). MAERS is a Web-based application accessible to participating regulated facilities via the Internet. The system serves as an electronic file cabinet to manage MAERS Reporting forms provided by the Michigan Department of Environmental Quality (DEQ), and to receive/store MAERS reports submitted by regulated facilities. Participating facility access privileges are administrated through the use of a Personal Identification Number (PIN), username, and password. All MAERS report submissions are verified via PIN/Security Question authentication with software security to ensure that the content of the data is original, truthful, legitimate, and unaltered.

The Air Quality Division (AQD) maintains Emission Inventory (EI) reports for commercial, industrial, and governmental sources of air pollution in Michigan. Each year, approximately 2,000 facilities report emissions to the MAERS. Emissions data is submitted to the United States Environmental Protection Agency (U.S. EPA) to be added to the national data bank. This information is used to track air pollution trends, determine the effectiveness of current air pollution control programs, serve as a basis for future year projections of air quality, track source compliance, provide information for permit review, and calculate the emissions portion of the air quality fee.

The AQD's [Operational Memorandum No. 13](#) generally explains which Michigan facilities that operate sources of air pollution are required to report their annual emissions under MAERS. They include the following:

- Facilities subject to the Renewable Operating Permit (ROP) Program.
- Facilities that have opted out of the ROP Program by using Michigan Air Pollution Control Rule 208(a) or obtaining an Opt Out Permit to Install.
- Facilities subject to a federal New Source Performance Standard (NSPS).
- Facilities participating in the Emissions Trading Program.
- Facilities whose actual emissions exceed the thresholds listed in Table 1-1 below.
- Any facility receiving notification from the AQD to report.

**Table 1-1: MAERS Reporting Thresholds**

Pollutant	Threshold
Carbon monoxide (CO)	100 tons per year
Nitrogen oxides (NOx)	40 tons per year
Sulfur dioxide (SO <sub>2</sub> )	40 tons per year
Particulate matter (PM)	25 tons per year
Particulate matter (PM-10)	15 tons per year
Volatile organic compounds (VOC)	10 tons per year
Lead (Pb)	0.6 tons per year

To obtain a copy of Operational Memorandum No. 13, go to [www.michigan.gov/air](http://www.michigan.gov/air) (select "Laws & Rules").

**Note:** These thresholds are based on the significant levels defined in Rule 119(e) of the Michigan Air Pollution Control Rules, with the exception of VOC. The VOC threshold is based on the major source definition for a single hazardous air pollutant in Section 112 of the federal Clean Air Act and the requirement to identify VOC point sources greater than 10 tons per year in the Michigan State Implementation Plan (SIP).

MAERS reports are due by **March 15** each year. The AQD is required to notify each facility at least 45 days prior to the deadline for submitting the report. This notification usually occurs in mid January.

### **Reporting Toxic Pollutants**

Under MAERS, reporting the air emissions of 235 toxic pollutants is optional. The AQD analyzes the emissions data submitted by each company and estimates the toxic air pollutant emissions from the information provided for criteria pollutants. This includes activity information such as source classification codes and material throughput, along with source estimates of particulate matter and volatile organic compounds. A company may preview toxic emissions data for its facility using the MAERS software to calculate them once criteria pollutant emissions data has been completed. If the estimates are felt to be in error, the company may submit corrected estimates, provided they also submit back-up data supporting the changes. As an alternative to the AQD estimating toxic emissions, a company may submit toxic pollutant emissions with its MAERS submittal. For questions regarding the reporting of toxic pollutants, contact your AQD district office.

### **MAERS Report Submission Process**

The typical MAERS report submission process performed by a facility's Primary Preparer is shown below:

- Step 1:** Log into the MAERS via the Internet with an assigned user ID and password.
- Step 2:** Select a source in the MAERS Report List. Click the View/Edit icon to enter the data entry form.
- Step 3:** Complete the Source Form, Contact Form, Stack Form, Emission Unit Form, Reporting Group Form, and Activity & Emission Form.
- Step 4:** Perform the Emission Calculation and Completeness Check (as needed).
- Step 5:** Enter the PIN number and answer the security question in the Submittal Authorization Form
- Step 6:** Submit the MAERS Report.

Please follow the step-by-step instructions in this document to complete and submit a report using MAERS.

## MAERS Resources

In addition to this guide, there are several other resources you may wish to refer to for guidance in completing and submitting your MAERS report. They include:

### The DEQ, Office of Environmental Assistance

The Office of Environmental Assistance (OEA) helps small and medium-sized businesses understand their obligations under state and federal air quality regulations and identify methods of compliance with those requirements. The types of assistance available from the OEA include telephone consultations, guidance publications, and training workshops. The OEA is available to help with your MAERS related questions and can be contacted by calling the Environmental Assistance Center at (800) 662-9278 or on the Internet at [www.michigan.gov/air](http://www.michigan.gov/air) (select "Clean Air Assistance").

### MAERS Internet Home Page

The MAERS Internet Home Page serves as a clearinghouse for MAERS information. This site provides an overview of the AQD, Emissions Reporting Program, up-to-date MAERS news, information on where to go for help, as well as access to all the MAERS Forms, Instructions, and other guidance documents. You can access the MAERS Home Page at [www.michigan.gov/air](http://www.michigan.gov/air) (select "Emissions" then "Emissions Reporting").

### MAERS Tutorials

The Office of Environmental Assistance has developed tutorials to assist you with various aspects of MAERS. These short videos can be watched at any time. Access the tutorials at <http://maers.state.mi.us/facility> (click on "Contact MAERS"). The MAERS tutorials, along with others, can also be accessed at [www.michigan.gov/deqworkshops](http://www.michigan.gov/deqworkshops) (click on "Online Learning Curriculum").

### Emission Calculation Fact Sheets

The Environmental Assistance Program has developed the following fact sheets to help certain facilities calculate their emissions:

- Coating Operations
- Electroplating Operations
- Foundries
- Hot Mix Asphalt Plants
- Municipal Solid Waste Landfills
- Mineral Product Processes
- Oil and Gas Production Facilities
- Petroleum Bulk Plants and Terminals
- Plastic Production and Products Manufacturing

All these fact sheets can be accessed via the MAERS or Environmental Assistance Program Home Pages or can be obtained by contacting the Environmental Assistance Center at (800) 662-9278.

## 2 Minimum System Requirements

Participating facilities will need to have the ability to access the MAERS web site through the Internet <http://maers.state.mi.us/facility>. Typically, such access is available either through a dedicated connection through the facilities local area network or through a connection to an Internet Service Provider.

To ensure that all of the features of MAERS are available, Microsoft Internet Explorer web browser (version 6.0 or higher) is required. The performance of MAERS will vary based on the computer's internet connection speed, CPU, Operating System, and available memory.

The AQD recommends the following system configuration:

- Broadband Internet Connection or higher
- Pentium II processor or higher
- Microsoft Windows XP or higher
- 256 MB of RAM or higher
- Microsoft Internet Explorer 6.0 or higher available for download at [www.microsoft.com/download](http://www.microsoft.com/download)

### 3 Getting Started

To access MAERS, users must first register then log into the system. This chapter explains how to register in the MAERS, sign into the system, access your MAERS report, account information, and other basic utilities.

#### MAERS Website Login

By using an Internet connection, and Internet Explorer version 6.0 or higher, a user may access the MAERS website <http://maers.state.mi.us/facility>. You will be greeted by the login screen shown below (Figure 3-1). To enter the system, you must enter a valid user ID and password. A user ID and password can be obtained by self-registering.

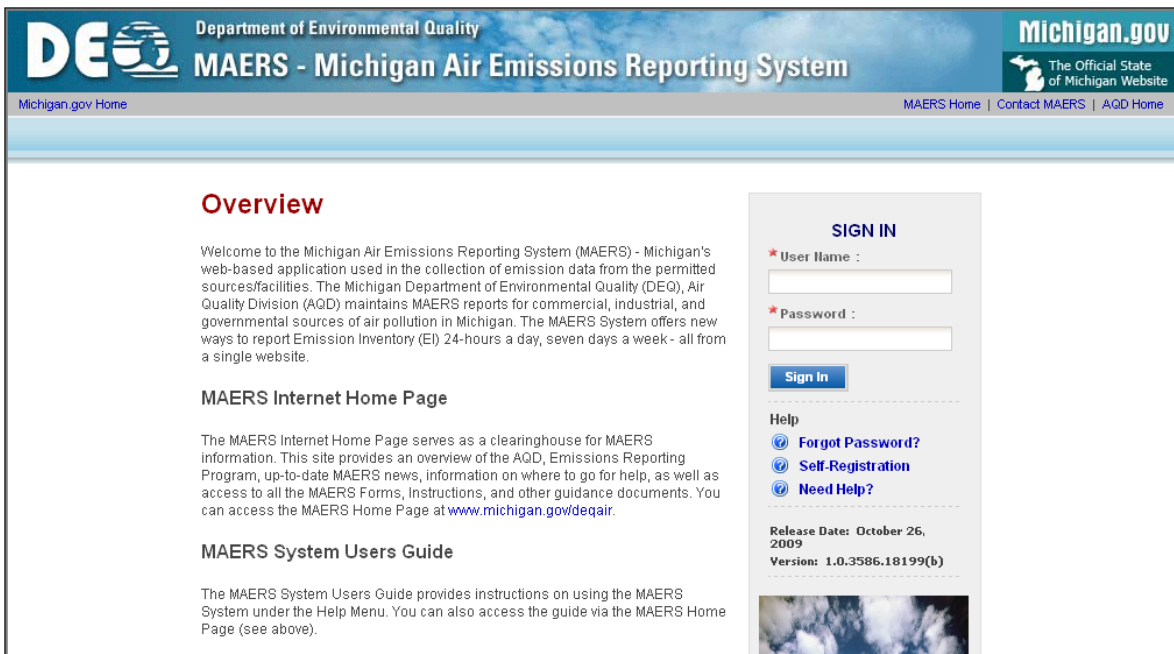



Figure 3-1 MAERS Website Login Page

#### Self Registration

To establish a new user account in MAERS, click on the “Self-Registration” link (Figure 3-2). The following instructions will guide you through the registration process.

Note that some steps only need to be completed by those registering under the facility Primary Preparer role.

 **You only have to register once. If you registered in a previous year you do not have to register again.**

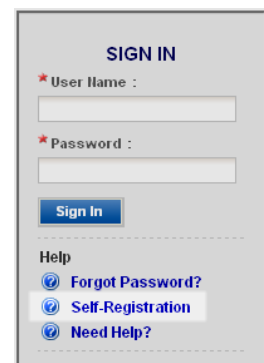


Figure 3-2: Access Self-Registration

**Step 1:** Choose one of the following applicable user roles: Primary Preparer, Secondary Preparer, Consultant, or Reviewer (Figure 3-3). An explanation of each of these roles is provided below. If you are uncertain as to which role applies to you contact your district office or the Environmental Assistance Center (800) 662-9278 or send your inquiry to [infomaers@michigan.gov](mailto:infomaers@michigan.gov).

**Account Creation +**

---

**Select a Role**

---

**Primary Preparer**  
*Primary MAERS user that manages MAERS account information and can edit and submit MAERS report. This person must be employed at the source. Each source must have ONE, and only one, Primary Preparer.*

**Secondary Preparer**  
*MAERS user, other than the Primary Preparer, that can edit MAERS data and is employed at a source. Secondary Preparer cannot access facility MAERS information until assigned to the source by Primary Preparer.*

**Consultant**  
*MAERS user that can edit MAERS data, but is not employed at a source. Consultant cannot access facility MAERS information until assigned to the source by the Primary Preparer.*

**Reviewer**  
*MAERS user that can view but not edit MAERS data. Reviewer cannot access facility MAERS information until assigned to the source by the Primary Preparer.*

Figure 3-3: Select Role in Self-Registration

- **Primary Preparer** – This is the primary user at the company. Each company must have one primary preparer. The primary preparer must be associated with the company and cannot be a consultant. This person manages the facility’s online MAERS account and is responsible for assigning additional users as well as submitting the report when finished. This person can also complete or make edits to the MAERS report.

Note: If multiple people at a facility review and edit the MAERS report, then one person must be registered as the Primary Preparer and the other users should register as Secondary Preparers. If only one person will edit and submit the MAERS report, that person should register as the Primary Preparer.

- **Secondary Preparer** – This user is someone at the company, other than the Primary Preparer, who will be working on the MAERS report. The secondary preparer has access to the report and can make changes and edits to a facility’s MAERS report once they are assigned to the facility by the Primary Preparer. A person that registers as a secondary preparer can be associated with multiple facilities.
- **Consultant** – This role is similar to the Secondary Preparer except that they are a consultant rather than someone employed at the company. The Consultant has access to the report and can make changes and edits to the facility’s MAERS report once they are assigned to the facility by the facility’s Primary Preparer. A person that registers as a Consultant can be associated with multiple facilities.
- **Reviewer** – This is a user that has read-only access to the facility’s MAERS report. The Reviewer has access to the report but cannot make changes to the data. A person that registers as a Reviewer can only review the facility’s MAERS report if they have been associated to the facility by the facility’s Primary Preparer. A person that registers as a Reviewer can be associated with multiple facilities.

**Step 2:** Complete all required fields (denoted with a red star) in the Account Information section (Figure 3-4).

Figure 3-4: Account Information

**Step 3 (Primary Preparer Role ONLY):** Answer all security questions. These questions only appear if you are registering as a Primary Preparer (Figure 3-5).

Figure 3-5: Security Questions

**Step 4 (Primary Preparer Role ONLY):** Associate Facility(s). This field will only appear if you are registering as a Primary Preparer (Figure 3-6).

Click on the “Retrieve Facility Data” button. Any facilities that are associated with the e-mail address entered in the account information section will be displayed. If no facilities are displayed then you can manually enter the facility name, address, and State Registration Number (SRN) to which you want to be the primary preparer.

You should only enter those facilities to which you want to be the Primary Preparer. If a facility appears in the list that you do not want to be the Primary Preparer for, delete that facility from your list by clicking the delete button.

Facility Name	Address	SRN
Sample Corporation	555 W. Main St., Lansing, MI	Z9999

Figure 3-6: Retrieve Facility Data

**Step 5:** Read the MAERS Terms of Service in the Agreements and Policy section, then click on the checkbox to confirm reading and acceptance of the agreements.

**Step 6:** Click on the “Create Account” button to submit the self-registration.

**Step 7 (Primary Preparer Role ONLY):** Complete the Electronic Signature Agreement Form (Figure 3-7).

If you have registered as the Primary preparer for the facility you must complete and submit the e-signature agreement form. This form should be signed and dated by the Primary Preparer then mailed to the address indicated on the form. Within 2-3 days of receiving this form, the Air Quality Division (AQD) will activate your account and send you an e-mail with a PIN. The PIN serves as the Primary Preparer’s signature and will be used to submit the MAERS report.



Figure 3-7: E-Signature Agreement Form

**Step 8:** Receive e-mail confirmation.

Soon after you have registered you will receive an e-mail from the AQD (InfoMAERS@michigan.gov) that includes your MAERS user name and password. This user ID and password will be used to log into the MAERS system.

**WHAT NEXT?**

- **Primary Preparers:** Approximately 2-3 business days after you have registered and submitted the electronic signature agreement form you should receive an e-mail from the AQD notifying you that your MAERS account has been activated. This e-mail will also include your PIN to be used for submitting your MAERS report. Once you receive this e-mail you will be able to access MAERS with your user ID and password and associate additional users (Secondary Preparers, Consultants, and Reviewers) to the facility’s MAERS report.
- **Secondary Preparers, Consultants, and Reviewers:** After registering you will receive an e-mail confirmation and password. You will be able to log into MAERS but will not be able to view any facility specific MAERS data until associated with the facility by the Primary Preparer.

### Viewing Your Account Information

Click on the “My Account” tab to view your account information (Figure 3-8).

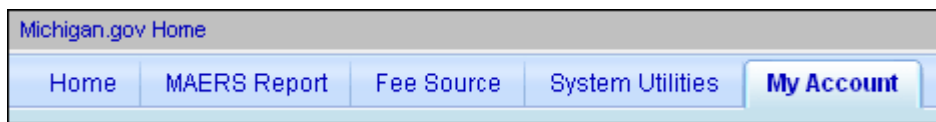



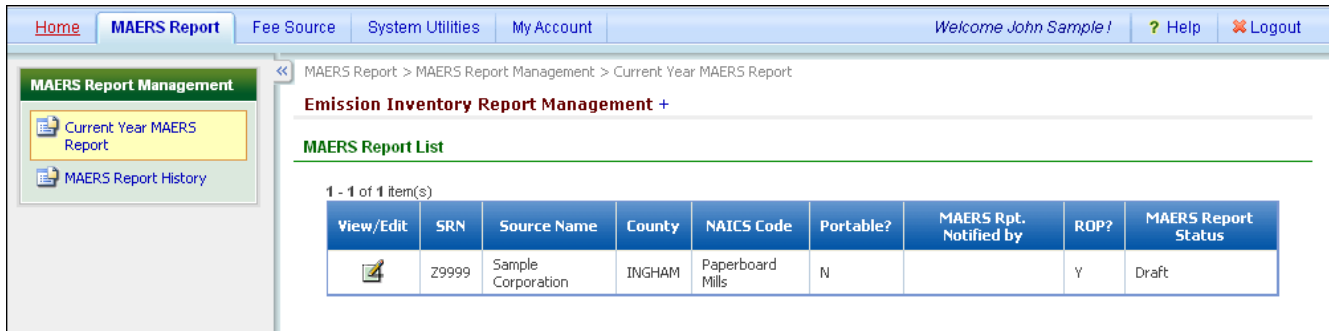
Figure 3-8: My Account Tab

This page should be used to keep you MAERS account information up-to-date and change your password. Users registered as a Primary Preparer can use this section to view their PIN and update security questions.

## Accessing a MAERS Report

Click on the MAERS Report tab to view all facility MAERS reports that have been assigned to you (Figure 3-9). One or more facilities may appear on this screen depending on how many have been assigned to you.

To view a MAERS report click on the view/edit icon . The MAERS Report should open on the "Source" Form.




View/Edit	SRN	Source Name	County	NAICS Code	Portable?	MAERS Rpt. Notified by	ROP?	MAERS Report Status
	Z9999	Sample Corporation	INGHAM	Paperboard Mills	N		Y	Draft

Figure 3-9: MAERS Report List

### What if No Facilities Appear on this Screen?

- If you are registered as a Primary Preparer and no facilities appear for you to view on the screen, it means that the AQD has not yet posted the MAERS Reports. MAERS reports will be posted in late December and all Primary Preparers will be notified when this occurs. If you receive notification that a MAERS report is ready to view but no report appears in the MAERS report list (Figure 3-9), you can send an e-mail to [infomaers@michigan.gov](mailto:infomaers@michigan.gov).
- If you are registered as a Secondary Preparer, Consultant, or Reviewer and no facilities appear for you to view on this screen, it means that the Primary Preparer for the Source has not yet assigned you to their source. You should contact the Primary Preparer for the source to request that you be assigned. Instructions for associating users to a particular facility can be found on page 14 and in Section 7 of this document.

### What if an Incorrect Source Appears in the MAERS Report List?

- Send an e-mail detailing the issue to [infomaers@michigan.gov](mailto:infomaers@michigan.gov).

## Associating Additional Users to a Source

If users other than the Primary Preparer need to have access to a facility's MAERS report (i.e., Secondary Preparer, Consultant, Reviewer), the Primary Preparer must associate those users with the facility. Section 7 provides more details on this functionality. Below is a quick guide for adding users.

*Note: Only those registered as a Primary Preparer have access to this function.*

**Step 1:** Go to the System Utilities tab and select Manage Users (Figure 3-10).

*Note: Only those registered as a Primary Preparer have access to this function.*

Users other than the facility Primary Preparer will not be able to access MAERS data for the facility unless associated with the source by the Primary Preparer.

**Step 2:** Click on the “Associate User” button.

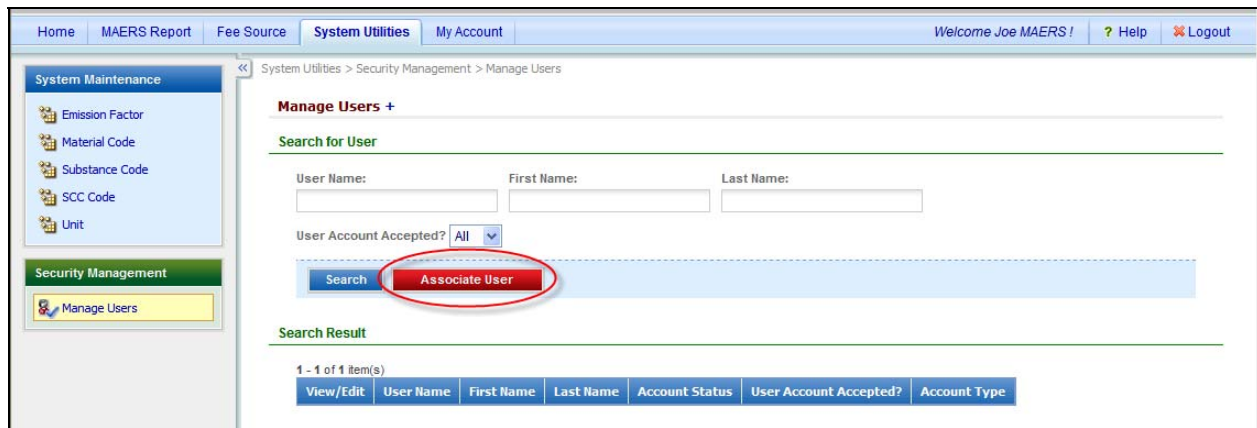


Figure 3-10: Manage Users

**Step 3:** Enter the e-mail address of the user that would like access to your facility and click search (Figure 3-11). If the person you want to grant access to is a registered MAERS user, their information will appear.

**Step 4:** Click on “Associate Found Users.”

The added user will appear in the search results on your “Manage User” screen (Figure 3-12).

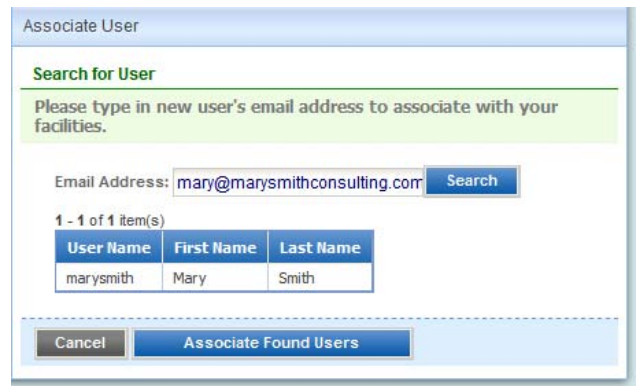


Figure 3-11: Search for User

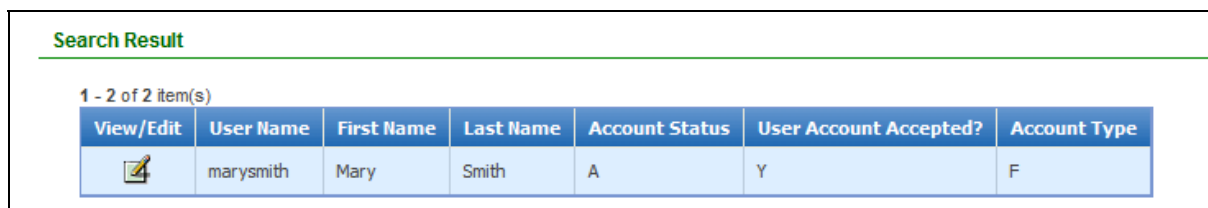


Figure 3-12: User List

**Step 5:** Click on the view/edit icon next to the user that was just added. You can view their account information.

**Step 6:** Click on the “Associate Facilities” tab. Check the facility you would like to give this user access to and assign a user role (preparer or reviewer) by clicking the drop down under “User Role” (Figure 4).

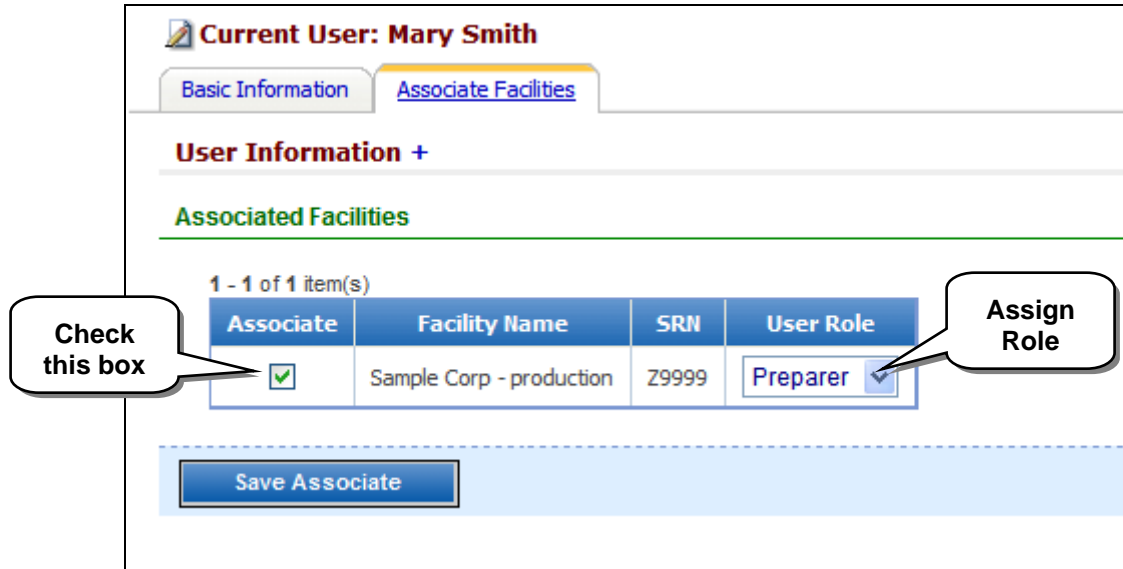


Figure 3-13: Associate User with Facility

**Step7:** Click on “Save Associate.” The user is now associated with the source. The facility’s MAERS data will now appear under their MAERS report tab when the user you have assigned logs into MAERS. *Note: MAERS reports are not posted until January. MAERS data may not be available to view or edit until that time.*

The user you have assigned will remain assigned to the source every year until you disassociate them with the source. If you no longer want to give a user access to the source’s MAERS data uncheck the box referenced in Step 6 and click on “Save Associate.” The user will no longer have access to the source’s MAERS data.

**Viewing Historical MAERS Data**

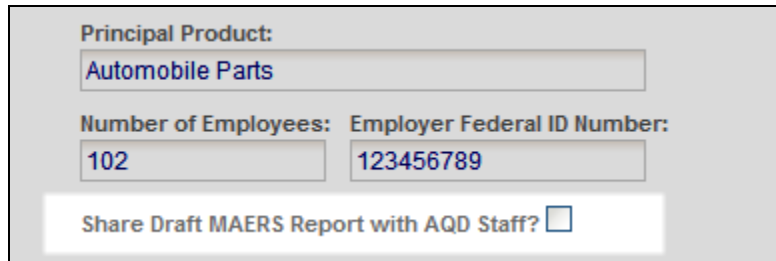
You can view MAERS reports submitted in previous years by clicking on MAERS Report History, located under the MAERS Report tab (Figure 3-14).



Figure 3-14: MAERS Report History

## Sharing a Draft of Your Report with the Air Quality Division

Your MAERS report cannot be viewed by the Air Quality Division (AQD) until it has been submitted. If you would like to share the draft version of your report with AQD staff, go to the Source form then click on the “Share Draft MAERS Report with AQD Staff?” box (Figure 3-15). This will allow AQD staff to view what you have completed in the draft version of your MAERS report. Users may choose to use this function if they are requesting help from the AQD on a specific issue and want to share the report as is. When the box is unchecked the AQD will no longer be able to view the draft MAERS report



Principal Product:  
 Automobile Parts

Number of Employees: 102      Employer Federal ID Number: 123456789

Share Draft MAERS Report with AQD Staff?

Figure 3-15: Share Draft MAERS Report

## Reporting Issues/Problems in MAERS

If you encounter a problem while using MAERS, please report it by clicking on the “Report Issue/Comment” link in the upper right corner of the screen (Figure 3-16) and complete the required fields. If necessary, AQD staff will respond to your issue in a timely manner. You can also send an e-mail to [infomaers@michigan.gov](mailto:infomaers@michigan.gov).



Figure 3-16: Report Issue/Comment

## 4 MAERS Report Form Completion

### Forms Overview

The Michigan Air Emissions Reporting System consists of six web-based forms. Each of the forms can be accessed from the menu on the left pane (Figure 4-1). To access a form, click on the link. Most data entered into MAERS during the previous year will be imported into the forms for the current reporting year.

Each form has data that must be completed. Required fields are marked with red star (★). An error will be displayed after you save the form if any required information is missing. You will need to resolve any errors prior to submitting the MAERS report.

Below is a description of each of the forms.

- **Source form:** This form records the source location and owner information (see page 19). Every source must complete this form.
- **Contact form:** This form records the contact information (see page 23). Every source must complete the contact information on this form. The fee contact is only required if the source is fee subject (see Appendix B)
- **Stack form:** This form applies to stacks connected to an emission unit reported on the EU-101 Emission Unit Form (see page 25). For each stack that must be reported, complete a Stack Form (see the threshold levels in Table 7-1 to determine which stacks need to be reported).
- **Emission Unit form:** This form records information concerning the operation of an emission unit (see page 31). An Emission Unit form must be completed for each emission unit that must be reported. Page 32 provides guidance on how to determine whether or not an emission unit should be included in MAERS.
- **Reporting Group form:** This optional form records a grouping of emission units that is created for simplification of reporting emissions (see page 41). It may be used to simplify reporting for multiple emission units with common activities.
- **Activity and Emission form:** This form has two parts that collect activity detail information (e.g., operating schedules, material information and throughput) and actual emissions information for each emission unit or reporting group (see page 43). Sources must complete an Activity and Emission form for each emission unit unless it is a part of a reporting group. The activity would then be captured at the reporting group level.

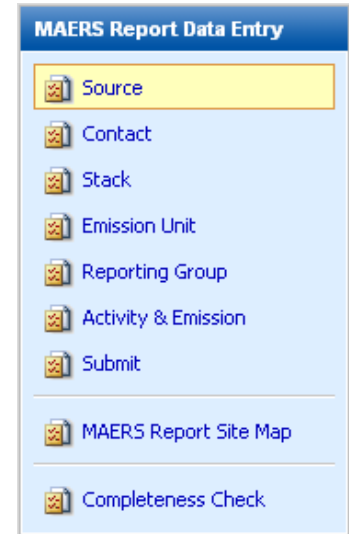


Figure 4-1: Form Menu



**Tip:** Be sure to click on the “save” button after making edits to a form. The save button is located at the bottom of each form.

## NOTES

## 5 Source Form

The Source Form collects basic information about the facility including location and ownership. For facilities that submitted a MAERS report during a previous year, this form should be entirely pre-filled. If information has changed or needs to be updated, edit the appropriate fields. If all the information is accurate and no editing is necessary, continue to the next form – the Contact Form.

For facilities submitting a MAERS report for the first time, this form will be partially completed. Follow the instructions for completing the required fields on the Source Form.

### Source Identification Section


Complete the required fields in this section if information needs to be updated or new information needs to be entered (Figure 5-1). Follow the steps below.

The screenshot shows a web form titled "Source Identification". It contains the following fields:

- Source Name:** A text input field containing "Sample Corporation".
- NAICS Code (if different from S-101):** A dropdown menu with a lookup icon to its left.
- Portable:** A dropdown menu with "No" selected.
- Street Address 1:** A text input field containing "555 W MAIN ST".
- Street Address 2:** An empty text input field.
- County:** A dropdown menu with "INGHAM" selected.
- City:** A dropdown menu with "LANSING" selected.
- State:** A dropdown menu with "MI" selected.
- Zip Code:** A text input field containing "48909" followed by a hyphen and an empty field.

Figure 5-1: Source Identification

**1. Source Name:** Enter the name of the source. For portable sources, enter the name of the company that owns the portable source.

**2. NAICS Code:** From the drop-down list, select the North American Industrial Classification System (NAICS) code that best describes the major product produced or service provided by your source (Figure 5-2). Click on the lookup icon  to search and select appropriate NAICS Codes.

The screenshot shows a "NAICS Search" interface. At the top, there are input fields for "NAICS Code:" and "NAICS Name:" with the value "automotive" entered. A "Search" button is to the right. Below the search bar, it says "1 - 6 of 6 item(s)". A table displays the search results:

	NAICS Code	NAICS Name	Description
<input type="radio"/>	441310	Automotive Parts and Accessories Stores	Automotive Parts and Accessories Stores
<input type="radio"/>	811112	Automotive Exhaust System Repair	Automotive Exhaust System Repair
<input type="radio"/>	811113	Automotive Transmission Repair	Automotive Transmission Repair
<input type="radio"/>	811121	Automotive Body, Paint, and Interior Repair and Ma	Automotive Body, Paint, and Interior Repair and Maintenance
<input type="radio"/>	811122	Automotive Glass Replacement Shops	Automotive Glass Replacement Shops
<input type="radio"/>	811191	Automotive Oil Change and Lubrication Shops	Automotive Oil Change and Lubrication Shops

Figure 5-2: NAICS Search

**3. Portable:** From the drop-down list, select “Yes” if the source is portable (e.g. asphalt batch plant). Select “No” if this is a stationary source.

**4. Source Address**

**Street Address 1:** This is the street number and name where the emission unit(s) is located. Enter the address of the source where the equipment is located. DO NOT use a post office box number. For portable sources, enter the address of the home or main office.

**County:** From the drop-down list, select the county where the source is located. For portable sources, select the county where the home or main office is located.

**City:** From the drop-down list, select the city where the source is located. For portable sources, select the city where the home or main office is located.

**Zip Code:** Enter the zip code. The zip code must represent the city where the source is located. For portable sources, enter the zip code of the city selected in the previous field.

The screenshot shows a web form for source identification. It includes input fields for Latitude (42.72539000) and Longitude (-84.55936000), with buttons for 'Get Lat/Lon', 'Map by Lat/Long', and 'Use Deg:Min:Sec Format'. Below these are dropdown menus for 'Horizontal Collection Method' (set to 'The geographic coordinate determination method is based on a digital map source (TIGER)'), 'Horizontal Accuracy Measure' (25 Meters), and 'Horizontal Reference Datum' (North American Datum of 1983). There are also fields for 'Source Map Scale', 'Reference Point Code' (Center of a Facility/System), 'Principal Product' (Automobile Parts), 'Number of Employees' (102), and 'Employer Federal ID Number' (123456789). A checkbox for 'Share Draft MAERS Report with AOD Staff?' is present. A callout box on the right states: 'Latitudes and longitudes that have been verified by AQD staff will be grayed out and cannot be modified. If a verified latitude or longitude is incorrect, please send an e-mail to [INFOMAERS@Michigan.gov](mailto:INFOMAERS@Michigan.gov) with the correct information.'

Figure 5-3: Source Identification Section (continued)

**5. Latitude:** Enter the source’s latitude in decimal degrees or in Degree:Minute:Second format. Use the “Deg:Min:Sec Format” button to toggle the formats. If you do not know the facility’s latitude, use the Get Lat/Lon function by clicking the “Get Lat/Lon button.”

**6. Longitude:** Enter the source’s Longitude in decimal degrees or in Degree:Minute:Second format. Use the “Deg:Min:Sec Format” button to toggle the formats. If you do not know the facility’s longitude, use the Get Lat/Lon function by clicking the “Get Lat/Lon button.”

To verify the coordinates entered click on “Map by Lat/Long.” A map will appear noting the facility location. If the mapped location is incorrect, click on the correct location and click “Update.” The lat/long fields will update with the correct coordinates.

**7. Horizontal Collection Method:** From the drop-down list, select the collection method used to determine the latitude and longitude listed.

**8. Source Map Scale:** Enter the scale of the map used. This field is only required if the horizontal collection method code entered is “The geographic coordinate determination method based on interpolation-map.”

**9. Horizontal Accuracy:** Enter the accuracy measure of the collection method and report in meters, based on the map or GPS used. If you are using a website, enter 25 meters.

**10. Horizontal Reference Datum:** From the drop-down list, select the datum code used to determine the latitude and longitude. If you are using a GPS, please select the applicable code should be listed in the instruction booklet.

**11. Reference Point Code:** From the drop-down list, select the point that best describes the location where the latitude and longitude were taken. For instance, if you are using horizontal collection method code “The geographic coordinate determination method based on address matching-house number,” reference point code “Entrance of a facility or station” may be used. If you are using a GPS, choose the point closest to where you were standing when reading the GPS, such as code “Center of a facility or station.”

**12. Number of Employees:** Enter the average number of people employed at this location.

**13. Principal Product:** Enter the principal product produced at the source (e.g., “Large Appliances”).

**14. Employer Federal ID Number:** Enter the source’s Federal Employer Identification Number. Do not use Social Security Numbers. For accounting purposes, the federal employer identification number is required. This number is usually obtained at your payroll office.

**Sharing a Draft of your Report with the Air Quality Division**

Your MAERS report cannot be viewed by the Air Quality Division until it has been submitted. If you would like to share the draft version of your report with AQD staff, you can click on the “Share Draft MAERS Report with AQD Staff?” box. This will allow AQD staff to view what you have completed in the draft version of your MAERS report. Users may choose to use this function if they are requesting help from the AQD on a specific issue and want to share the report as is. When the box is unchecked the AQD will no longer be able to view the draft MAERS report.

Number of Employees: 102  
 Employer Federal ID Number: 123456789  
 Share Draft MAERS Report with AQD Staff?

**Owner Information Section**

Complete the required fields in this section if information needs to be updated or new information needs to be entered (Figure 5-4).

**17. Owner Name:** Enter the name of the owner of the source or the parent/holding company.

**18. Contact Address:** If the owner’s address is identical to the source address, leave these fields blank. If the owner’s address is different than the source address, complete these fields. Fill out the name and address exactly as it should appear on all correspondence.

**Owner Information**

Owner Name: SAMPLE CORP.  
 Street Address 1:  
 Street Address 2:  
 City: State: AK Zip Code: Country: United States

Figure 5-4: Owner Information Section

## NOTES

## 6 Contact Form

The Contact Form collects information for the emission inventory contact person and the fee invoice contact person. The emission inventory contact person is the person who the Air Quality Division (AQD) will call if they have questions about the submitted MAERS information. In addition, the annual notification in January will be sent to the emission inventory contact person. Information for a secondary contact person may be provided. It will be used by AQD in the case when the primary contact person may not be available.

The AQD will contact the fee invoice contact person for information relating to fees. Only facilities that are subject to fees are required to include fee invoice contact information.

For facilities that submitted a MAERS report in a previous year, this form should be entirely pre-filled. If information has changed or needs to be updated, edit the appropriate fields. If all the information is accurate and no editing is necessary, continue to the Stack Form.

### Emission Inventory Contact Section

If existing information needs to be updated or new information needs to be entered, complete the required fields in this section (Figure 6-1). Follow the steps below.

**1. Primary Contact Information:** A source contact, not a consultant, law firm, etc., must be identified. The address entered is where future MAERS correspondence will be sent.

Enter the name, mailing address, telephone number (including extension and fax number), and e-mail address.

**2. Secondary Contact Information:** A secondary contact may or may not be identified. This person must be a source contact, not a consultant, law firm, etc. This address is where future MAERS correspondence will be sent when the primary contact cannot be reached.

Enter the name, mailing address, telephone number (including extension and fax number), and e-mail address.

The screenshot shows a web form with two tabs: "Emission Inventory Contact" and "Fee Invoice Contact". The "Emission Inventory Contact" tab is active. At the top, there is a checkbox labeled "Copy Fee Contact Address". Below this, the section is titled "Emission Inventory Contact (Primary preparer)". The form contains several fields with red asterisks indicating required information:

- First Name: John
- Middle Initial: [empty]
- Last Name: Sample
- Title: Env Manager
- Street Address 1: 555 W. Main St
- Street Address 2: [empty]
- City: Lansing
- State: MI (dropdown)
- Zip Code: 48909
- Country: United States (dropdown)
- Email Address: jsample@samplecorp.com
- Area Code: 517
- Phone No.: 1234567
- Extension: [empty]
- Area Code: [empty]
- Fax Number: [empty]

Figure 6-1: Emission Inventory Contact

## Fee Invoice Contact Section

Fee subject sources must complete this area. If existing information needs to be updated or new information needs to be entered, complete the required fields in this section (Figure 6-2). Follow the steps below.

### 1. Fee Invoice Contact Information

Enter the source contact, mailing address, telephone number (including extension and fax number), and e-mail address. This person should be from the facility (i.e. not a consultant, law firm, etc.). This address is where all invoices will be sent for payment processing.

Copy Emission Inventory Contact Address

**Fee Invoice Contact**

\* First Name:  Middle Initial:  \* Last Name:

Title:

\* Street Address 1:

Street Address 2:

\* City:  State:  \* Zip Code:  Country:

\* Email Address:

\* Area Code:  \* Phone No.:  Extension:

Area Code:  Fax Number:

Figure 6-2: Fee Invoice Contact

## 7 Stack Form

The Stack Form collects information about stacks that are connected to emission units listed on the Emission Unit Form.

Stack information must be reported for all stacks that have actual emissions of any pollutant equal to or greater than the threshold levels listed in Table 7-1 (see below). These threshold levels refer to the amount of emissions per emission unit, not per stack. For example, if one emission unit has two stacks and individually each stack is below the threshold levels, but combined the threshold levels are exceeded, the stacks must be reported. However, if more than one emission unit exhausts through one stack and each emission unit is below the threshold levels, but the combined amount exceeds the threshold levels, the stack must be reported (Figure 7-1).

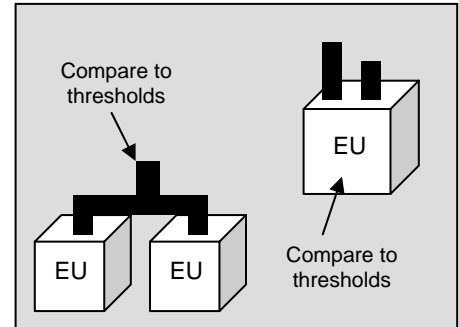



Figure 7-1: Stack Thresholds

If an existing stack that was entered during a previous year falls below the threshold levels during the current reporting year, it can be deleted from MAERS by clicking the "Delete" icon for this stack (see page 29). However, this means that only the stack form does not have to be completed – all of the other MAERS forms are still required. The emissions from the stack must still be reported on the Emission form because the emissions are reported at the emission unit level, not at the stack level.

Table 7-1: Stack Reporting Threshold Levels.

POLLUTANT	THRESHOLD LEVEL (tons per year)
Carbon monoxide (CO)	100
Nitrogen oxides (NO <sub>x</sub> )	40
Sulfur dioxide (SO <sub>2</sub> )	40
Particulate matter (PM)	25
Particulate matter < 10 microns (PM <sub>10</sub> )	15
Volatile organic compounds (VOC)	10
Lead (Pb)	0.6



**TIP:** If you are unsure as to whether or not your emission unit exceeds the thresholds listed in Table 7-1, wait to complete this form until after you have completed the Activity and Emissions Form. The Emissions Form provides the emissions data needed to compare to the thresholds.

**NOTE:** It is **HIGHLY** recommended that facilities subject to the ROP program report all stacks with applicable requirements. Stacks with applicable requirements must be reported in the ROP renewal application. If these stacks are reported in MAERS you will not have to complete Stack forms in your ROP application.

## Stack Form Completion Instructions

If a stack at your facility exceeds the thresholds in Table 7-1, it must be identified on a stack form. If the stack was added during a previous year, this information will be pre-filled. If you do not have any stacks that exceed the thresholds in Table 7-1 or if the information pre-filled is still accurate, you do not need to complete this form and may proceed to the Emission Unit form. If any information about any stack is incorrect, enter the correct information in the Stack Identification Section. Following is an explanation of each section of the Stack form, as well as step-by-step instructions on how to complete the required fields.

## Stack List

The stack list displays all the stack records currently in the MAERS report for this source (Figure 7-2). Click the "View/Edit" icon to edit an existing stack, the "Delete" icon to delete an existing stack, or the "Add New Stack" button to add a new stack for this source.















Stack List				
Items per page: 100 <input type="button" value="v"/>				
1 - 7 of 7 item(s)				
View/Edit	Stack ID	Description	Dismantle Date	Delete
	SV-BOILER	BOILER STACK		
	SV-COAT1-1	COATING LINE 1, BOOTH 1 STACK		
	SV-COAT1-2	COATING LINE 1, PAINT BOOTH 2 STACK		
	SV-COAT1-3	COATING LINE 1, BOOTH 3 STACK		
	SV-COAT2	COATING LINE 2 STACK		
	SV-OVEN1	OVEN 1 STACK		
	SV-OVEN2	OVEN 2 STACK		

Figure 7-2: Stack List

## Stack Identification Section

If you choose to edit an existing stack or add a new stack, the stack detail page will display (Figure 7-3). Complete the fields in this section for new stacks or to make changes to old information. Follow the steps below.

**Stack Identification**

\* Stack ID:  Dismantle Date:

Stack Description:

\* Actual Stack Height Above Ground:  feet \* Inside Stack Diameter:  inches

Exit Gas Temperature:  degrees Fahrenheit Actual Exit Gas Flow Rate:  cubic feet per minute Exit Velocity of Gas:  feet per second

Stack Orientation:

Latitude:

Longitude:

Horizontal Collection Method:

Horizontal Accuracy Measure:  meters Horizontal Reference Datum:

Source Map Scale:

Reference Point Code:

Bypass Stack Only:  If Yes, Main Stack ID:

Figure 7-3: Section of Stack Identification

- Stack ID:** This is the form preparer's Stack ID. Enter a unique ID for each stack that must be reported. Stack IDs begin with an "SV" prefix plus any combination of up to 14 letters, numbers, or keyboard characters. Spaces are not allowed within the operator's ID. Stack IDs may have already been established in an ROP or Permit to Install. If so, be sure to use the ID that is in the permit. If a stack ID does not already exist, create an ID that is easy to associate with the stack that it represents (e.g. SV-STACK#1, SV-BOILER#3).
- Dismantle Date:** If the stack was dismantled or rendered permanently inoperable during the reporting year, enter the date that this occurred. Although the stack has been dismantled, the remainder of the fields must still be completed. If a dismantle date is entered, do not delete this stack from the stack list (Figure 7-2) because a dismantled stack may still require emissions reporting for this year. If this is a portable source, the dismantle date should be left blank.

- 3. Stack Description:** Provide a brief description of the stack.
- 4. Actual Stack Height Above Ground:** Enter the height of the stack in feet from the ground up to the discharge point.
- 5. Inside Stack Diameter:** If the stack is circular, enter the inside top stack diameter. If the stack is rectangular, convert the area inside of the stack to a circular diameter using the following procedure:
  - (a) Obtain the length and width in inches.
  - (b) Calculate the area by multiplying the length times the width.
  - (c) Divide the area by 3.14.
  - (d) Take the square root of the value from step (c) to obtain the radius.
  - (e) Calculate the diameter by multiplying the radius (from step [d]) by 2.
  - (f) Enter the diameter (from step [e]) in item 5.
- 6. Exit Gas Temperature:** Enter the stack exit gas temperature in degrees Fahrenheit.
- 7. Actual Exit Gas Flow Rate:** Enter the stack exhaust volume in actual cubic feet per minute, at actual operating load and temperature.
- 8. Stack Orientation:** From the drop-down list, select the most appropriate orientation.

For steps 9 through 15, smaller sources can use the same coordinate information that was entered on the source form. Larger sources should enter the specific coordinates for each stack. These fields are not required for portable sources.

- 9. Latitude:** Enter the source's latitude in decimal degrees or in Degree:Minute:Second format. Use the "Use Deg:Min:Sec Format" button to toggle the formats. If you do not know the facility's latitude, use the "Get Lat/Lon" function by clicking the "Get Lat/Lon" button in the source form.
- 10. Longitude:** Enter the source's Longitude in decimal degrees or in Degree:Minute:Second format. Use the "Use Deg:Min:Sec Format" button to toggle the formats. If you do not know the facility's longitude, use the "Get Lat/Lon" function by clicking "Get Lat/Lon" button in the source form.
- 11. Horizontal Collection Method:** From the drop-down list, select the collection method used to determine the latitude and longitude listed.
- 12. Source Map Scale:** Enter the scale of the map used. This field is only required if the horizontal collection method code entered is "The geographic coordinate determination method based on interpolation-map."
- 13. Horizontal Accuracy:** Enter the accuracy measure of the collection method and report in meters, based on the map or GPS used. If you are using a website, enter 25 meters.

14. **Horizontal Reference Datum:** From the drop-down list, select the datum code used to determine the latitude and longitude. If you are using a GPS, the code should be listed in the instruction booklet.
15. **Reference Point Code:** From the drop-down list, select the point that best describes the location where the latitude and longitude were taken. For instance, if using horizontal collection method code "The geographic coordinate determination method based on address matching-house number" reference point code "Point where substance is released" may be used. If using a GPS, choose the point closest to where you were standing when reading the GPS.
16. **Bypass Stack Only:** From the drop-down list, select "Yes" if this stack is used only when emissions are bypassing the emission control equipment. Otherwise, select "No."
17. **If Yes, Main Stack ID:** If "Yes" was selected for Step 16, select the Stack ID of the stack that this vent bypasses. Otherwise, leave this field blank.

### Adding a Stack

Follow the steps below to add a stack to your MAERS report.

1. Click "Add New Stack" in the stack list (Figure 7-4).
2. A new stack form will be displayed for you to complete.
3. Follow Steps 1 – 17 in the Form Completion Instructions.

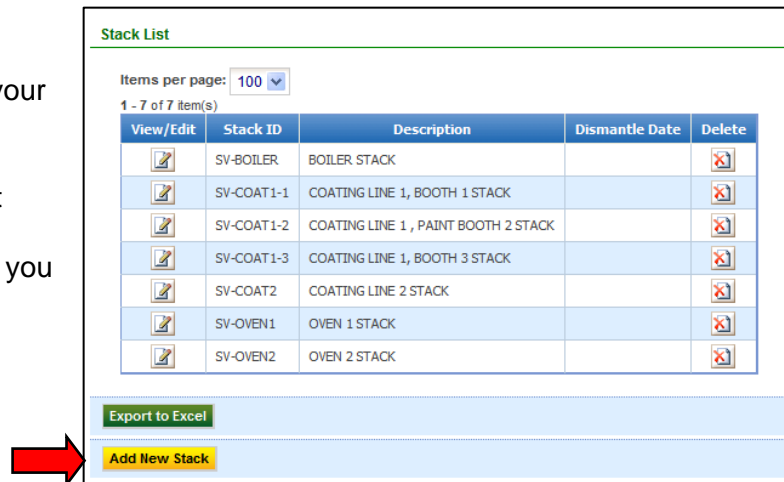


Figure 7-4: Adding/Deleting a Stack Record

### Deleting a Stack

If you have stack information that you would like to delete, follow the steps below.

1. In the stack list, click the "Delete" icon to delete a stack (Figure 7-4).
2. If this stack is newly added this year, the stack will be directly deleted. If this stack has been reported in a previous reporting year, follow the instructions in the pop-up windows to delete this stack.

If the stack was dismantled or rendered permanently inoperable during the last reporting year do NOT delete the stack but rather enter a dismantle date on the stack's form.

Note: Think carefully when you delete a stack. Even if emissions are below the thresholds for this reporting year, you may want to keep the stack in your MAERS report. The emissions may exceed the thresholds in future years.

## NOTES

## 8 Emission Unit Form

The Emission Unit Form identifies and describes a facility's emission units. Emission units that were entered during previous reporting periods will be pre-filled. If you have an emission unit at your facility that is not already included on the emission unit form, it may need to be added. Use the guidelines on the following pages to help you determine which emission units at your facility need to be reported.

### Important Terms

**Emission Unit:** A device or group of devices that operate together with a dependency between devices and emit or have the potential to emit an air contaminant. An emission unit contains at least one process device and may contain control devices and related stacks. Examples of an emission unit include:

- a single degreaser (degreaser only)
- a topcoat painting line (booths, ovens, incinerator, stacks)
- a chemical manufacturing process (reactors, condensers, dryers, baghouse, stacks)
- a coal-fired boiler (boiler, stack)

Facilities may have hundreds or even thousands of process devices on site. It would be difficult for these facilities to report emissions of air contaminants from each individual process device. To simplify the reporting of air contaminants from all these devices, the AQD has introduced the concept of the emission unit. Facilities are required to report their emissions of air contaminants in MAERS by emission unit. An emission unit contains at least one process device, zero or more control devices, and zero or more stack devices.

**Rule 201 Exempt Emission Unit:** An emission unit that is specifically exempted from Rule 201 in Rules 279 –290 of the Michigan Air Pollution Control Rules and not subject to Rule 278.

Rule 201 of the Michigan Air Pollution Control Rules requires that a Permit to Install be obtained prior to the installation, construction, or modification of a source of air contaminants or any emission unit. An emission unit is considered "Rule 201 exempt" (i.e., not subject to Rule 201) if it meets all of the following:

- The emission unit is identified in one of the rules that exempt insignificant sources of air contaminants from having to obtain a Permit to Install under (i.e., Rules 280 through 290 of the Michigan Air Pollution Control Rules, see Appendix C).

The emission unit is not subject to Rule 278 (see Appendix C for the rule). If an emission unit will result in a significant net emission increase as defined in Rule 278, the permit exemptions in Rules 280-290 do not apply. In other words, the facility must apply for a Permit to Install. Contact the Environmental Assistance Program (800) 662-9278 if you need more information about Rule 278.

## What Emission Units Need To Be Reported?

The emission unit form is used to report information about the emission units at your facility; however, not all emission units may need to be reported in MAERS. The guidelines below and the decision tree on page 33 will help you decide when to include an emission unit in your MAERS report.

- 1. If the emission unit is not Rule 201 exempt:** It must be reported (this includes grandfathered emission units).
- 2. If the emission unit is Rule 201 exempt:** It must be reported if it meets any one of the following:

- The Rule 201 exempt emission unit is included in a Permit to Install, Opt Out Permit, or Renewable Operating Permit (ROP).

***Note:** A Synthetic Minor or Opt Out Permit is a type of permit that sets legally enforceable limits on a facility's potential to emit. Facilities that would otherwise be subject to the ROP Program use the Opt Out Permit as a way to set limits on their emissions and stay below the threshold that would require them to obtain an ROP.*

- The facility is subject to the ROP Program and the Rule 201 exempt emission unit is subject to a process-specific emission limit or standard (e.g. MACT or NSPS).
- The facility is subject to the ROP Program and the actual emissions from the Rule 201 exempt emission unit exceed 10 percent of significant, as defined in Rule 119(e) (see Table 8-2).
- The Rule that exempts the emission unit is identified in Table 8-1 and exceeds the corresponding throughput or equipment size listed.



**TIP:** If an emission unit is included in an ROP, it must be included in the MAERS report.



**Table 8-1: Rule 201 Exempt Emission Units that must be reported in MAERS\***

RULE 201 EXEMPTION	REPORTING REQUIREMENT
Rule 281(h)	Only report emissions of applicable criteria pollutants for cold cleaners having a total annual throughput greater than 1,000 gallons of cleaner. <i>Total annual throughput of cleaner = (cleaner used) – (cleaner reclaimed as waste)</i>
Rule 282(b)	Only report emissions of applicable criteria pollutants from fuel burning equipment that have a total annual throughput equal to or greater than any of the following: 50,000,000 cubic feet of gases in Rule 282(b)(i), 400,000 gallons of fuel oil in Rule 282(b)(ii), and 1,000 tons of wood in Rule 282(b)(iii).
Rule 283(1)(c)	Report all emissions of applicable criteria pollutants if the testing medium contains a VOC.
Rule 283(1)(d)	Report all emissions of applicable criteria pollutants if the testing medium contains a VOC.
Rule 284(e)	Report all emissions of applicable criteria pollutants.
Rule 284(f)	Report all emissions of applicable criteria pollutants.
Rule 285(g)	Only report emissions of applicable criteria pollutants for engines with 300 horsepower and larger. Exclude emergency generators whose sole function is to provide back-up power when local utility service is interrupted.
Rule 285(l)(vi)(C)	Only report emissions of applicable criteria pollutants for equipment operating at a rate of 30,000 cubic feet per minute or higher.
Rule 285(p)	Only report emissions of applicable criteria pollutants for annual grain throughputs equal to or greater than 4,000,000 bushels.
Rule 285(r)(iv)	Only report emissions of applicable criteria pollutants for cold cleaners having a total annual throughput greater than 1,000 gallons of cleaner. <i>Total annual throughput of cleaner = (cleaner used) – (cleaner reclaimed as waste)</i>
Rule 285(aa)	Report all emissions of applicable criteria pollutants.
Rule 286(b)	Report emissions of applicable criteria pollutants when 3,000 tons or more of plastic is processed annually (aggregate of all plastic processes combined).
Rule 287(c)	Report all emissions of applicable criteria pollutants.
Rule 290	Report all emissions of applicable criteria pollutants.

\* Rules 280 through 290 can be accessed at [www.michigan.gov/air](http://www.michigan.gov/air) (click on “Laws and Rules” then “Air Pollution Control Rules”).

Table 8-1 specifies when certain Rule 201 exempt emission units must be reported in MAERS. Consider the following example: If a non-ROP facility has three cold cleaners that are exempt from the Permit to Install requirement under Rule 281(h), but during the reporting year had an aggregate annual throughput of 1,500 gallons of cleaner, they must be reported. If the cold cleaners had an annual aggregate throughput of 600 gallons, they would not have to be reported.

Note: If “Report all emissions of applicable criteria pollutants” appears after the rule in Table 8-1 (e.g. Rule 287(c) and Rule 290), it means that an Emission Unit Form and Activity and Emissions Form must be completed for that emission unit, regardless of throughput.

**Table 8-2: Significant Levels**

Pollutant	Significant Level (Rule 119(e)) tons/year	10% of Significant Level tons/year
Carbon monoxide (CO)	100	10
Nitrogen oxides (NO <sub>x</sub> )	40	4
Sulfur dioxide (SO <sub>2</sub> )	40	4
Particulate matter (PM)	25	2.5
PM-10	15	1.5
Volatile organic compounds (VOC)	40	4
Lead (Pb)	0.6	0.06

*Rule 201 exempt emission units that are not required to be included in your MAERS report can still be included on the Emission Unit form; however, throughput and annual emissions information, normally provided on the Activity and Emissions form, will not have to be entered. You may want to retain a Rule 201 exempt emission unit that does not have to be reported in MAERS for recordkeeping purposes, should the throughput exceed the reporting thresholds in future reporting years.*

### Emission Unit Form Completion Instructions

For emission units that were added in previous years, the information will already be pre-filled. If any information has changed or needs to be updated, edit the appropriate fields. If no emission units were added during the reporting period and if all the information that is pre-filled is still accurate, you do not have to complete this form and you may proceed to the reporting group or activity form.

If an emission unit was added to your facility during the reporting period and it must be reported, add it to the emission unit form by clicking the "Add New Emission Unit" button.

### Emission Unit List

This section lists all the reported emission units for this source (Figure 8-1). Click the "View/Edit" icon to edit an emission unit, the "Delete" icon to delete an emission unit, or the "Add New Emission Unit" button to add a new emission unit.

View/Edit	Emission Unit ID	Emission Unit Desc	Installed Date	Dismantle Date	Delete
	EU-BOILER	80,000,000 BTU/HR NATURAL GAS FIRED BOILER	05/01/1990		
	EU-COAT1	MAIN COATING LINE, 3 SPRAY BOOTHS	05/15/1990		
	EU-COAT2	SECONDARY PAINT LINE, 1 SPRAY BOOTH	06/25/1990		
	EU-COLD/CLEAN	2 COLD CLEANERS	06/02/1994		
	EU-OVEN1	DRY OFF OVEN FOR COATING LINE 1. NATURAL GAS FIRED. 700,000 BTU/HR	05/20/1990		
	EU-OVEN2	DRY OFF OVEN FOR COATING LINE 2. NATURAL GAS FIRED. 100,000 BTU/HR	01/01/2010		
	EU-PURGE/CLEAN	CLEAN UP AND PURGE OPERATIONS THROUGHOUT FACILITY	07/08/1990		

*Figure 8-1: Emission Unit List*


## Emission Unit Identification Section

Complete the fields in this section for new emission units or to make changes to the previous year's report (Figure 8-2). Follow the steps below.

The screenshot shows a web-based form titled "Emission Unit Identification". It contains the following fields and values:

- Emission Unit ID:** EU-BOILER
- Emission Unit Type:** Boiler
- NAICS Code (if different from S-101):** (Empty)
- Installation Date:** 05/01/1990
- Dismantle Date:** (Empty)
- Emission Unit Description:** 80,000,000 BTU/HR NATURAL GAS FIRED BOILER

Figure 8-2: Emission Unit Identification Section

- Emission Unit ID:** Enter a unique ID for this emission unit. Emission Unit IDs must begin with an "EU" prefix plus any combination of up to 14 letters, numbers, or keyboard characters. Spaces are not allowed within the ID. Make the emission unit ID specific and easy to associate with the emission unit(s) it represents (e.g. EU-PAINTBOOTHs, EU-BOILER#2).
- Emission Unit Type:** Choose the most appropriate emission unit type from the drop down list.
- NAICS Code:** If the North American Industrial Classification System (NAICS) code for this emission unit is different than the NAICS code that was identified on the Source form, select from the drop-down list the NAICS code that best describes the major product produced or service provided by your source. Please click  to search and select appropriate NAICS Codes.
- Installation Date:** Enter the date that the emission unit was first installed using the date format provided (MM/DD/YYYY).
- Dismantle Date:** If the emission unit was dismantled or rendered permanently inoperable during the reporting year, enter the date that this occurred. Although the emission unit has been dismantled, the remaining fields must still be completed. If this is a portable source, the dismantle date should be left blank. Do not complete this field if it is not applicable to the emission unit.
- Emission Unit Description:** Enter a brief narrative description of the emission unit. Make sure that this description is specific and will help to identify the emission unit, especially if there are several emission units that are alike.

## Capacity Information Section

**Capacity Information**

Is this a combustion source?

\* Design Capacity:  \* Design Capacity Unit Numerator:  \* Design Capacity Unit Denominator:

\* Is this combustion source used to generate electricity?

\* Maximum Nameplate Capacity:  Megawatts

Figure 8-3: Capacity Information Section

7. **Is this a Combustion Source?:** If the emission unit is source of combustion (e.g., a boiler, turbine, or engine) choose “Yes” from the drop-down list.
8. **Design Capacity:** Only complete this field if the emission unit is a boiler or turbine. Enter the design capacity of the boiler or turbine.
9. **Design Capacity Numerator and Denominator:** Only complete these fields if you completed the Design Capacity field in Step 8.
  - Design Capacity Unit Numerator: Choose the appropriate code from the Unit Code drop-down list. If the emission unit is a boiler, the numerator should be BTUs (BTU), Million BTUs (MMBTU) or Horsepower (HP).
  - Design Capacity Unit Denominator: Choose the appropriate code from the Unit Code drop-down list. If the emission unit is a boiler, report the denominator as Hour (HR). (If the numerator is Horsepower (HP), the denominator does not apply. Leave this field blank.)
10. **Is this combustion source used to generate electricity:** Choose “Yes” if this emission unit is used to generate electricity.
11. **Maximum Nameplate Capacity:** Only complete this field if this emission unit is used to generate electricity. Report the electric generator’s rated design capacity at 100% (maximum) operation in megawatts.

## Permit Applicability Section

**Permit Applicability**

---

★ Grandfathered? 
 ★ Rule 201 Exempt: 
 ★ If Exempt, Rule Number:

★ If Rule 201 Exempt, is Throughput Below Reporting Threshold?

★ Permitted? 
 ★ If Yes, Enter the Permit Number:

★ Is This Emission Unit Required To Report Emissions To MAERS For This Reporting Year?

Figure 8-4: Emission Unit Identification Section

- 12. Grandfathered?:** Select “Yes” if this emission unit is considered to be “Grandfathered.” To be a Grandfathered emission unit it must have been installed prior to August 15, 1967, never been modified, reconstructed, or relocated after August 15, 1967, and not Rule 201 exempt.
- 13. Rule 201 Exempt:** Select “Yes” if this is a Rule 201 exempt emission unit (see page 31 for the definition of “Rule 201 Exempt Emission Unit”). Select “No” if the emission unit is not a Rule 201 exempt emission unit. If “No” is selected, skip Steps 14 and 15.
- 14. If Yes, Rule Number:** The drop-down list provides rule citations for the exemptions listed in Table 8-1. If “Yes” was selected in the previous field, select the specific rule under which the emission unit is considered exempt. For example, if this is a Rule 201 exempt cold cleaner pursuant to Rule 285(r)(iv) of the Michigan Air Pollution Control Rules, select “Rule 285(r)(iv).” If a particular rule is not listed, select “Other” and provide the correct rule number in the “Operator’s Emission Unit Description” field.
- 15. If Rule 201 Exempt, is Throughput Below Reporting Threshold?:** Compare the annual throughput to the specific rule listed in Table 8-1. If the throughput is below the threshold, select “Yes.” If the emission unit exceeded the threshold listed under the exemption in Table 8-1, select “No” and continue. For some exemptions it is required that all emissions be reported (e.g. Rule 287(c) and Rule 290). If the emission unit is exempt under one of these rules, select “No” as well.
- 16. Permitted?:** Select “Yes” if this emission unit is identified in a permit (i.e., Permit to Install or Renewable Operating Permit). If this emission unit is not permitted, select “No.”
- 17. If Yes, Enter the Permit Number:** If “Yes” was selected in the previous field (Step 16), enter the appropriate permit number (e.g. 115-87 or 115-87A, MI-ROP-Z9999-2007).

**18. Is This Emission Unit Required To Report Emissions To MAERS For This Reporting**

**Year?:** Refer to the discussion, "What Emission Units Need to be Reported." Select "Yes" if the emission unit is any of the following:

- Not Rule 201 exempt (this includes grandfathered emission units).
- Rule 201 exempt and included in a Permit to Install, Opt Out Permit, or ROP.
- If an ROP source, Rule 201 exempt and subject to a process-specific limitation or standard (e.g., MACT or NSPS)
- If an ROP source, Rule 201 exempt and the actual emissions exceed 10 percent of significant level.
- Rule 201 exempt where emissions reporting is required (see Table 8-1).

If this emission unit does not need to be reported select "No." If "No" is a selected, no other forms need to be completed for this emission unit.

**Control Device Section**

**19. Control Device Code:** If there is a control device associated with the emission unit, select the most appropriate control device from the drop-down list (Figure 8-5).

If there is more than one control device, additional control device codes may be added. Follow the steps below to add a control device.

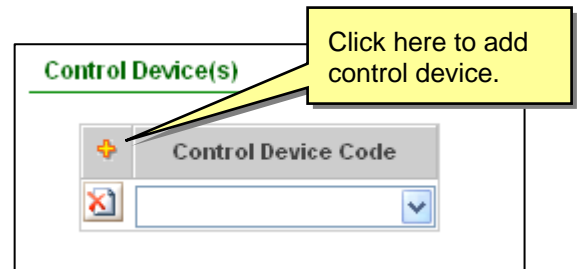


Figure 8-5: Control Devices

(a) After the first control device code has been selected, click the "+" icon in the grid view.

(b) Another drop-down field will appear. Select another control device.

**Emission Unit Stack Section**

**20. Operator's Stack ID:** Click on this field and a drop-down list will appear containing the Stack IDs that were created on the stack form (Figure 8-6). If a stack that was reported on the stack form is associated with the emission unit, select the appropriate Stack ID. Every Stack ID that was created on the stack form must be listed on at least one emission unit form.

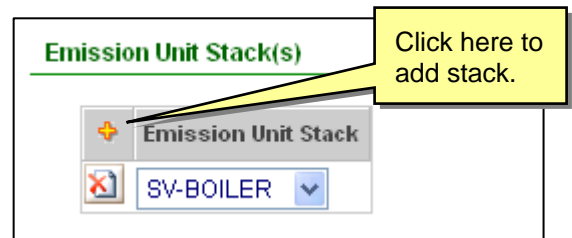


Figure 8-6: EU Stacks

If more than one reported stack is associated with the emission unit, additional Stack IDs may be added. Follow the steps below to enter additional Stack IDs.

(a) After the first Stack ID has been selected, Click the "+" icon in the grid view.

(b) Another field will appear. Select another Stack ID.

## Adding an Emission Unit

Follow the steps below to add an emission unit to your MAERS report.

1. Click "Add New Emission Unit" in the emission unit list (Figure 8-1).
2. A new emission form will be displayed for you to complete.
3. Follow Steps 1 – 19 in the Form Completion Instructions.

## Deleting an Emission Unit

If you want to delete emission unit information, follow the steps below.

1. In the emission list (Figure 8-7), click the "Delete" icon to delete an emission unit.
2. If this emission unit was newly added this year, it will be directly deleted. If this emission unit has been reported in a previous reporting year, follow the instructions in the pop-up window to delete this emission unit.

**Emission Unit List**

Items per page: 100

1 - 7 of 7 item(s)

View/Edit	Emission Unit ID	Emission Unit Desc	Installed Date	Dismantle Date	Delete
	EU-BOILER	80,000,000 BTU/HR NATURAL GAS FIRED BOILER	05/01/1990		
	EU-COAT1	MAIN COATING LINE, 3 SPRAY BOOTHS	05/15/1990		
	EU-COAT2	SECONDARY PAINT LINE, 1 SPRAY BOOTH	06/25/1990		
	EU-COLDCLEAN	2 COLD CLEANERS	06/02/1994		
	EU-OVEN1	DRY OFF OVEN FOR COATING LINE 1. NATURAL GAS FIRED. 700,000 BTU/HR	05/20/1990		
	EU-OVEN2	DRY OFF OVEN FOR COATING LINE 2. NATURAL GAS FIRED. 100,000 BTU/HR	01/01/2010		
	EU-PURGE/CLEAN	CLEAN UP AND PURGE OPERATIONS THROUGHOUT FACILITY	07/08/1990		

Click here to delete emission unit.

Figure 8-7: Delete Emission Unit

If the emission unit was dismantled or rendered permanently inoperable during the last reporting year do NOT delete the emission unit but rather enter a dismantle date on the form for that emission unit. Report any pollutants that were emitted during the reporting year on the Activity and Emissions Forms. If the unit did not operate you should report the throughput as "0" and any associated emission as "0".

Think carefully when you delete an emission unit. Even if emissions are below the thresholds for this reporting year, you may want to keep the emission unit in your MAERS report. The emissions may exceed the thresholds in future years.

## 9 Reporting Group Form

The Reporting Group Form is used to combine emission units into reporting groups to simplify emission calculations. THIS IS AN OPTIONAL FORM – facilities are not required to create reporting groups. However, for some facilities, reporting emissions at the reporting group level may be easier than at the emission unit level if multiple emission units have common emission limits and record keeping requirements. If this form is used, the Activity form and the Emissions form will be completed at the reporting group level.

### Important Terms

**Reporting Group:** A reporting group is an optional grouping of emission units. Reporting groups are created for simplification of reporting emissions for a group of emission units that have common activities. Creating reporting groups is not required; not every facility will have reporting groups in its MAERS report.

**Example:** Consider three coating lines that are each a separate emission unit. If the company kept records for all three lines combined, it would be easier to report emissions for all three lines combined instead of at the emission unit level. The three emission units can be combined into a single reporting group and the emissions can be reported for the combination of the lines instead of for each one individually.

### Reporting Group Form Completion Instructions

If a reporting group was created during a previous reporting year, the fields in this form should be pre-filled. Check to ensure that all the information is accurate. If any information needs to be changed, follow the instructions below and edit the appropriate fields. If you would like to add or delete a reporting group, see the instructions below.

### Reporting Group List

This section lists all the reporting groups at this source (Figure 9-1). Click the "View/Edit" icon to edit a reporting group, the "Delete" icon to delete a reporting group, or the "Add New Reporting Group" button to add a new reporting group.



Reporting Group List			
1 - 1 of 1 item(s)			
View/Edit	Reporting Group ID	Reporting group Desc	Delete
	RG-OVENS/BOILER	FUEL BURNING EMISSION UNITS	

Figure 9-1: Reporting Group List

## Reporting Group Identification

Complete the fields in this section for new reporting groups or to make changes to the previous year's report (Figure 9-2). Follow the steps below.

Figure 9-2: Reporting Group Form

- Reporting Group ID:** Enter a unique ID for this reporting group. Reporting Group IDs must begin with an "RG" prefix plus any combination of up to 14 letters, numbers, or keyboard characters. Spaces are not allowed within the ID. Make the reporting group ID specific and easy to associate with the reporting group it represents (e.g. RGBOILERS).
- Reporting Group Description:** Provide a brief narrative description of the reporting group.
- Emission Unit ID:** To add an emission unit to this list, click the "+" sign in the grid view, then select the emission unit ID to be included in this reporting group (Figure 9-3). Repeat this step to add more emission units. Click the "x" sign to delete an emission unit from this reporting group.

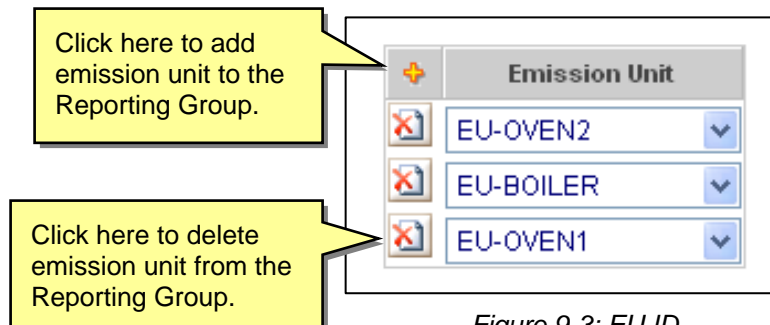


Figure 9-3: EU ID

## 10 Activity and Emission Form

The Activity and Emission Form contains three tabs (Figure 10-1).

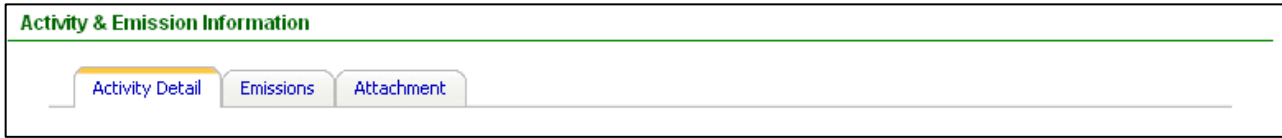


Figure 10-1: Activity and Emissions Tabs

- The Activity Detail tab is used to describe operating schedules and material information and throughput for an emission unit or reporting group. Activity detail must be completed for each reporting group, each emission unit that is not part of a reporting group, and each Rule 201 exempt emission unit that must be reported.
- The Emissions tab is used to report emissions of applicable pollutants emitted from the selected activity. At least one criteria pollutant must be reported for each activity. The reporting of non-criteria pollutants is optional.
- The Attachment tab is used to upload attachments to support the emission data that is reported.

Completion instructions for the fields on each of these tabs is provided in this section

### Important Terms

**Source Classification Code (SCC):** An SCC describes an air polluting activity and links the activity to an “approved” emission factor. SCCs and MAERS Emission Factors can be viewed under the “System Utilities” tab in MAERS.

The SCC is an eight-digit, numeric code that characterizes an air polluting activity by source type; device type; related raw material, fuel, or product; control device; and release location and type. The code is divided into four fields that represent the categories shown in Figure 10-2 below.

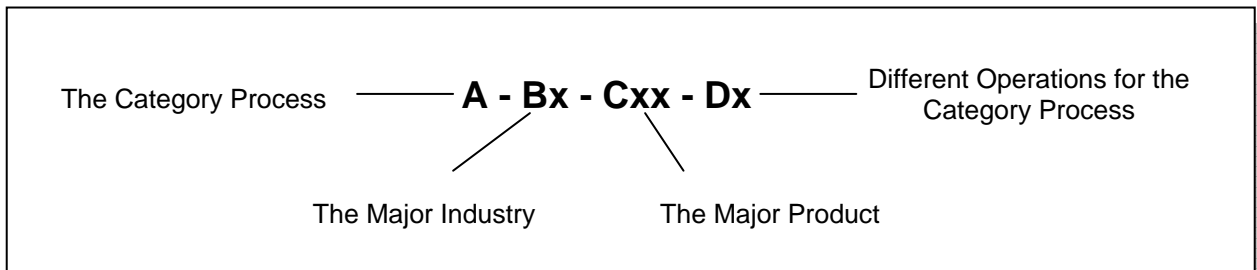


Figure 10-2: SCC Structure

## Emission Unit and Reporting Group List

This section lists all the activities in this source. Click the "View/Edit" icon to edit an activity, or the "Delete" icon to delete an activity.

If the emission unit or reporting group did not operate during the entire year then you can check the "Did Not Operate This Year" box. If this box is checked the throughput and emissions data for that activity will automatically be set to "0."

Emission Unit and Reporting Group List

Items per page: 100

1 - 6 of 6 item(s)

Did Not Operate This Year	View/Edit	EU/RG ID	Emission Unit Desc	Installed Date	SCC Code	Activity Desc	Material Code	Throughput	Delete
<input checked="" type="checkbox"/>		EU-COAT1	MAIN COATING LINE, 3 SPRAY BOOTHS	05/15/1990	40200101	SOVENT BASED PAINTING COATING	COATING	0	
<input type="checkbox"/>		EU-COAT2	SECONDARY PAINT LINE, 1 SPRAY BOOTH	06/25/1990	40200110	SOVENT BASED COATING	COATING		
<input type="checkbox"/>		EU-COLDCLEAN	2 COLD CLEANERS	06/02/1994	40100251	DEGREASING OPERATIONS	STODDARD		
<input type="checkbox"/>		EU-PURGE/CLEAN	CLEAN UP AND PURGE OPERATIONS THROUGHOUT FACILITY	07/08/1990	40200918	FACILITY PURGE AND CLEANUP OPERATIONS	METH ETH KET		
<input type="checkbox"/>		EU-PURGE/CLEAN	CLEAN UP AND PURGE OPERATIONS THROUGHOUT FACILITY	07/08/1990	40200920	FACILITY CLEAN UP OPERATIONS	MINERAL SPIR		
		RG-OVENS/BOILER	FUEL BURNING EMISSION UNITS						

If the SCC for an emission unit or a reporting group is blank, there is currently no activity assigned to this emission unit or reporting group. To add an activity for this emission unit or reporting group, click the "View/Edit" icon to enter Activity and Emission Details.

Figure 10-3: Emission Unit and Reporting Group List

## Activity Detail Completion Instructions

Complete activity detail information for each activity associated with the emission unit or reporting group displayed in the emission unit and reporting group list (Figure 10-4).

All activity information that was entered for emission units in previous years will be pre-filled, except the material throughput information. This is a required field that must be updated every reporting year. If any other information needs to be updated, edit the proper fields. If no other information needs to be added and if all the information that is pre-filled is still accurate, all you have to do is enter the proper material throughput information for the activity and move on to the emission tab. Following are step-by-step instructions on how to complete the required fields.

**Activity & Emission Information**

Activity Detail | Emissions | Attachment

**Activity Details**

\* SCC Code: 10200602

Source Classification Code Description:  
 [1] External Combustion Boilers; [102] Industrial; [102006] Natural Gas; [10200602] 10-100 Million Btu/hr

Activity Description:  
 NATURAL GAS FIRED OVENS AND BOILER

Seasonal Material Usage Schedule  
 (If Throughput is > 0, then Seasonal Percentages Must Total 100%)


Winter (Jan, Feb, Dec)	Spring (Mar-May)	Summer (Jun-Aug)	Fall (Sep-Nov)
25	25	25	25

Operating Schedule

Hours per Day	Days per Week	Days per Year
16	5	250

Figure 10-4: Activity Detail

- SCC:** The Source Classification Code (SCC) is an eight-character code that describes a process creating an emission in an emission unit or reporting group. For a new activity, Click on the "+" icon and a listing of all SCCs will appear (Figure 10-5). SCCs associated with a particular emission unit may also be identified in a Permit to Install or ROP. Select the SCC that most accurately describes the activity from the drop-down list. If more than one activity takes place at the emission unit or reporting group, select an SCC for each of the activities that take place at the emission unit/reporting group. To add a new activity, simply click the "Add New Activity" button. You cannot use the same SCC more than once for the same emission unit or reporting group.

 **TIP:**  
 To change an existing SCC you will need to delete the existing activity record then add a new activity record with the new SCC.

\* SCC Code: +

Source Classification Code Description:

**Add SCC**

Cancel

\* SCC Code

- 1-External Combustion Boilers
- 2-Internal Combustion Engines
  - 201-Electric Generation
  - 202-Industrial
    - 202001-Distillate Oil (Diesel)
    - 202002-Natural Gas
      - 20200201-Turbine(NATURAL GAS - MMCF)
      - 20200202-Reciprocating(NATURAL GAS - MMCF)
      - 20200203-Turbine: Cogeneration(NATURAL GAS - MMCF)
      - 20200204-Reciprocating: Cogeneration(NATURAL GAS - MMCF)
      - 20200205-Reciprocating: Crankcase Blowby(NATURAL GAS - MMCF)
      - 20200206-Reciprocating: Evaporative Losses (Fuel Delivery System)(NATURAL GAS - MMCF)
      - 20200207-Reciprocating: Exhaust(NATURAL GAS - MMCF)
      - 20200208-Turbine: Evaporative Losses (Fuel Delivery System)(NATURAL GAS - MMCF)
      - 20200209-Turbine: Exhaust(NATURAL GAS - MMCF)
      - 20200252-2-cycle Lean Burn(NATURAL GAS - MMCF)
      - 20200253-4-cycle Rich Burn(NATURAL GAS - MMCF)
      - 20200254-4-cycle Lean Burn(NATURAL GAS - MMCF)
      - 20200255-2-cycle Lean Burn(NATURAL GAS - MMCF)
      - 20200256-4-cycle Lean Burn(NATURAL GAS - MMCF)
    - 202003-Gasoline

Figure 10-5: SCC Lookup

2. **Activity Description:** Provide a brief description for the process that best represents this activity.
3. **Seasonal Material Usage Schedule:** Enter the percentage of material used per season. The breakdown is as follows: January, February, and December of the reporting year; March through May; June through August; and September through November. The total of all four seasonal percentages must equal 100%. If no material was used in the reporting year then you may enter "0" in each of these fields.
4. **Hours per Day:** Enter the hours this emission unit or reporting group normally operates per day based on an annual average.
5. **Days per Week:** Enter the days this emission unit or reporting group normally operates per week based on an annual average.
6. **Days per Year:** Enter the days this emission unit or reporting group operated over the reporting year.

## Material Information

Complete this section for the material identified for the SCC in Step 1 (Figure 10-6).


The screenshot shows a form titled "Material Information" with the following fields and controls:

- \* Material Code:** A dropdown menu with "NATURAL GAS" selected.
- \* Material Throughput:** An empty text input field.
- \* Unit Code:** A dropdown menu with "MMCF" selected.
- Material Description:** A large empty text area.
- VOC Content (Coatings or solvent):** A text input field followed by "% by Weight".
- Density:** A text input field followed by a dropdown arrow.
- BTUs (fuel):** A text input field followed by a dropdown arrow.
- Sulfur Content (fuel):** A text input field followed by "% by Weight".
- Ash Content (fuel):** A text input field followed by "% by Weight".

Figure 10-6: Material Information Section

7. **Material Code:** This field is automatically pre-filled if the SCC selected in Step 1 has a material associated with it. If this field is not pre-filled, it means the SCC selected does not have a material associated with it. Click on the field and a drop-down list with a selection of material codes will be displayed. Select the most appropriate material for the SCC. To make your search easier you may want to refer to the Material Code section under the System Utilities tab.

**8. Material Throughput:** Enter the amount of material identified in Step 7 that was processed, produced, applied, or combusted during the reporting year. For example, if “Natural Gas” is identified in the Material Code field, enter how many million cubic feet (MMCF) was combusted during the reporting year. Be sure that the throughput entered in this field matches the unit code that is pre-filled.



**TIP:** For Rule 201 exempt emission units that contain a number of identical process devices, add together the material throughputs of all the devices to obtain an overall material throughput for the emission unit.

**9. Unit Code:** This field should be pre-filled if Step 1 and Step 8 were completed.

**10. Operator’s Material Description:** Provide a brief description of the material that is processed, produced, applied, or combusted.

**11. VOC Content:** This field is only required if the material is a coating, solvent, or ink. Enter the weight percent of the volatile organic compounds (VOC) contained in the throughput material, “as applied.” “As applied” refers to the composition of the throughput material at the point of application. If thinners are added to the throughput material, the VOC content of the thinner must be considered when calculating the weight percent of VOC “as applied.”

Weight percentages for all the components in a material may be found on an MSDS, environmental data sheet, or other technical data sheet supplied by the manufacturer. Details for calculating the weight percent of VOC are found in the “Coating Operations Emission Calculation Fact Sheet.”

**12. Density:** Density is required for materials that have a mass throughput. In the first field, enter the density of the throughput material at standard temperature and pressure. Click on the second field and a drop-down list with unit options will appear. Select the appropriate units. For liquids, use pounds per gallon (LB/GAL). For solids and gases, use pounds per cubic foot (LB/FT3). Table 10-1 lists the densities of some common materials.

**Table 10-1: Common Material Densities**

Material	Density	Material	Density
Paint	10-15 LB/GAL	Southern Pine	40 LB/FT3
Varnish	7 LB/GAL	White Oak	48 LB/FT3
Water	8.33 LB/GAL	Sugar Maple	43 LB/FT3
		Elm	35 LB/FT3

**13. BTUs (fuel):** This field is required only if the material identified in Step 7 is a fuel. Enter the average heat content in BTUs in the first field. Click on the second field and select the appropriate unit code. Table 10-2 lists typical values for heat content, sulfur content, and ash content for the more common fuels.

**Table 10-2: Typical Fuel Values**

Type of Fuel	Heating Value BTU	% Sulfur (by wt.)*	% Ash (by wt.)
<b>Solid fuels</b>			
Bituminous Coal	13,000/LB	0.6-5.4	4-20
Anthracite Coal	12,300/LB	0.5-1.0	7-16
Lignite (at 35% moisture)	7,200/LB	0.7	6.2
Wood (at 40% moisture)	5,200/LB	N	1-3
Bagasse (at 50% moisture)	4,000/LB	N	1-2
Bark (at 50% moisture)	4,500/LB	N	1-3**
Coke (by product)	13,300/LB	0.5-1.0	0.5-5.0
<b>Liquid fuels</b>			
Residual Oil	150,000/GAL	0.5-4.0	0.05-0.1
Distillate Oil	140,000/GAL	0.2-1.0	N
Diesel	137,000/GAL	0.4	N
Gasoline	130,000/GAL	0.03-0.04	N
Kerosene	135,000/GAL	0.02-0.05	N
Liquid Petroleum Gas	94,000/GAL	N	N
<b>Gaseous Fuels</b>			
Natural Gas	1,050/FT3(S)	N	N
Coke Oven Gas	590/FT3(S)	0.5-2.0	N
Blast Furnace Gas	100/FT3(S)	N	N

\* N= Negligible (numeric value not required to be reported, leave the field blank)

\*\* Ash content may be considerably higher when sand, dirt, etc. are present.

**14. Sulfur Content:** This field is required only if the material identified in Step 7 is a fuel. Enter the sulfur content in weight percent. Table 10-3 provides acceptable sulfur content ranges for common fuels (the system will not accept sulfur content values outside of these ranges).

**Table 10-3: Sulfur Content Ranges**

Type of Fuel	% Sulfur (by wt)
Anthracite or Bituminous Coal	0.02-7.00
Distillate	0.01-2.00
Natural Gas	0.00-0.05
Residual Oil	0.01-5.00
Wood or Wood & Bark	0.02-5.00
Other Miscellaneous Fuels	0.01-7.00

**15. Ash Content:** This field is required only if the material identified in Step 7 is a fuel. Enter the ash content in weight percent. Table 10-4 provides acceptable ash content ranges for common fuels (the system will not accept ash content values outside of these ranges).

**Table 10-4: Ash Content Ranges**

Type of Fuel	% Ash (by wt)
Anthracite Coal	0.01-11.00
Bituminous Coal	0.01-25.00
Natural Gas	0.00-0.05
Other Miscellaneous Fuels	0.01-25.00

**Portable Material Usage Schedule**

If this is a portable source, the activity form will have an additional section: Portable Material Usage Schedule (Figure 10-7). **These fields will only appear if the source was identified as a “portable source” on the Source Form (see page 20).**

**16. County Name:** Click the "+" icon to add a new county, or click the "x" icon to delete a county from the list.

**17. Percentage of Throughput:** Enter the percentage of throughput for each county for the SCC code listed above. The totals of these percentages must equal 100%.

Click here to add a county.

**Portable Material Usage Schedule**

Totals: 75

County Name	Percentage of Throughput (%)
INGHAM	75
CLINTON	25

Figure 10-7: Portable Material Usage Schedule Section

## Emissions Information Completion Instructions

The Emissions tab is used to report all emissions of criteria pollutants greater than 20 pounds per year at the SCC level. Criteria pollutant emissions of less than 20 pounds per year may be reported as zero. An emissions record must be completed for each emission unit or reporting group identified on the emission unit and reporting group forms.

Click on the "Emissions" Tab to view and enter emission information for the selected activity (Figure 10-8). Any criteria pollutants that are associated with the SCC selected in the Activity Detail section will automatically appear in the emission list (Figure 10-9). The criteria pollutants appear grayed out and cannot be deleted since they must be reported.



Figure 10-8: "Emissions" tab

At least one criteria pollutant estimate must be reported for each emission unit with a reported activity and material. If no pollutants appear in the Emission List, you must manually add a pollutant by clicking the "+" icon below "Emission List" (in the gray area of Figure 10-8).

**Activity List**

1 - 1 of 1 item(s)

Select	EU/RG ID	Emission Unit Desc	Installed Date	SCC Code	Activity Desc	Material Code	Throughput	Throughput
	RG-OVENS/BOILER	FUEL BURNING EMISSION UNITS		10200602	NATURAL GAS FIRED OVENS AND BOILER	NATURAL GAS	300	MMCF

**Add New Activity** **Calculate Emissions**

**Activity & Emission Information**

Activity Detail **Emissions** Attachment

**Emission List** +

	+	Pollutant	Annual Emission	Unit	Emission Basis	Emission Factor	Exponent	Emission Factor Unit	Control Efficiency (%)	System Calculated Value	Use System Calculated Value
<b>Criteria Pollutants</b>		AMMONIA		LB	MAERS EmissionFactor	3.2	0	LBMMCF			<input type="checkbox"/>
		CO		LB	MAERS EmissionFactor	8.4	1	LBMMCF			<input type="checkbox"/>
		LEAD		LB	MAERS EmissionFactor	5	-4	LBMMCF			<input type="checkbox"/>
		NOX		LB	MAERS EmissionFactor	1	2	LBMMCF			<input type="checkbox"/>
		PM10,PRIMARY		LB	MAERS EmissionFactor	7.6	0	LBMMCF			<input type="checkbox"/>
		PM2.5,PRIMRY		LB	MAERS EmissionFactor	7.6	0	LBMMCF			<input type="checkbox"/>
		SO2		LB	MAERS EmissionFactor	6	-1	LBMMCF			<input type="checkbox"/>
		VOC		LB	MAERS EmissionFactor	5.5	0	LBMMCF			<input type="checkbox"/>

**Save** **Calculate Emission**

Figure 10-9: Emission List

## What Emissions Must Be Reported?

Sources are required to report criteria pollutants to MAERS. The reporting of non-criteria pollutants is optional. When a new activity is created, or when an activity having been reported in previous years is accessed for the first time during the current year, all the criteria pollutants associated with the chosen SCC will automatically be displayed in the emission list. These pollutants are required to be reported.

To report additional pollutants for an activity, in the Emission List, click the "+" icon next to "Emission List" label (in the **white** area, NOT in the **gray** area) to load the emission factor window (Figure 10-10).

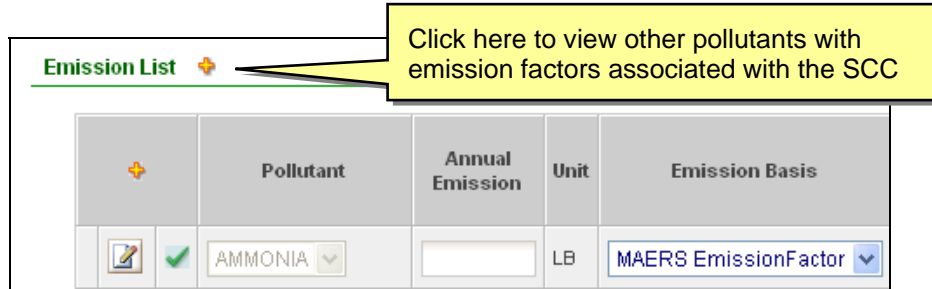


Figure 10-10: Adding Emissions

SCC/Pollutant List

1 - 10 of 59 item(s)

	Pollutant Code	Unit Code	Factor	Exp	Material Code	Unit Code	Control Device 1	Control Device 2	Emission Factor Type
<input type="radio"/>	PYRENE	LB	5	-6	12967	LB/MMCF			Generic
<input type="radio"/>	BARIIUM	LB	4.4	-3	12967	LB/MMCF			Generic
<input type="radio"/>	NITROUS OXID	LB	6.4	-1	12967	LB/MMCF	Low NOX Burners		Generic
<input type="radio"/>	NAPHTHALENE	LB	6.1	-4	12967	LB/MMCF			Generic
<input type="radio"/>	ZINC	LB	2.9	-2	12967	LB/MMCF			Generic
<input type="radio"/>	FLUORANTHENE	LB	3	-6	12967	LB/MMCF			Generic
<input type="radio"/>	TOLUENE	LB	3.4	-3	12967	LB/MMCF			Generic
<input type="radio"/>	ETHANE	LB	3.1	0	12967	LB/MMCF			Generic
<input type="radio"/>	MANGANESE	LB	3.8	-4	12967	LB/MMCF			Generic
<input type="radio"/>	BENZO(A)PYRE	LB	1.2	-6	12967	LB/MMCF			Generic

1 2 3 4 5 6

Cancel OK

Figure 10-11: Emission Factor Table with SCC Code and Pollutant List

In the SCC/Pollutant List (Figure 10-11), some of the criteria pollutants have additional emission factors that do not have a radio button. These are “controlled” emission factors, which can be used to calculate default control efficiency. The system will not allow you to select a “controlled” emission factor.

## Reporting Emissions Using the MAERS Emission Factors

By default, any pollutants with emission factors will automatically be displayed in the emissions list. These are MAERS emission factors. Sources may choose to use these factors or other methods to calculate emissions for a given activity. This section explains how to calculate and report emissions using the MAERS emission factors provided. If you would like to use another method to calculate and report emissions (e.g., mass balance, stack test, CEM, etc) then you should read "Reporting Emissions Using Methods other than a MAERS Emission Factor" on page 53.

A source may choose to use a MAERS emission factor to report one pollutant and another method to report emissions of a different pollutant from the same activity.

Follow the instruction below to calculate and report emissions using MAERS Emission Factors:

- 1. Enter Control Efficiency (%) (if applicable).** Enter the control efficiency percent of the control device(s) for the pollutant being reported (this could be a combination of capture and destruction efficiencies). Control efficiencies may be listed on the equipment, in the equipment documentation, or by contacting the equipment supplier. If you do not have a control efficiency leaves this field blank. Note that control efficiency is pollutant specific, so you may have a control efficiency for Particulate Matter but not for Carbon Monoxide.
- 2. Calculate Emissions.** Click the "Calculate Emission" button at the bottom of the emission list (Figure 10-12). When the calculation is completed, the "System Calculated Value" column will be populated in the grid view. If a control efficiency was entered in step 1 the system will take into account the control efficiency entered.

	Pollutant	Annual Emission	Unit	Emission Basis	Emission Factor	Exponent	Emission Factor Unit	Control Efficiency (%)	System Calculated Value	Use System Calculated Value
<input type="checkbox"/>	AMMONIA		LB	MAERS EmissionFactor	3.2	0	LBMMCF		960.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	CO		LB	MAERS EmissionFactor	8.4	1	LBMMCF		25,200.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	LEAD		LB	MAERS EmissionFactor	5	-4	LBMMCF		0.15 LB	<input type="checkbox"/>
<input type="checkbox"/>	NOX		LB	MAERS EmissionFactor	1	2	LBMMCF		30,000.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	PM10,PRIMARY		LB	MAERS EmissionFactor	7.6	0	LBMMCF		2,280.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	PM2.5,PRIMARY		LB	MAERS EmissionFactor	7.6	0	LBMMCF		2,280.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	SO2		LB	MAERS EmissionFactor	6	-1	LBMMCF		180.00 LB	<input type="checkbox"/>
<input type="checkbox"/>	VOC		LB	MAERS EmissionFactor	5.5	0	LBMMCF		1,650.00 LB	<input type="checkbox"/>

Buttons: Save, Calculate Emission

Figure 10-12: System Calculated Value for Emission

**3. Accept Calculated Value.** If the system-calculated value is verified to be correct, click the checkbox under "Use System Calculated Value." The annual emissions field will auto-fill with the system calculated value (Figure 10-13).

	Pollutant	Annual Emission	Unit	Emission Basis	Emission Factor	Exponent	Emission Factor Unit	Control Efficiency (%)	System Calculated Value	Use System Calculated Value
	AMMONIA	960.00	LB	MAERS EmissionFactor	3.2	0	LB/MMCF		960.00 LB	<input checked="" type="checkbox"/>
	CO	25200.00	LB	MAERS EmissionFactor	8.4	1	LB/MMCF		25,200.00 LB	<input checked="" type="checkbox"/>
	LEAD		LB	MAERS EmissionFactor	5	-4	LB/MMCF		0.15 LB	<input type="checkbox"/>
	NOX		LB	MAERS EmissionFactor	1	2	LB/MMCF		30,000.00 LB	<input type="checkbox"/>

Figure 10-13: Accept MAERS Calculated Values

### Reporting Emissions Using Methods other than a MAERS Emission Factor

For some activities there may not be a MAERS emission factor or a source may choose to calculate emissions using a different method that is more site specific (e.g., mass balance calculation, stack test data, etc). In these cases it will be necessary to calculate and report emissions using an emission basis other than the MAERS Emission factors.

Follow the instruction below to report emissions using a different emission basis:

- 1. Add Pollutants (if necessary).** If no pollutants appear in the emission list you will first need to add any pollutants that need to be reported. Manually add a pollutant by clicking the "+" icon below "Emission List" (in the gray area of Figure 10-14).
- 2. Change Emissions Basis.** If a pollutant that needs to be reported already appears in the emission list go to "Emission Basis" drop down and choose the appropriate basis on which you will be calculating emissions for that pollutant (Figure 10-14). **Emissions should be estimated using the best available site-specific data according to the hierarchy on the next page.**

If necessary, click here to add pollutants.


The screenshot shows the 'Emission List' interface. At the top, there is a header 'Emission List' with a '+' icon. Below it, a note says 'Include supporting data in the "Attachment" tab if the emission basis is anything other than "MAERS Emission Factor"'. The main table has columns for Pollutant, Annual Emission, Unit, Emission Basis, Emission Factor, Exponent, Emission Factor Unit, Control Efficiency (%), System Calculated Value, and Use System Calculated Value. The first row shows 'VOC' with a unit of 'LB' and an empty 'Emission Basis' dropdown. A callout box points to the '+' icon in the first column. A dropdown menu is open for the 'Emission Basis' column, listing options: CEM, EPA EmissionFactor, Landfill Model, MAERS EmissionFactor, Mass Balance, PEM, Stack Test, Tank Model, and Other. At the bottom, there are buttons for 'Save' and 'Calculate Emission', and a footer with navigation links like 'MAERS Home', 'Contact MAERS', 'QD Home', 'Link Policy', and 'Security Policy'.

Figure 10-14: Changing Emission Basis

- **CEM** - Continuous Emissions Monitoring
- **Site Specific Stack Test** - Stack test protocol approved by AQD. Results from the most recent stack test (generally conducted less than five years previous) should be used. Stack tests must have been conducted in accordance with U.S. EPA protocol under conditions that represent current operations.
- **PEM** - Parametric Emissions Monitoring
- **Mass Balance** - The method that allows estimation of emissions by analyzing inputs of a material to a process minus consumption, accumulation, and loss of that material during a process.
- **Tank Model** - The TANKS model is an EPA computer software program that computes estimates of volatile organic compound (VOC) emissions from fixed and floating-roof storage tanks. TANKS are based on the emission estimation procedures from Chapter 7 of EPA's Compilation of Air Pollutant Emission Factors (AP-42), plus recent updates from the American Petroleum Institute. The TANK software can be accessed via the Internet at [www.epa.gov/ttn/chief](http://www.epa.gov/ttn/chief).
- **Landfill Model** - This EPA model was developed by the Control Technology Center (CTC). The Landfill Air Emissions Estimation Model can be used to estimate emission rates for methane, carbon dioxide, non-methane organic compounds, and individual toxic air pollutants from landfills. The Landfill software can be accessed via the Internet at [www.epa.gov/ttn/chief](http://www.epa.gov/ttn/chief).
- **MAERS Emission Factor** - SCC code/emission factors that are in the MAERS reference table. These are either EPA or State emission factors. If you are using an emission factor not provided in the emission factor table at the bottom of the screen, you should select "Other" as the emission basis.
- **Other** - If not previously identified, select "Other", and attach supporting documentation. Use of emission factors from the EPA's Compilation of Air Pollutant Emission Factors (AP-42) or Factor Information Retrieval System (FIRE) that are not listed in the MAERS emission factor table should be referenced here. Both AP-42 and FIRE can be accessed at [www.epa.gov/ttn/chief](http://www.epa.gov/ttn/chief).

3. **Enter an Emission Factor/Exponent:** These fields must be completed only if you choose an emission basis that uses an emission factor (e.g. MAERS Emission Factor, stack test). If you are using another method to calculate your emissions (e.g. Mass Balance, TANKS, etc.), leave these fields blank.

Emission factors are expressed in scientific notation, which means that the decimal point is moved based on the exponent provided. If the exponent is negative, move the decimal point to the left. If the exponent is positive, move the decimal point to the right. If the exponent is zero, the decimal point does not move. If the emission factor is 0.001 lbs/ton then the emission factor may be reported as 1.0 and the exponent will be -3.

You can also click on the edit icon  next to the pollutant in the emission list to enter specific details on the emissions for that pollutant.

4. **Enter Control Efficiency (if applicable).** Enter the control efficiency percent of the control device(s) for the pollutant being reported (this could be a combination of capture and destruction efficiencies). Control efficiencies may be listed on the equipment, in the equipment documentation, or by contacting the equipment supplier. If there is no control efficiency for a pollutant, leave this field blank.

**5. Enter Annual Emissions.** Enter the annual emissions in the annual emissions field. This will be based on the emission basis selected and any control efficiency entered.

**6. Include Supporting Documentation.**

Go to the “Attachment” tab and upload any supporting documentation to support your emissions estimate. Support documentation may include equations, emission factor documentation, stack test results, or some other explanation. Supporting documentation is required when using a method other than “MAERS Emission Factor” to calculate emissions for a pollutant.

### **CONTROL EFFICIENCY**

**Using the Control Efficiency to Calculate Actual Emissions:**

If a facility has control equipment, the actual emissions after control can be calculated by multiplying the actual uncontrolled emissions by a control factor. Calculate the control factor by subtracting the percent control efficiency (entered for Step 5) from 100 and then dividing that number by 100. Overall control efficiency is calculated by multiplying the capture efficiency by the control efficiency.

For example, if you have a control device with a capture efficiency of 85% and a control efficiency of 95%, the overall control efficiency would be  $0.85 \times 0.95 = 0.8075$  (80.75%). Use the overall control efficiency to calculate the control factor  $(100 - 80.75)/100 = 0.19$ . Using the control factor, we can estimate the annual emissions after control. Using the control factor above, if an emission unit has actual uncontrolled emissions of 129,600 lbs/year; the actual emissions after control would be  $129,600 \text{ lbs/year} \times 0.19 = 24,624 \text{ lbs/year}$  or 12.31 ton/yr. You would enter 12.31 tons into the Annual Emission filed (see step 4).

**What if I Don't Know the Control Efficiency for a Pollutant?**

If you do not know the control efficiency for a particular pollutant you can use the controlled emission factor from the emission factor table to calculate the “default control efficiency.” You can identify a “controlled emission factor by clicking on the “+” icon next to “Emission List” label to load the emission factor window (Figure 4-30 on page 47). Pollutants listed without a radio button next to it are “controlled” factors. The control device will be listed in the control device column. The corresponding controlled emission factor and exponent will be located in the “factor” and “Exp” exponent columns.

The steps and example below explain how use this controlled emission factor to calculate a default control efficiency:

- 1) Divide the “controlled” emission factor by the “uncontrolled” emission factor;
- 2) Subtract that number from 1 and carry four decimal places; and
- 3) Multiply the final net number by 100. Enter this number as the Weight Percent Control Efficiency.

$$\text{Default Control Efficiency} = 1.0 - (\text{Controlled EF} / \text{Uncontrolled EF}) \times 100$$

EXAMPLE:

SCC = 1-02-002-04    Pollutant = PM10, FLTRBLE,  
 Emission Factor (CONTROLLED) = 7.200 E -2 with BAGHOUSE  
 Emission Factor (UNCONTROLLED) = 1.320 E 1 UNCONTROLLED  
 Default Control Efficiency =  $1.0 - (0.072/13.2) \times 100 = 99.45\%$

Note: The SCC and the Pollutant MUST be identical for the two Emission Factors used to calculate the Weight Percent Control Efficiency.

## NOTES

## 11 Completeness Check

Once you have completed all the forms, use the Completeness Check function to scan the forms for possible warning/error message (Figure 11-1). The Completeness Check ensures that there are reasonable responses in required data fields. If fields are incomplete or incorrect, the system will generate warning or error messages.

The error report and messages will describe the potential problem and indicate on which form and field must be corrected. The completeness check does not verify whether the information you have entered is correct, but rather if the information you have entered is adequate for a complete submittal.

Errors generated from the Completeness Check must be corrected before the forms are submitted to the AQD through the MAERS web-application, while warnings will not hold back the MAERS Report submission. After the corrective actions are taken, running the Completeness Check again will re-assess the result of these actions. If you encounter any Completeness Check error messages that appear to be irresolvable, please contact the appropriate AQD district office accordingly.

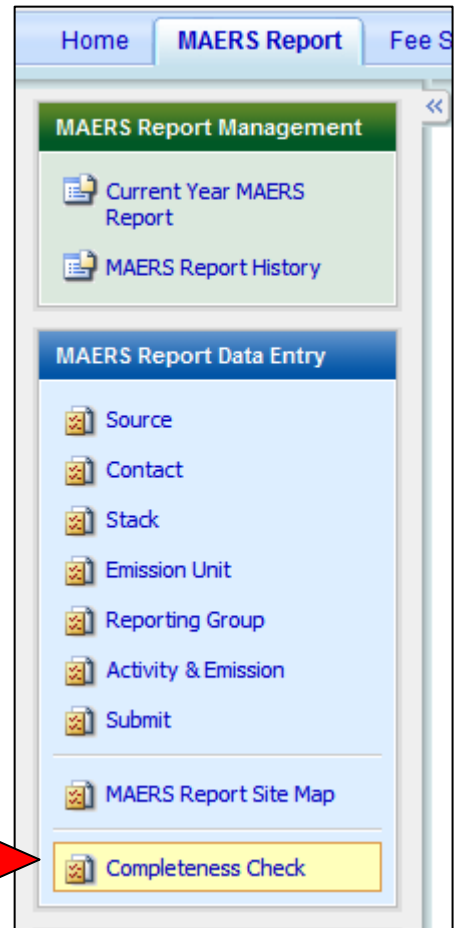


Figure 11-1: Completeness Check Function

If no error is generated from the Completeness Check, this message will display: "Passed Completeness Check" (Figure 11-2).

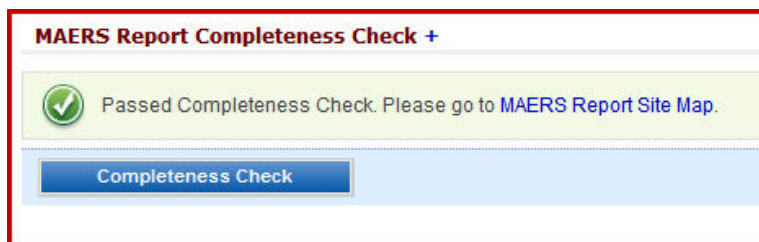


Figure 11-2: Completeness Check without Error

If errors are encountered in the Completeness Check, this message will display: "Failed Completeness Check" (Figure 11-3).

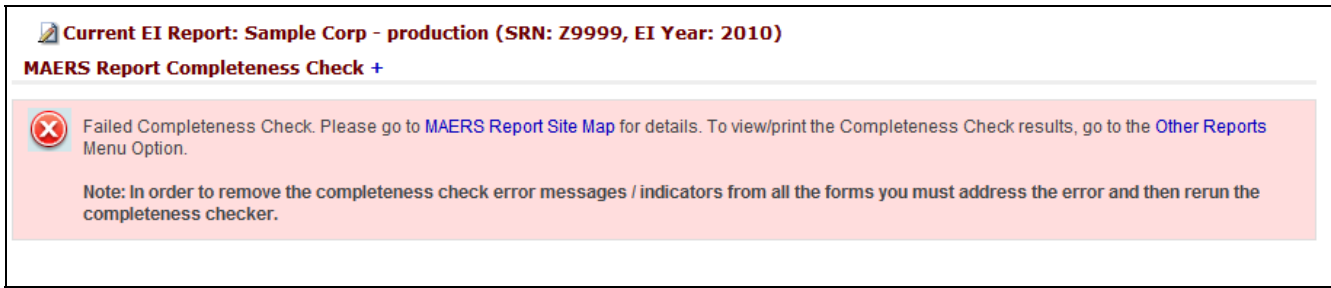


Figure 11-3: Error Report

There are three ways of viewing error or warning message details:

1. Go to the MAERS Report Site Map and hover the mouse over the data entry form with an error or warning icon (Figure 11-4). The error message is indicated by the use of a red icon. The warning message is indicated by the use of a yellow icon. The error or warning message will appear in the tooltips.

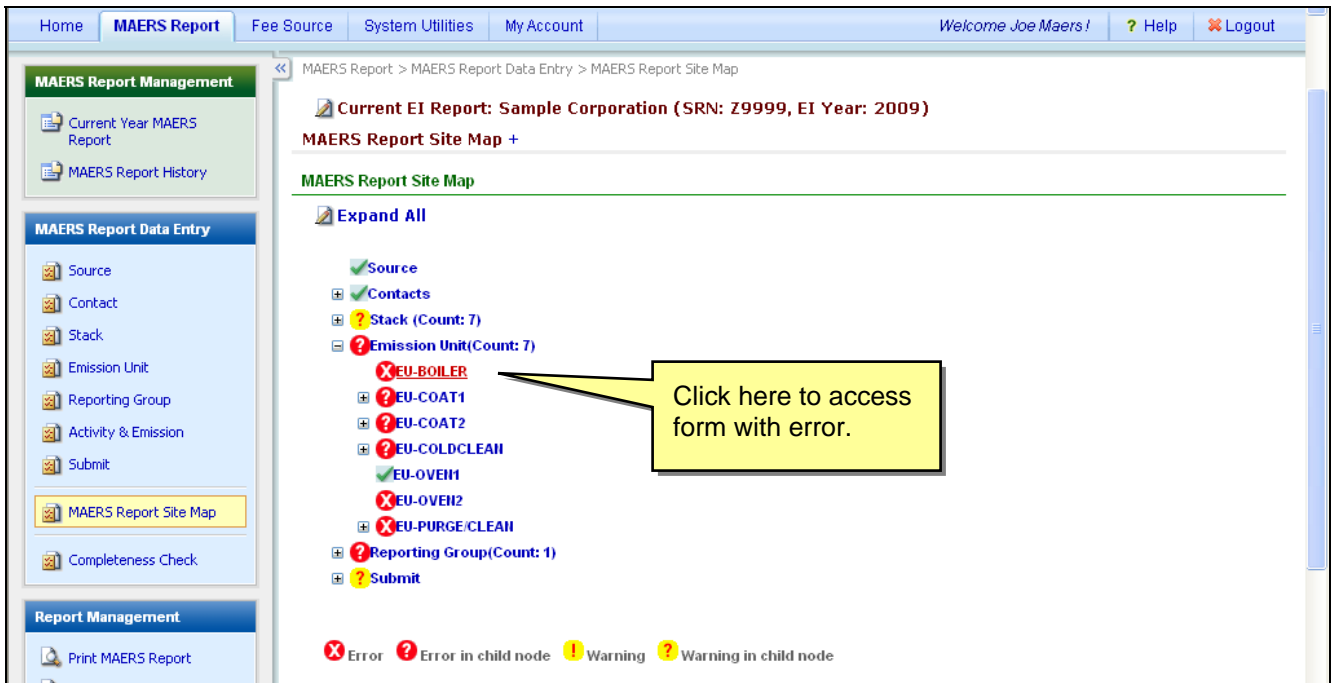


Figure 11-4: MAERS Report Site Map - Completeness Check Error/Warning Message

2. In the Site Map, click the entry with an error or warning icon. The system will lead you to the specific source, contact, stack, emission unit, reporting group, activity & emissions, or submit form. The warning/error message generated from the completeness check will display in the upper portion of the specific form (Figure 11-5). The error message is indicated by the use of “red” background. The warning message is indicated by the use of “yellow” background.

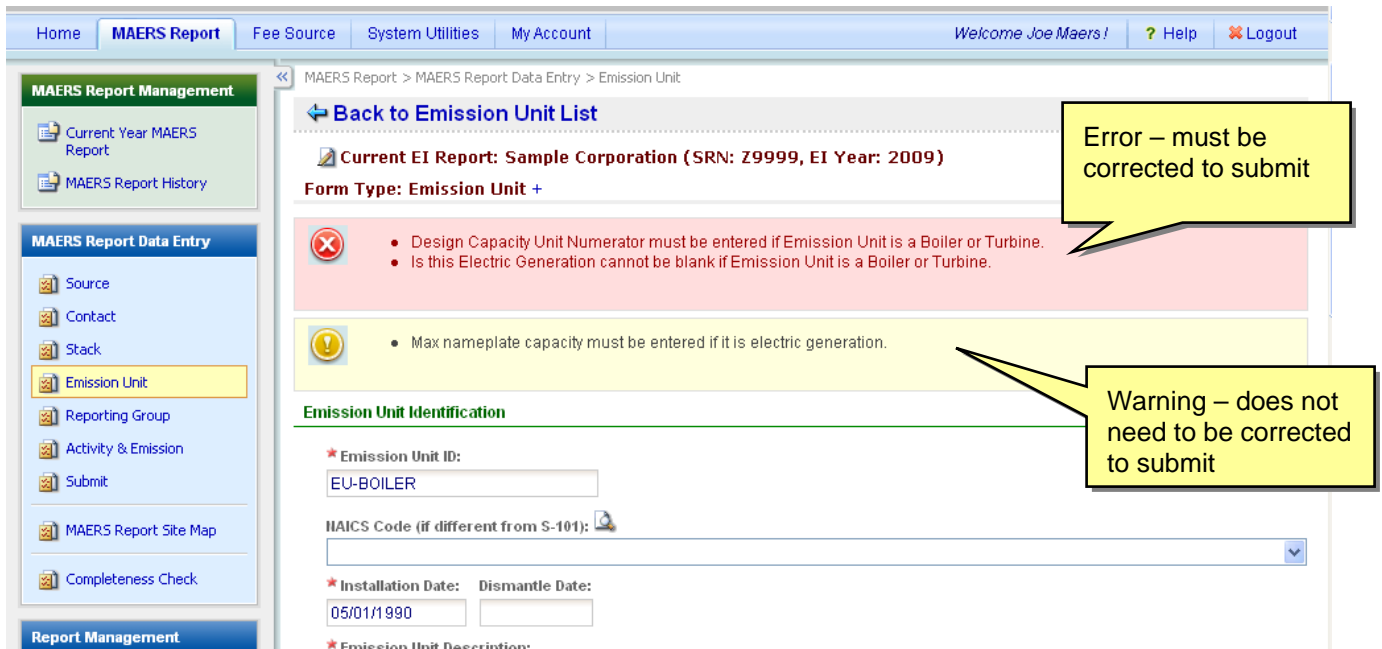


Figure 11-5: Sample: Stack Form with Completeness Check Warning/Error Displayed

3. All of the Completeness Check errors and warnings are compiled into a report, "Completeness Check Report". The "Completeness Check Report" can be accessed by clicking on "Other Reports" on the left panel then clicking on Completeness Check Report (Figure 11-6).

1 - 8 of 8 item(s)

View	Name	Description
	Additions Report	Additions Report
	Removed Report	Removed Report
	Emission Comparison – Source Totals Report	Emission Comparison – Source Totals Report
	Emission Comparison – Emission Unit Totals Report	Emission Comparison – Emission Unit Totals Report
	Emission Comparison – SCC Detail Report	Emission Comparison – SCC Detail Report
	Material Unit Comparison Report	Material Unit Comparison Report
	Completeness Check Report	Completeness Check Report
	Threshold Comparison Report	Threshold Comparison Report

Figure 11-6: Completeness Check Report

Click the "View" icon next to "Completeness Check Report" to view the details of the report. The report will list the basic information of this source, and the error and warning messages in each form. This report will be useful in the correction of relevant forms based on the Completeness Check results.

A sample of the Completeness Check Report is shown in Figure 11-7.



## 12 Submitting Your MAERS Report

### Submittal Overview

To submit your MAERS report you should click on the submit button on the left panel. A form with two tabs will be displayed.

### Preparer Info

This is an optional form used to identify the individuals (Preparers) that contributed to the completeness of the MAERS report and may include consultants. The Preparer List shows the current preparers who have contributed to the MAERS reporting of this source. Click "Add New Preparer" to add any preparer that is not in this list but has prepared the data entry forms (Figure 12-1).

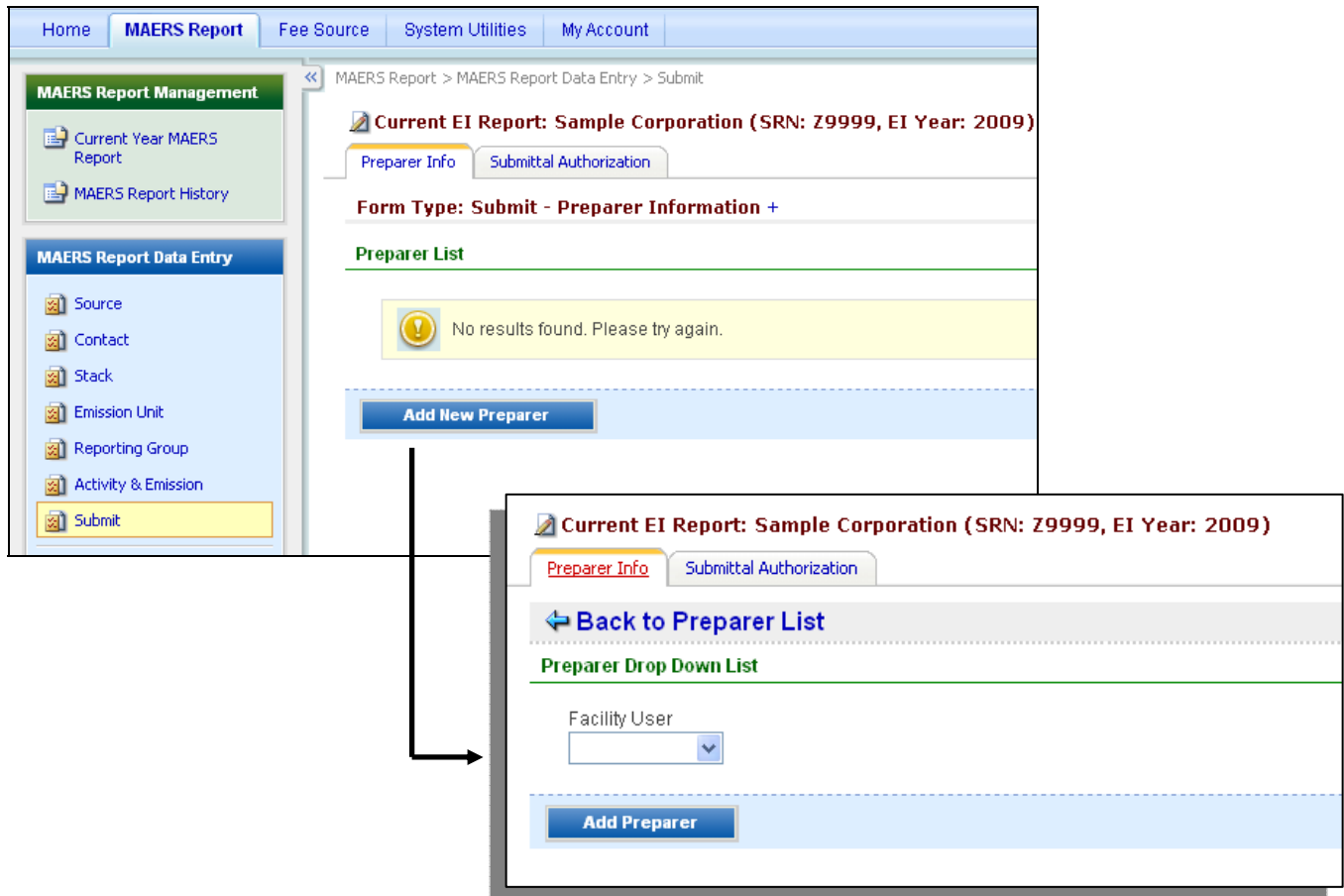


Figure 12-1: Add New Preparer

## Preparer Info Completion Instructions

Click the "View/Edit" icon to access the preparer form for a Preparer identified in the Preparer List. Complete the fields in this section for each preparer (Figure 12-2).

**Current EI Report: Sample Corporation (SRN: Z9999, EI Year: 2009)**

Preparer Info | Submittal Authorization

**Form Type: Submit - Preparer Information +**

**Preparer List**

1 - 1 of 1 item(s)

View/Edit	Delete	First Name	Last Name	Title	Address	County	State	City	Zip	Phone
		Joe	Maers		555 W. Main St		MI	Lansing	48912	1234567

**Add New Preparer**

---

**Current EI Report: Sample Corporation (SRN: Z9999, EI Year: 2009)**

Preparer Info | Submittal Authorization

[← Back to Preparer List](#)

**Form Type: Submit - Preparer Information +**

Saved successfully.

The person identified as a preparer below has contributed to the completeness and accuracy of this submittal.  
 Check this box if this preparer is a consultant and enter the company/employer name in the field below.

\* First Name:  \* Last Name:  Title:

\* Company/Employer Name:  \* Street Address 1:

Street Address 2:

\* City:  \* State:  \* Zip Code:  Country:

\* Email Address:

\* Area Code:  \* Phone No.:  Extension:

**Emission Unit(s) Preparer worked on**

All  Select Specific Units from list below

EU-COAT1  EU-COAT2  EU-COLDCLEAN  EU-PURGE/CLEAN  
 RG-OVENS/BOILER(Group)

**Save**

Click this checkbox if the person identified on this form is a consultant.

Figure 12-2: Preparer Information

## Submittal Authorization


Click the Submittal Authorization tab (Figure 12-3).

**Current EI Report: Sample Corporation (SRN: Z9999, EI Year: 2009)**

Preparer Info   **Submittal Authorization**

---

**Form Type: Submit - Submittal Authorization +**

 • Primary preparer's job title must be entered.

**Primary Preparer**

---

\* First Name:    \* Last Name:    Title:

\* Street Address 1:

Street Address 2:

\* City:    \* State:    \* Zip Code:    Country:

\* Email Address:

\* Area Code:    \* Phone No.:    Extension:

---

**Submit MAERS Report**

---

PII:

Question: What is the first and middle name of your oldest sibling?

Answer:

Based on the information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

Figure 12-3: Submittal Authorization Form

### Submittal Authorization Completion Instructions

1. **Primary Preparer Contact Information:** The Primary Preparers contact information should be prefilled into this section.
2. **PIN:** Enter the PIN. The PIN was sent to the Primary Preparer during registration. If you forgot your PIN you can find it under the "My Account" utility (Figure 12-4).

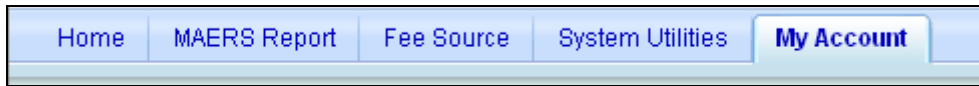


Figure 12-4: My Account Tab

3. **Security Question & Answer:** A randomly picked security question will display for the certifier to answer. Enter the user-defined answer to this question. The security questions and answers will be set when the user logs into MAERS for the first time. They can be accessed in "My Account" Utility.
4. **Submit:** When everything in the data entry form is verified, click the checkbox "Based on the information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete." Click the "Submit" button to submit the MAERS Reports to AQD.

### Completeness Check Executed by the System When a Report is Submitted

When a MAERS Report is submitted, a completeness check will be executed by the system on all data entry forms. If the completeness check failed, the error message(s) will display in the upper portion of page (Figure 12-5).

Figure 12-5: Submittal Completeness Check

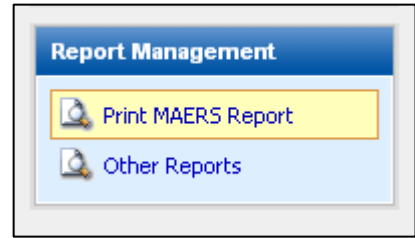
Go to the MAERS Report Site Map (on the left navigation panel) to review the form errors, and make applicable corrections to ensure the validity of submitted data.

If the completeness check is passed, an EI Report submission successful message will display in the upper portion of page.

**See Chapter 11 for more information on Completeness Check.**

## 13 Reports

The Report Management section includes two types of reports: Print MAERS Report and Other Reports.



### Print MAERS Report

Clicking on this option will display two types of reports to view

- Source Summary Report
- MAERS Data Entry Forms

1 - 2 of 2 item(s)

View	Name	Description
	Source Summary Report	Source Summary Report
	MAERS Data Entry Forms	MAERS Data Entry Forms

1. **Source Summary Report:** The Source Summary Report lists user-entered source, contact, emission unit, stack, activity, and emission data, presented in a summarized table formats (Figure 13-1).

**Michigan Air Emissions Reporting System (MAERS)**  
Source Summary Report - AOD Source ID (SRN) Z9999 Reporting Year : 2009

**S-101 SOURCE INFORMATION**

Source Name	Sample Corporation	HAICS Code	336399	Portable	No
Address	555 W MAIN ST				
County	INGHAM	City	LANSING	Zip Code	48909
District	Lansing				
Latitude	Longitude	Horizontal Collection Method	Source Map Scale	Horizontal Accuracy Measure	Horizontal Reference Datum
42.72539	-84.55936	030		25 Meter(s)	02
Reference Point Code	Principal Product	Number of Employees	Employer Federal ID Number	ROP Subject	If Yes, Permit Number
102	Automobile Parts	102	123456789	Y	MIR0PZ99992007

**OWNER INFORMATION**

Owner Name	SAMPLE CORP.				
Mailing Address	Address Continued				
City	State/Province	AK	Country	USA	Zip/Postal Code

**S-102 CONTACT INFORMATION**

Emission Inventory Contact Information (Primary)

Contact Name	John, Jr Sample	Mailing Address	555 W MAIN ST		
Contact Title	Environmental Manager	Address Continued			
		City	LANSING		
E-Mail Address	samplej@samplecorp.com	State/Province	MI		
Telephone Number	(517)5551234	Country	USA		
Fax Number	(517)5551235	Zip or Postal Code	48909		

Figure 13-1: Sample of Source Summary Report

2. **MAERS Data Entry Forms Report:** The MAERS Data Entry Form Report prints the user-entered source, contact, emission unit, stack, activity, emission, preparer, and certifier data in the format of “paper” EI forms. This report has the look and feel of traditional “paper” MAERS Report (Figure 13-2).

FORM REFERENCE			
Form Type	Source	AQD Source ID (SRN)	Z9999

SOURCE IDENTIFICATION			
Source Name	Sample Corporation		
NAICS Code	336399	Portable	No
Physical Address (Street Address 1)	555 W MAIN ST		
Physical Address (Street Address 2)			
County	INGHAM	City	LANSING
		Zip Code	48909-
Latitude	42.72539 Decimal Degrees	Longitude	-84.55936 Decimal Degrees
Horizontal Collection Method	030		
Source Map Scale Number		Horizontal Accuracy Measure	25 Meters
Horizontal Reference Datum Code	02	Reference Point Code	102
Principal Product	Automobile Parts	Number of Employees	102
Employer Federal Identification Number	123456789		

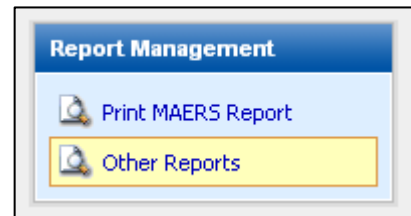
OWNER INFORMATION	
Owner Name	SAMPLE CORP.
Mailing Address (Street Address 1)	
Mailing Address (Street Address 2)	

Figure 13-2: Sample of MAERS Data Entry Form Report









## Other Reports

The Other Reports section includes the following reports:

- Additions Report
- Removed Report
- Emission Comparison – Source Totals Report
- Emission Comparison – Emission Unit Totals Report
- Emission Comparison – SCC Detail Report'
- Material Unit Comparison Report
- Completeness Check Report
- Threshold Comparison Report



1 - 8 of 8 item(s)

View	Name	Description
	Additions Report	Additions Report
	Removed Report	Removed Report
	Emission Comparison – Source Totals Report	Emission Comparison – Source Totals Report
	Emission Comparison – Emission Unit Totals Report	Emission Comparison – Emission Unit Totals Report
	Emission Comparison – SCC Detail Report	Emission Comparison – SCC Detail Report
	Material Unit Comparison Report	Material Unit Comparison Report
	Completeness Check Report	Completeness Check Report
	Threshold Comparison Report	Threshold Comparison Report

- Additions Report:** The Additions report displays all Stacks, Emission Units, Reporting Groups, SCC Code Activity, and Preparers that have been added to the source in this reporting year. For example, if you add a new stack to the Stack form, then that stack will appear on the Additions report.
- Removed Report:** The system will generate a Removed Report showing all Emission Units, Reporting Groups, Stacks, SCC Code Activity, and Preparers that have been selected to be removed from the source in this reporting year. For example, if you delete a stack from the Stack List, then that stack will appear on the Removed Report. All Emission Units and Stacks that have a "Dismantle Date" entered will also be listed on the Removed Report. Information that is dismantled or deleted from the system will not appear in the blank report in the following year.
- Emission Comparison – Source Totals Report:** The Emission Comparison reports display the source reported emissions on the left and the AQD calculated emissions on the right. The source reported emissions are emissions that have been entered on the emission form. The AQD calculated emissions were generated by running the emission calculator in the application (by clicking the "Calculate Emissions" button). Criteria pollutants are positioned at the top of the list and identified in RED text. Toxic pollutants are identified in Black text and follow the Criteria pollutants on the list.
- Emission Comparison – Emission Unit Totals Report:** This report displays emissions by pollutants totaled at the emission unit level.
- Emission Comparison – SCC Detail Report:** This report displays emissions by pollutants totaled at the SCC Level.
- Material Unit Comparison Report:** This report will list any SCC throughput material code and/or unit code that do not match the default SCC material code and unit code in the MAERS SCC reference table. All activities in the activity form with an invalid material code and/or unit code will be displayed.

- 7. Completeness Check Report:** Use the administrative completeness check to edit the entered data for errors. The Completeness Check edit must result in zero errors before the database can be submitted to the AQD. This completeness check ensures that there are reasonable responses in required data fields. If something is missing or incorrect, the system will generate an error report to show the error messages. The error report will describe the problem and indicate which form and field must be corrected.

In this report, the total number of data errors is located at the top of the error report. The errors will be organized by form type. Each error message will begin with the name of the field that is in error, followed by the error message and reference to an ID to help locate the record that is in error. The error report can be printed for ease of reference in making corrections by using the Print option in the pop-up report window.

- 8. Threshold Comparison Report:** This report lists all criteria pollutants that exceed reporting thresholds.

### Print / Export a Report

In each pop-up report window, you will see an option of "view/print/export" at the top of the report (Figure 13-3).

To print, click the printer icon on the right.

To export, select a file format from the drop down list, then click "Export". Choose the file path you want to save and then save the file.

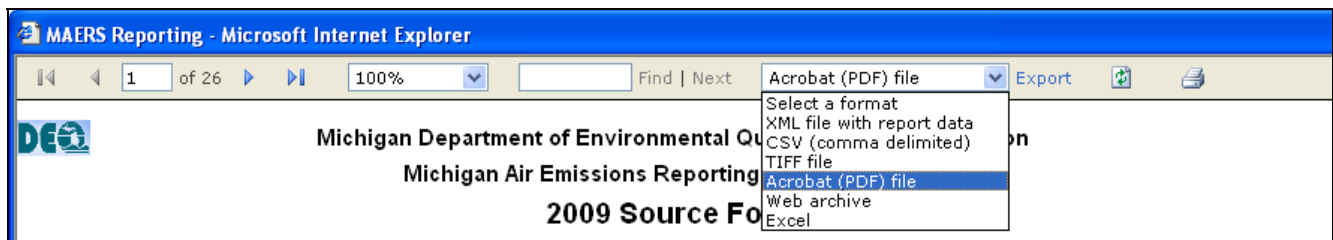


Figure 13-3: View/Print/Export a Report

## 14 Reference Data Look-up

Facility users will use this module to find specific emission factors, substance code, material code, SCC code, or unit code.

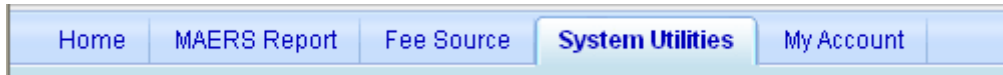


Figure 14-1: System Utilities Tab

### Emission Factor

To view Emission Factor reference data in the MAERS database, go to the System Utilities module → Emission Factor (Figure 14-2). You can use the search function to find the specific emission factors.

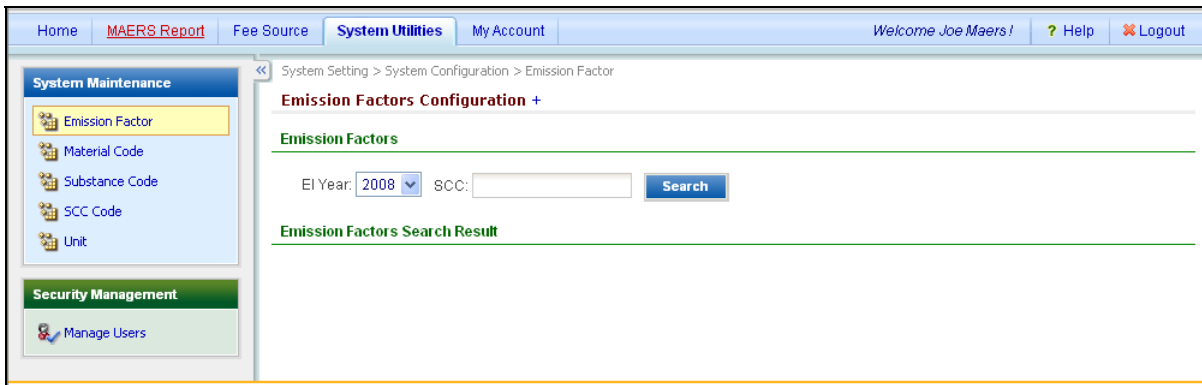


Figure 14-2:

### Material Code

To view Material reference data in the MAERS database, go to the System Utilities module → Material Code (Figure 14-3). You can use the search function to find the specific material codes.

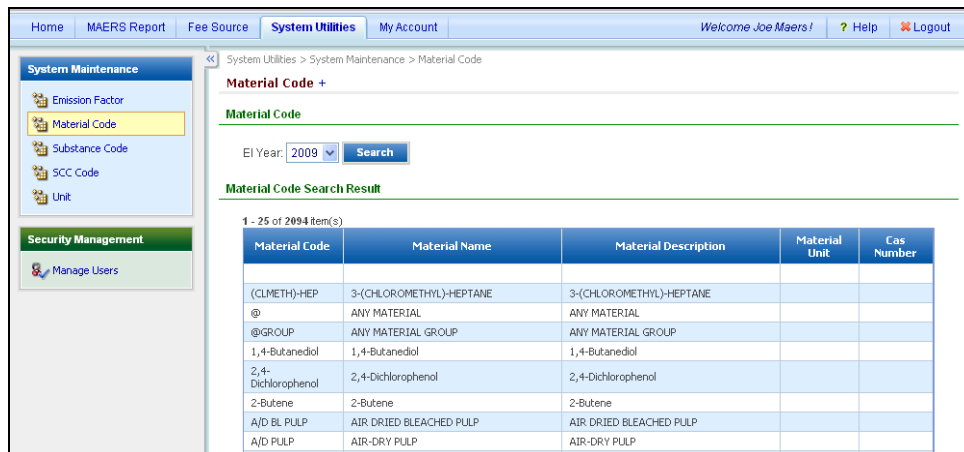


Figure 14-3: Reference Data of Material Codes

## Substance Code

To view Substance reference data in the MAERS database, go to the System Utilities → Substance Code (Figure 14-4). You can use the search function to find the specific substance codes.

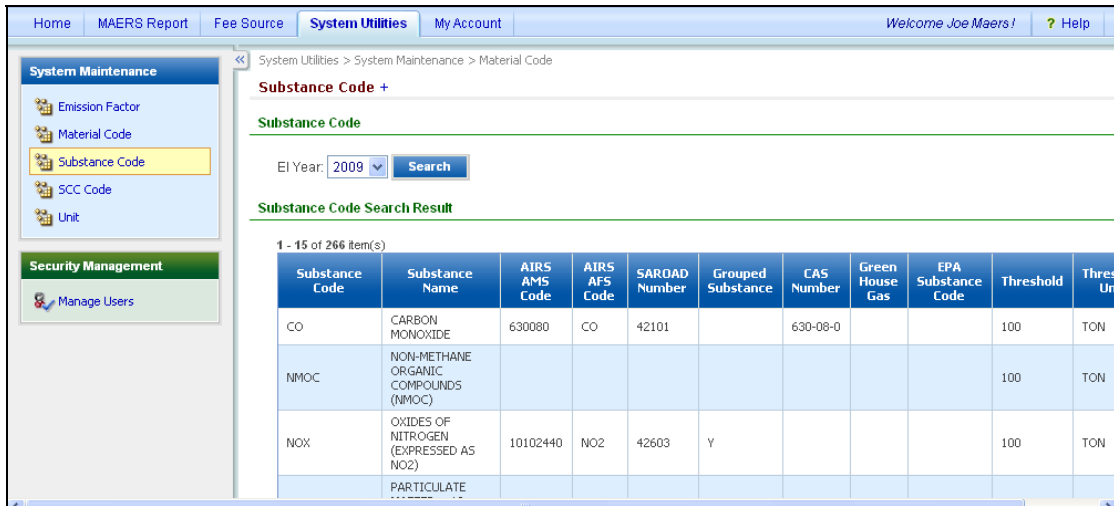


Figure 14-4: Reference Data of Substance Codes

## SCC Code

To view SCC Code reference data in the MAERS database, go to the System Utilities module → SCC Code. You can use the search function to find the specific SCC codes.

In the tree view (Figure 14-5), click the "+" icon to see all the child SCC codes.



Figure 14-5: Reference Data of SCC Codes

## Unit Code

To view Unit Code reference data in the MAERS database, go to the System Utilities module → Unit (Figure 14-6). You can use the search function to find the specific Unit codes.

System Utilities > System Maintenance > Unit Code

**Unit +**

**Unit Code**

EI Year: 2009

**Unit Code Search Result**

1 - 15 of 354 item(s)

Unit Code	Unit Name	Unit Description	Factor to EPA Unit	EPA Unit	Status
					A
\$	DOLLARS	DOLLARS	1	\$	A
%SLOPE	% SLOPE (VERT./HORIZ)	% SLOPE (VERT./HORIZ)	0.01	FT/FT	A
ACRE	ACRES	ACRES	43560	FT2	A
ACRE-DAY	ACRE DAYS	ACRE DAYS	119.3424658	FT2-YR	A
ACRE-YR	ACRE YEARS	ACRE YEARS	43560	FT2-YR	A
AMP	AMPERES	AMPERES	1	AMP	A
AMP-HR	AMPERE HOURS	AMPERE HOURS	1	AMP-HR	A
AREA%	% AREA RATIO	% AREA RATIO	1	AREA%	A
ATM	ATMOSPHERES	ATMOSPHERES	14.7	PSI	A
AVG CFM	AVG STD. CUBIC FEET PER MINUTE	AVG STD. CUBIC FEET PER MINUTE	1	AVG CFM	A

Figure 14-6: Reference Data of Units

## NOTES

## Appendix A: Acronyms & Definitions

### ACRONYMS

AQD .....	Air Quality Division
BTU .....	British Thermal Unit
CAA .....	Clean Air Act
CEM .....	Continuous Emission Monitor
CO .....	Carbon Monoxide
DEQ .....	Department of Natural Resources and Environment (Michigan)
EPA .....	Environmental Protection Agency
GPS .....	Global Positioning System
HAP .....	Hazardous Air Pollutant
MAERS .....	Michigan Air Emissions Reporting System
NAICS .....	North American Industrial Classification System
NOx .....	Nitrogen Oxides
Pb .....	Lead
ROP .....	Renewable Operating Permit
SCC .....	Source Classification Code
SIC .....	Standard Industrial Classification
SRN .....	State Registration Number
SOx .....	Sulfur Oxides
UTM .....	Universal Transverse Mercator <i>Grid Coordinates</i>
VOC .....	Volatile Organic Compounds

*The following definitions are provided to help you better understand the concepts in this workbook. For more information about these terms or for the legal definitions, please consult the Michigan Administrative Rules for Air Pollution Control (herein referred to as the Michigan Rules), specifically Michigan Rules R 336.1101 – R 336.1123.*

**Actual Emission:** Amount of air contaminants emitted from a facility or emission unit over a given period of time, usually expressed as tons of air contaminant emitted per year (tons/yr).

**Air Contaminant:** A dust, fume, gas, mist, odor, smoke, vapor, or any combination thereof.

**AQD Source ID (SRN):** The alphanumeric State Registration Number (SRN) assigned by the AQD. AQD Source IDs are unique to a source and are comprised of a letter followed by four numbers; e.g. A1497.

**Carbon Monoxide (CO):** Colorless, odorless gas that is toxic because of its tendency to reduce the oxygen-carrying capacity of the blood. (See criteria pollutants.)

**Control Device:** Equipment that captures and/or destroys air contaminants, e.g. scrubber.

**Criteria Pollutants:** Pollutants for which National Ambient Air Quality Standards (NAAQS) are set. They include the following pollutants:

- Carbon Monoxide (CO)
- Lead (PB)
- Nitrogen Dioxide (NO<sub>2</sub>)
- Non-Methane Organic Compounds (NMOC)\*
- Oxides of Nitrogen - NO<sub>x</sub> (expressed as NO<sub>2</sub>)

- Oxides of Sulfur - SO<sub>x</sub> (expressed as SO<sub>2</sub>)
- Particulate Matter (PM)
- Particulate Matter, Filterable {not water soluble} (PM,FLTRBLE)
- Particulate Matter, Sum of Condensables & Filterable (PM, PRIMARY)
- Particulate Matter, All Condensables & Filterable (PM,TOTAL)
- Particulate Matter less than 10 Microns (PM10)
- Particulate Matter less than 10 Microns, Filterable not water soluble (PM10,FLTRABLE)
- Particulate Matter less than 10 Microns, All Condensables & Filterable (PM10,TOTAL)
- Particulate Matter less than 2.5 Microns (PM2.5)
- Particulate Matter less than 2.5 Microns (PM2.5), Filterable not water soluble (PM2.5, FLTRBL)
- Particulate Matter less than 2.5 Microns (PM2.5), Sum of Condensables & Filterable (PM2.5, PRIMARY)
- Particulate Matter less than 2.5 Microns (PM2.5), All Condensables & Filterable (PM2.5, TOTAL)
- Sulfur Dioxide (SO<sub>2</sub>)
- Total Non-Methane Organic Compounds (TNMOC)\*
- Total Organic Compounds (TOC)\*
- Volatile Organic Compounds (VOC) \*\*

\* These pollutants can be used as VOC surrogates if VOC emission factor is not available.

\*\* Emissions of VOC contribute to ozone formation, for which a NAAQS has been set.

**Device:** Any process equipment, control equipment, or stack.

**Dismantle:** To physically remove or render permanently inoperable.

**Emission Factor:** A factor that is used to estimate air emissions by multiplying it by the material throughput expressed in the appropriate unit code.

**Emission Unit:** (See also page 28) A device or group of devices that operate together with a dependency between devices and emits or has the potential to emit an air contaminant. An emission unit contains at least one process device and may contain control devices and related stacks. Examples of an emission unit include:

- a single degreaser (degreaser only)
- a topcoat painting line (booths, ovens, incinerator, stacks)
- a chemical manufacturing process (reactors, condensers, dryers, baghouse, stacks)
- a coal-fired boiler (boiler, stack)

**Emission Unit Activity:** The flow of material into and out of processes or between devices that may discharge to the atmosphere. Materials are related to processes by Source Classification Codes (SCC).

**Fee-Subject Facility:** As defined in Section 324.5501(k) of Public Act 451 of 1994, as amended, certain sources of air pollutants are required to pay fees. In practice, these include major sources subject to the Renewable Operating Permit Program; sources subject to federal New Source Performance Standards; and area sources subject to National Emission Standards for Hazardous Air Pollutants.

**Exempt Emission Unit:** (See Rule 201 Exempt Emission Unit)

**Grandfathered:** With respect to Michigan permitting requirements, an emission unit installed prior to August 15, 1967 and not subsequently modified or reconstructed, is considered "grandfathered".

**Hazardous Air Pollutant (HAP):** The 188 chemicals listed at 112(b) of the Clean Air Act.

**Lead:** A heavy metal that is hazardous to human health when breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations. (See criteria pollutants.)

**Material:** Any product or substance, including elements, compounds, or a mixture thereof, in any physical state (solid, liquid, gas) including more than one physical state at the same time, that flows through a process. Examples include fuel, coating, solvent, metal, grain, chemical, product.

**Nitrogen Dioxide (NO<sub>2</sub>):** An oxide of nitrogen that is regulated because it can cause lung and eye irritation, can contribute to the formation of acid rain, and reacts in the atmosphere to form ozone and smog. (See criteria pollutants.)

**Operator's ID:** An identification assigned by a source representative. IDs will begin with a two-letter prefix plus a combination of up to 14 letters, numbers, or keyboard characters. Any combination of letters, numbers, and keyboard characters can be used to create IDs. Spaces are not allowed within the Operator's ID.

<u>Operator's ID Prefix</u>	<u>Represents</u>
EU	MAERS Operator's Emission Unit Prefix
RG	MAERS Operator's Reporting Group ID Prefix
SV	Operator's Stack/Vent ID Prefix

**Opt Out Permit:** A Permit to Install that limits a facility's emissions to below the major source thresholds, thus avoiding the Renewable Operating Permit (ROP) Program.

**Ozone:** At ground level, ozone is a noxious pollutant and is the major component of smog. The source of ozone is the chemical reaction of volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>). Health effects of ozone are breathing problems, reduced lung function, asthma, eye irritation, stuffy nose, and reduced resistance to colds and other infections. Environmental effects of ozone can damage plants and trees. Smog also causes reduced visibility. Ozone is regulated by the control of VOCs and NO<sub>x</sub>, which are precursors to ozone. (See criteria pollutants.)

**Particulate Matter (PM):** Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog found in air emissions. (See Criteria Pollutants.)

**PM-10:** Standard for measuring the amount of solid or liquid matter suspended in the atmosphere. PM-10 refers to the amount of particulate matter smaller than ten micrometers in diameter. The smaller PM-10 particles penetrate to the deeper portions of the lung, affecting sensitive population groups such as children and people with respiratory diseases.

**Portable Source:** A facility, process, or process equipment that commences operation and is located at a geographic site for not more than twelve consecutive months. These are NOT devices that are moved around within a stationary source (e.g., welding machines).

**Process Device:** Equipment or activity that generates air contaminants.

**Reporting Group:** (See also page 38) An optional grouping of emission units created for simplification of reporting emissions. These emission units should have similar emission limits, stack parameters, operational parameters, emission factors, etc. For ROPs, the reporting groups should be consistent with the flexible group identified in the source ROP. Examples of reporting groupings include:

- A grouping of several emission units (for example, all of the coating lines or boilers) for an overall emission limit.
- A grouping of several emission units (for example, material handling systems or printing lines) with common activities and emission characteristics.

**Rule 201 Exempt Emission Unit:** (See also page 28) An emission unit that is specifically exempted from Rule 201 in Rules 279 –290 of the Michigan Air Pollution Control Rules and not subject to Rule 278.

**SIC Code:** The Standard Industrial Classification (SIC) code is a numerical indicator of the primary type of activity at a business. For example, 5153 is a grain elevator, 2951 is an asphalt plant, etc. The first two digits indicate the broad category; the second two digits are more industry specific.

**Source:** A facility or plant that contains an emission unit(s). A facility is assigned a State Registration Number (SRN) and has a physical location.

**Source Classification Code (SCC):** (See also page 40) An eight-digit numeric code used to describe an activity occurring at an emission unit or reporting group.

**Stack:** A conduit for air contaminants.

**Sulfur Dioxide (SO<sub>2</sub>):** A heavy, pungent, colorless, gaseous air pollutant formed primarily by industrial fossil fuel combustion processes. (See criteria pollutants.)

**Volatile Organic Compound (VOC):** Any compound of carbon or mixture of compounds of carbon that participates in smog-formation reactions except for those listed in Rule 122(f) of The Michigan Air Pollution Control Rules that do not contribute appreciably to the formation of ozone.

## Appendix B: Fee Calculation

### Air Quality Fee Calculations

The Clean Air Act requires each state to develop a Title V, Renewable Operating Permit Program that is supported by air quality fees. An annual air quality fee program for Michigan, including the specific fee structure, was established by the legislature in 1993. Based on this legislation, the first air quality fees were assessed in January 1995. The fee program was reauthorized by Governor Rick Snyder on October 4, 2011. Based on the current legislative requirements, annual fee assessments (invoices) are mailed to fee-subject facilities each year prior to January 15. Payment of the invoice is due within 90 days of the mailing.

The Michigan legislation establishes the following formula for calculating the annual air quality fee for each fee-subject facility:

$$\text{Annual Fee} = \text{Facility Charge} + \text{Emissions Charge}$$

### Facility Charge

The facility charge is an annual flat fee based on the facility category. Facility categories are described as follows:

#### Category I Facility

Category I facilities are those that have the potential to emit 100 tons per year of any air contaminant, including NO<sub>x</sub>, PM, SO<sub>2</sub>, VOCs, CO, lead, and hazardous air pollutants (HAPs), and utility sources subject to the acid rain provisions in Section 402 of Title IV of the CAA.

The annual air quality fee for a Category I facility is \$4,485 plus the emissions charge.

#### Category II Facility

This is a major source as defined under Section 112 of Part A of Title I of the CAA. A Category II facility has the potential to emit 10 tons per year of any single hazardous air pollutant (HAP) or 25 tons per year of any combination of HAPs.

A Category II facility is also any facility subject to the requirements of Section 111 of Part A of Title I of the CAA, even if it is not a major source. These are facilities that are subject to the federal New Source Performance Standards (NSPS).

A Category II facility that also meets the definition of a Category I facility is considered a category I facility.

The annual air quality fee for a Category II facility is \$1,795 plus the emissions charge.

#### Category III Facility

Category III facilities are area sources (i.e., not a major source defined under Section 112) that are subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) promulgated under Section 112 of the Clean Air Act. For example, the majority of perchloroethylene dry cleaners are Category III facilities because they are area sources and subject to a NESHAP.

Category III facilities must pay an annual fee of \$250. They do not pay an emissions charge.

## **Municipal Electrical Generating Facility**

For municipal electric generating facilities, the following municipal utility (MU) fees are charged:

- For sources that emit at least 730 but less than 5,250 tons -- \$37,000
- For sources that emit at least 5,230 but not more than 12,000 tons -- \$127,000

## **Emissions Charge**

The emissions charge used in the fee formula is for Category I or II facilities and is calculated as \$47.95 per ton of actual emissions. The emissions tonnage is calculated for the calendar year, two years preceding the year of the billing. For example, the 2012 billing, which goes out in January 2012, will be based on actual emissions for the 2010 calendar year.



There are different caps on billable pollutants for those Category I and II facilities which are defined as "Electric providers" under the Clean, Renewable and Efficient Energy Act, PA 295 of 2008.

- For Category I and II facilities which are Electric Provider (EP) sources, a maximum of 5,250 tons per facility is subject to the charge. Therefore the maximum emission charge is \$251,737.50 for any one EP facility. However, if an EP facility has less than 5,250 tons of actual emissions the maximum amount subject to the fee is 1,250 tons per fee subject pollutant.
- For Category I and II facilities which are not EP sources, a maximum of 4,000 tons per facility is subject to the charge. Therefore the maximum emission charge for any one non-EP facility is \$191,800. However, if a facility has less than 4,000 tons of actual emissions the maximum amount subject to the fee is 1,000 tons per fee subject pollutant.

Fee-subject air pollutants are PM10, NO<sub>x</sub>, SO<sub>2</sub>, VOCs, ozone, lead (Pb), and any air contaminant regulated under Section 111 (Standards of Performance for New Stationary Sources) or Section 112 (Hazardous Air Pollutants) of Part A, Title I of the Clean Air Act, or Title III (Hazardous Air Pollutants) of the Clean Air Act. Carbon monoxide is not a fee-subject air pollutant.

Facility owners and operators have the opportunity to review the data on which fees are based. In early July, the AQD sends a copy of the previous calendar year emission inventory information and draft invoices to all Category I and II facilities. Facility owners and operators review the data to make sure it is correct and to report any change to their district offices by September 1. Fee bills are then sent out in January.

## Appendix C: Rules Cited

Note: Many of the rules provided are at the sub-rule level. You may view the complete rule by accessing the Michigan Air Pollution Control Rules via the Internet at: [www.michigan.gov/deqair](http://www.michigan.gov/deqair).

### R 336.202 Annual reports. (11/11/86)

Rule 2. The department shall require an annual report from a commercial, industrial, or governmental source of emission of an air contaminant if, in the judgment of the department, information on the quantity and composition of an air contaminant emitted from the source is considered by the department as necessary for the proper management of the air resources. The information shall be specified by the department and shall be submitted on forms available from the department. The information shall include factors deemed necessary by the department to reasonably estimate quantities of air contaminant discharges and their significance. The report shall be submitted to the department not later than March 15 of each year following notification by the department that the report is required. The notification shall be in writing and shall be mailed to the owner or operator of the source of emission not less than 45 days before the deadline for submitting the report.

### R 336.1106 Definitions; F.

Rule 106. As used in these rules

(l) "**Fugitive emissions**" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

### R 336.116 Definitions; P

Rule 116. As used in these rules

(m) "**Potential to Emit**" the definition of "potential to emit" can be accessed via the internet at [www.deq.state.mi.us/documents/deq-aqd-air-rules-apc-PART1.html#R1116](http://www.deq.state.mi.us/documents/deq-aqd-air-rules-apc-PART1.html#R1116)

### R 336.1119 Definitions; S.

Rule 119. As used in these rules

(e) "**Significant**" means a rate of emissions for the following air contaminants which would equal or exceed any of the following:

- (i) Carbon monoxide - 100 tons per year.
- (ii) Nitrogen oxides - 40 tons per year.
- (iii) Sulfur dioxide - 40 tons per year.
- (iv) Particulate matter - 25 tons per year.
- (v) PM-10 - 15 tons per year.
- (vi) Volatile organic compounds - 40 tons per year.
- (vii) Lead - 0.6 tons per year.

### R 336.1201 Permits to install.

Rule 201. (1) A person shall not install, construct, reconstruct, relocate, alter, or modify any process or process equipment, including control equipment pertaining thereto, which may emit an air contaminant, unless a permit to install which authorizes such action is issued by the department. A person who plans to install, construct, reconstruct, relocate, alter, or modify any such process or process equipment shall apply to the department for a permit to install on an application form approved by the department and shall provide the information required in R 336.1203.

(2) If the proposed equipment is of such magnitude that some phases of construction such as site clearing, foundations, and associated structures have to commence before issuance of the permit to install, the person applying for the permit to install may apply to the department for approval of the location of the proposed equipment. The department shall act on such application within a reasonable time and shall not approve the proposed location unless it is reasonably convinced that the equipment, when completed, shall be in compliance with these rules and state law and that the commencement of installation before issuance of the permit to install is not prohibited by the clean air act. Construction shall not commence without approval of the location. If a permit to install has not been requested within 3 years of the date of approval of the location pursuant to this subrule, the location approval shall become void unless otherwise authorized by the department as a condition of the location approval.

(3) A permit to install may be approved subject to any condition, specified in writing, that is reasonably necessary to assure compliance with all applicable requirements.

(4) If a person decides not to install, construct, reconstruct, relocate, alter, or modify the process or process equipment as authorized by a permit to install, the person, or the authorized agent pursuant to R 336.1204, shall notify the department, in writing, and upon receipt of the notification by the department, the permit to install shall become void. If the installation, reconstruction, relocation, or alteration of the equipment, for which a permit has been issued, has not commenced within, or has been interrupted for, 18 months, then the permit to install shall become void unless otherwise authorized by the department as a condition of the permit to install.

"Commenced," for purposes of this subrule, means undertaking a continuous program of on-site fabrication, installation, erection, or modification, or having entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed within a reasonable time.

(5) Upon issuance of a permit to install, the emissions from the process or process equipment allowed by the permit to install shall be included in the potential to emit of the stationary source. Upon the physical removal of the process or process equipment, or upon a determination by the department that the process or process equipment has been rendered inoperable, the permit to install shall become void and the emissions allowed by the permit to install shall no longer be included in the potential to emit of the stationary source.

(6) Except as provided in subrule (8) of this rule, operation of the process or process equipment is allowed by the permit to install until 1 of the following actions is taken:

(a) If the permit to install is issued for a process or process equipment located at a stationary source subject to the renewable operating permit requirements of R 336.1210, trial operation is allowed if the equipment performs in accordance with the terms and conditions of the permit to install and until the appropriate terms and conditions of the permit to install have been incorporated into the renewable operating permit as a modification pursuant to R 336.1216 or upon renewal pursuant to R 336.1217. Upon incorporation of the appropriate terms and conditions into the renewable operating permit, the permit to install shall become void.

(b) If the permit to install was issued for a process or process equipment located at a stationary source that is not subject to the renewable operating permit requirements of R 336.1210, then the permit to install remains in effect if the equipment performs in accordance with the terms and conditions of the permit. The permit to install shall become void upon either of the following actions:

(i) The process or process equipment is reconstructed, relocated, altered, or modified pursuant to subrule (1) of this rule and a new permit to install authorizing the action is approved by the department.

(ii) The process or process equipment is physically removed from the stationary source or there is a determination by the department that the process or process equipment has been rendered inoperable.

(7) The department may require as a condition of a permit to install 1 or both of the following notification requirements:

(a) Not more than 30 days after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by the permit to install, unless a different period is specified in the permit to install, the person to whom the permit to install was issued, or the authorized agent pursuant to R 336.1204, shall notify the department, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, alteration, or modification is considered to occur not later than commencement of trial operation of the process or process equipment.

(b) Within 18 months after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by the permit to install, or 18 months after the effective date of this rule, whichever is later, unless a different period is specified in the permit to install, the person to whom the permit to install was issued, or the authorized agent pursuant to R 336.1204, shall notify the department, in writing, of the status of compliance of the process or process equipment with the terms and conditions of the permit to install. The notification shall include all of the following:

(i) The results of all testing, monitoring, and recordkeeping performed by the stationary source to determine the actual emissions from the process or process equipment and to demonstrate compliance with the terms and conditions of the permit to install.

(ii) A schedule of compliance for the process or process equipment.

(iii) A statement, signed by the person owning or operating the process or process equipment, that, based on information and belief formed after reasonable inquiry, the statements and information in the notification are true, accurate, and complete.

(8) If evidence indicates that the process or process equipment is not performing in accordance with the terms and conditions of the permit to install, the department, after notice and opportunity for a hearing, may revoke the permit to install consistent with section 5510 of the act. Upon revocation of the permit to install, operation of the process or process equipment shall be terminated. Revocation of a permit to install is without prejudice and a person may file a new application for a permit to install that addresses the reasons for the revocation.

#### **R 336.1278 Exclusion from exemption.**

Rule 278. (1) The exemptions specified in R 336.1280 to R 336.1290 do not apply to either of the following:

(a) Any activity that is subject to 40 C.F.R. §52.21, prevention of significant deterioration regulations, or R 336.1220, nonattainment new source review regulations.

(b) Any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119.

For the purpose of this rule, "activity" means the concurrent and related installation, construction, reconstruction, relocation, or modification of any process or process equipment.

(2) The exemptions specified in R 336.1280 to R 336.1290 do not apply to the construction of a new major source of hazardous air pollutants or reconstruction of a major source of hazardous air pollutants, as defined in and subject to 40 C.F.R. §63.2 and §63.5(b)(3), national emission standards for hazardous air pollutants.

(3) The exemptions specified in R 336.1280 to R 336.1290 do not apply to a construction or modification as defined in and subject to 40 C.F.R. part 61, national emission standards for hazardous air pollutants.

(4) The exemptions in R 336.1280 to R 336.1290 apply to the requirement to obtain a permit to install only and do not exempt any source from complying with any other applicable requirement or existing permit limitation.

#### **R 336.1278a Scope of permit exemptions.**

Rule 278a. (1) To be eligible for a specific exemption listed in R 336.1280 through R 336.1290, any person owning or operating an exempt process or exempt process equipment shall be able to provide information demonstrating the applicability of the exemption. The demonstration shall be provided within 30 days of a written request from the department. The demonstration may include the following information:

(a) A description of the exempt process or process equipment, including the date of installation.

(b) The specific exemption being used by the process or process equipment.

(c) An analysis demonstrating that R 336.1278 does not apply to the process or process equipment.

(2) The records required by this rule shall be provided in addition to any other records required within a specific exemption.

**R 336.1280 – R336.1290**

Rules 280 through 290 can be accessed at [www.michigan.gov/air](http://www.michigan.gov/air) (click on “Laws and Rules” then “Air Pollution Control Rules”).

OR

Download the Permit to Install Exemption Handbook at [www.michigan.gov/documents/deq/deq-ess-caap-pti-exemptionbooklet\\_253795\\_7.pdf](http://www.michigan.gov/documents/deq/deq-ess-caap-pti-exemptionbooklet_253795_7.pdf).

## Appendix D: MAERS Contact Information

# MICHIGAN AIR EMISSIONS REPORTING SYSTEM (MAERS)

**★** UPPER PENINSULA DISTRICT  
420 FIFTH STREET  
GWINN, MI 49841-3004  
(906) 346-8300  
marmaers@michigan.gov

**●** CADILLAC DISTRICT  
120 W CHAPIN STREET  
CADILLAC, MI 49601-2158  
(231) 775-3960  
cadmaers@michigan.gov

**└** GAYLORD OFFICE  
2100 WEST M-32  
GAYLORD, MI 49735-9282  
(989) 731-4920  
gaymaers@michigan.gov

**★** GRAND RAPIDS DISTRICT  
STATE OFFICE BUILDING, 6<sup>TH</sup> FLOOR  
350 OTTAWA AVENUE NW, UNIT 10  
GRAND RAPIDS, MI 49503-2341  
(616) 356-0500  
grrmaers@michigan.gov

**▼** KALAMAZOO DISTRICT  
7953 ADOBE ROAD  
KALAMAZOO, MI 49009-5026  
(269) 567-3500  
kalmaers@michigan.gov

**⊠** LANSING DISTRICT  
CONSTITUTION HALL, 4<sup>TH</sup> FLOOR  
525 W. ALLEGAN  
LANSING, MI 48909-7760  
(517) 335-6010  
lanmaers@michigan.gov

**■** SAGINAW BAY DISTRICT  
SUITE B, 401 KETCHUM STREET  
BAY CITY, MI 48708  
989-894-6200  
baymaers@michigan.gov

**□** JACKSON DISTRICT  
STATE OFFICE BLDG, 4<sup>TH</sup> FLOOR  
301 E LOUIS B GLICK HIGHWAY  
JACKSON, MI 49201-1556  
(517) 780-7690  
jacmaers@michigan.gov

**◆** SOUTHEAST MICHIGAN DISTRICT  
27700 DONALD COURT  
WARREN, MI 48092-2793  
(586) 753-3700  
semaers@michigan.gov

**⊠** DETROIT OFFICE  
CADILLAC PLACE, SUITE 2-300  
3058 WEST GRAND BLVD  
DETROIT, MI 48202-6058  
(313) 456-4700  
detmaers@michigan.gov

**MAERS home page:** <http://maers.state.mi.us/facility>

**MAERS e-mail:** [infoMAERS@michigan.gov](mailto:infoMAERS@michigan.gov)

<p><b>Cadillac District - Air Quality Division</b>  (Northwest Lower Peninsula)  120 W Chapin Street  Cadillac, MI 49601-2158  231-775-3960; Fax: 231-775-4050  E-Mail : <a href="mailto:cadmaers@michigan.gov">cadmaers@michigan.gov</a>  <i>Counties: Benzie, Grand Traverse, Kalkaska, Lake, Leelanau, Manistee, Mason, Missaukee, Osceola, or Wexford</i></p>	<p><b>Gaylord District - Air Quality Division</b>  (Northeast Lower Peninsula)  2100 West M-32  Gaylord, MI 49735-9282  989-731-4920; Fax: 989-731-6181  E-Mail : <a href="mailto:gaymaers@michigan.gov">gaymaers@michigan.gov</a>  <i>Counties: Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, Presque Isle, or Roscommon</i></p>
<p><b>Grand Rapids District - Air Quality Division</b>  (Central West Michigan)  350 Ottawa Ave. NW  Unit 10  Grand Rapids, MI 49503  616-356-0500; Fax: 616-356-0202  E-Mail : <a href="mailto:grrmaers@michigan.gov">grrmaers@michigan.gov</a>  <i>Counties: Barry, Ionia, Kent, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, or Ottawa</i></p>	<p><b>Jackson District - Air Quality Division</b>  (South Central Michigan)  State Office Building, 4th Floor  301 E Louis B Glick Highway  Jackson, MI 49201-1556  517-780-7690; Fax: 517-780-7855  E-Mail : <a href="mailto:jacmaers@michigan.gov">jacmaers@michigan.gov</a>  <i>Counties: Hillsdale, Jackson, Lenawee, Monroe, or Washtenaw</i></p>
<p><b>Kalamazoo District - Air Quality Division</b>  (Southwest Michigan)  7953 Adobe Road  Kalamazoo, MI 49009-5026  269-567-3500; Fax: 269-567-3555  E-Mail : <a href="mailto:kalmaers@michigan.gov">kalmaers@michigan.gov</a>  <i>Counties: Allegan, Berrien, Branch, Calhoun, Cass, Kalamazoo St. Joseph, or Van Buren</i></p>	<p><b>Upper Peninsula District - Air Quality Division</b>  (Entire Upper Peninsula)  420 Fifth Street  Gwinn, MI 49841-3004  906-346-8300; Fax: 906-346-4480  E-Mail : <a href="mailto:marmaers@michigan.gov">marmaers@michigan.gov</a></p>
<p><b>Saginaw Bay District - Air Quality Division</b>  (Central East Michigan)  Saginaw Bay District Headquarters  503 N Euclid Avenue  Bay City, MI 48706-2965  989-686-8025; Fax: 989-684-9799  E-Mail : <a href="mailto:baymaers@michigan.gov">baymaers@michigan.gov</a>  <i>Counties: Arenac, Bay, Clare, Gladwin, Huron, Iosco, Isabella, Midland, Ogemaw, Saginaw, Sanilac, or Tuscola</i></p>	<p><b>Lansing District - Air Quality Division</b>  (Central Michigan)  P.O. Box 30242  Constitution Hall, 525 W. Allegan St., 4N  Lansing, MI 48909-7760  517-335-6010; Fax: 517-241-3571  E-Mail : <a href="mailto:lanmaers@michigan.gov">lanmaers@michigan.gov</a>  <i>Counties: Clinton, Eaton, Genesee, Gratiot, Ingham, Lapeer, Livingston, or Shiawassee</i></p>
<p><b>Southeast Michigan District - Air Quality Division</b>  (Southeast Michigan)  27700 Donald Court  Warren, MI 48092-2793  586-753-3700; Fax: 586-753-3731  E-Mail : <a href="mailto:semaers@michigan.gov">semaers@michigan.gov</a>  <i>Counties: Macomb, Oakland, or St. Clair</i></p>	<p><b>Detroit Office</b>  (Wayne County)  Cadillac Place, Suite 2-300  3058 West Grand Blvd.  Detroit, MI 48202-6058  313-456-4700; Fax: 313-456-4692  E-Mail : <a href="mailto:detmaers@michigan.gov">detmaers@michigan.gov</a>  <i>Counties: Wayne</i></p>