Update to the Michigan State Implementation Plan
Emission Statement Requirements

Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

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Introduction

The federal Clean Air Act (CAA), Section 182(a)(3)(B), requires each state to have an emission statement program if they also contain an ozone nonattainment area. This program must require the owners or operators of stationary sources of volatile organic compounds (VOC) or nitrogen oxides (NOx) to provide the state with statements, in a form acceptable to the United States Environmental Protection Agency (USEPA), showing actual emissions of NOx and VOCs from those sources.

On March 8, 1994, the USEPA approved Michigan's emission statement program as a revision to the Michigan State Implementation Plan (SIP) (49 FR 10752). Since that time, Michigan's Department of Environment, Great Lakes, and Energy (EGLE) has made various changes to the emission statement program. This proposed revision to the SIP includes updates to the emission statement program to align with the CAA, Section 182(a)(3)(B), requirements and the guidelines laid out in the 1992 Draft USEPA Guidance on the Implementation of an Emission Statement Program (Guidance).

Clean Air Act, Section 182(a)(3)(B), Requirements, Guidance Guidelines, and Clean Air Act, Section 110(l), Requirements and Demonstration

1. CAA, Section 110(l), Requirements

This proposed SIP submittal is a revision to the SIP; therefore, the CAA, Section 110(l), must be considered. Section 110(l) governs the submittal of SIP revisions and states:

> *The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.*

EGLE's compliance with Section 110(l) is demonstrated by the SIP-strengthening measures throughout each subsection of this document. EGLE is proposing to strengthen the SIP with updated legislation, a new policy and procedure, and updated forms and user guide for the emission statement program. In addition, EGLE is proposing to remove unnecessary legislation from the SIP. Nothing in this SIP submission would interfere with any applicable requirement concerning attainment, reasonable further progress, or any other applicable CAA requirement.

2. CAA, Section 182(a)(3)(B), Requirements

CAA, Section 182(a)(3)(B), requires that each state require sources emitting NOx or VOC in all ozone nonattainment areas to submit emission statements to the state before November 15, 1993, and annually thereafter. This is also the first

guideline listed in the Guidance. Since 1994, EGLE's Air Quality Division (AQD) has enforced its SIP-approved emissions statement program. This program requires sources of NOx and VOC statewide to submit emission statements to the AQD annually. To update and strengthen the SIP, EGLE is proposing the changes listed in Tables 1 through 3, below.

Proposed SIP Changes to Legal Requirements:
The SIP-approved emission statement program demonstrated EGLE's authority to require sources to report their emissions under the Air Pollution Control Act, Act 348, Section 5. Section 5 conferred upon the Michigan Commission on the Environment multiple powers, including the power to require sources to report their emissions to the department. Act 348 was repealed by the Michigan legislature in 1995 and replaced by the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). The Commission was abolished soon after, and Act 451 was updated to confer all Commission powers back to the department. Subsection 5503(k), of Part 55, Air Pollution Control, of Act 451, gives EGLE the power to require reports on emissions from sources of air pollutants (Attachment A). EGLE is proposing to amend the SIP to accomplish this update as follows in Table 1.

Table 1. EGLE's Power to Require Reports

SIP Approved	Proposed Change
Act 348, Section 5	Remove Act 348, Section 5
	Add Act 451, Section 5503

The SIP-approved emission statement also includes Act 348, Section 14a. This section of Act 348 required the annual fee payment by certain sources to EGLE. This is a requirement of the CAA Title V program and not the emission statement program. There is no requirement or guideline that recommends the inclusion of the authority to collect fees as part of the emission statement program. Also, as stated above, the Legislature repealed Act 348 in 1995. EGLE believes Section 14a was incorrectly submitted to and approved into the SIP as part of the emission statement program. EGLE is proposing to amend the SIP as follows in Table 2 to correct this error.

Table 2. SIP Correction

SIP Approved	Proposed Change
Act 348, Section 14a	Remove Act 348, Section 14a

Proposed SIP Rule and Policy Changes:
The SIP-approved emission statement program demonstrates the remaining authority for EGLE's program through Air Pollution Control Rule 2 (R 336.202). This rule requires an annual report from each stationary source of emissions if EGLE determines the information is necessary for proper management of the air resources.

Since the emission statement program approval, EGLE has developed a policy and procedure to determine which stationary sources must comply with R 336.202 (AQD Policy and Procedure AQD-013). AQD-013 (Attachment A) lists specific thresholds that trigger R 336.202 applicability. For VOCs, the threshold is 10 tons per year statewide; for NOx, the threshold is 25 tons per year in ozone nonattainment areas and 40 tons per year in all other areas of the state. AQD-013 has been in place since 1996 and was most recently updated in 2020. EGLE is proposing to strengthen the SIP by adding AQD-013 as stated in Table 3.

Table 3. Specifics on Reporting Requirements

SIP Approved	Proposed Change
R 336.202	Keep R 336.202
None	Add AQD-013

3. Guidance Program Recommendations

The Guidance recommends that emission statement programs include the following items listed in subsections (a) through (f). Michigan's approved emission statement program contains those elements. Since 1994, EGLE has updated the approved Michigan Air Emissions Reporting System (MAERS) forms and moved to an online system that incorporates the form elements. EGLE is proposing to strengthen the SIP by updating the forms to the 2019 version (Attachment A) and removing the 1993 material as stated in Table 4 and described in detail below.

Table 4. Program Forms

SIP Approved	Proposed Change
1993 Michigan Air Pollution Reporting forms and reference tables	Remove 1993 Michigan Air Pollution Reporting forms and reference tables
	Add MAERS form SB-101 Submit (2019)
	Add MAERS form S-101 Source (2019)
	Add MAERS form A-101 Activity (2019)
	Add MAERS form EU-101 Emission Unit (2019)
	Add MAERS form E-101 Emissions (2019)

a. Certification of data accuracy

The Guidance recommends that each submittal from a source should include:

> *…a certification of data accuracy to ensure that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement*.

EGLE requires each source that submits emissions data to have a company representative sign the electronic equivalent of MAERS form SB-101 Submit.

The signature is required on line 17 of form SB-101 as a verification that "based on information and belief formed after reasonable inquiry, the statements and information in the submittal are true, accurate, and complete." As stated above, this requirement has been integrated into the online system. The online version is compliant with the USEPA's Cross-Media Electronic Reporting Rule (CROMERR). CROMERR establishes electronic reporting as an acceptable regulatory alternative to paper reporting and establishes requirements to assure that electronic documents are as legally dependable as their paper counterparts. The AQD's compliance with CROMERR was established in 2018.

b. Source identification information

The Guidance recommends the following source identification information be supplied to the state:

(1) Full name, physical location, and mailing address of the facility, (2) Latitude and longitude, (3) 4-digit SIC code(s), and (4) Calendar year for the emissions.

MAERS form S-101 Source contains this information. Line 4 requires the source name, lines 7 through 10 require the address, lines 11 and 12 require the latitude and longitude, and line 5 requires the North American Industry Classification System (NAICS) code. Since the Guideline was first published, the USEPA has replaced the Standard Industrial Classification (SIC) code with the NAICS code. In addition to these requirements, line 6 requires a source to identify if the emission unit is portable or stationary. Each MAERS form requires the inventory year for the emissions on line 1.

c. Operating schedule

The Guidance recommends that states require sources to submit the following information about their operating schedule:

(1) Percentage of annual throughput (percentage of annual activity by season), (2) Days per week on the normal operating schedule, (3) Hours per day during the normal operating schedule, and (4) Hours per year on the normal operating schedule.

MAERS form A-101 Activity contains this recommended information. For each Source Classification Code (SCC) at a facility, the source can list its seasonal percentage throughput in lines 8 through 11. The source can also list the operating schedule in hours per day, days per week, and days per year in lines 12 through 14. Hours per year can be calculated based on this information.

d. Emissions information

The Guidance recommends that states require sources to submit the following information about the emissions from a source:

(1) Estimated actual VOC and/or NO_x emissions at the segment level, in tons per year for an annual emission rate and pounds per day for a typical ozone season day, (2) Estimated emissions method code, (3) Calendar year for the emissions, and (4) Emission factor (if emissions were calculated using an emission factor).

The AQD uses the term emission unit instead of segment level. For each emission unit, MAERS form E-101 Emissions requires the annual emissions for each pollutant on lines 7A and 7B. The method used to estimate those emissions is noted on line 8, and the emission factor, if used, is listed on lines 9A through 9C. The calendar year for the emissions is recorded on line 1 of all MAERS forms. MAERS does not collect ozone season emissions, therefore, VOC and NOx emissions are only reported in pounds per year.

The Guidance also recommends the state provide the USEPA with the following information:

(1) SCC(s) and descriptions for each segment, (2) Current RE factors at the SCC pollutant level, if applicable, and (3) RE method code(s).

MAERS form A-101 Activity requires the source to supply the SCC code and descriptions for each emission unit activity in lines 5 and 6.

RE, or Relative Efficiency, factors relate to the efficiency of a rule to reduce pollution. In the Guidance, RE factor and RE method relate to the efficiency a rule has on a specific pollutant at an SCC. EGLE does not collect such data from sources in MAERS or in the emission statement program.

e. Control equipment information

The Guidance recommends that states require sources to submit the following information about the control equipment:

(1) Current primary and secondary control equipment identification codes, and (2) Current combined (if primary and secondary control equipment is used) control equipment efficiency (%).

MAERS forms EU-101 Emission Unit and E-101 Emissions contains this recommended information. For each emission unit at a source, the control devices and device codes can be listed on line 24 of form EU-101. Form E-101 allows the source to list the control efficiency, in weight percent, on line 10.

f. Process data

The Guidance recommends that states require sources to submit the following information about their process:

(1) Annual process rate (annual throughput), and (2) Peak ozone season daily process rate.

MAERS requires collection of the annual process rate from each emission unit at each source on form A-101 Activity. Lines 15A, 15B, and 15C collect information on the annual material throughput, the type of material, and the units of throughput. Using this information, the annual process rate can be calculated.

MAERS does not collect peak ozone season daily process rates. Instead, MAERS form A-101 collects information on the material usage by season in lines 8 through 11. In Michigan, the ozone season runs from March through October. The peak ozone season is typically in June through August, which corresponds to the Summer season listed in line 10. Therefore, total peak ozone season process rates could be calculated using the season percentages.

4. Guidance Program Clarity Recommendations

The Guidance recommends the state clearly identify and define the required pollutants and accompanying terminology. The AQD has prepared a MAERS User Guide (Attachment A) that clearly defines all terms used in the MAERS forms, all pollutants required to be reported, and aids the source in completing their MAERS submittal via the electronic format. This User Guide was last updated in January 2020. EGLE no longer uses the set of general instructions that are currently in the SIP. EGLE is proposing to strengthen the SIP by replacing the 1993 MAERS general instruction with the January 2020 MAERS User Guide as stated in Table 5.

Table 5. Clear Reporting Terminology and Instructions

SIP Approved	Proposed Change
1993 MAERS general instructions	Remove 1993 MAERS general instructions
	Add January 2020 MAERS User Guide

5. State Submittal Commitment

The Guidance recommends that “the State should enter the emission statement data into AFS by July 1 of each year....” It also recommends the data submitted “should include all data obtained from the source and the State...,” as listed in the Guidance. AFS is the Air Facility System. The USEPA no longer uses AFS, instead they use the Emissions Inventory System (EIS). In addition, the USEPA has updated the Air Emissions Reporting Requirements in Title 40 of the Code of Federal Regulations (CFR), Section 51.30, to require the annual report to be submitted to the USEPA by December 31 of each year.

As part of the work plan elements to receive the CAA, Section 105, grant monies, the AQD annually commits to prepare and submit emission data for the reporting year in compliance with 40 CFR Part 51. The AQD submits the emissions data to

the EIS by December 31 of each year. The data submitted includes the required data obtained from the source as recommended in the Guidance and presented in the MAERS forms in Attachment A. As stated above, the AQD utilizes the online MAERS system for data collection from sources. This allows data to be exported from MAERS and submitted to the EIS to comply with the CAA and CFR requirements.

Title 40 of the Code of Federal Regulations, Part 51, Appendix V Requirements

40 CFR Part 51, Appendix V, contains requirements EGLE must follow to revise the SIP. The applicable requirements and EGLE's fulfillment of them are as follows:

1. **Formal Request**
   Appendix V requires all SIP submittals contain a formal letter of submittal from the governor or the governor's designee requesting the USEPA approval of the SIP revision.

   A letter dated July 3, 2019, from Governor Gretchen Whitmer to the USEPA, Region 5, delegates authority from the Governor to EGLE's Director to make any SIP submittal, request, or application under the CAA. This letter was submitted to the USEPA on July 30, 2019, for inclusion in the Michigan SIP and is available upon request. This delegation of authority and the cover letter that is included with this SIP submittal to the USEPA satisfies the formal request requirement.

2. **Necessary Legal Authority**
   Appendix V requires states to submit evidence the state has the necessary legal authority under state law to adopt and implement the requested SIP revision.

   Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and Executive Order 2019-02 provide EGLE with the legal authority under state law to implement and enforce the provisions of the Michigan SIP. A copy of Part 55 has been submitted to the USEPA through previous SIP submittals and is available upon request. A copy of Executive Order 2019-02 is available in Attachment B.

3. **Sufficient Public Notice**
   Appendix V requires the State of Michigan to submit evidence that public notice was given of the proposed change consistent with procedures approved by the USEPA, including the date of publication of such notice.

   An opportunity for public comment and hearing was provided as required by Appendix V. A copy of the public notice for this SIP revision is included in Attachment B.

4. Valid Public Hearing

Appendix V requires the State submit a certification that a public hearing, if held, was held in accordance with the information provided in the public notice and the State's Administrative Procedures Act.

EGLE provided an opportunity for a public hearing, upon request, as stated in the public notice (Attachment B). The AQD did not receive any requests for a public hearing by the stated date in the public notice, therefore, the AQD canceled the public hearing.

5. Public Comments

Appendix V requires the State to compile any public comments and the State's responses to them in the SIP submittal.

The AQD did not receive any public comments on this SIP submittal.

ATTACHMENT A

SIP Additions

Act 451, Section 5503

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.5503 Powers of department.

Sec. 5503. The department may do 1 or more of the following:

(a) Promulgate rules to establish standards for ambient air quality and for emissions.

(b) Issue permits for the construction and operation of sources, processes, and process equipment, subject to enforceable emission limitations and standards and other conditions reasonably necessary to assure compliance with all applicable requirements of this part, rules promulgated under this part, and the clean air act.

(c) In accordance with this part and rules promulgated under this part, deny, terminate, modify, or revoke and reissue permits for cause. If an application for a permit is denied or is determined to be incomplete by the department, the department shall state in writing with particularity the reason for denial or the determination of incompleteness, and, if applicable, the provision of this part or a rule promulgated under this part that controls the decision.

(d) Compel the attendance of witnesses at proceedings of the department upon reasonable notice.

(e) Make findings of fact and determinations.

(f) Make, modify, or cancel orders that require, in accordance with this part, the control of air pollution.

(g) Enforce permits, air quality fee requirements, and the requirements to obtain a permit.

(h) Institute in a court of competent jurisdiction proceedings to compel compliance with this part, rules promulgated under this part, or any determination or order issued under this part.

(i) Enter and inspect any property as authorized under section 5526.

(j) Receive and initiate complaints of air pollution in alleged violation of this part, rules promulgated under this part, or any determination, permit, or order issued under this part and take action with respect to the complaint as provided in this part.

(k) Require reports on sources and the quality and nature of emissions, including, but not limited to, information necessary to maintain an emissions inventory.

(*l*) Prepare and develop a general comprehensive plan for the control or abatement of existing air pollution and for the control or prevention of any new air pollution.

(m) Encourage voluntary cooperation by all persons in controlling air pollution and air contamination.

(n) Encourage the formulation and execution of plans by cooperative groups or associations of municipalities, counties or districts, or other governmental units, industries, and others who severally or jointly are or may be the source of air pollution, for the control of pollution.

(o) Cooperate with the appropriate agencies of the United States or other states or any interstate or international agencies with respect to the control of air pollution and air contamination or for the formulation for the submission to the legislature of interstate air pollution control compacts or agreements.

(p) Conduct or cause to be conducted studies and research with respect to air pollution control, abatement, or prevention.

(q) Conduct and supervise programs of air pollution control education including the preparation and distribution of information relating to air pollution control.

(r) Determine by means of field studies and sampling the degree of air pollution in the state.

(s) Provide advisory technical consultation services to local communities.

(t) Serve as the agency of the state for the receipt of money from the federal government or other public or private agencies and the expenditure of that money after it is appropriated for the purpose of air pollution control studies or research or enforcement of this part.

(u) Do such other things as the department considers necessary, proper, or desirable to enforce this part, a rule promulgated under this part, or any determination, permit, or order issued under this part, or the clean air act.

History: 1994, Act 451, Eff. Mar. 30, 1995.

Compiler's note: For transfer of authority, powers, duties, functions, and responsibilities of the Air Quality Division to the Director of the Michigan Department of Environmental Quality, see E.R.O. No. 1995-16 , compiled at MCL 324.99901 of the Michigan Compiled Laws.

Popular name: Act 451

Popular name: NREPA

Administrative rules: R 336.1101 et seq.; R 336.1122; and R 336.1201 et seq. of the Michigan Administrative Code.

AIR QUALITY DIVISION POLICY AND PROCEDURE

AQD-013
Criteria Pollutant Threshold Levels for the Point Source Emissions Inventory

Original Effective Date: November 25, 1996
Last Revision Date: July 22, 2020
Distribution: External/Non-Interpretive

ISSUE

Michigan Air Pollution Control R 336.202 (Rule 2) requires an annual report from a commercial, industrial, or governmental source of emission of an air contaminant, if in the judgment of EGLE, information on the quantity and composition of an air contaminant emitted from the source is considered by EGLE as necessary for the proper management of the air resources. In addition, Air Pollution Control R 336.1212 (Rule 212) contains emission reporting requirements.

In the past, nearly every permitted source was added to the point source emissions inventory (point inventory). In addition, many sources without permits (grandfathered) were included. The point inventory source population peaked in 1994 with over 14,000 sources. A considerable effort has been put into improving the quality of the data in the point source emissions inventory and continued maintenance of the point inventory remains resource intensive for both the department and the sources that report the emissions information. As a result of implementation of this policy over the years since it was first adopted, the 2019 point inventory contains approximately 1,700 sources.

This policy and procedure is intended to provide guidance to Air Quality Division (AQD) staff as to what sources should be included in the point inventory to fulfill the requirements of Rule 2. The goal is to include: (1) sources that are specifically required to report emissions or compliance status in accordance with an Air Pollution Control Rule or federal Clean Air Act (CAA) requirement; (2) sources that are determined to be a Category A through Category D fee-subject facility; (3) sources that have obtained and are operating under an “Opt-out Permit” (Category E fee-subject facility); and (4) sources that emit sufficient quantities of air contaminants to warrant their inclusion in the point inventory for the proper management of the air resources and support the State Implementation Plan (SIP).

AUTHORITY

The federal CAA, 42 United States Code (U.S.C.) 7401; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451).

STAKEHOLDER INVOLVEMENT

The Air Advisory Council participated in the original action for this policy and procedure.

DEFINITIONS

Emission, Reporting & Assessment Unit (ERAU) – A unit in the Air Quality Evaluation Section of the AQD responsible for overseeing emissions reporting.

Michigan Air Emissions Reporting System (MAERS) – Currently, a web-based application for reporting annual emission reports by sources required to report pursuant to Rule 212. The data submitted to MAERS is the basis for the AQD's point inventory.

State Registration Number (SRN) – A unique identifier used by the AQD to identify single stationary sources.

Environmental Assistance Center (EAC) – Located in EGLE, Environmental Support Division and provides direct one-on-one assistance or a referral to program staff within EGLE.

Opt-out Permit – A permit to install issued to a source, which establishes emission and operational limits, enforceable by the AQD and/or the United States Environmental Protection Agency (USEPA) to reduce a source's potential to emit to below the major source thresholds and therefore allows the source to avoid the requirements of the Renewable Operating Permit (ROP) program. {See Policy and Procedure AQD-004}

PM – All filterable Particulate Matter, there is no size differentiation. PM does not include condensable emissions. PM_{10} and $PM_{2.5}$ filterable emissions cannot be greater than PM for the same activity.

PM_{10} – Particulate Matter equal to or less than 10 microns in diameter. The size denoted refers to filterable particulate matter, which may be equal to or less than the Particulate Matter emission levels for the same activity. PM_{10} also includes condensable emissions. Primary PM_{10} emissions are the sum of filterable and condensable emissions. The condensable emissions are always equivalent for PM_{10} and $PM_{2.5}$.

$PM_{2.5}$ – Particulate Matter equal to or less than 2.5 microns in diameter. The size denoted refers to filterable particulate matter, which may be equal to or less than the Particulate Matter or PM_{10} emission levels for the same activity. $PM_{2.5}$ also includes condensable emissions. Primary $PM_{2.5}$ emissions are the sum of filterable and condensable emissions. The condensable emissions are always equivalent for PM_{10} and $PM_{2.5}$.

POLICY

Sources with actual emissions expected to be greater than any of the following emission thresholds will be notified to report emissions annually:

- Carbon Monoxide = 100 tons per year (TPY)
- Nitrogen Oxides = 40 TPY (25 TPY for sources in Ozone Nonattainment areas, see below)
- Sulfur Dioxide = 40 TPY
- PM = 25 TPY
- PM_{10} = 15 TPY*
- $PM_{2.5}$ = 10 TPY*
- Volatile Organic Compounds (VOC) = 10 TPY
- Lead (Pb) = 0.5 TPY

These thresholds are based on the significant levels defined in Air Pollution Control Rule R 336.1119(e) with the exception of VOC and Pb. The VOC threshold is based on the major source definition for a single hazardous air pollutant in Section 112 of the federal CAA. The Pb threshold is based on the lead ambient monitoring requirements (Title 40 of the Code of Federal Regulations (CFR) Part 58, Appendix D). In addition, sources that are specifically required to report emissions or compliance status in accordance with an Air Pollution Control Rule or federal CAA requirement, sources that have an active Opt-out Permit, and sources that are considered Category A through Category E Fee-subject sources pursuant to Act 451 will be included in the point inventory.

Additionally, in conformance with Section 182 of the CAA, sources in Ozone Nonattainment Areas will be notified to report annual emissions if they have actual emissions over 25 TPY of nitrogen oxides.

*PM_{10} and $PM_{2.5}$ should be reported as Primary whenever possible. Primary is equal to filterable and condensable emissions summed together, unless specified otherwise. As applicable, also report filterable and condensable emissions and indicate the type.

Once a source triggers the need to report for any pollutant, that source must report for all pollutants listed above, and as applicable for the associated activity code.

PROCEDURE

Step	Who	Does What
Step 1 – SRN Assignment	Field Operations/ Permits Section	Upon becoming aware of a source which will be of ongoing regulatory interest, requests an SRN be assigned. The request is submitted to the MAERS Coordinator and includes facility name; and location of the facility, including address, city, county, and ZIP code; facility contact, contact's email address, and telephone number.
	MAERS Coordinator	Verifies the address/facility does not already have an SRN assigned and issues an SRN. In accordance with the policy above, a preliminary determination is made, based on input from District Staff as to whether the source will be required to submit a MAERS report in the coming year. The MAERS Flag in MAERS is set accordingly.
Step 2 – Master List Generation	MAERS Coordinator	During November each year, the preliminary Master List is populated with sources that have a MAERS Flag set to Y- yes or U - undecided. Once populated and quality assured, the MAERS Coordinator notifies District Staff that the Master List is available for review and approval.
Step 3 – Master List review and finalization	Field Operations/ District Supervisors	Upon notification by the MAERS Coordinator, the Master List is reviewed by District Staff. Sources are added or removed based on the criteria set forth in the Policy above and in consultation with the District Supervisor.
Step 4 – Master List finalization	District Supervisors or designee	Review and approve each District's final Master List. Any sources not required to report should be removed from the Master List prior to approving each District's Master List. Any source remaining on the Master List will receive notification that they are required to complete a MAERS report. Master Lists are expected to be finalized each year by December 20.

Step	Who	Does What
Step 5 – Notification of MAERS sources	MAERS Coordinator	A minimum of 3 attempts to electronically notify (email) sources of their obligation to submit a MAERS report shall be made. Any sources that have not confirmed receipt of the electronic notifications by January 23 shall be processed for paper notification. All notifications shall be completed by January 29 each year. Notifications (electronic or paper) will provide the source with the necessary resources to complete their MAERS reports in an efficient manner and are customized depending on whether or not the source has reported before.
Step 6 – Customer Service	ERAU, Field Operations, EAC	EGLE will provide the necessary staff with resources to assist the sources in completing and submitting their MAERS reports. For the most part, this customer service will be facilitated through the MAERS Coordinator.
Step 7 – Review and Audit of Submitted Reports	Field Operations	Upon submittal, and prior to June 1, MAERS reports assigned for audit will be reviewed for errors. Sources are assigned for audit at the District Supervisors' discretion, while accounting for workload and resource considerations.
Step 8 – Statewide QA	ERAU	After the District Staff have completed the audits of the MAERS reports and prior to the population of next year's Master List, a statewide quality assurance of the submitted data is completed. This effort looks at the annual data as a whole, and identifies data outliers and data that is beyond acceptable ranges. The ERAU will identify and correct data where the correction is obvious; the ERAU will work with District Staff and/or the source to verify or correct data where a correction is not obvious.
Step 9 – Annual Point Source Inventory Submittal to USEPA	ERAU	Before January 1 of the following year, the ERAU will finalize the point inventory and generate the files necessary to submit a facility and point inventory to USEPA's Emissions Inventory System (EIS) pursuant to 40 CFR Part 51 (i.e., 2019 data is submitted to the EIS before January 1, 2021). All data submitted by a source is processed through the audit and statewide quality assurance process, and is submitted to the USEPA as part of Michigan's official Point Source Emissions Inventory. The finalized Point Source Emissions Inventory is also made available to the general public online via download and through FOIA.

This Policy and Procedure document is intended to provide guidance to AQD staff to foster consistent application of Part 55 of Act 451 and the administrative rules promulgated thereunder. This document is not intended to convey any rights to any parties nor create any duties or responsibilities under law. This document and matters addressed herein are subject to revision.

LINKS TO ADDITIONAL INFORMATION

The Fee Calculations website provides information on the different fee categories and how fees are assessed.

The MAERS User Guide references this document and provides guidance on how to report the emissions once the need to report has been triggered.

Policy and Procedure AQD-004 is entitled Mechanisms for Limiting the Applicability of Michigan's Renewable Operating Permit Program. It is referenced above in the definition of an Opt-out Permit.

APPROVING AUTHORITY

Mary Ann Dolehanty, Director
Air Quality Division

HISTORY

Policy No.	Action	Date	Title
Operational Memorandum AQD-13	Original	11/25/1996	Criteria Pollutant Threshold Levels For The Point Source Emissions Inventory
Operational Memorandum AQD-13	Revised	2/14/1997	Criteria Pollutant Threshold Levels For The Point Source Emissions Inventory
AQD-013	Revised	1/29/2014	Criteria Pollutant Threshold Levels For The Point Source Emissions Inventory
AQD-013	Revised	7/22/2020	Criteria Pollutant Threshold Levels for the Point Source Emissions Inventory

CONTACT/UPDATE RESPONSIBILITY

Any questions or concerns regarding this policy and procedure should be directed to Catherine Asselin at InfoMAERS@Michigan.gov, or at 517-582-3604.

An EGLE policy and procedure cannot establish regulatory requirements for parties outside of EGLE. This document provides direction to EGLE staff regarding the implementation of rules and laws administered by EGLE. It is merely explanatory, does not affect the rights of or procedures and practices available to the public, and does not have the force and effect of law. EGLE staff shall follow the directions contained in this document.

MAERS form SB-101 Submit (2019)

EGLE

INVENTORY YEAR:
1.

Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

SB-101 SUBMIT FORM

(Required Form)

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Complete this form. For detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to submit a completed MAERS Report for a **specific inventory year.** Enter the **specific inventory year** in field 1.

FORM REFERENCE	
2. Form Type **SB-101**	3. AQD Source ID (SRN)

COMPANY CONTACT'S IDENTIFICATION		
4. Source Name		
5. First Name	6. Last Name	7. Title
8A. Street Number and Name		
8B. Address Continued		
9. City	10. State	11. ZIP Code
12. E-Mail Address		
13A. Telephone Number ( )	13B. Telephone Extension	14. Fax Number ( )
15. Submittal Method ☐ Web submission ☐ Paper		16. Amended Submittal ☐ Yes ☐ No

COMPANY CONTACT'S SIGNATURE	
Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.	
17. Signature	18. Date

EQP 5755 (Rev 11/19)

MAERS form S-101 Source (2019)

EGLE

Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

INVENTORY YEAR: 1

S-101 SOURCE

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted; and complete this form with additions or corrections as necessary. For more detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report source information for a specific inventory year. Enter the specific inventory year in field 1.

FORM REFERENCE	
2. Form Type **S-101**	3. AQD Source ID (SRN)

SOURCE IDENTIFICATION	☐ Change	☐ Add
4. Source Name		
5. NAICS Code	6. Portable ☐Yes ☐ No	
7A. Street Number and Name (where emission unit(s) is located)		
7B. Address Continued		
8. County	9. City	10. Zip Code
11. Latitude _ _ . _ _ _ _ _ _ Decimal Degrees	12. Longitude _ _ . _ _ _ _ _ _ Decimal Degrees	13. Horizontal Collection Method
14. Source Map Scale Number	15. Horizontal Accuracy Measure Meters	
16. Horizontal Reference Datum Code	17. Reference Point Code	
18. Principal Product		19. Number of Employees
20. Employer Federal Identification Number		

OWNER INFORMATION	☐ Change	☐ Add	
20. Owner Name			
21A. Mailing Address (Street Number and Name or P.O. Box)			
21B. Address Continued			
22. City	23. State/Province	24. Country	25. ZIP or Postal Code

EQP 5747 (Rev 10/19)

MAERS Form A-101 Activity (2019)

EGLE

Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

A-101 ACTIVITY

INVENTORY YEAR: **1.**

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted, and complete this form as applicable, with additions or corrections as necessary. For more detailed instructions, refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report emission unit activities for a **specific inventory year**. Enter the **specific inventory year** in field 1.

FORM REFERENCE

2. Form Type **A-101**	3. AQD Source ID (SRN)	4. Emission Unit (EU) OR Reporting Group (RG) ID

ACTIVITY INFORMATION ☐ Change ☐ Add

5. Source Classification Code (SCC)	6. SCC Description	7. Remove from MAERS ☐ Yes ☐ No

SEASONAL MATERIAL USAGE SCHEDULE IF THROUGHPUT IS > 0, THEN SEASONAL PERCENTAGES MUST TOTAL 100%				OPERATING SCHEDULE		
8. WINTER (JAN, FEB & DEC)	9. SPRING (MAR - MAY)	10. SUMMER (JUN - AUG)	11. FALL (SEP - NOV)	12. Hours per Day	13. Days per Week	14. Days per Year

MATERIAL INFORMATION

15A. Material Code	15B. Material Throughput	15C. Unit Code

16. Operator's Material Description

17. VOC Content (coatings or solvent) ___ ___ ___ . ___ ___ Weight Percent	18. Density _____ ☐ lb / gallon ☐ lb / ft³

19. BTUs (fuel) ☐ lb ☐ gallon ☐ ft³	20. Sulfur Content (fuel) ___ ___ . ___ ___ Weight Percent	21. Ash Content (fuel) ___ ___ - ___ ___ Weight Percent

ACTIVITY INFORMATION ☐ Change ☐ Add

5. Source Classification Code (SCC)	6. SCC Description	7. Remove from MAERS ☐ Yes ☐ No

SEASONAL MATERIAL USAGE SCHEDULE IF THROUGHPUT IS > 0, THEN SEASONAL PERCENTAGES MUST TOTAL 100%				OPERATING SCHEDULE		
8. WINTER (JAN, FEB & DEC)	9. SPRING (MAR - MAY)	10. SUMMER (JUN - AUG)	11. FALL (SEP - NOV)	12. Hours per Day	13. Days per Week	14. Days per Year

MATERIAL INFORMATION

15A. Material Code	15B. Material Throughput	15C. Unit Code

16. Operator's Material Description

17. VOC Content (coatings or solvent) ___ ___ ___ . ___ ___ Weight Percent	18. Density _____ ☐ lb / gallon ☐ lb / ft³

19. BTUs (fuel) ☐ lb ☐ gallon ☐ ft³	20. Sulfur Content (fuel) ___ ___ . ___ ___ Weight Percent	21. Ash Content (fuel) ___ ___ - ___ ___ Weight Percent

EQP 5752 (Rev 10/19)

MAERS Form EU-101 Emission Unit (2019)

EGLE Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

INVENTORY YEAR: 1.

EU-101 EMISSION UNIT

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted, and complete this form as applicable with additions or corrections as necessary. For more detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report emission units used in a specific inventory year. Enter the inventory year for which the emission units are being reported in field 1.

FORM REFERENCE	
2. Form Type **EU-101**	3. AQD Source ID (SRN)

OPERATOR'S EMISSION UNIT IDENTIFICATION	☐ Change ☐ Add	
4. AQD Emission Unit ID	5. Emission Unit ID	6. Emission Unit Type
7. NAICS Code (If different from S-101 #5)	8. Installation Date MM/DD/YYYY	9. Dismantle Date MM/DD/YYYY
10. Operator's Emission Unit Description – (Include process equipment and control devices)		

11. Combustion Source ☐ Yes ☐ No	12. Design Capacity
13. Design Capacity Unit Numerator	14. Design Capacity Unit Denominator
15. Is this combustion source used to generate electricity ☐ Yes ☐ No	16. Maximum Nameplate Capacity Megawatts
RULE 201 APPLICABILITY	
17. Grandfathered? ☐ Yes ☐ No	
18. Exempt from Rule 201? ☐ Yes ☐ No	19. If Yes, Rule Number
20. If Rule 201 Exempt, Is Throughput Below Reporting Thresholds? ☐ Yes ☐ No	
21. Permit? ☐ Yes ☐ No	22. If Yes, Enter the Permit Number
23. Is this emission unit required to report emissions to MAERS for this reporting year (inventory year)? ☐ Yes ☐ No	

CONTROL DEVICE(S)			
24. Control Device Code	☐Add ☐Delete	24. Control Device Code	☐Add ☐Delete
24. Control Device Code	☐Add ☐Delete	24. Control Device Code	☐Add ☐Delete
24. Control Device Code	☐Add ☐Delete	24. Control Device Code	☐Add ☐Delete
EMISSION UNIT STACK(S)			
25. Operator's Stack ID **SV**	☐Add ☐Delete	25. Operator's Stack ID **SV**	☐Add ☐Delete
25. Operator's Stack ID **SV**	☐Add ☐Delete	25. Operator's Stack ID **SV**	☐Add ☐Delete
25. Operator's Stack ID **SV**	☐Add ☐Delete	25. Operator's Stack ID **SV**	☐Add ☐Delete
25. Operator's Stack ID **SV**	☐Add ☐Delete	25. Operator's Stack ID **SV**	☐Add ☐Delete
25. Operator's Stack ID **SV**	☐Add ☐Delete	25. Operator's Stack ID **SV**	☐Add ☐Delete

EQP 5750 (Rev 10/19)

MAERS Form E-101 Emissions (2019)

EGLE

Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

E-101 EMISSIONS

INVENTORY YEAR:
1.

Authorized under 1994 PA 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted, and complete this form as applicable with additions or corrections as necessary. For more detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report each activity's emissions for a **specific inventory year**. Enter the **specific inventory year** in field 1.

FORM REFERENCE		
2. Form Type E-101	3. AQD Source ID (SRN)	4. Emission Unit (EU) OR Reporting Group (RG) ID
5. Source Classification Code (SCC)	6. Material Code	

EMISSION INFORMATION	☐ Change ☐ Add ☐ Delete
7A. Pollutant Code	7B. Annual Emissions Pounds

8. Emission Basis (Please check one) ☐ CEM ☐ Stack Test ☐ PEM ☐ Mass Balance ☐ Tank Model ☐ Landfill Model ☐ MAERS Emission Factor ☐ Other (Attach Description)

9A. List Emission Factor	9B. Exponent	9C. Emission Factor Unit Code	10. Control Efficiency Weight Percent
___.___ ___ ___	___ ___ ___		___ ___ ___.___

11. Comment

EMISSION INFORMATION	☐ Change ☐ Add ☐ Delete
7A. Pollutant Code	7B. Annual Emissions Pounds

8. Emission Basis (Please check one) ☐ CEM ☐ Stack Test ☐ PEM ☐ Mass Balance ☐ Tank Model ☐ Landfill Model ☐ MAERS Emission Factor ☐ Other (Attach Description)

9A. List Emission Factor	9B. Exponent	9C. Emission Factor Unit Code	10. Control Efficiency Weight Percent
___.___ ___ ___	___ ___ ___		___ ___ ___.___

11. Comment

EMISSION INFORMATION	☐ Change ☐ Add ☐ Delete
7A. Pollutant Code	7B. Annual Emissions Pounds

8. Emission Basis (Please check one) ☐ CEM ☐ Stack Test ☐ PEM ☐ Mass Balance ☐ Tank Model ☐ Landfill Model ☐ MAERS Emission Factor ☐ Other (Attach Description)

9A. List Emission Factor	9B. Exponent	9C. Emission Factor Unit Code	10. Control Efficiency Weight Percent
___.___ ___ ___	___ ___ ___		___ ___ ___.___

11. Comment

EMISSION INFORMATION	☐ Change ☐ Add ☐ Delete
7A. Pollutant Code	7B. Annual Emissions Pounds

8. Emission Basis (Please check one) ☐ CEM ☐ Stack Test ☐ PEM ☐ Mass Balance ☐ Tank Model ☐ Landfill Model ☐ MAERS Emission Factor ☐ Other (Attach Description)

9A. List Emission Factor	9B. Exponent	9C. Emission Factor Unit Code	10. Control Efficiency Weight Percent
.			.

11. Comment

EQP 5753 (Rev 10/19)

MAERS

MICHIGAN AIR EMISSIONS REPORTING SYSTEM

USER GUIDE

A Guide for Completing an Electronic MAERS Report

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Michigan.gov/MAERS | 800-662-9278

January 2020

This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.

TABLE OF CONTENTS

1 Introduction

Overview of the Michigan Air Emissions Reporting System:

The federal Clean Air Act (CAA) 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). The MAERS is a Web-based application accessible to participating regulated facilities via the Internet. Participating facility access privileges are administrated using 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 Michigan Department of Environment, Great Lakes, and Energy (EGLE) 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 U.S. Environmental Protection Agency (USEPA) 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 Policy and Procedure **AQD-013** generally explains which Michigan facilities, operating sources of air pollution, are required to report their annual emissions. They include the following:

- Facilities subject to the Renewable Operating Permit (ROP) Program.
- Facilities that have opted out of the ROP Program by obtaining an Opt-Out Permit to Install.
- Facilities subject to a federal New Source Performance Standard (NSPS).
- 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_2)	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)	0.5 tons per year

Note: These thresholds are based on the AQD Policy and Procedure, AQD-013, except for VOCs. The VOC threshold is based on the major source definition for a single hazardous air pollutant in Section 112 of the federal CAA and the requirement to identify VOC point sources greater than 10 tons per year in the Michigan State Implementation Plan.

The 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.

NOTE: Reporting Toxic Pollutants

Reporting 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 based on the information provided for criteria pollutants. This includes activity information such as source classification codes and material throughput, along with source estimates of PM and VOCs. A company may preview toxic emissions data that has been calculated using the MAERS software once criteria pollutant emissions data has been completed for the facility. If the estimates are felt to be in error, the company may submit corrected estimates, provided they also submit 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. See Appendix D for more information.

MAERS Report Submission Process

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

Step 1: Log into the MAERS via the Internet with an assigned username and password.

Step 2: Select a source in the MAERS Report List. Click the View/Edit icon to access 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.

Step 5: Enter the PIN number and answer the security question in the Submittal Authorization Form.

Step 6: Submit the MAERS Report.

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:

Training and Outreach

EGLE's Training and Outreach Unit helps small and medium-sized businesses understand their obligations under state and federal air quality regulations as well as identify methods of compliance with those requirements. The types of assistance available from the Training and Outreach Unit include telephone consultations, guidance publications, and training workshops. Staff are 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 Michigan.gov/EnvironmentalAssistance.

EGLE MAERS Website

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 Michigan.gov/maers.

MAERS Tutorials

Short video tutorials to assist you with various aspects of the MAERS are at **Michigan.gov/maers**, click on "Training Opportunities".

InfoMAERS@michigan.gov

The AQD maintains this e-mail box to accept, track and administer MAERS-related correspondence.

2 Minimum System Requirements

Participating facilities must be able to access **egle.state.mi.us/maersfacility**.

The performance of the 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 is required and available for download at **www.microsoft.com/download**

3 Getting Started

Access the MAERS website **egle.state.mi.us/maersfacility**. You will be greeted by the login screen shown below (Figure 3-1). You must enter a valid username and password. A username and password can be obtained by self-registering.

Figure 3-1 MAERS Website Login Page

Self-Registration

To establish an account in MAERS, click on the "Self-Registration" link (Figure 3-2)

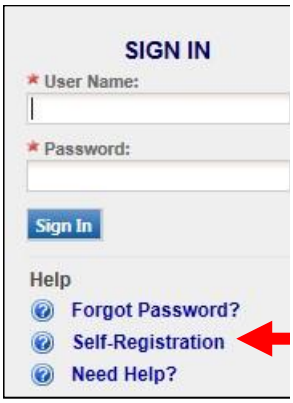

Figure 3-2: Access Self-Registration

NOTE: You only need to register once. If you have registered for a previous year, you can skip Self-Registration.

Step 1: Select a role - (Figure 3-3). The registered user's role determines access to the appropriate data and defines user rights. If you are uncertain as to which role (defined below) applies to you, contact your district office, or send your inquiry to **InfoMAERS@michigan.gov**.

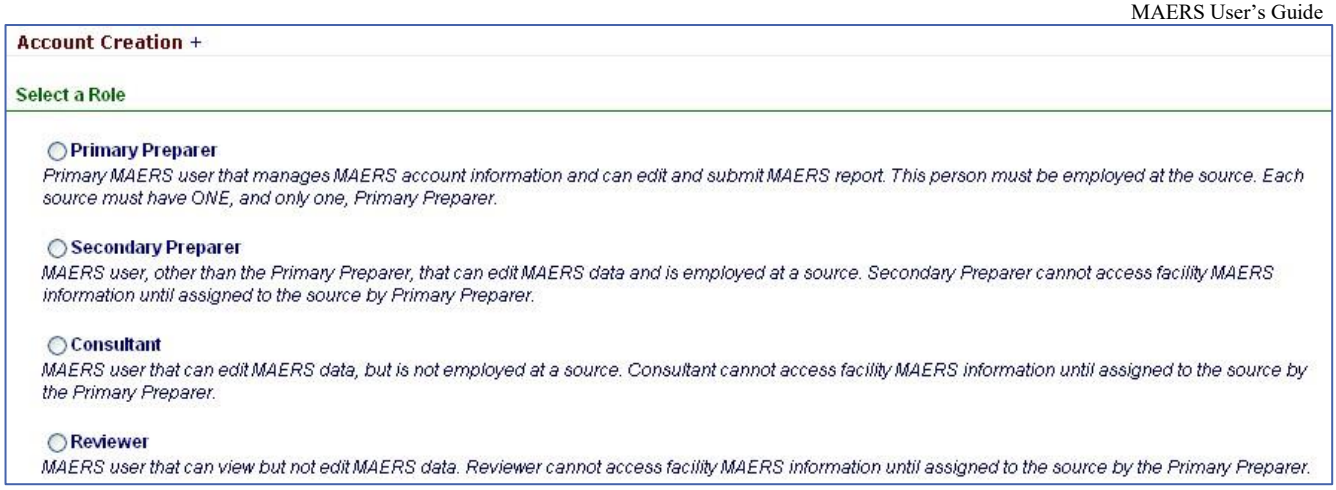

Figure 3-3: Select Role in Self-Registration

- **Primary Preparer** –Each facility must have one Primary Preparer. This user must be employed at the facility and cannot be a consultant. This user manages the facility's online MAERS account, assigns additional users, can complete or make edits, and is responsible for submitting the report when it is finished. Only the Primary Preparer can certify and submit the 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.

- **Secondary Preparer** – This user is employed at the facility, other than the Primary Preparer, who will be working on the MAERS Report. This user can access and make edits to the MAERS Report once the Primary Preparer assigns them to the facility. A person that registers as a Secondary Preparer can be associated with multiple facilities, and multiple Secondary Preparers can be associated with a facility.
- **Consultant** – This role is like the Secondary Preparer except that they are a consultant rather than someone employed at the facility. This user can access and make edits to the MAERS Report once the Primary Preparer assigns them to the facility. A Consultant can be associated with multiple facilities.
- **Reviewer** –This user can only view the MAERS Report once the Primary Preparer assigns them to the facility. 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: Associate Facility(s). (Figure 3-5).

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) for which you want to be the Primary Preparer.

If a facility appears for which you do not want to be the Primary Preparer, click the delete button.

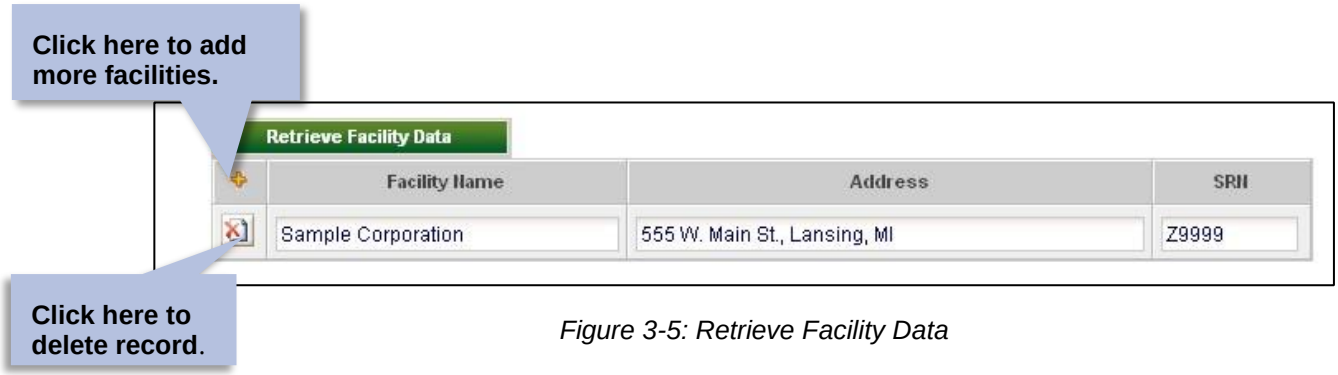

Figure 3-5: Retrieve Facility Data

Step 4: 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 5: Click on the "Create Account" button to submit the self-registration.

Step 6: Primary Preparer Role ONLY: Complete the Electronic Signature Agreement Form (Figure 3-6).

This form should be signed and dated by the Primary Preparer and mailed to the address indicated on the form. Within 1-2 days of receiving this form, the Air Quality Division (AQD) will activate your account and send you an e-mail notifying you that your account is active.

Step 7: Receive e-mail confirmation.

Soon after you register, you will receive an e-mail from **InfoMAERS@michigan.gov** that includes your MAERS username and temporary password.

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

ELECTRONIC SIGNATURE AGREEMENT for Michigan Air Emissions Reporting System (MAERS)

In order to become the Primary Preparer and receive a Personal Identification Number (PIN) for submittal of your emission inventory report, you must print this form, sign it, and return it to the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Once the form is received, EGLE personnel will review your application and approve your Primary Preparer account as appropriate.

I, _____, (name of MAERS Authorized Individual (Primary Preparer))

- Have registered for a MAERS user account.
- Understand that this form allows me to submit an electronic Emission Inventory (EI) Report to EGLEs approved electronic report receiving system (MAERS).
- Agree to the use of a PIN as my electronic signature.
- Understand and agree that I will be legally bound and responsible for my use of an electronic signature as I would be using my handwritten signature.
- Understand that I will have an opportunity to review the EI Report submitted in a readable format prior to submission.
- Understand that EGLE may contact the facility official to verify the MAERS Authorized Individual's proper authority.
- Am directly employed and authorized by the regulated entity(ies) identified below to sign and submit the EI Report.
- Agree to retain a copy of this signed agreement as long as I continue to act as the MAERS authorized individual for the regulated entity(ies) identified below.

List of Facilities		
Regulated Entity	Address and City	State Registration Number (SRN)
List additional regulated entities on the back of this form if necessary.		

This form must be signed and dated by the MAERS authorized individual.	
Printed name of MAERS Authorized Individual	Title
Signature of MAERS Authorized Individual	Date
Email address:	

Please mail the original signed form to:
Michigan Department of Environment, Great Lakes, and Energy
MAERS Coordinator
Air Quality Division
P.O. Box 30260
Lansing, MI 48909-7760

A scanned copy can be emailed to InfoMAERS@michigan.gov or faxed to 517-241-7499 to expedite the process; however the original signed form must still be mailed to the MAERS Coordinator.

www.michigan.gov/egle EQP6001 (Rev 06/2019)

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Figure 3-6: E-Signature Agreement Form

WHAT'S NEXT?

- **Primary Preparers:** Once your account is activated you will be able to log into the MAERS and associate additional users (Secondary Preparers, Consultants, and Reviewers) See Associating User Instructions.
- **Secondary Preparers, Consultants, and Reviewers:** You will be able to log into the MAERS but will not be able to view any facility specific MAERS data until associated with the facility by the Primary Preparer.

Logging In

Step 1: Access the MAERS at **egle.state.mi.us/maersfacility**. You will be greeted by the log in screen above (Figure 3-1). Enter your username and password.

Step 2: FIRST TIME LOGGING IN Click on "Request Access Code." See Figure 3-7.

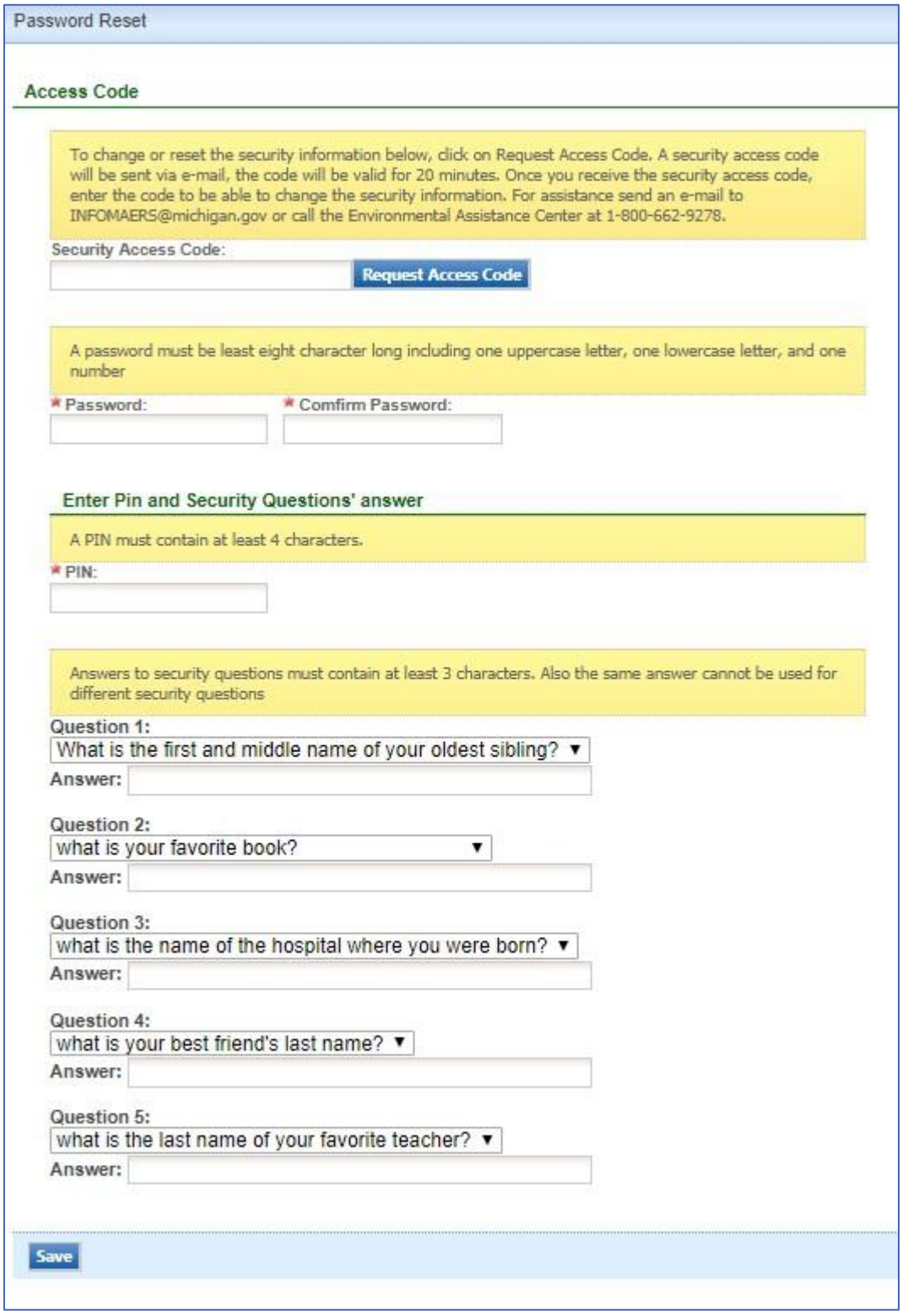

Figure 3-7: Request Access Code

Step 3: Security Information

After you click the Request Access Code button you will receive an email with a Security Access Code, then do the following:

(a) Enter the Security Access Code.
(b) Enter a password in the "Password" field and re-enter it in the "Confirm Password" field.
(c) Enter a PIN.
(d) Choose your security questions and enter your answers.
(e) Click on "Save".

The second time and any subsequent times you log in; you will only need to enter your username and password.

Whenever you click on "Forgot Password" you will be emailed a temporary password. Upon logging in with a temporary password, you will be directed to request a Security Access Code and then create your own password.

Updating 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 is used to keep your MAERS account information up-to-date and change your password, PIN and security questions and answers. Any time you want to change any of your security information, you will need to click the "Request Access Code" button first. You will receive an email with a Security Access Code, that when entered, will allow you to change any of your security information. The Primary Preparer role is the only role that will have the ability to update the PIN and security questions and answers. The PIN and answers are used to submit the report. The Primary Preparer is the only MAERS user role that can submit. When you are finished entering your information, click on "Save My Account."

If you have questions or need assistance, please call the Environmental Assistance Center at 800-662-9278 or email **InfoMAERS@michigan.gov**.

Accessing a MAERS Report

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

To view a MAERS Report, click on the view/edit icon . The MAERS Report will open on the Source Form.

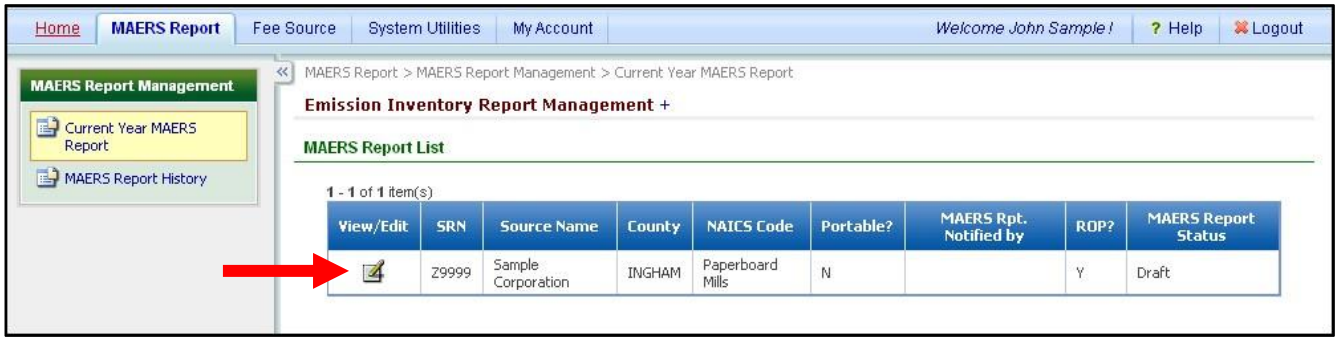

Figure 3-9: MAERS Report List

What if No Sources Appear on this Screen?

- For a Primary Preparer, it means the AQD has not yet posted the MAERS Reports. The MAERS Reports will be posted by early January 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), send an e-mail to **InfoMAERS@michigan.gov**.

- For a Secondary Preparer, Consultant, or Reviewer, it means that the Primary Preparer has not yet assigned you to their source; or your source may not be required to report. You should contact the Primary Preparer for the source to request that you be associated to it. See Associating User Instructions below. If questions remain as to whether a source has been asked to participate in the MAERS, contact the appropriate AQD District Office.

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

- Send an e-mail detailing the issue to **InfoMAERS@michigan.gov**.

Associating User Instructions

Secondary Preparers, Consultants and Reviewers will not be able to access the MAERS data for the source unless they are registered MAERS users and then associated with the source by the Primary Preparer.

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.*

Step 2: Click on the "Associate User" button.

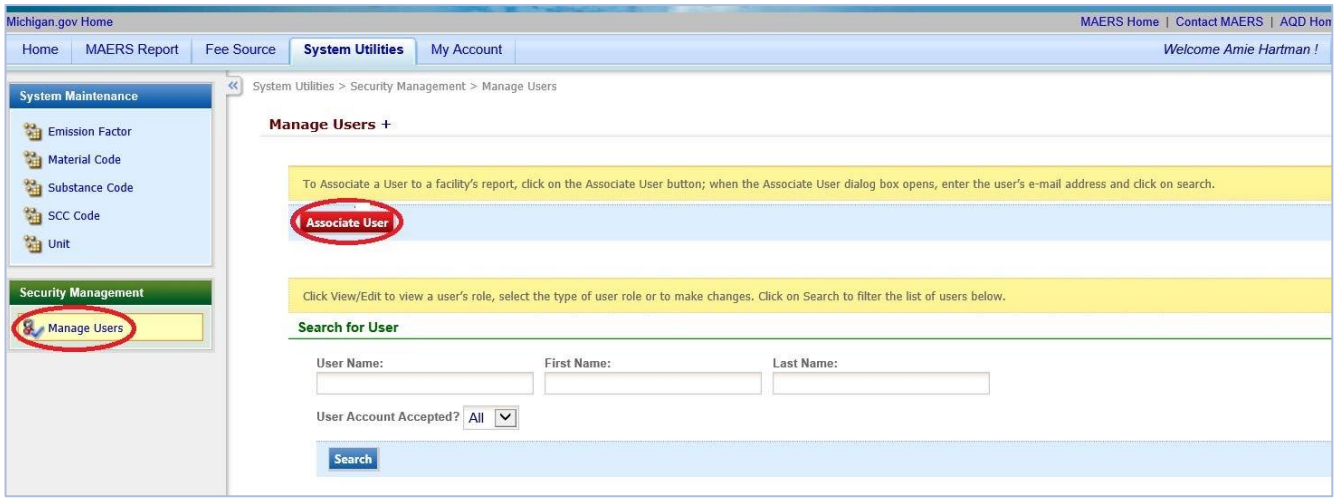

Figure 3-10: Manage Users

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

Figure 3-11: Search for User

Step 4: Click on "Associate Found Users" (Figure 3-11). The added user will appear in the search results on your "Manage User" screen (Figure 3-12).

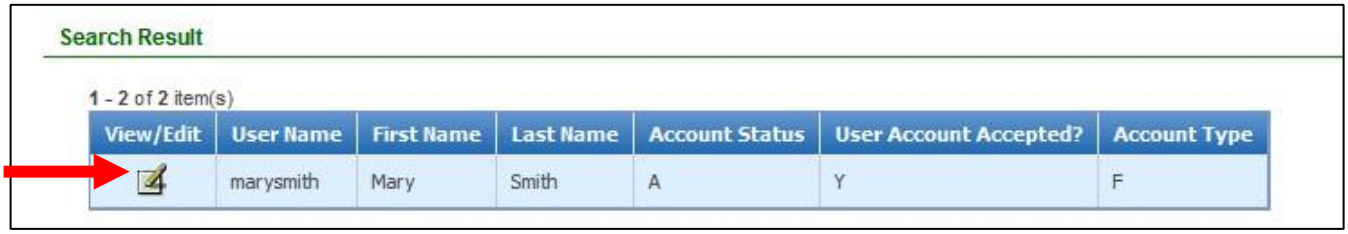

Figure 3-12: User List

Step 5: Click on the View/Edit icon next to the user to be 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 3-13).

Figure 3-13: Associate User with Facility

Step 7: Click on "Save Associate." The user is now associated with the facility. The facility's MAERS data will now appear under their MAERS Report tab when the assigned user logs into MAERS.

NOTE: The user you have assigned will remain assigned to the facility every year until you disassociate them. If you no longer want to give a user access to the facility's MAERS data; uncheck the box referenced in Step 6 and click on "Save Associate."

4 Helpful Features

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 4-1).

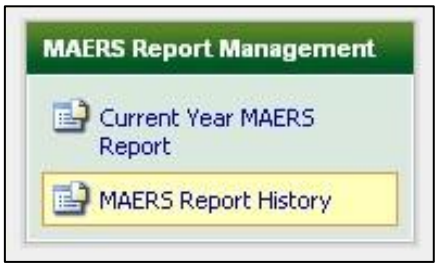

Figure 4-1: MAERS Report History

Sharing a Draft of Your Report with the Air Quality Division

Your MAERS Report cannot be viewed by the AQD until it has been submitted. If you would like to share the draft version of your report with the AQD staff, go to the Source Form and click on the "Share Draft MAERS Report with AQD Staff?" box located at the top right side of the page (Figure 4-2). 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.

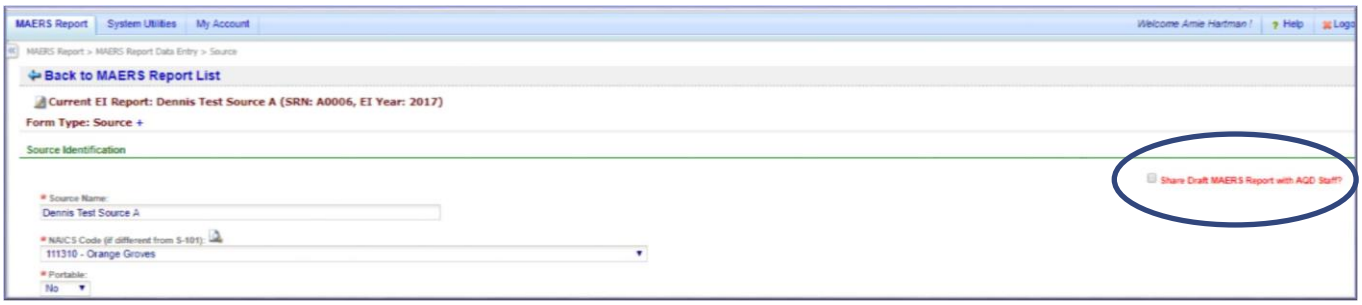

Figure 4-2: Share Draft MAERS Report

Reporting Issues/Problems in MAERS

If you encounter a problem while using the MAERS send an e-mail to **InfoMAERS@michigan.gov**.

5 MAERS Report Form Completion

Forms Overview

The Michigan Air Emissions Reporting System (MAERS) consists of six web-based forms. Each of the forms can be accessed from the menu on the left pane (Figure 5-1). To access a form, click on the link. Most data entered in the MAERS during the previous year will be imported into the forms for the current reporting year. Even if a form is pre-filled, it is worthwhile to verify the completeness and accuracy of the pre-filled data. Any corrections should be addressed before the MAERS Report is certified and submitted by the Primary Preparer.

Required fields in the forms are marked with a 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 (indicated in red) prior to submitting the MAERS Report.

Figure 5-1: Form Menu

Below is a brief description of each of the forms.

- **Source Form:** This form records the source location and owner information (see page 18). Every source must complete this form.

- **Contact Form:** This form records the contact information (see page 21). 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 23). For each stack that must be reported, complete a Stack Form (see the threshold levels in Table 8-1 to determine which stacks need to be reported).

- **Emission Unit Form:** This form records information concerning the operation of an emission unit. (see page 26). An Emission Unit form must be completed for each emission unit that must be reported. Page 28 provides guidance on how to determine whether an emission unit should be included your MAERS Report.

- **Reporting Group Form:** This **optional** form records a grouping of emission units that is created for simplification of reporting emissions (see page 35). 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 mission unit or reporting group for the reporting year (see page 37). 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.

NOTE: 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.

6 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 prefilled. 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 Contact form.

For facilities submitting a MAERS Report for the first time, this form will be partially completed.

Source Identification Section

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

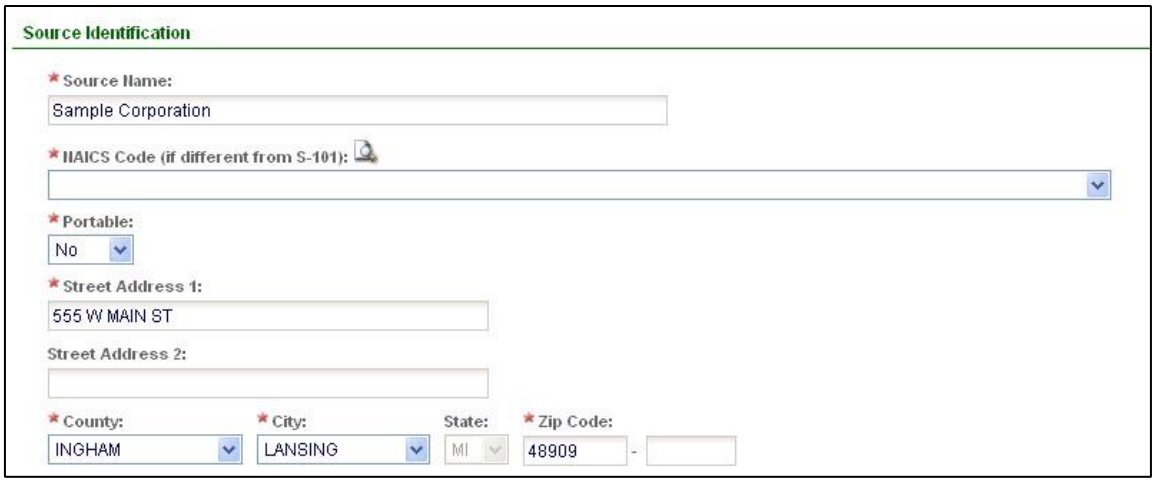

Figure 6-1: Source Identification

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 6-2). Click on the lookup icon to search and select appropriate NAICS Codes.

Figure 6-2: NAICS Search

NOTE: Some NAICS have been updated for the new reporting year. Please verify that the selected code describes the source. If not, select the appropriate NAICS from the list.

3. **Portable**: From the drop-down list, select "Yes" if the source is portable (e.g. concrete crusher or asphalt batch plant). Select "No" if this is a stationary source; most sources reporting to the MAERS are stationary sources.

4. **Source Address**

   Street Address 1: This is the street number and name where the emission unit(s) 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.

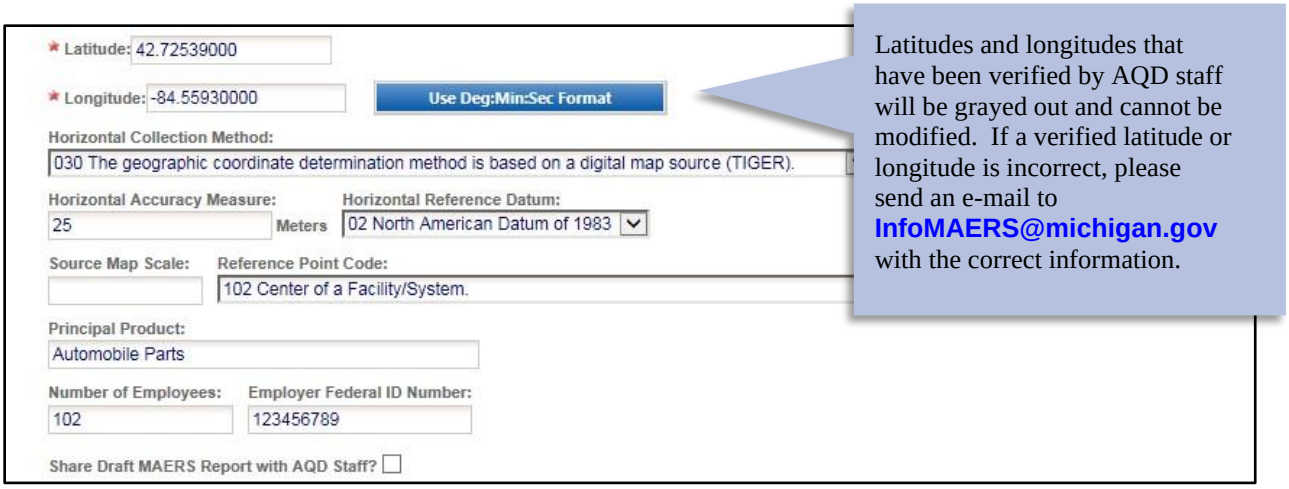

Figure 6-3: Source Identification Section (continued)

NOTE: To verify the coordinates entered it is recommended that you use an online mapping tool such as Google Maps (**www.google.com/maps**), which displays latitude and longitude after entering a location.

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.
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.
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; it 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.

Owner Information Section

Complete the required fields in this section if information needs to be updated or new information needs to be entered (Figure 6-4).

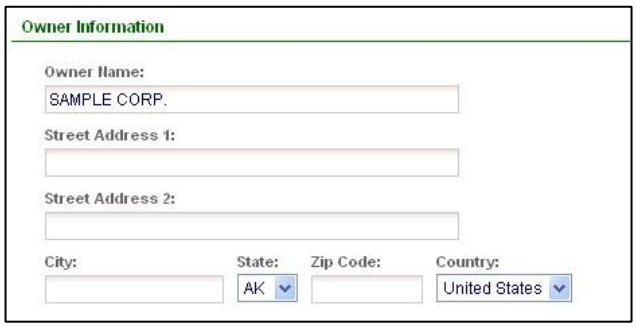

Figure 6-4: Owner Information Section

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

16. **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.

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 need assistance and would like the AQD staff to view your draft report, you can click on the "Share Draft MAERS Report with AQD Staff?". When the box is unchecked the AQD will no longer be able to view the draft MAERS report.

7 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 contact if they have questions about the submitted MAERS Report 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 the AQD when the primary contact person may not be available.

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

Emission Inventory Contact Section

For sources that submitted a MAERS Report in a previous year, this form should be entirely prefilled. If existing information needs to be updated or new information needs to be entered, complete the

required fields in this section (Figure 7-1). If the pre-filled information is accurate continue to the Stack form.

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.

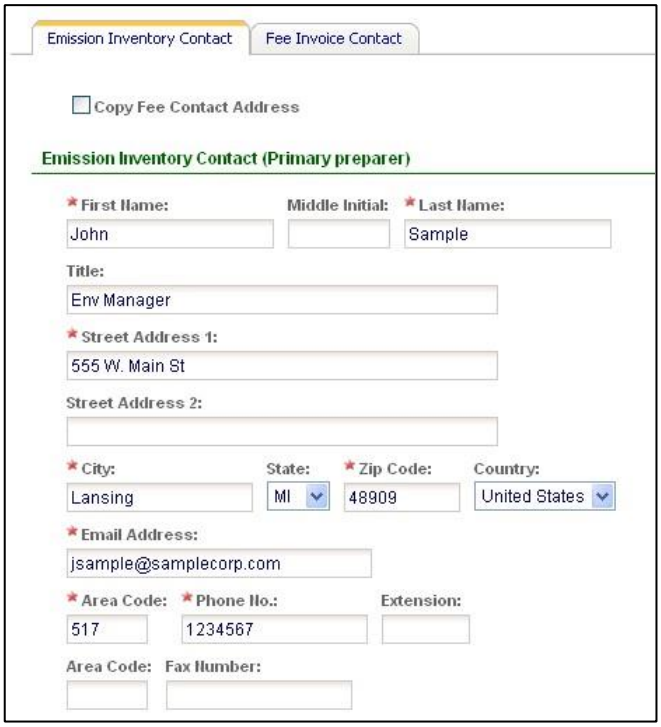

Figure 7-1: Emission Inventory Contact

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 7-2).

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

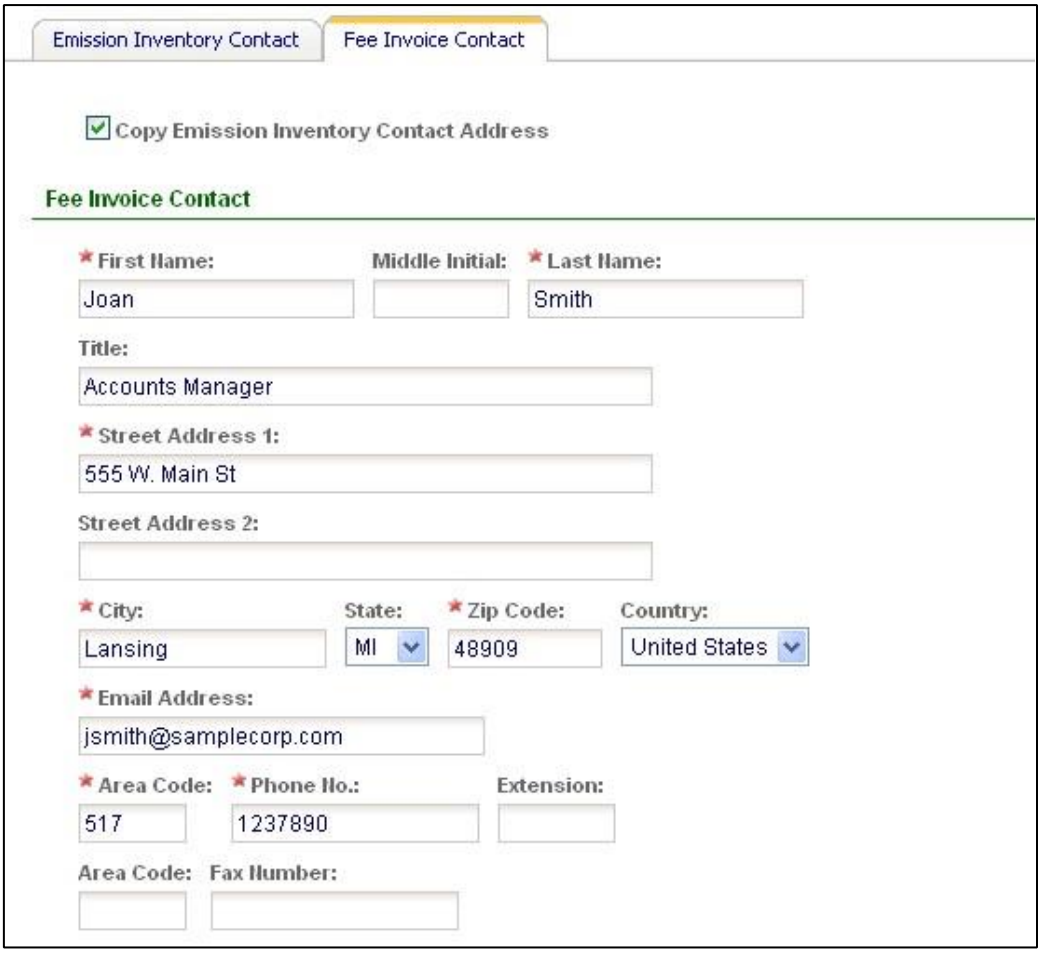

Figure 7-2: Fee Invoice Contact

8 Stack Form

The Stack Form collects information about stacks that are connected to emission units listed on the Emission Unit Form. Not all existing stacks need to be included in the MAERS.

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 8-1. 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, both the stacks must be reported. Additionally, 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 8-1).

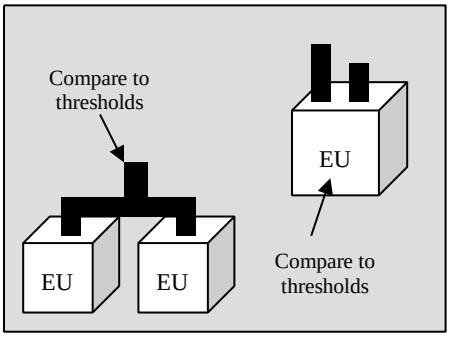

Figure 8-1: Stack Thresholds

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 the MAERS by clicking the "Delete" icon for this stack. However, this means that only the Stack Form does not have to be completed – all the other MAERS forms are still required.

Table 8-1: Stack Reporting Threshold Levels

POLLUTANT	THRESHOLD LEVEL (tons per year)
Carbon monoxide (CO)	100
Nitrogen oxides (NOx)	40
Sulfur dioxide (SO_2)	40
Particulate matter (PM)	25
Particulate matter < 10 microns (PM10)	15
Volatile organic compounds (VOC)	10
Lead (Pb)	0.5

NOTE: If you are unsure whether your emission unit exceeds the thresholds listed in Table 8-1, 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 required that sources 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 8-1, 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 8-1 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

A source can have any number of stacks to report/stack forms to complete. Before accessing data for a specific stack, the MAERS will present a **stack list** displaying all the stack records currently in the MAERS Report for the source (Figure 8-2). Click the "View/Edit" icon to enter a specific Stack Form to review and edit an existing stack, click the "Delete" icon to delete an existing stack, or click the "Add New Stack" button to add a new stack for this source. (Figure 8-2)

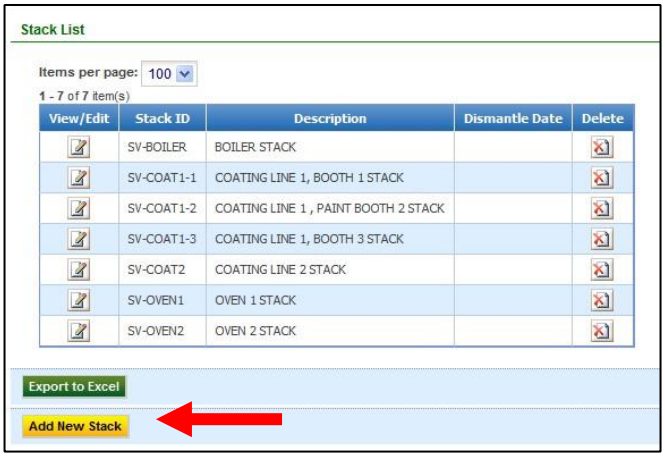

Figure 8-2: Stack List/Add a stack

Stack Identification Section

If you choose to edit an existing stack or add a new stack, the stack detail page will display (Figure 83). Complete the fields in this section for new stacks or to make changes to old information.

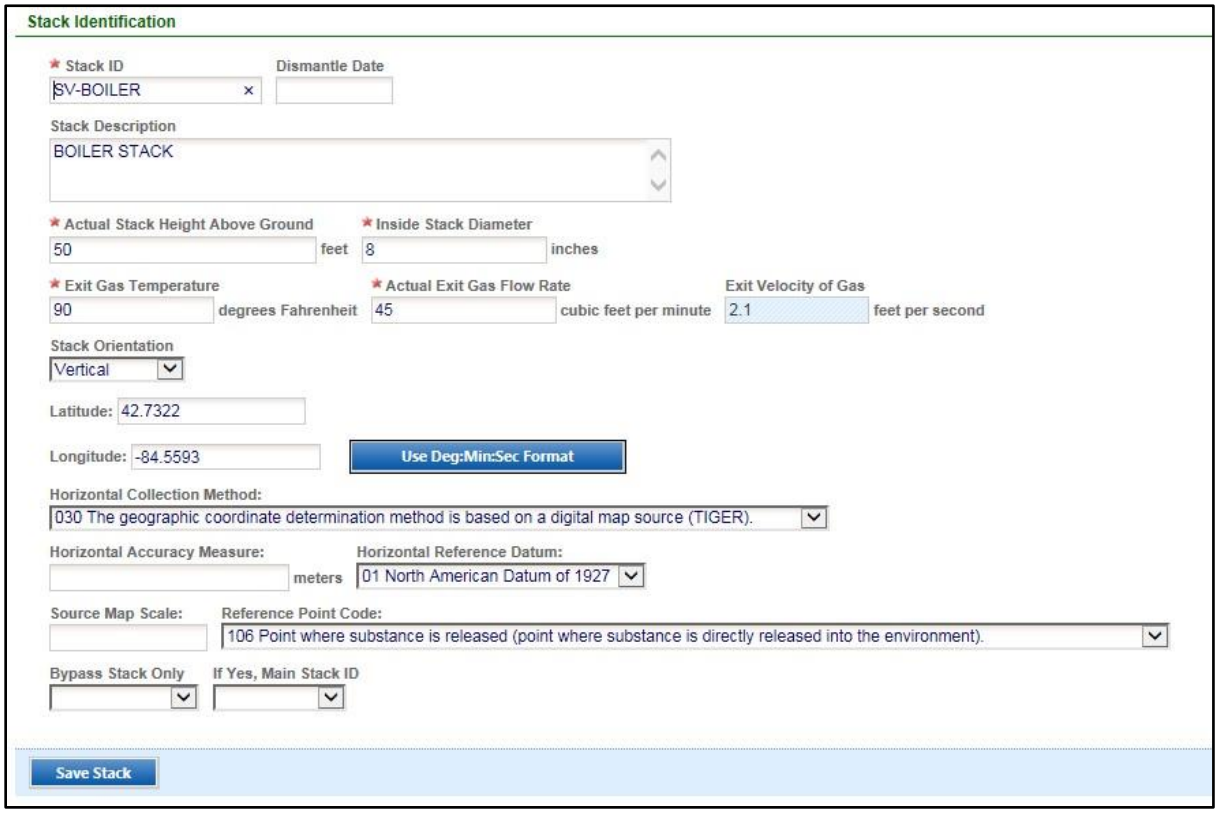

Figure 8-3: Section of Stack Identification

1. **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 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, SVBOILER#3).

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2. **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 8-2) 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.

NOTE: 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 an online mapping tool such as Google Maps (**www.google.com/maps**).

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 latitude, use an online mapping tool such as Google Maps (**www.google.com/maps**).

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."

    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.

Deleting a Stack

If the stack was physically dismantled or rendered permanently inoperable during the last reporting year do NOT delete the stack but rather enter a dismantle date (within the reporting year) on the stack's form. Dismantled stacks will not appear in subsequent MAERS reporting years.

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 8-2).
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.

9 Emission Unit Form

The Emission Unit Form identifies and describes a facility's emission units.

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)

NOTE: Sources may have hundreds or even thousands of process devices on site. It would be difficult for these sources to report emissions of air contaminants from each individual process device. To simplify the reporting of air contaminants from all these devices, the Air Quality Division has introduced the concept of the emission unit. Sources are required to report their emissions of air contaminants in the 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 280 –291 of the Michigan Air Pollution Control Rules and not subject to Rule 278.

NOTE: 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* 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 291 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 280-291 do not apply. In other words, the facility must apply for a Permit to Install. Contact the Environmental Assistance Program at 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 source; however, not all emission units may need to be reported. The guidelines below and the decision tree on page 28 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. Sources that would otherwise be subject to the ROP Program use the Opt-Out Permit to set limits on their emissions and stay below the threshold that would require them to obtain a 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. Maximum Achievable Control Technology or New Source Performance Standards).
   - 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 9-2).
   - The Rule that exempts the emission unit is identified in Table 9-1 and the emission unit capacity or material use exceeds the corresponding threshold included in the table.

NOTE: If an emission unit is included in an ROP, it must be included in the MAERS Report.

What Emission Units Need to be Reported?

Use this decision tree to determine if an emission unit at a facility subject to MAERS reporting must be reported in MAERS.

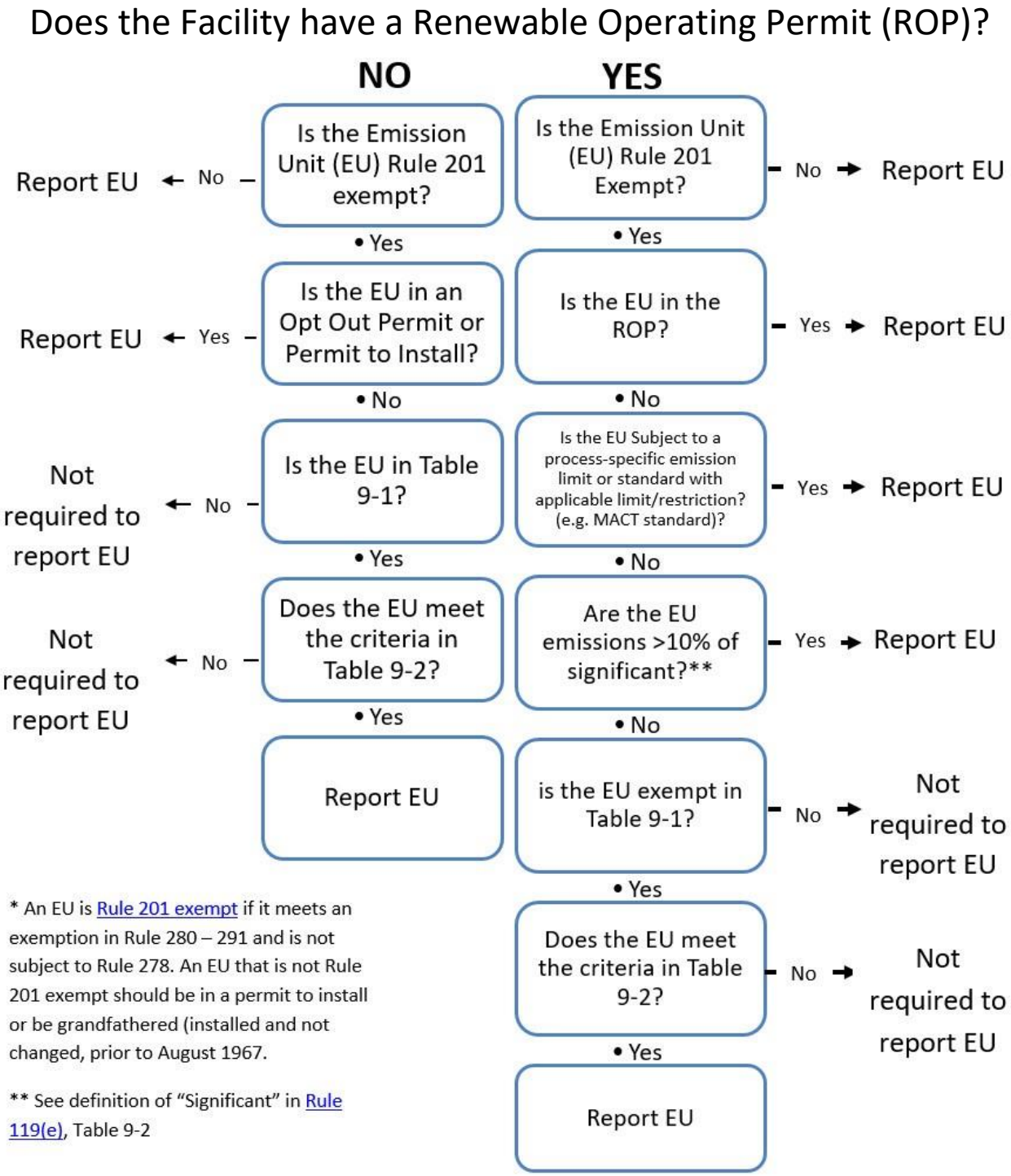


Table 9-1: Rule 201 Exempt Emission Units that must be reported in MAERS*

RULE 201 EXEMPTION	REPORTING REQUIREMENT
Rule 281(2)(h)	Only report emissions of applicable criteria pollutants for cold cleaners having a total annual throughput greater than 1,000 gallons of cleaner. *Total annual throughput of cleaner = (cleaner used) – (cleaner reclaimed as waste)*
Rule 282(2)(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(2)(b)(i), 400,000 gallons of fuel oil in Rule 282(2)(b)(ii), and 1,000 tons of wood in Rule 282(2)(b)(iii).
Rule 283(2)(c)	Report all emissions of applicable criteria pollutants if the testing medium contains a VOC.
Rule 283(2)(d)	Report all emissions of applicable criteria pollutants if the testing medium contains a VOC.
Rule 284(2)(e)	Report all emissions of applicable criteria pollutants.
Rule 284(2)(f)	Report all emissions of applicable criteria pollutants.
Rule 285(2)(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(2)(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(2)(p)	Only report emissions of applicable criteria pollutants for annual grain throughputs equal to or greater than 4,000,000 bushels.
Rule 285(2)(r)(iv)	Only report emissions of applicable criteria pollutants for cold cleaners having a total annual throughput greater than 1,000 gallons of cleaner. *Total annual throughput of cleaner = (cleaner used) – (cleaner reclaimed as waste)*
Rule 285(2)(aa)	Report all emissions of applicable criteria pollutants.
Rule 286(2)(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(2)(c)	Report all emissions of applicable criteria pollutants.
Rule 290	Report all emissions of applicable criteria pollutants.
Rule 291	Report all emissions of applicable criteria pollutants.

*Rules 280 through 291 can be accessed at www.michigan.gov/air (click on "State Air Laws and Rules" then "Part 2 Exemptions").

Table 9-1 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(2)(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 9-1 (e.g. Rule 287(2)(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 9-2: Significant Levels

Pollutant	Significant Level (Rule 119(e)) tons/year	10% of Significant Level tons/year
Carbon monoxide (CO)	100	10
Nitrogen oxides (NO_x)	40	4
Sulfur dioxide (SO_2)	40	4
Particulate matter (PM)	25	2.5
PM-10	15	1.5
Volatile organic compounds (VOC)	40	4
Lead (Pb)	0.5	0.05

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.

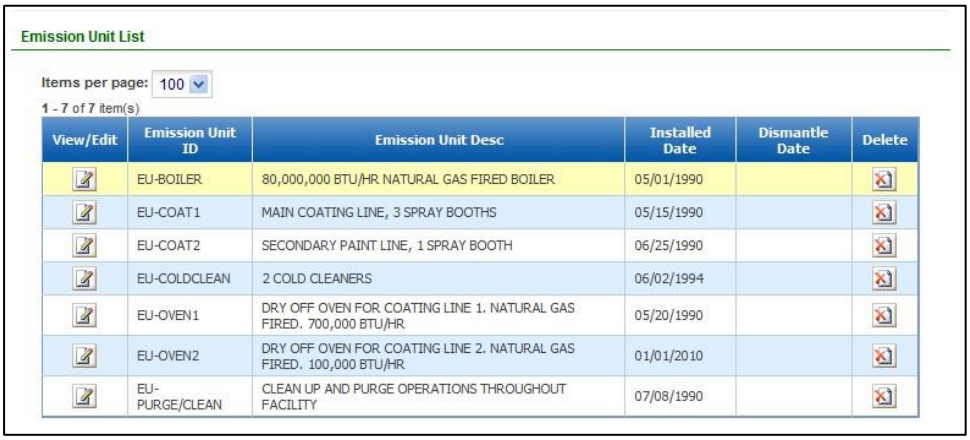
Emission Unit Form Completion Instructions

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 accurate, you may proceed to the Reporting Group Form or the Activity and Emission 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 and completing all required fields.

Emission Unit List

This section lists all the reported emission units for this source (Figure 9-1). 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 access a blank form and add a new 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		

Figure 9-1: 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 9-2). Follow the steps below.

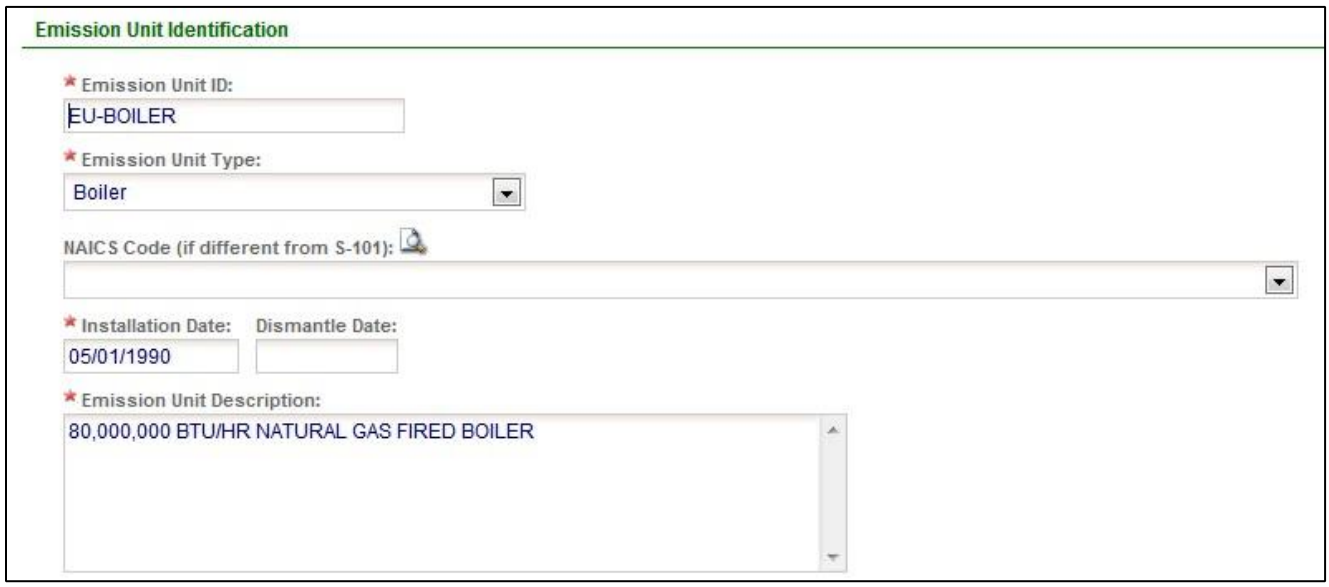


Figure 9-2: Emission Unit Identification Section

1. **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).
2. **Emission Unit Type**: Choose the most appropriate emission unit type from the drop-down list.
3. **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.
4. **Installation Date**: Enter the date that the emission unit was first installed using the date format provided (MM/DD/YYYY).
5. **Dismantle Date**: If the emission unit was physically 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.

NOTE: If the emission unit was physically dismantled or rendered permanently inoperable during the last reporting year do NOT delete the emission unit; 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 Form. If the unit did not operate, you should report the throughput as "0" and any associated emission as "0."

6. **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

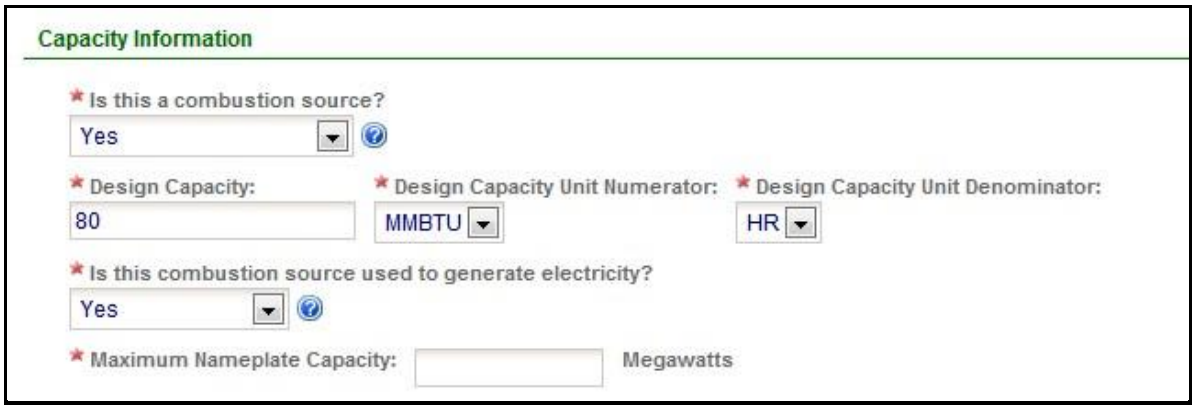


Figure 9-3: Capacity Information Section

7. **Is this a Combustion Source?** If the emission unit is a source of combustion (e.g., a boiler, turbine, or engine) choose "Yes" from the drop-down list. If the emission unit is not a combustion source, choose "No" from the drop-down list.

8. **Design Capacity**: Only complete this field if the emission unit is a combustion source. Enter the design capacity of the combustion source.

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 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 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

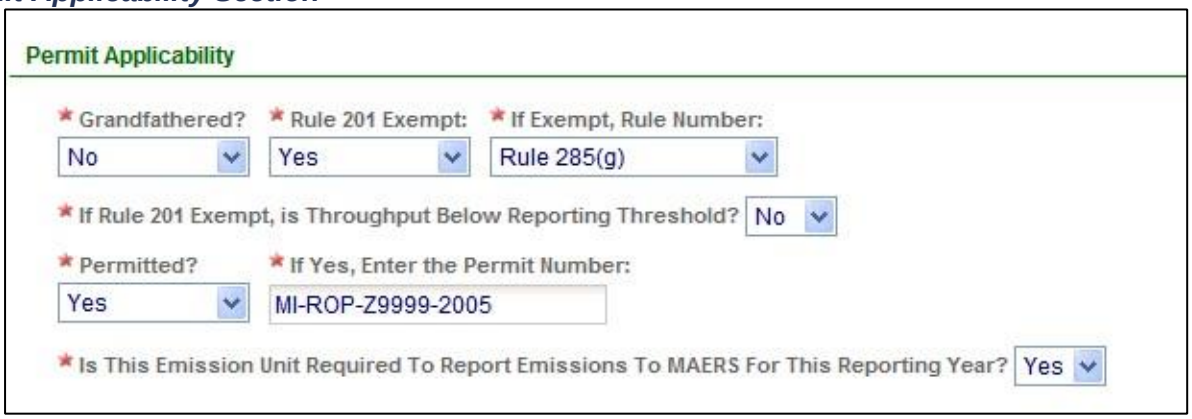


Figure 9-4: Emission Unit Identification Section

12. **Grandfathered?** Select "Yes" if this emission unit is "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 25 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 9-1. 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(2)(r)(iv) of the Michigan Air Pollution Control Rules, select "Rule 285(2)(r)(iv)." If a specific 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 9-1. If the throughput is below the threshold, select "Yes." If the emission unit exceeded the threshold listed under the exemption in Table 9-1 select "No" and continue. For some exemptions, it is required that all emissions be reported (e.g. Rule 287(2)(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, "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 9-1).

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 9-5).

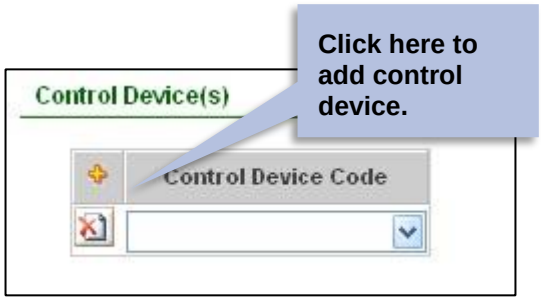


Figure 9-5: Control Devices

If there is more than one control device, follow the steps below to add a control device.

(a) 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 dropdown list will appear containing the Stack IDs that were created on the Stack Form (Figure 9-6). 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.

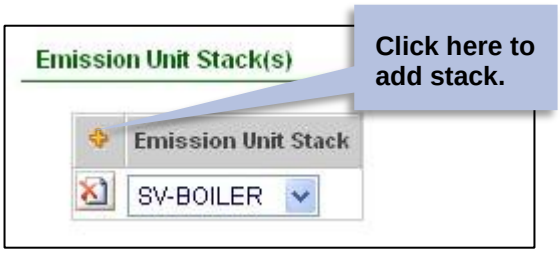


Figure 9-6: EU Stacks

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) Click the "+" icon in the grid view.
(b) Another field will appear. Select another Stack ID.

Deleting an Emission Unit

Note: 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.

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

1. In the emission list (Figure 9-7), 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.

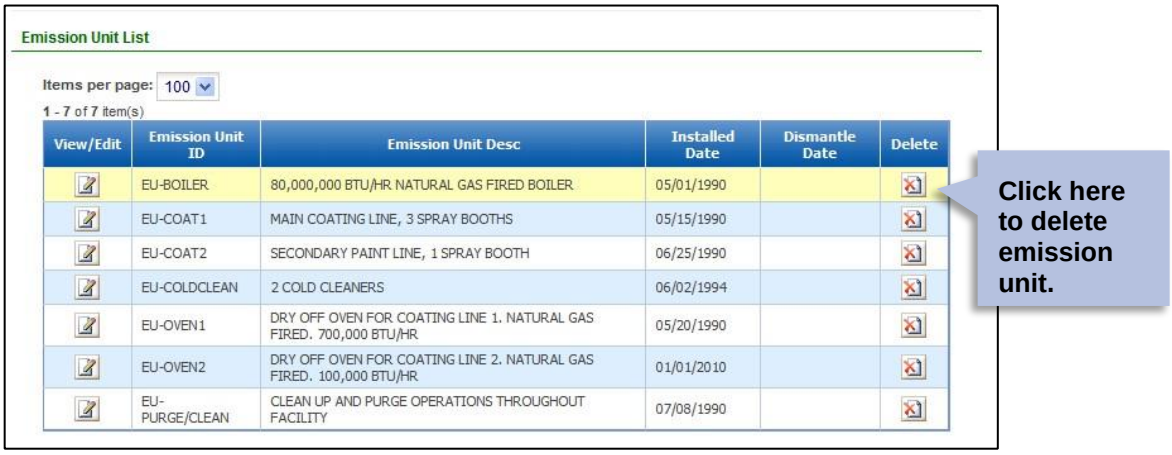


Figure 9-7: Delete Emission Unit

10 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. If this form is used, the Activity & Emission Form will be completed at the reporting group level.

Important Terms

Reporting Group: Reporting groups are created for simplification of reporting emissions for a group of emission units that have common activities. Not every facility will have reporting groups in its MAERS Report.

Example: Consider three coating lines that are each a separate emission unit. Assume that each coating line uses the same materials for the same purpose. 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 prefilled. 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.

Reporting Group List

This section lists all the reporting groups at this source (Figure 10-1). 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.

Figure 10-1: 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 10-2).

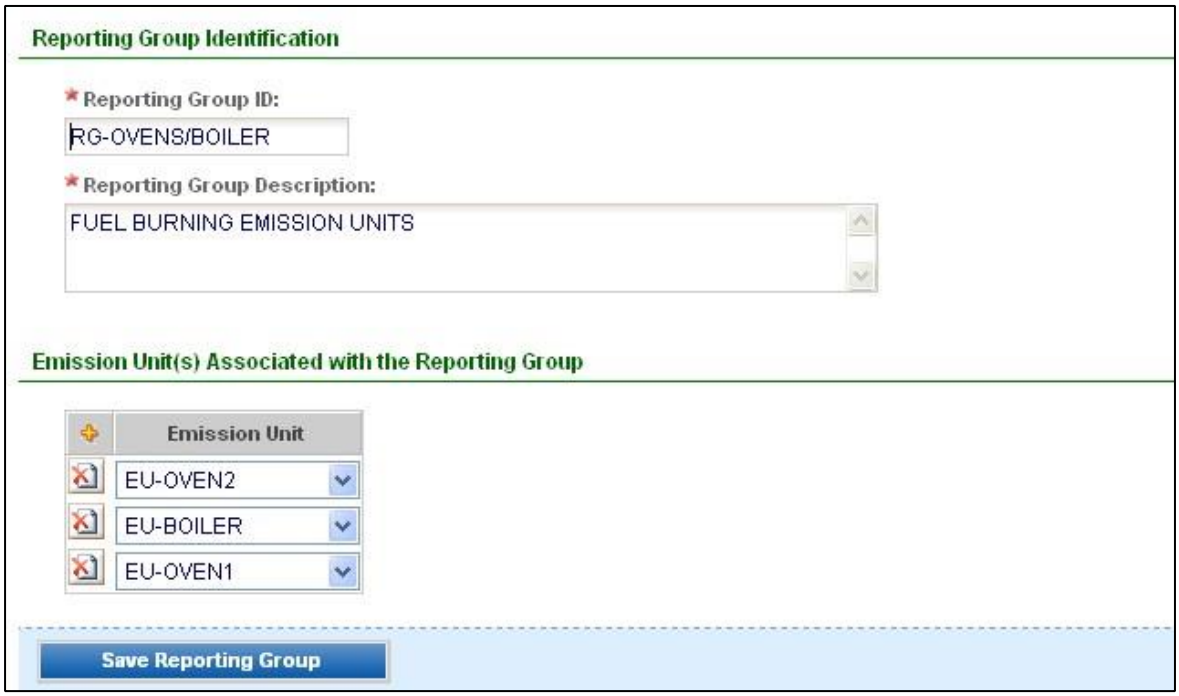


Figure 10-2: Reporting Group Form

1. **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).

2. **Reporting Group Description**: Provide a brief narrative description of the reporting group.

3. **Emission Unit ID**: To add an emission unit to this list, click the "+" sign in the grid view, the select the Emission Unit ID to be included in this reporting group (Figure 10-3). Repeat this step to add more emission units. Click the "x" sign to delete an emission unit from this reporting group.

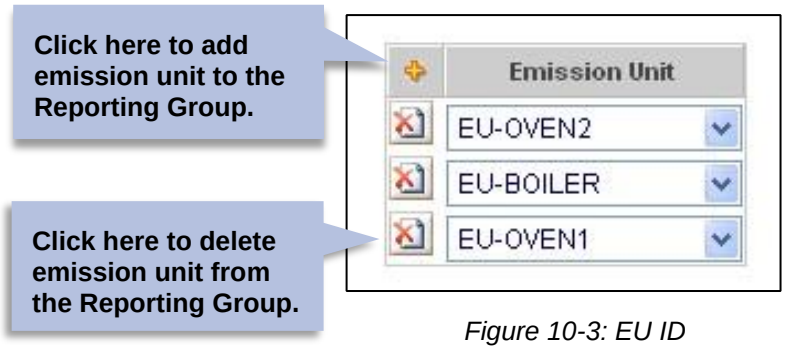


Figure 10-3: EU ID

11 Activity and Emission Form

The Activity and Emission Form contains three tabs (Figure 11-1).

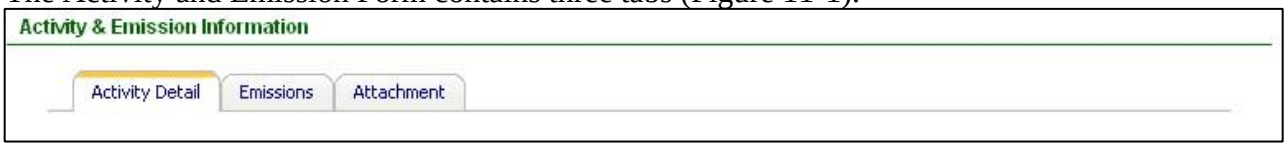


Figure 11-1: Activity and Emissions Tabs

- 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 noncriteria pollutants is optional.

- The Attachment tab is used to upload attachments to support the emission data that is reported.

Important Terms

Source Classification Code (SCC): An SCC describes an air polluting activity and links the activity to an "approved" set of materials, units, and emission factors. SCCs and the MAERS emission factors can be viewed under the "System Utilities" tab.

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 11-2 below.

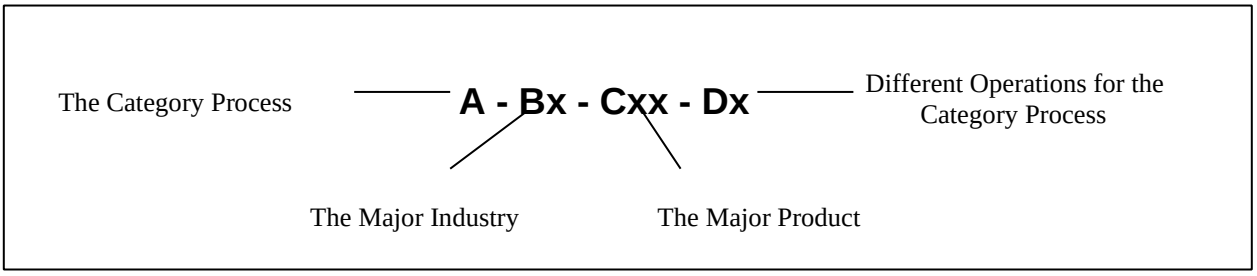


Figure 11-2: SCC Structure

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. (Figure 11-3)

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
☑		EU-COAT1	MAIN COATING LINE, 3 SPRAY BOOTHS	05/15/1990	40200101	SOVENT BASED PAINTING COATING	COATING	0	
☐		EU-COAT2	SECONDARY PAINT LINE, 1 SPRAY BOOTH	06/25/1990	40200110	SOVENT BASED COATING	COATING		
☐		EU-COLDCLEAN	2 COLD CLEANERS	06/02/1994	40100251	DEGREASING OPERATIONS	STODDARD		
☐		EU-PURGE/CLEAN	CLEAN UP AND PURGE OPERATIONS THROUGHOUT FACILITY	07/08/1990	40200918	FACILITY PURGE AND CLEANUP OPERATIONS	METH ETH KET		
☐		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 report ing 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 11-3: 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 11-4).

All activity information that was entered for emission units in previous years will be pre-filled, *except* the material throughput information. **Material throughput 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 need to do is enter the proper material throughput information for the activity and move on to the Emissions tab. Following are step-by-step instructions on how to complete the required fields.

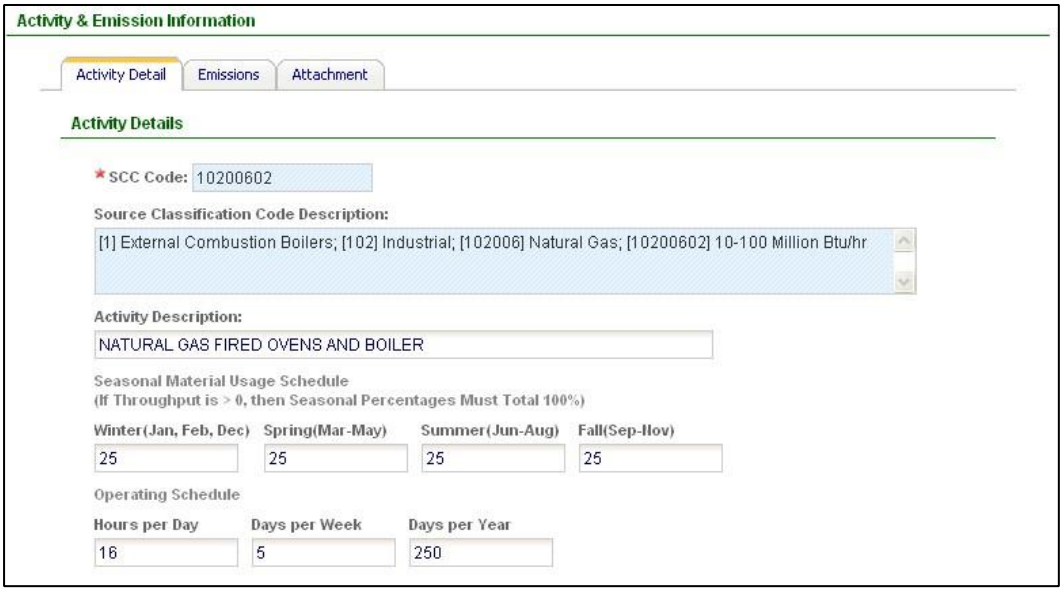
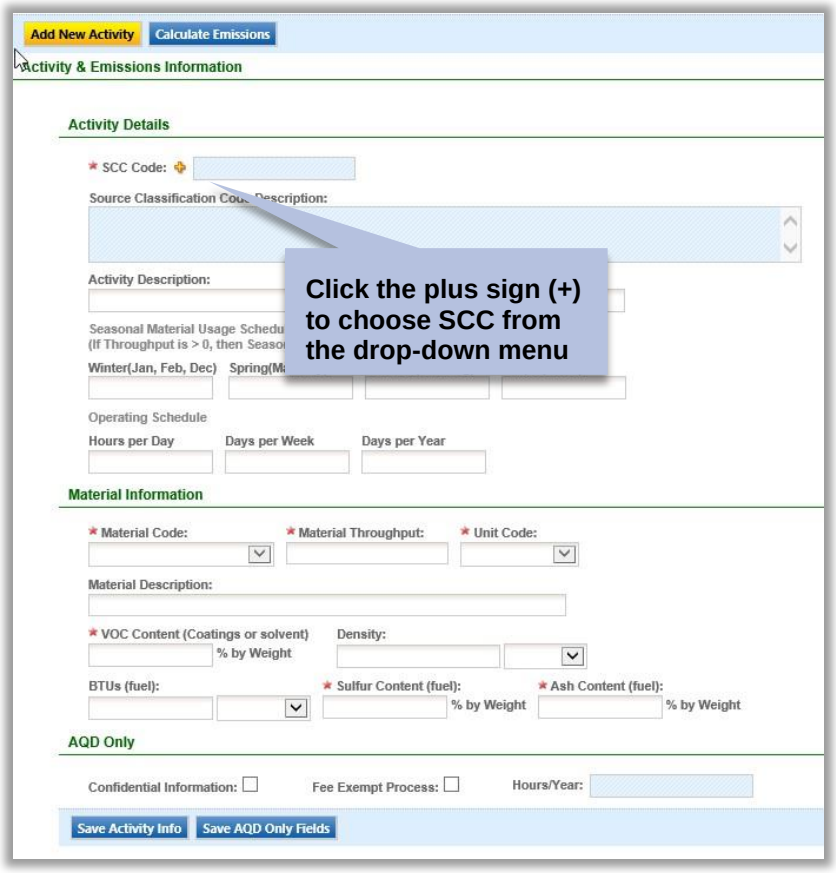


Figure 11-4: Activity Detail



1. SCC: For a new activity, click

on the "+" icon and a listing of all SCCs will appear (Figure 115). SCCs associated with a specific 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.

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

Figure 11-5: 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 11-6).

Figure 11-6: 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.

Certain SCCs do not have assigned materials. These will exhibit "Any Material". Units associated with "Any Material" are "Each Year". If you choose such an SCC, please use **the Material Description Box**

(below) to **describe the actual material that you are reporting the annual use of**.

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. If you are reporting use of "Any Material" then your throughput is how much of this material, you used in the reporting year. Please provide a description of the units associated with your throughput in the Material Description Box.

NOTE: 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. **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 11-1 lists the densities of some common materials.

Table 11-1: Common Material Densities

Material	Density	Material	Density
Paint	10-15 LB	Southern Pine	40 LB/FT3
Varnish	7 LB/GA	White Oak	48 LB/FT3
Water	8.33 LB/(	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. Tables 11-2(a-c) list typical values for heat content, sulfur content, and ash content for the more common fuels.

Table 11-2a: Typical Fuel Values – SOLID FUELS

Type of Fuel	Heating Value BTU	% Sulfur (by wt.)*	% Ash (by wt.)
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

Table 11-2b: Typical Fuel Values – LIQUID FUELS

Type of Fuel	Heating Value BTU	% Sulfur (by wt.)*	% Ash (by wt.)
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

Table 11-2c: Typical Fuel Values – GASEOUS FUELS

Type of Fuel	Heating Value BTU	% Sulfur (by wt.)*	% Ash (by wt.)
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 11-3 provides acceptable sulfur content ranges for common fuels (the system will not accept sulfur content values outside of these ranges).

Table 11-3: 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 11-4 provides acceptable ash content ranges for common fuels (the system will not accept ash content values outside of these ranges). ***Table 11-4: 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 11-7). **These fields will only appear if the source was identified as a "portable source" on the Source Form** (see page 18).

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%.

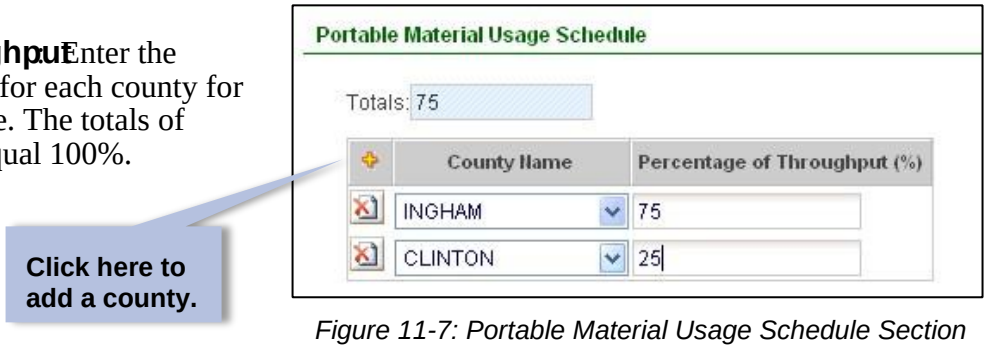


Figure 11-7: Portable Material Usage Schedule Section

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 11-8). Any criteria pollutants that are associated with the SCC selected in the Activity Detail section will automatically appear in the emission list (Figure 11-9). The criteria pollutants appear grayed out and cannot be deleted since they must be reported.

At least one criteria pollutant estimate must be reported or 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 11-9).

Figure 11-8: “Emissions” tab

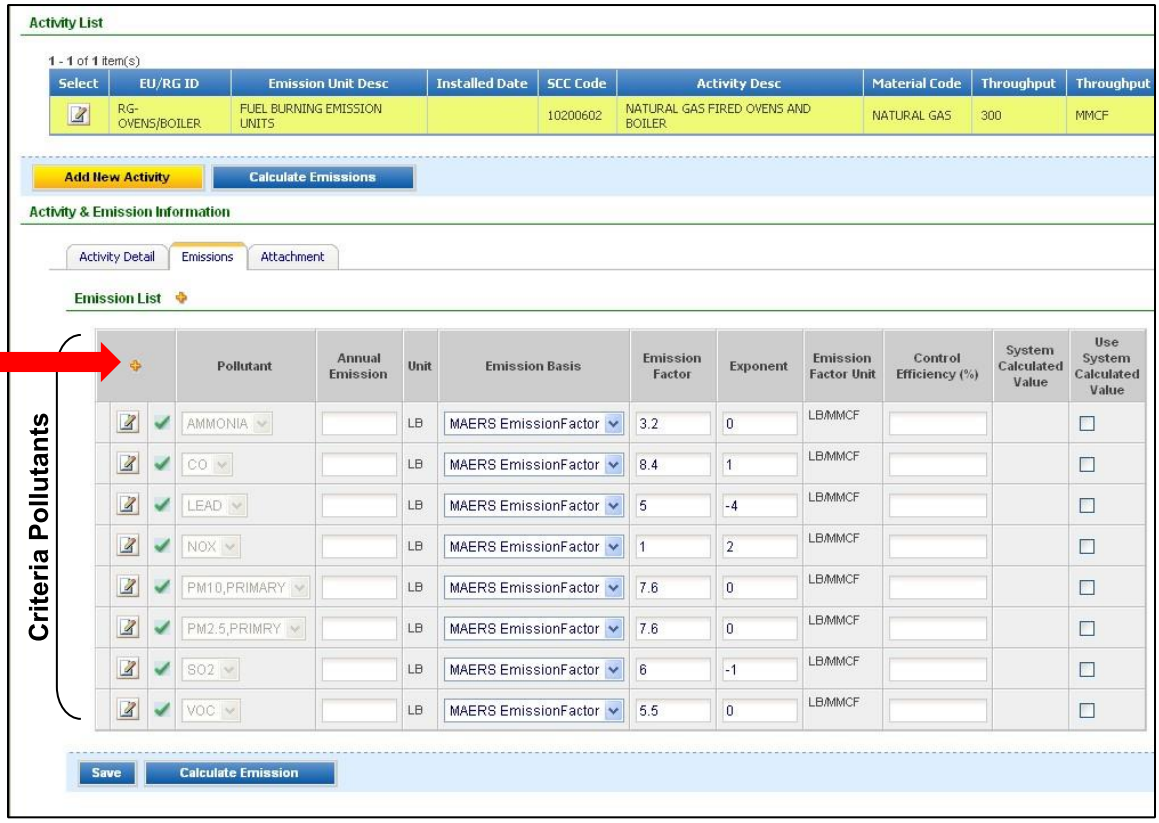


Figure 11-9: Emission List

What Emissions Must Be Reported?

Sources are required to report criteria pollutants to the MAERS. The reporting of non-criteria pollutants, such as toxic air 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. If there are also toxic air pollutants associated with the chosen SCC, those will be calculated and reported as well. A source may opt to include their own calculations or allow the system to calculate the estimated emissions.

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 11-10).

To see system calculated toxic air pollutants estimates, view the Emission Comparison Report—SCC Detail Report under Report Management/Other Reports.

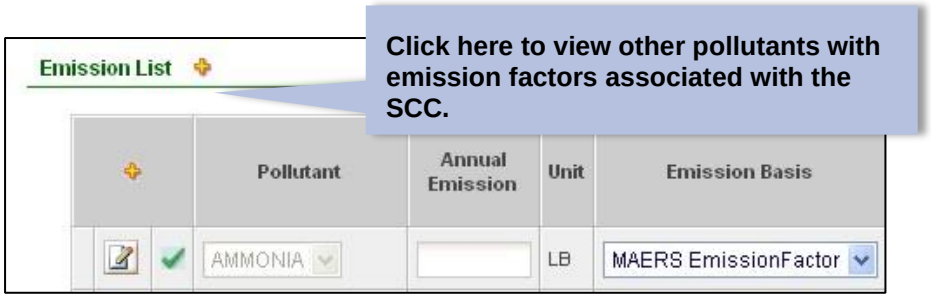


Figure 11-10: Adding Emissions

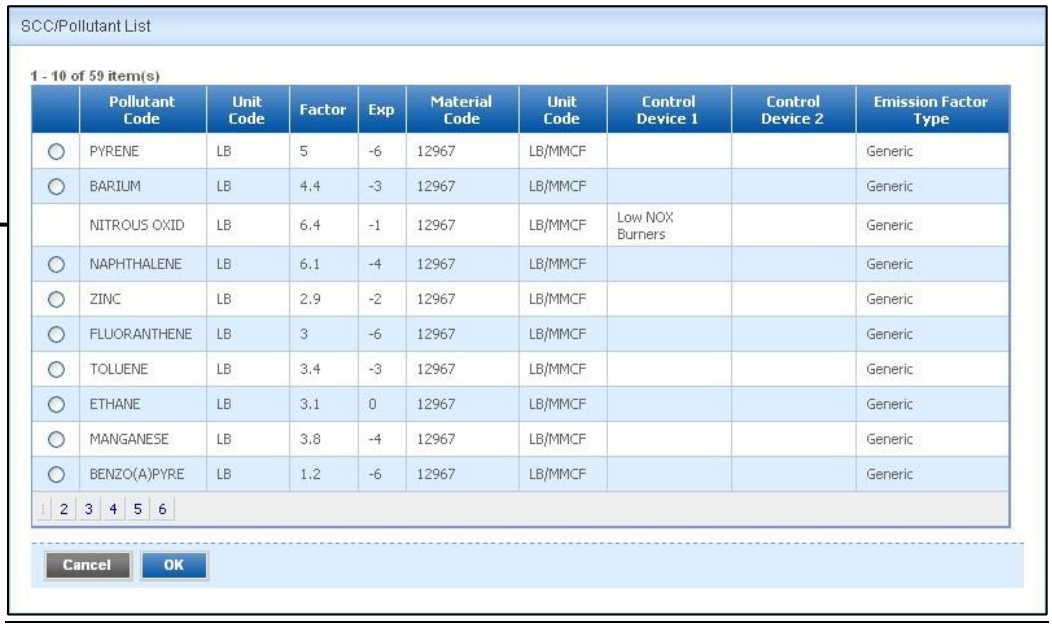


Figure 11-11: Emission Factor Table with SCC Code and Pollutant List

In the SCC/Pollutant List (Figure 11-11), 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 criteria pollutants with emission factors will automatically be displayed in the emissions list. These are MAERS emission factors and are generally applicable. Sources may choose to use these factors or other, site-specific methods to calculate emissions for a given activity. The AQD encourages the use of the best available, site-specific information for estimating emissions. 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 45.

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 instructions below to calculate and report emissions using MAERS Emission Factors:

1. **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 for your equipment, leave this field blank. Control efficiency is pollutant specific, so you may have control efficiency for particulate matter but not for carbon monoxide. If you reported a control efficiency in a previous year, it will carry over for the next reporting year. Please verify the accuracy of the pre-filled information as it's possible you will have changes.

2. **Calculate Emissions.** Click the "Calculate Emission" button at the bottom of the emission list (Figure 11-12). 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 consider the control efficiency entered.

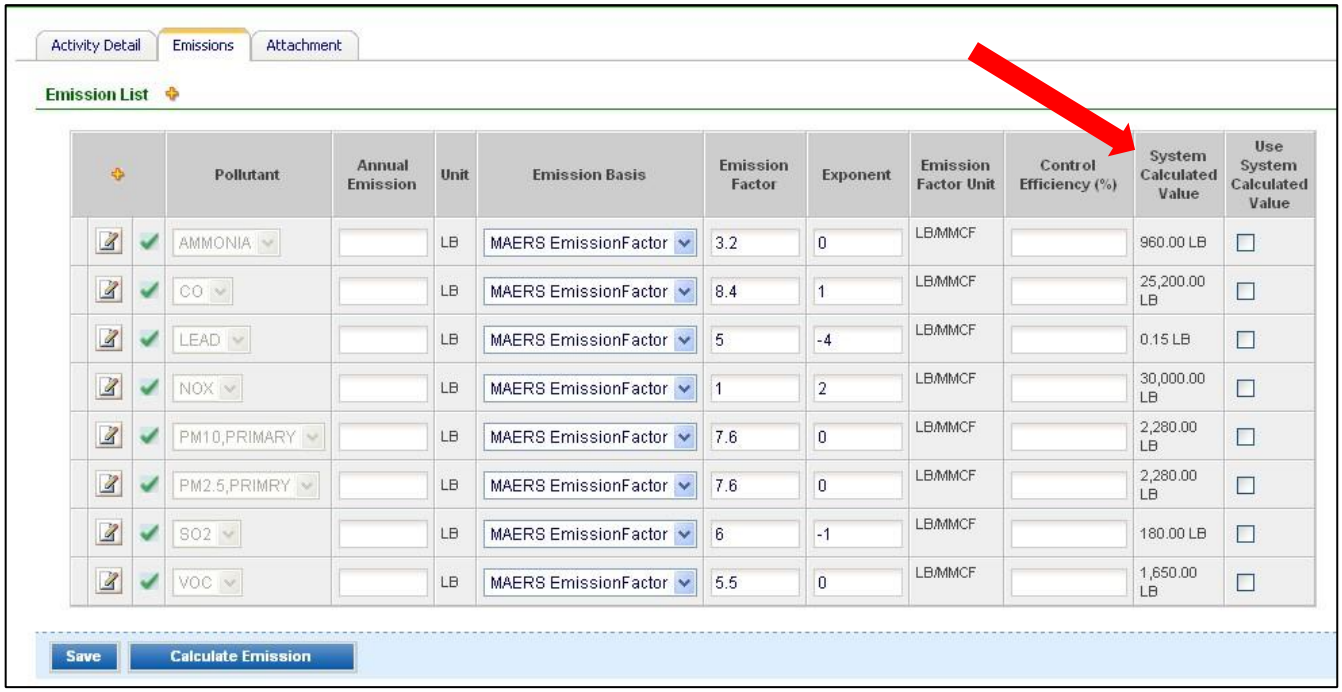


Figure 11-12: System Calculated Value for Emission

3. **Use System Calculated Value**. If the System Calculated Value is verified to be correct, click the checkbox under "Use System Calculated Value." The Annual Emission field will auto-fill with the system calculated value (Figure 11-13).

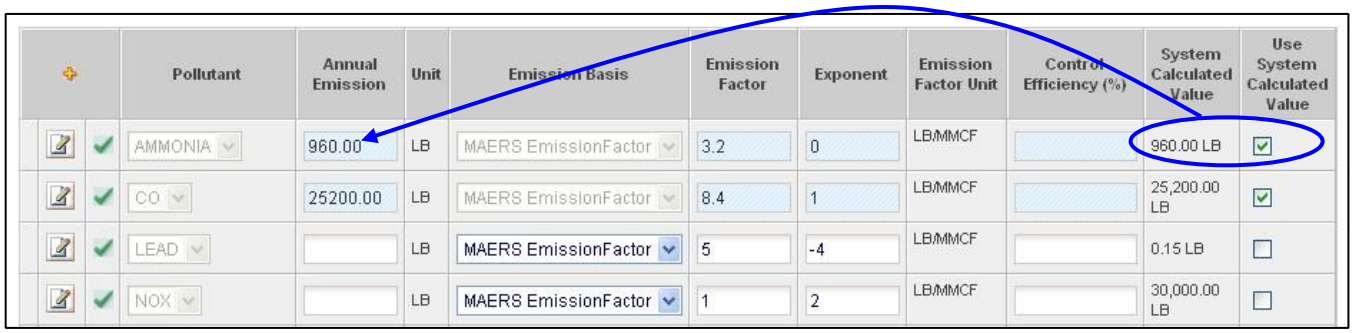


Figure 11-13: Accept MAERS Calculated Values

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 is appropriate to calculate and report emissions using an emission basis other than the MAERS emission factors. The AQD encourages use of the best, most-site-specific information to develop emissions estimates.

Follow the instructions 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 11-14).
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 11-14). **Emissions should be estimated using the best available site-specific data according to the hierarchy below.**

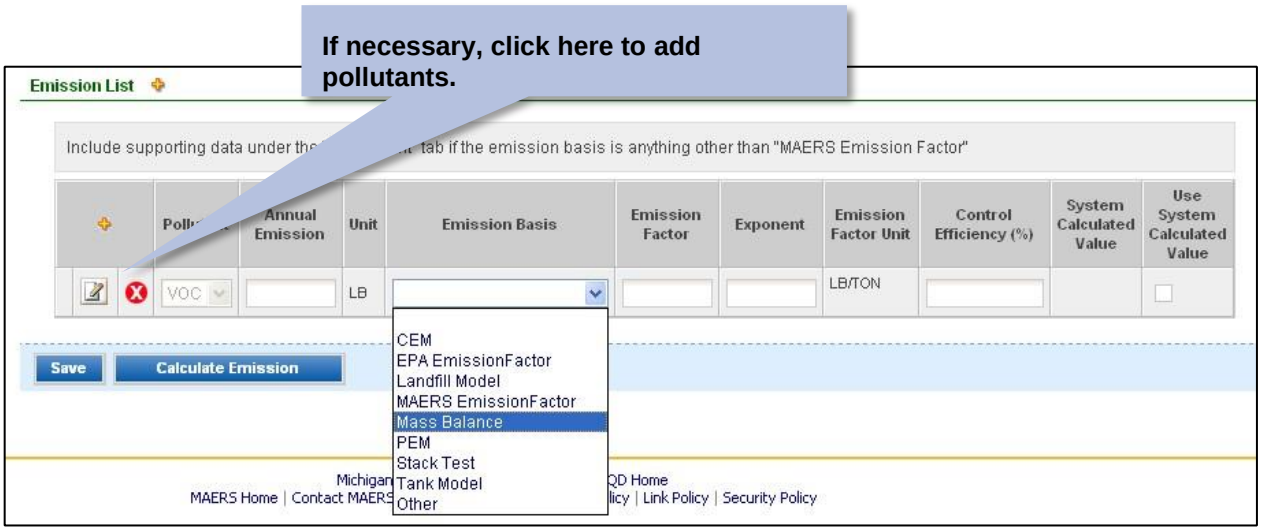


Figure 11-14: Changing Emission Basis

- ***CEM*** - Continuous Emissions Monitoring
- ***Site Specific Stack Test*** - Stack test protocol approved by the 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 the 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 a U.S. 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 the U.S. EPA's Compilation of Air Pollutant Emission Factors (AP-42), plus recent updates from the American Petroleum Institute. The TANK software can be accessed at **epa.gov/chief**.
- ***LandGEM Model*** - The Landfill Gas Emissions Model (LandGEM) can be used to estimate emission rates for methane, carbon dioxide, non-methane organic compounds, and individual toxic air pollutants from landfills. The LandGEM software can be accessed at **epa.gov/chief**.
- ***MAERS Emission Factor*** – SCCs emission factors that are in the MAERS reference table. These are either U.S. 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.

You can also click on the edit icon next to the pollutant in the emission list to enter specific supporting details on the U.S. EPA's Compilation of

- ***Other*** - If not previously identified, select "Other," and attach documentation. Use of emission factors from the

Air Pollutant Emission Factors (AP-42) or emissions for that Factor Information Retrieval System (FIRE) that are not listed in the pollutant. MAERS emission factor table should be referenced here. Both AP-42 and FIRE can be accessed at **www.epa.gov//chief**.

3. **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.

NOTE: 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.

4. **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. The control efficiency entered must be between 1.0 and 99.9. If there is no control efficiency for a pollutant, leave this field blank.

5. **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.

Required Supporting Documentation

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

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 x 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 lbs/year x 0.19 = 24,624 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 specific 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 11-10 on page 45). 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 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.

Default Control Efficiency = 1.0 – (Controlled EF/ Uncontrolled EF) X 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) x 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.

12 Completeness Check

Once you have completed all the forms, click the Completeness Check function to scan the forms. (Figure 12-1). The
Completeness Check ensures that there are reasonable responses in required data fields. If fields are incomplete, the system will generate warning (yellow) or error (red) messages.

The error report and messages will describe the potential problem and indicate 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 (red) generated from the Completeness Check must be corrected before the MAERS Report is submitted to the AQD. Warnings (yellow) will not prevent the MAERS Report from being submitted. After correcting the errors and warnings, run the Completeness Check again to re-assess the result of these actions. Running the Completeness Check after you make corrections will clear error messages. If you encounter any Completeness Check error messages that appear to be irresolvable, please contact the appropriate AQD district office or InfoMAERS@michigan.gov.

Please note that the Completeness Check can be run iteratively throughout the reporting process. Results can be used as a guide to address further information needs within the report.

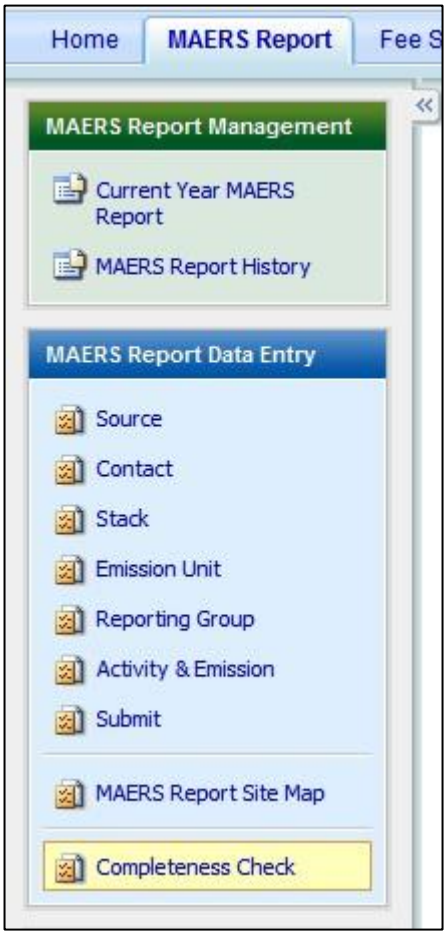


Figure 12-1: Completeness Check Function

If no error is generated from the Completeness Check, this message will display: "Passed Completeness Check" (Figure 12-2).

Figure 12-2: Completeness Check without Error

If errors are encountered in the Completeness Check, this message will display: "Failed Completeness Check" (Figure 12-3).

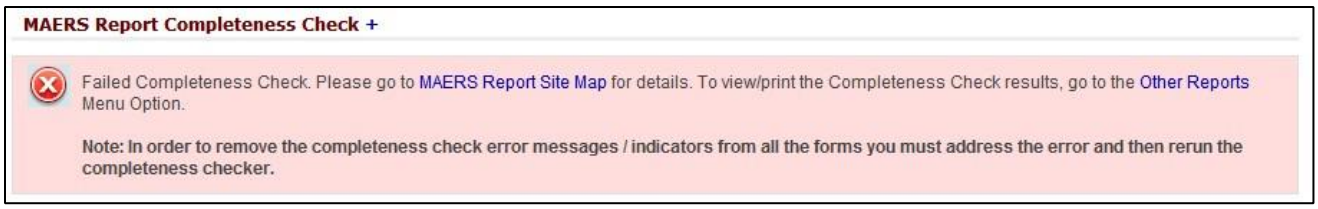


Figure 12-3: Error Report

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 12-4). The error message is indicated using a red icon. The warning message is indicated using a yellow icon. The error or warning message will appear in the tooltips.

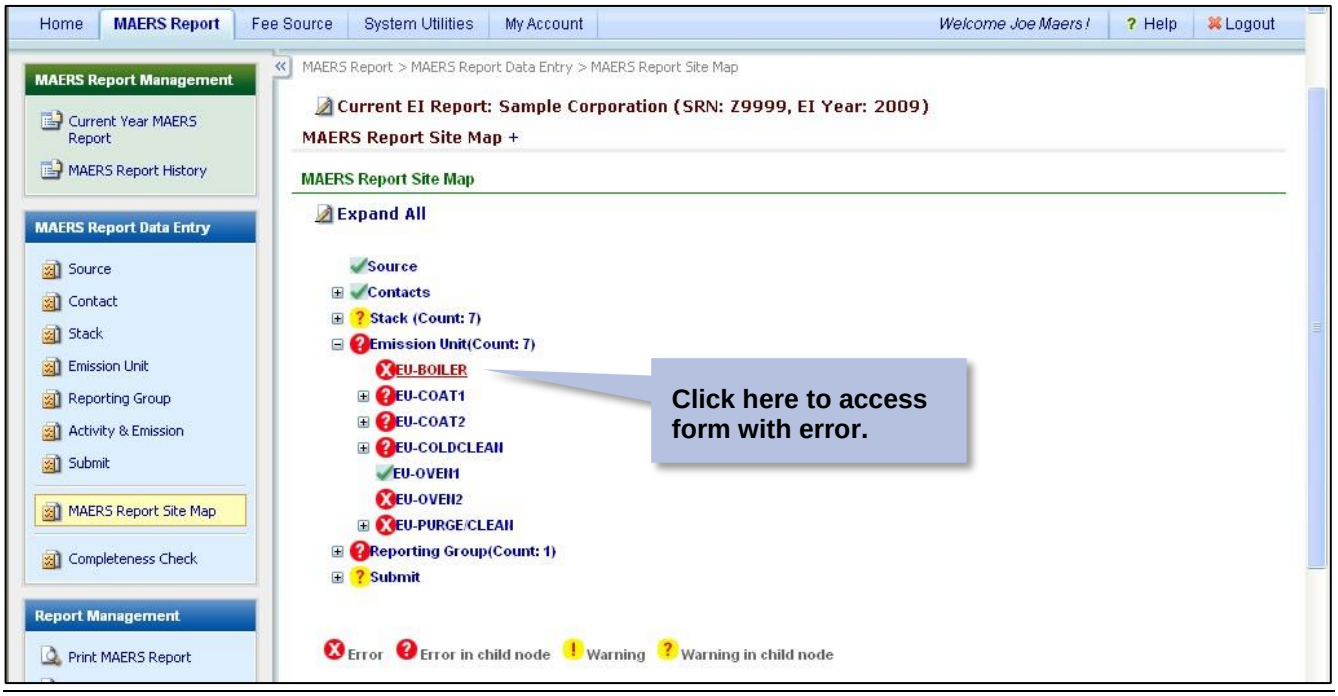


Figure 12-4: MAERS Report Site Map - Completeness Check Error/Warning Message

2. In the MAERS Report 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 & Emission, or Submit Form. The error/warning message generated from the Completeness Check will display in the upper portion of the specific form (Figure 12-5). The error message is indicated using a "red" background. The warning message is indicated using a "yellow" background.

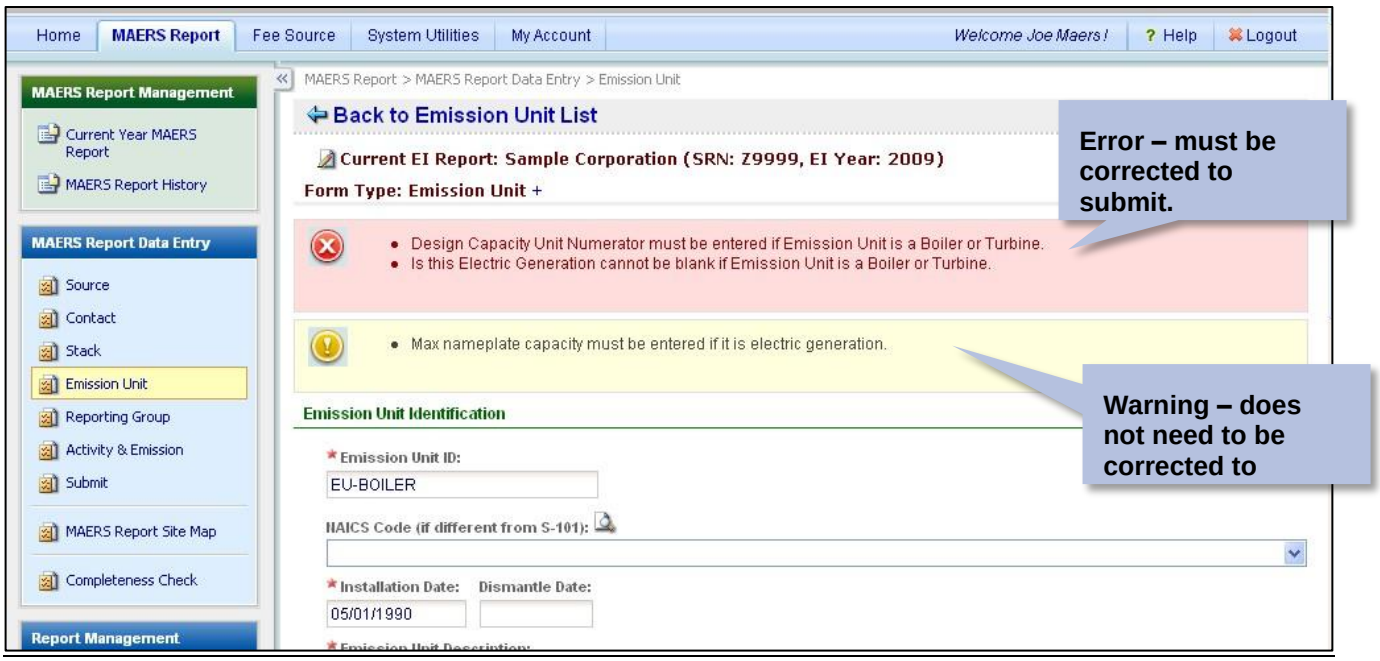


Figure 12-5: Sample: Stack Form with Completeness Check Warning/Error Displayed

3. All 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 12-6).

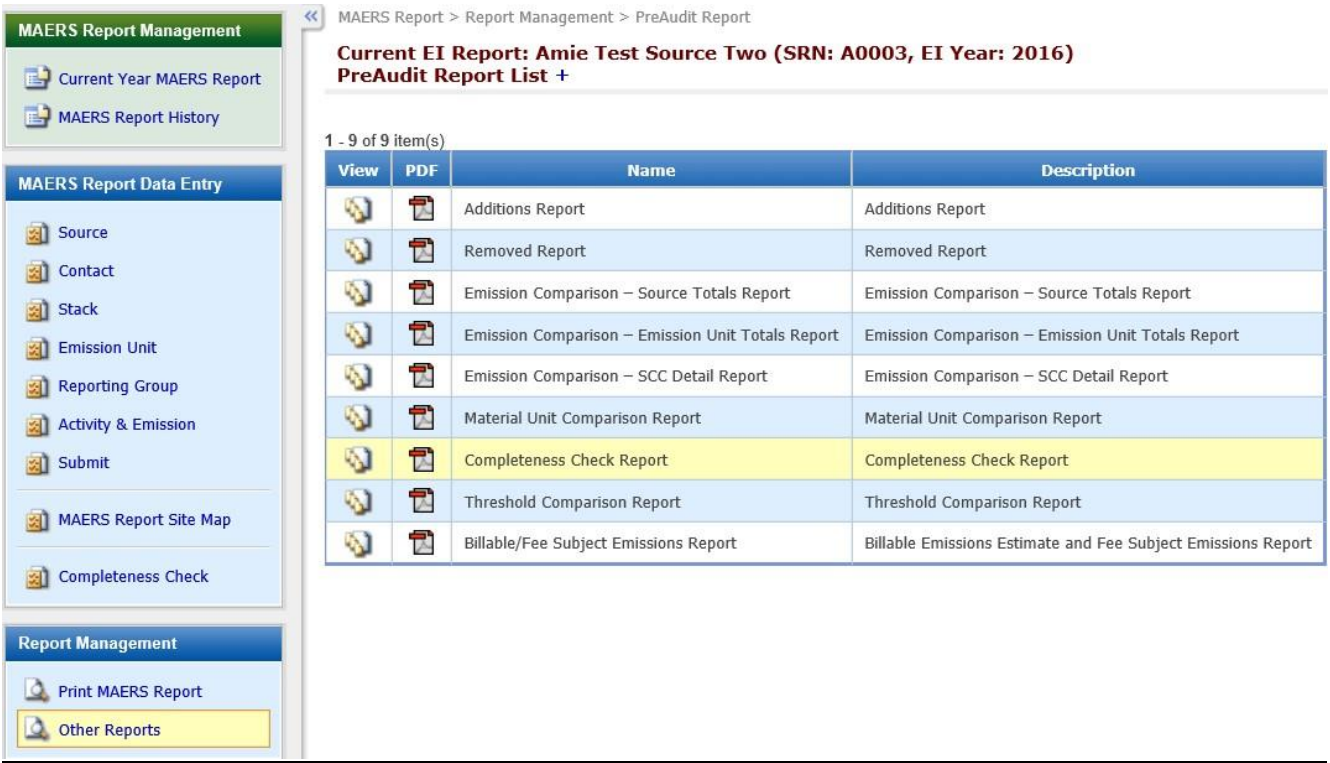


Figure 12-6: Completeness Check Report

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 12-7.

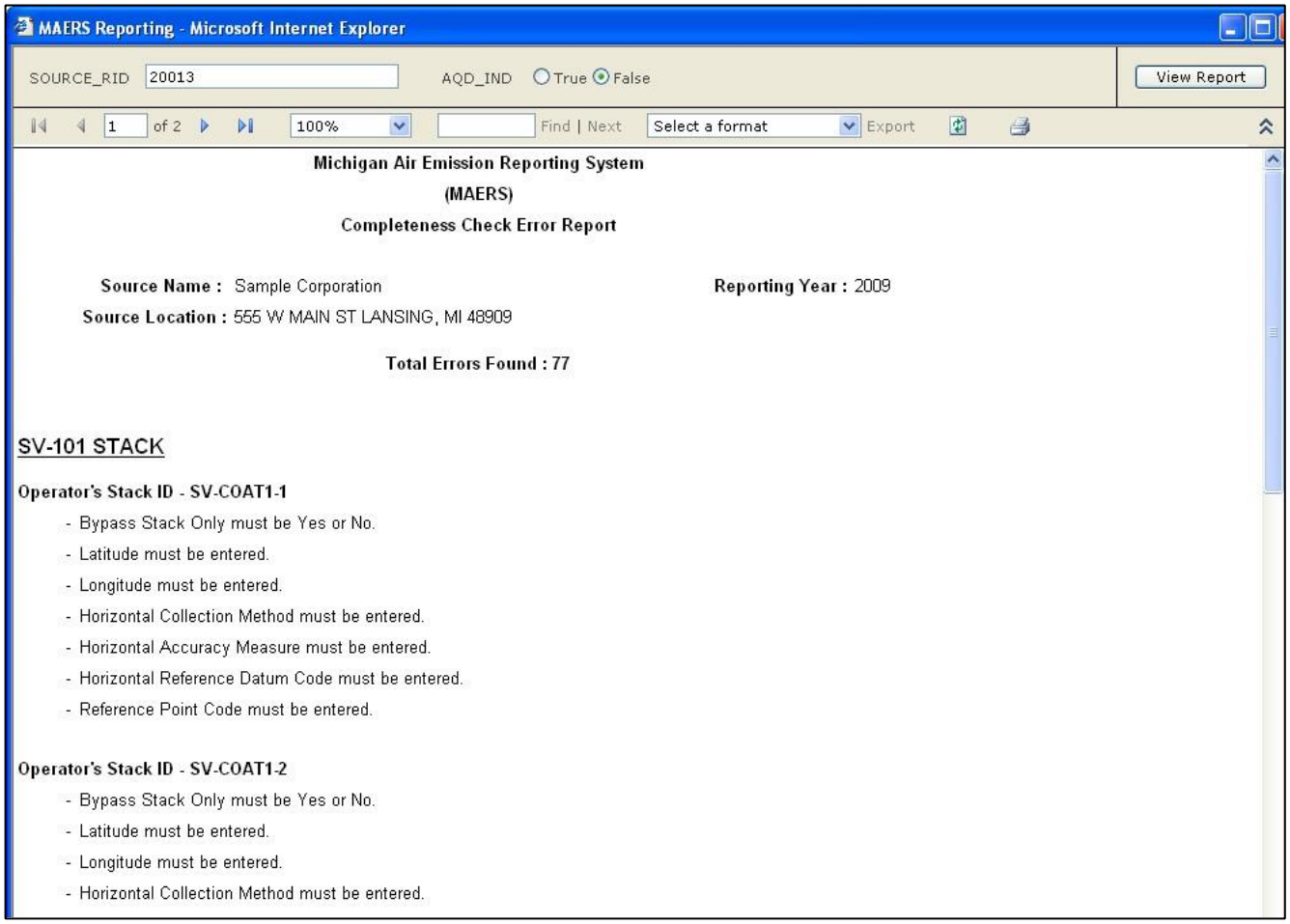


Figure 12-7: Sample of Completeness Check Report

13 Submitting Your MAERS Report

Submittal Overview

After the report has passed the Completeness Check, only the Primary Preparer can submit the report. 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. The Preparer List shows the current preparers and consultants 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 13-1).

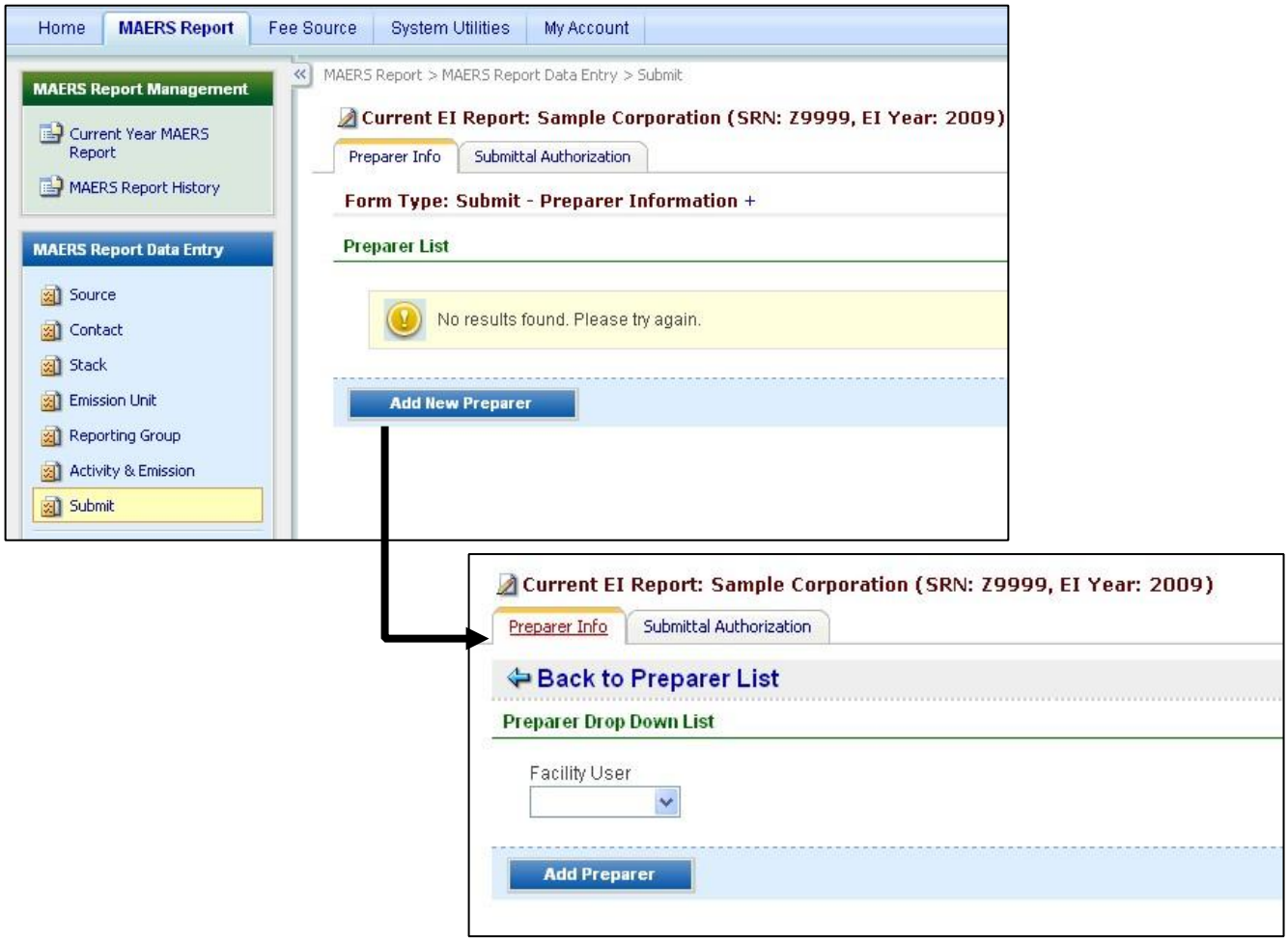


Figure 13-1: Add New Preparer

To delete a preparer that is already in the system, click the delete icon located on the right side of the Preparer Information screen. (Figure 13-2)

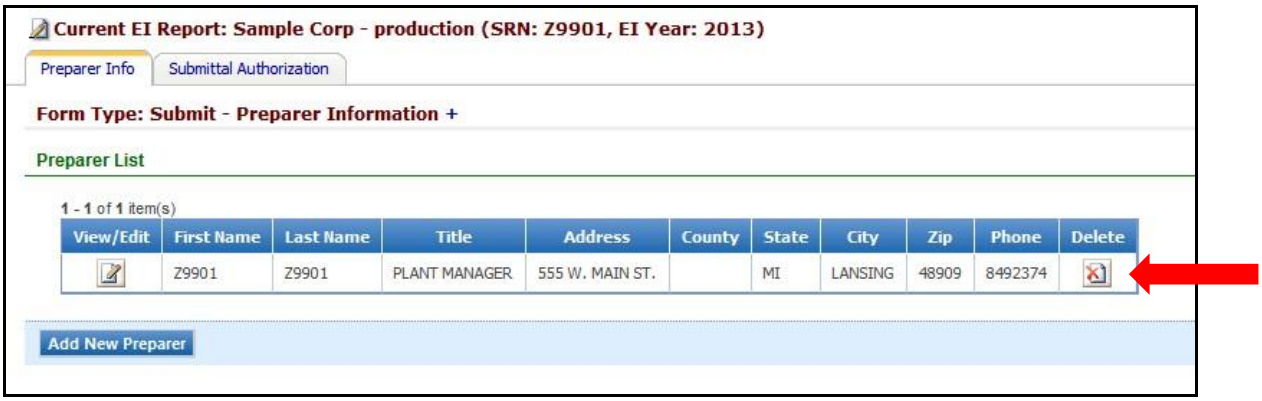


Figure 13-2: Delete a Preparer

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 13-3).

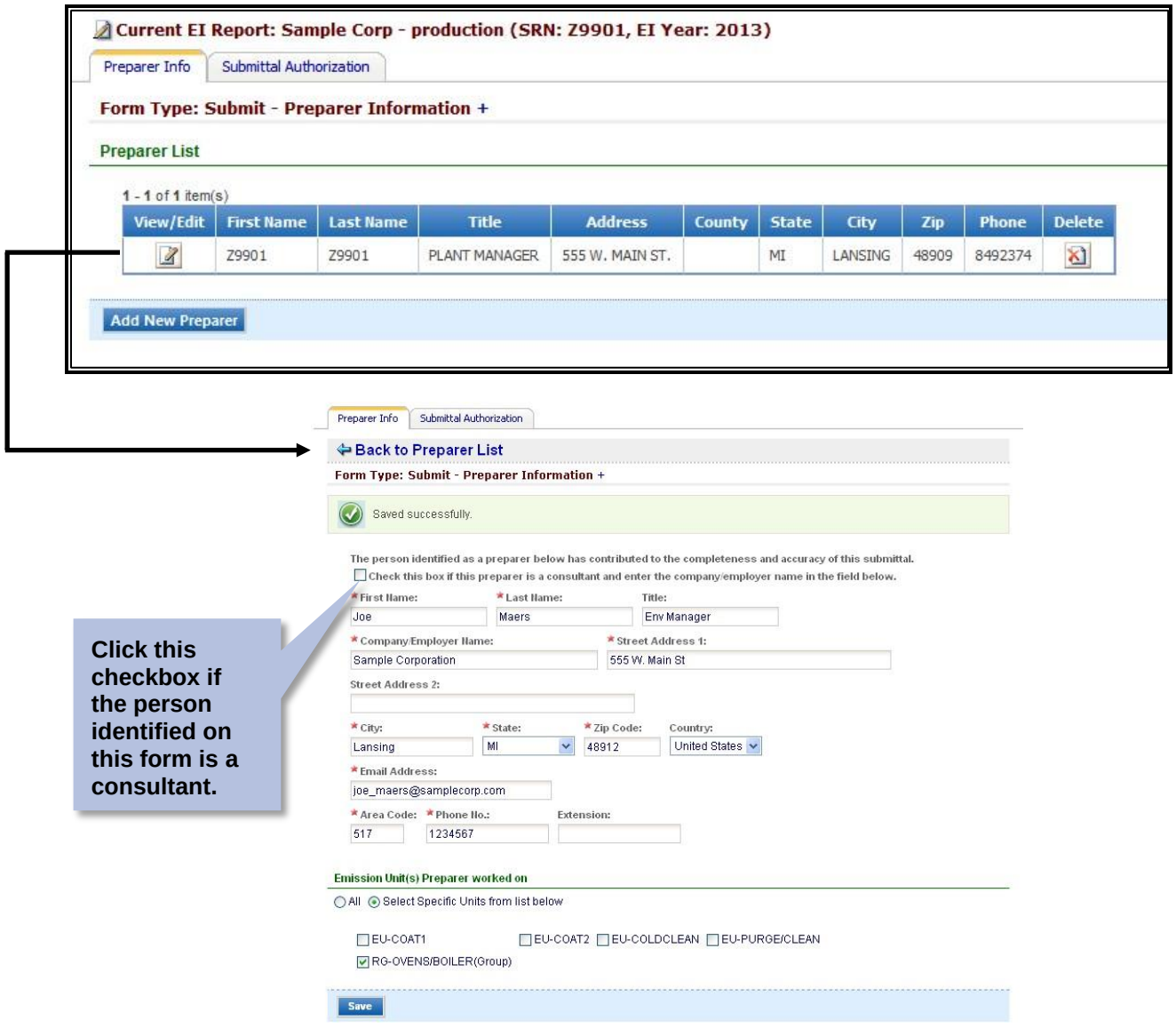


Figure 13-3: Preparer Information

Submittal Authorization

Click the Submittal Authorization tab (Figure 13-4).

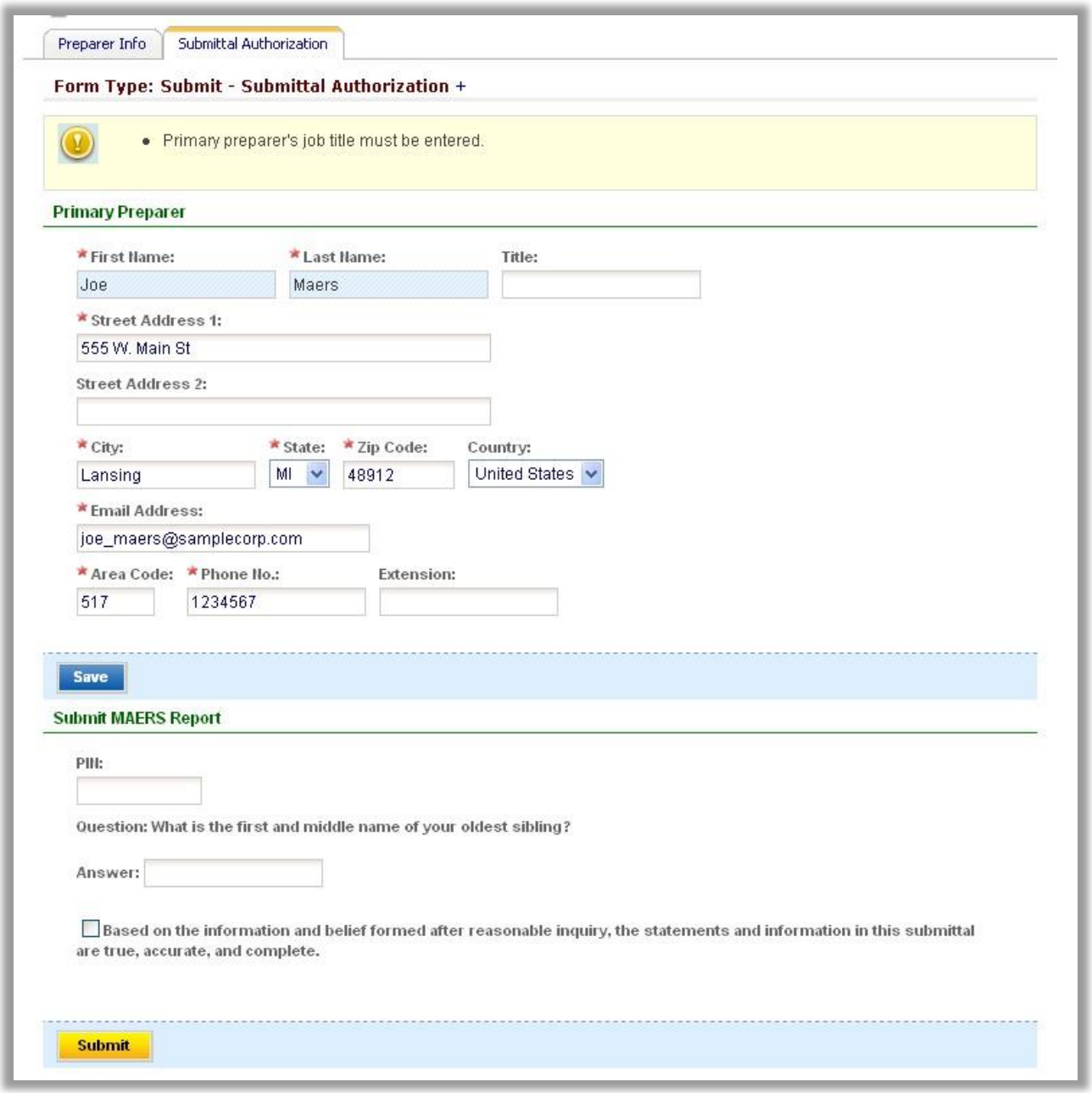


Figure 13-4: Submittal Authorization Form

Submittal Authorization Completion Instructions

1. **Primary Preparer Contact Information**: The Primary Preparer's contact information should be prefilled into this section.

2. **PIN**: Enter the PIN. You created your PIN when completing the registration process. If you forgot your PIN, you can click on the "My Account" tab and request a Security Access Code by clicking the blue "Request Access Code" button. You will receive an email with a Security Access Code. After you enter the code you can create a new PIN (Figure 13-5)The PIN was sent to the Primary Preparer during registration. If you forgot your PIN you can find it under the "My Account" tab.

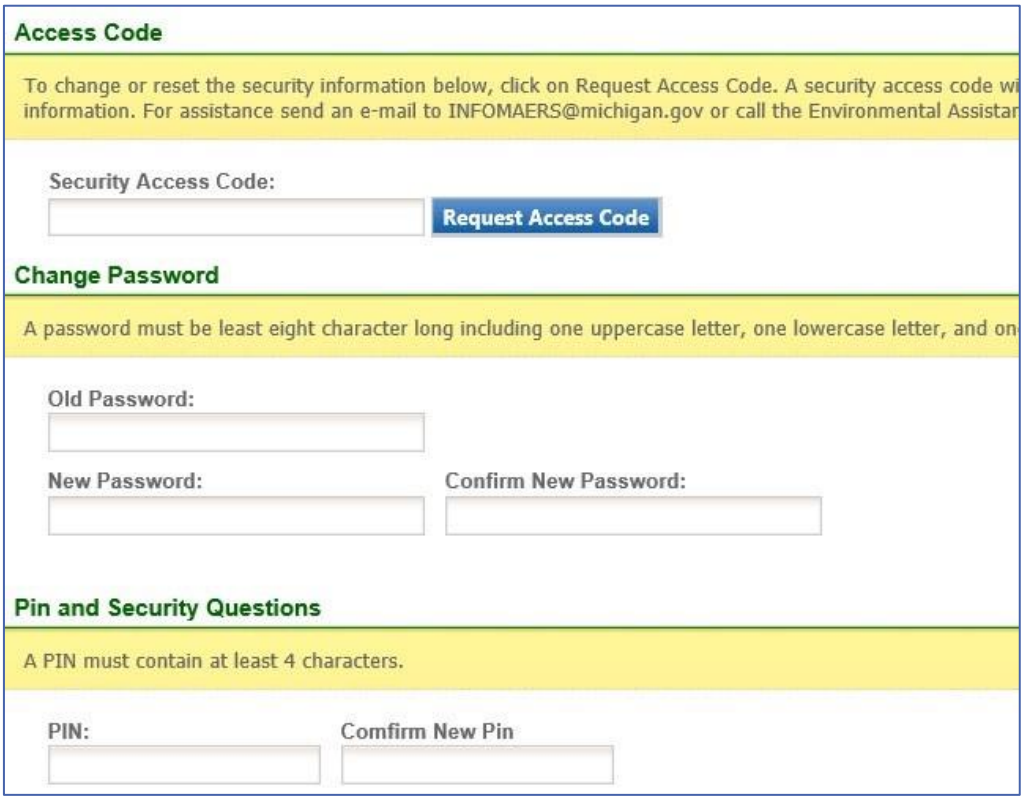


Figure 13-5: Password Change

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. If you do not remember the answers to your security questions, you can reset them by clicking on the "My Account" tab and requesting a Security Access Code by clicking on the blue "Request Access Code" button. You will receive an email with the Security Access Code, after you enter the code, you can reset your security questions and answers.

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 13-6).

Figure 13-6: 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 Emissions Inventory (EI) Report submission successful message will display in the upper portion of page.

14 Copy of Record

Submitted Report Information

After you submit the MAERS Report, the system will record specific report information and a Copy of Record (COR). To view the COR, click on the "View Report" link. If you notice any errors, you can revise and resubmit the report. After March 15, see next paragraph. The COR will be updated with new information from the resubmittal.

COR Review and Repudiation

If you request changes to your MAERS Report after the AQD has finalized the report, the date of the request, the Repudiated Date, and comments from the AQD will be displayed. After the AQD has verified and made the revisions, you will be able to view the corrected document. (Figure 14-1). The original report that you submitted will still be found at "View Report" under "Submitted Report Information" The revised report can be viewed by clicking on "View" under "COR Review and Repudiation."

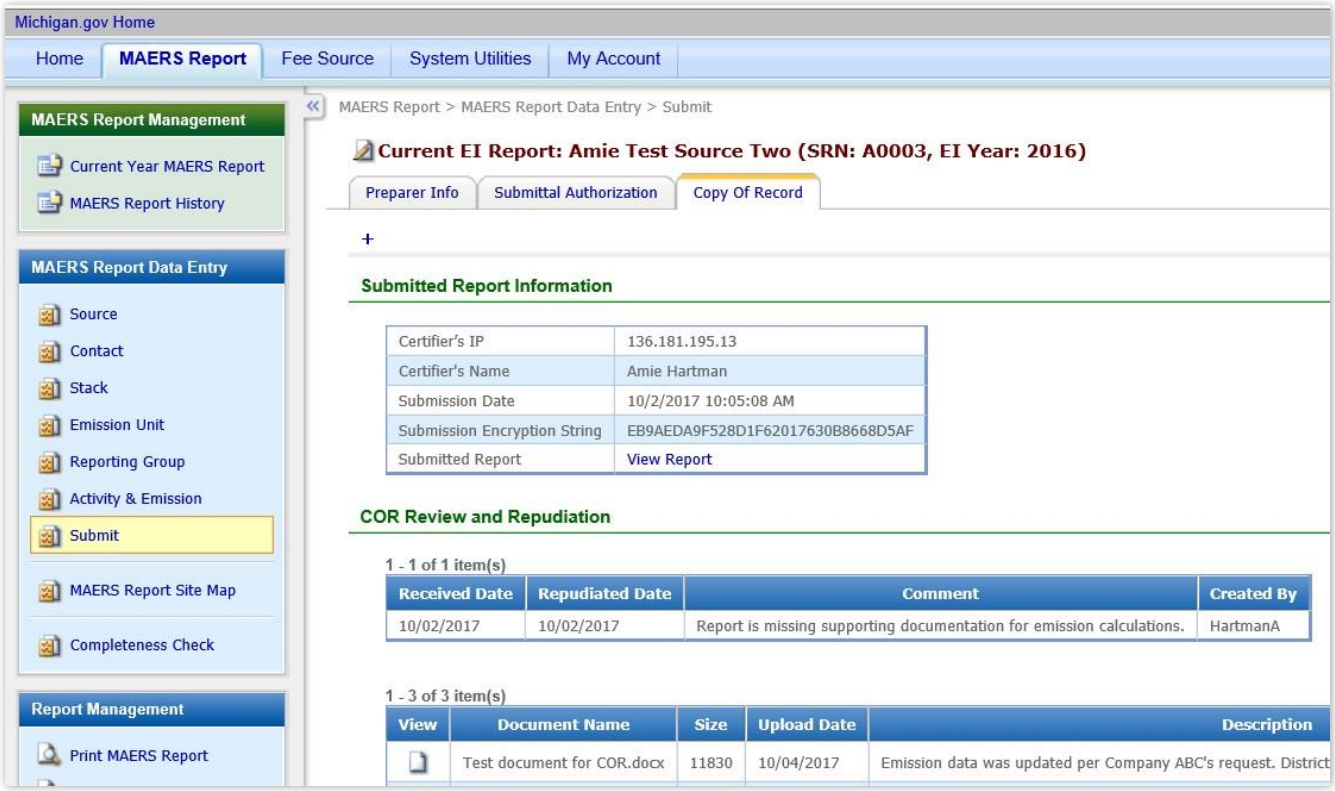
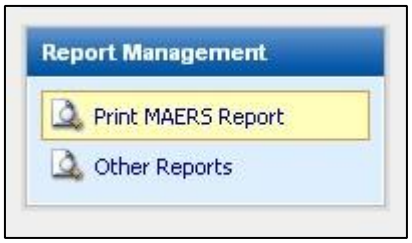


Figure 14-1 Copy of Record

15 Reports

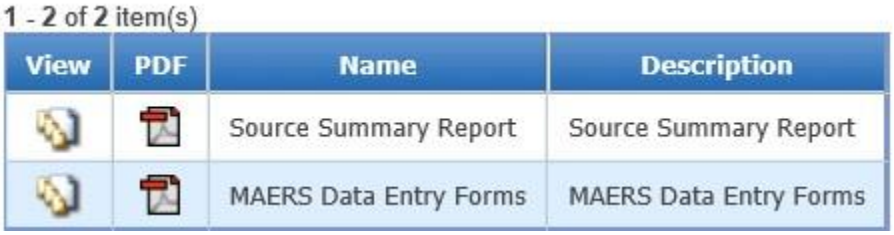
The Report Management section includes two types of reports: Print MAERS Report and Other Reports.



View MAERS Report

Clicking on Print MAERS Report will display two types of reports to view.

- Source Summary Report
- 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 15-1).

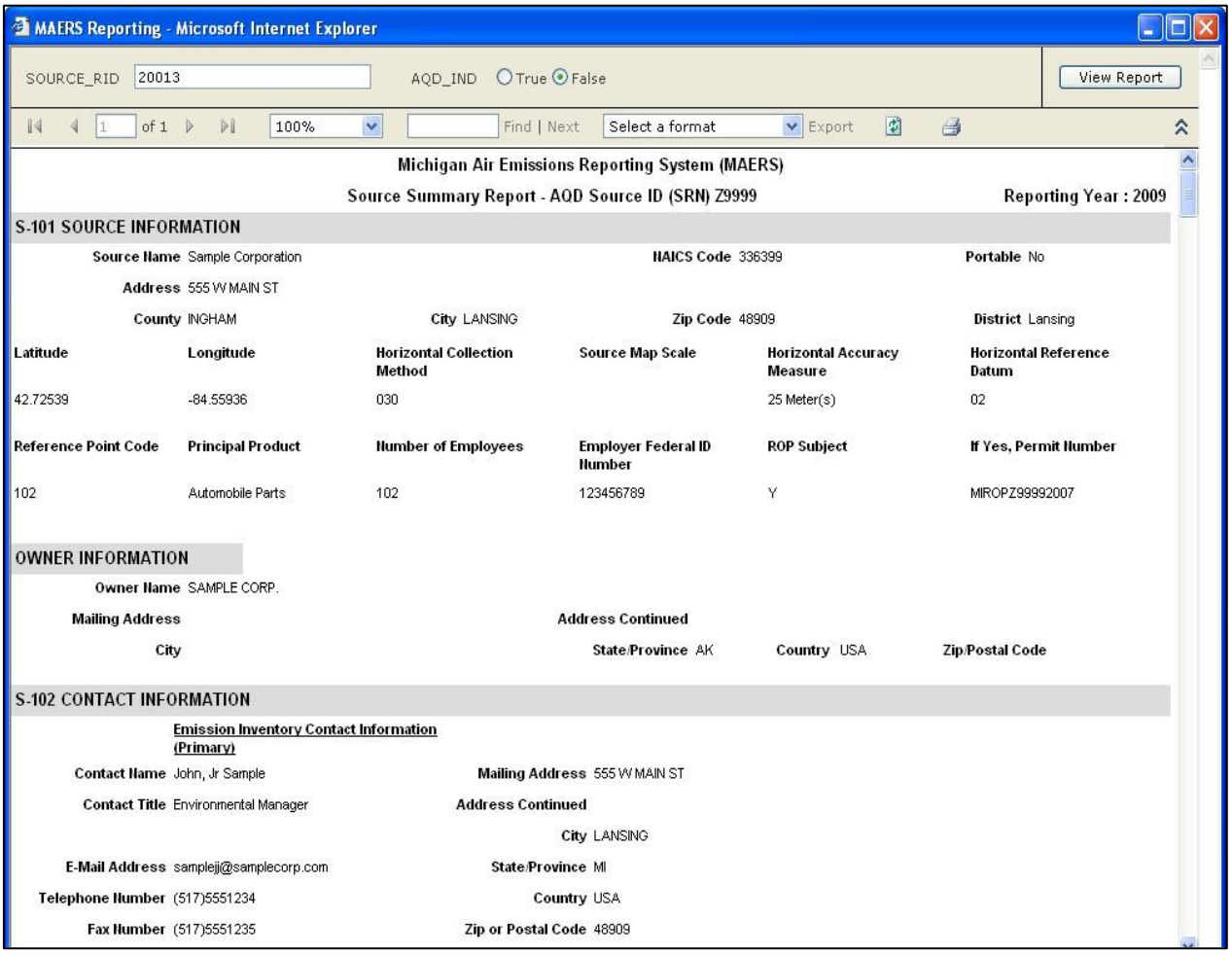


Figure 15-1: Sample of Source Summary Report

2. **MAERS Data Entry Forms Report:** The MAERS Data Entry Form Report displays the user-entered source, contact, emission unit, stack, activity, emission, preparer, and certifier data in the format of "paper" EI forms. (Figure 15-2).

EGLE Michigan Department of Environment, Great Lakes and Energy - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

S-101 SOURCE

1. INVENTORY YEAR
2019

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to last year's MAERS forms or summary report for information previously submitted, and complete this form with additions or corrections as necessary. For more detailed instructions refer to the MAERS Paper Forms and Instructions Booklet. This MAERS form is used to report source information for a **specific inventory year**. Enter the **specific inventory year** in field 1.

FORM REFERENCE	
2. Form Type **S-101**	3. AQD Source ID (SRN) **A1234**

SOURCE IDENTIFICATION	☐ Change ☐ Add	
4. Source Name **Sample Corp**		
5. NAICS Code **336360**	6. Portable ☐ Yes ■ No	
7A. Street Number and Name (where emission unit(s) is located) **555 W. Main St.**		
7B. Address Continued		
8. County **Ingham**	9. City **Lansing**	10. Zip Code **48933**
11. Latitude **42.45362145** Decimal Degrees	12. Longitude **-83.12578356** Decimal Degrees	13. Horizontal Collection Method **001**
14. Source Map Scale Number	15. Horizontal Accuracy Measure **100** Meters	
16. Horizontal Reference Datum Code **002**	17. Reference Point Code **101**	
18. Principal Product **Metal Widgets**		19. Number of Employees **40**
20. Employer Federal Identification Number **38-1234567**		

OWNER INFORMATION	☐ Change ☐ Add
20. Owner Name **Joe Schwartz**	

Figure 15-2: Sample of MAERS Data Entry Form Report

Other Reports

The Other Reports section includes the following reports as shown in Figure 15-3.

1 - 9 of 9 item(s)

View	PDF	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
		Billable/Fee Subject Emissions Report	Billable Emissions Estimate and Fee Subject Emissions Report

Figure 15-3 Other Reports

1. **Additions Report**: This report displays all stacks, emission units, reporting groups, SCC 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.
2. **Removed Report**: This report displays all emission units, reporting groups, stacks, SCC 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.
3. **Emission Comparison – Source Totals Report:** This report displays 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.
4. **Emission Comparison – Emission Unit Totals Report**: This report displays required emissions by pollutant, as well as toxic pollutant estimates, totaled at the emission unit level. See Appendix D for more information.
5. **Emission Comparison – SCC Detail Report**: This report displays required emissions by pollutant, as well as toxic pollutant estimates totaled at the SCC Level. See Appendix D for more information.

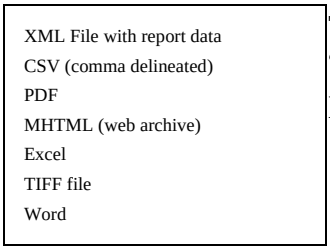
Note: The emissions inventory that ultimately gets reported to the U.S. EPA and shared publicly includes both Source-Reported estimates that are accepted by the AQD, as well as estimates for other pollutants (generally toxics) that are only calculated by MAERS using the information provided within the report. Reviewing the **Emission Comparison – SCC Detail Report** can reveal where the AQD/MAERS calculations deviate from source-reported estimates; especially for pollutants that have not been specifically reported to the MAERS.

6. **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**: This report displays the data errors within the MAERS 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.
8. **Threshold Comparison Report**: This report displays all criteria pollutants that exceed reporting thresholds.
9. **Billable/Fee Subject Emission Report**: This report displays a billable emissions estimate for facilities which are required to pay an annual air quality fee. It provides a summary of the reported emissions which will appear on the invoice in January the following year. The estimate includes a detailed process level report of emissions of fee subject pollutants. See Appendix B for more information.

Print / Export a Report

To Print a report, click on the PDF icon next to the report you would like to print, then select the Print File icon at the bottom of the document.(Figure 15-4).

Figure 15-4 Print Icon



To select a format other than PDF, click on View. (Figure 15-5). Click the "Select a format" to choose the file path you want to save and then save or print the file.

16 Reference Data Look-up

Users will use this module to find reference data for the Emission Factor, Material Code, Substance Code, SCC, and Unit. To view reference data in the MAERS database, go to the System Utilities tab, then select the specific type of data under System Maintenance on the left navigation panel. Use the "Search" button to find the information (Figure 16-1).

Figure 16-1: System Utilities Tab

Appendix A: Acronyms & Definitions

AQD ..... Air Quality Division
BTU ..... British Thermal Unit
CAA ..... Clean Air Act
CEM ..... Continuous Emission Monitor
CO ..... Carbon Monoxide
EGLE ..... Environment, Great Lakes, and Energy (Michigan Department of) GPS
..... 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
SRN ..... State Registration Number
Sox ..... Sulfur Oxides
USEPA ..... U.S. Environmental Protection Agency
UTM ..... Universal Transverse Mercator *Grid Coordinates*
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. The following pollutants must be reported because 1) they are a criteria pollutant, or 2) they result in the formation of a criteria pollutant:

- Carbon Monoxide (CO)
- Lead (PB)
- Non-Methane Organic Compounds (NMOC)*****
- Oxides of Nitrogen - NOx
- Particulate Matter (PM)
- Particulate Matter less than 10 Microns ($PM_{10,}$ Primary)
- Particulate Matter less than 10 Microns, Filterable not water soluble ($PM_{10,}$ FLTRABLE)
- Particulate Matter less than 2.5 Microns ($PM_{2.5}$), Filterable not water soluable ($PM_{2.5,}$ FLTRBL)
- Particulate Matter less than 2.5 Microns ($PM_{2.5}$), Sum of Condensables & Filterable ($PM_{2.5,}$ PRIMARY) • Sulfur Dioxide (SO_2)
- 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: 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.

NAICS: This code is a numerical indicator of the primary type of activity at a business.

Nitrogen Dioxide (NO_2): 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.

Operator's ID Prefix	Represents
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 (NOx). 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 NOx, 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: An emission unit that is specifically exempted from Rule 201 in Rules 280 – 290 of the Michigan Air Pollution Control Rules and not subject to Rule 278.

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): 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_2): 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.

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Appendix B: Fee Calculation

Air Quality Fee Calculations

The Clean Air Act requires each state to develop a Title V, Renewable Operating Permit (ROP) Program 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. The fee program was reauthorized by Governor Whitmer on November 14, 2019.

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

ANNUAL FEE = FACILITY CHARGE + EMISSIONS CHARGE

A **facility charge** is used in the fee formula is and based on the classification, or Category, of the facility. The categories were revised during the fee reauthorization and are as follows:

Category A: Facilities that are "major" under Title III of the Clean Air Act (have the potential to emit 100 tons or more per year of any pollutant) and are also Electric Providers, not including municipally-owned electric generators.

Category B: Facilities that are "major" under Title III of the Clean Air Act (have the potential to emit 100 tons or more per year of any pollutant) and are not Electric Providers, with the exception of municipally-owned electric generators with emissions over 646 tons per year. Municipally-owned electric generators with emissions under 646 tons per year are categorized as ordinary Category B facilities.

Category C: Facilities that are "major" under Title I of the Clean Air Act (have the potential to emit 10 tons of any one hazardous air pollutant or 25 tons of any combination of hazardous air pollutants).

Category D: Facilities that are subject to a federal New Source Performance Standard.

Category E: Facilities that have a Title V Opt-Out Permit.

Category F: Facilities which are subject to a federal Maximum Available Control Technology (MACT) standard but are not "major" under Title I or Title III. Category F facilities are assessed a $250 facility charge with no emissions charge.

ANNUAL FEE = FACILITY CHARGE + EMISSIONS CHARGE

Category Type	Emissions Range (tons)	Facility Charge	Emissions Charge/Ton
A	≥ 6100	$45,000.00	$53.00
A	≥ 1000	$30,000.00	$53.00
A	≥ 100	$15,750.00	$53.00
A	≥ 60	$12,500.00	$53.00
A	≥ 6	$10,500.00	$53.00
A	≥ 0	$5,250.00	$53.00

B	≥ 2000	$21,000.00	$53.00
B	≥ 200	$15,750.00	$53.00
B	≥ 60	$10,500.00	$53.00
B	≥ 6	$7,500.00	$53.00
B	≥ 0	$5,250.00	$53.00
B - Municipal Utility Only	≥ 646	$50,000	N/A
C	≥ 60	$4,500.00	$53.00
C	≥ 6	$3,500.00	$53.00
C	≥ 0	$2,500.00	$53.00
D	≥ 60	$2,500.00	$53.00
D	≥ 6	$2,000.00	$53.00
D	≥ 0	$1,795.00	$53.00
E	≥ 60	$1,795.00	$0.00
E	≥ 6	$250.00	$0.00
E	≥ 0	$250.00	$0.00
F	N/A	$250.00	$0.00

Please note the facility charge may vary from one year to the next depending on the actual emissions reported, even within the same fee category.

Standards for which Category F fees are assessed include any of the following:

MACT Source Categories	Code of Federal Regulations
Nonferrous Foundries: Aluminum, Copper, and other Area Sources	40 CFR 63 Subpart ZZZZZZ (6Z)
Asbestos	40 CFR 61 Subpart M
Chemical Manufacturing Industry (area sources): CMAS	40 CFR 63 Subpart VVVVVV (6V)
Chromium Electroplating	40 CFR 63 Subpart N
Ethylene Oxide Emissions Standards for Sterilization Facilities	40 CFR 63 Subpart O

Halogenated Solvent Cleaning	40 CFR 63 Subpart T
Iron and Steel Foundries (area sources)	40 CFR 63 Subpart ZZZZZ
Dry Cleaning	40 CFR 63 Subpart M
Primary Nonferrous Metals Area Sources-Zinc, Cadmium and Beryllium (area sources)	40 CFR 63 Subpart GGGGGG (6G)
Secondary Aluminum	40 CFR 63 Subpart RRR

Emissions Charge

Please note the facility charge may vary from one year to the next depending on the actual emissions reported, even within the same fee category.

In addition to the facility charge, an **emissions charge** is calculated per ton of emissions reported for Category A through D facilities. This emissions charge is calculated at $53.00 per ton of actual emissions.

For Category A and B facilities, the following caps limit the quantity of individual and total pollutants which are charged for:

- Category A - Electric Providers is 1,500 tons per pollutant or 6,100 tons total
- Category B - Major Criteria Pollutants is 1,250 tons per pollutant or 4,500 tons total

Fee-subject air pollutants are PM10, NOx, SO_2, 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.

By July 1, the AQD sends a copy of the previous calendar year emission inventory information with an estimate of billable pollutants to all Category A through D facilities. The estimates provide facility owners and operators with an opportunity to review the reported emissions data for accuracy. Any changes must be submitted to the district offices by September 1 to ensure the forthcoming air quality fees are based on the correct information. Fee bills are then mailed in January.

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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/air.

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.michigan.gov/documents/deq/deq-aqd-air-rules-apc-PART1_314759_7.pdf**.**

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 - 0.5 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,

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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 – R336.1291

Rules 280 through 291 can be accessed at 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-ptiexemptionbooklet_253795_7.pdf.

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Appendix D: Hazardous Air Pollutant (HAP) Emissions Calculator

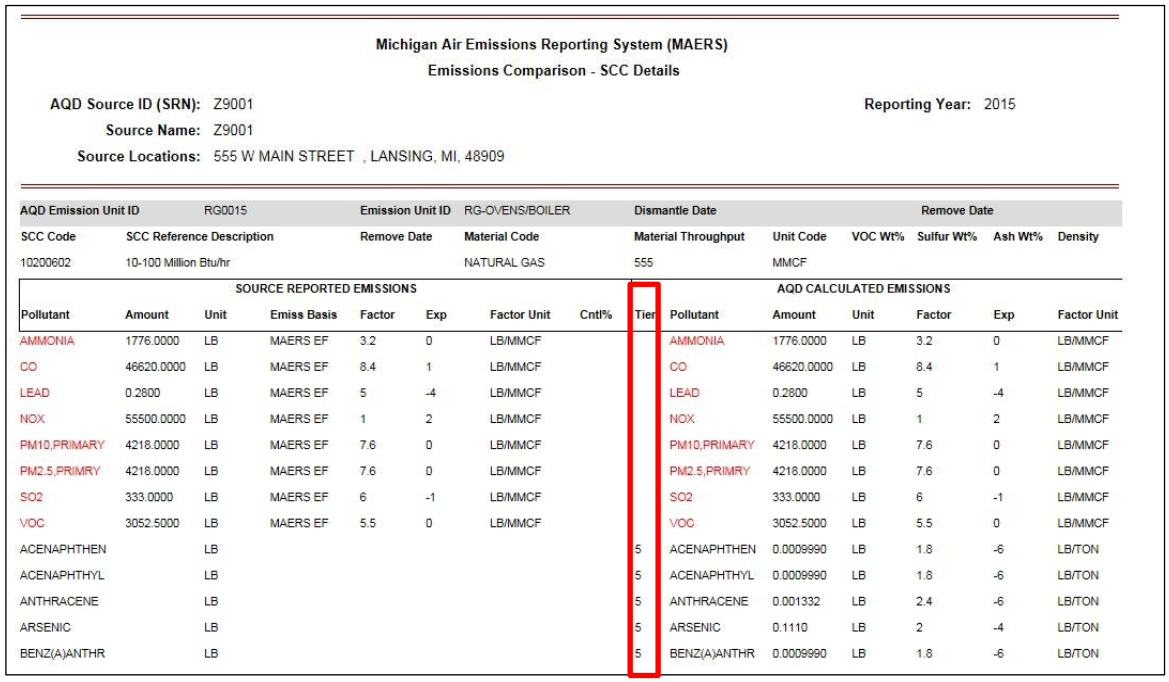
Each HAP estimated in the MAERS is created following a tiered procedure. The procedure invokes each tier in series (Tier 1 – 5), once an estimate is calculated, the subsequent tiers are ignored.

Tier	Description
1	**Facility Specific Emission Factor** The MAERS Coordinator can add facility specific hazardous air pollutant (HAP) emission factors for specific activities/SCC codes. Identification and approval of appropriate facility specific emissions factors is done through consultation with technical AQD staff. The emissions inventory contact or the primary preparer for a facility can identify facility specific HAP emission factors for consideration by sending the specific requests, including supporting documentation, to **InfoMAERS@michigan.gov. Requests should be made as soon as possible to be considered for the next MAERS reporting season.** Requests made after **November 1 will *not* be included in the next MAERS Report**. Information required for facility specific factors: SCC; Pollutant; Emission Factor; Exponent; and Supporting Documentation Where facility specific emission factors are supplied, the emissions calculator will use the facility specific emission factor for that pollutant.
2	**Controlled HAP Emission Factor, SCC, pollutant, and control device match** If there is a MAERS emission factor that matches the SCC, pollutant and control device, the emissions calculator will use the controlled emission factor instead of the uncontrolled factor. See MAERS System Utilities for list of controlled Emission Factors or go to MAERS On-line Resources, MAERS Reference Tables, MAERS Emission Factor Table **www.michigan.gov/documents/deq/deq-aqd-eval-era-MAERS-EMISSION-FACTORTABLE_408342_7.xls**
3	**Uncontrolled HAP Emission Factor using particulate matter control efficiency provided by facility user** If there is a control efficiency entered on the Activity and Emissions Form, Emissions tab for any criteria emission form of particulates (Group A), the entered control efficiency will also be applied along with the uncontrolled emission factor for pollutants in Group B listed on page 3, if applicable.
4	**Uncontrolled MAERS HAP Emission Factor using default control efficiency** If there is a MAERS emission factor, the emissions calculator will use the default control efficiency for the pollutant and control device if applicable. See **www.michigan.gov/documents/deq/deq-aqd-erahaps_tier4_default_ce_polluant_508584_7.pdf** for a list of pollutant and control device default control efficiencies. The default control efficiencies were compiled by performing a literature review.
5	**Uncontrolled MAERS HAP Emission Factor** If there is an uncontrolled MAERS emission factor for the specific SCC and pollutant, the emissions calculator will use the MAERS emission factor, no control efficiency is applied.

See **the Emission Comparison – SCC Detail Report** under the AQD

Calculated Emissions to see which tier was used to perform the HAPs emission calculation.

Group A	Group B
PM10, PRIMARY	ANTIMONY
PM10, FLTRBLE	ARSENIC
PM2.5, PRIMRY	ASBESTOS
PM2.5, FLTRBL	BENZ(GHI)PE
	BERYLLIUM
	CADMIUM
	CALCIUM
	CHROMIUM
	CHROMIUM VI
	COBALT
	COPPER
	LEAD
	MANGANESE
	NICKEL
	PM10,PRIMARY
	PM2.5,PRIMRY
	SELENIUM



Michigan Air Emissions Reporting System (MAERS)

Emissions Comparison - SCC Details

AQD Source ID (SRN): Z9001 **Reporting Year:** 2015

Source Name: Z9001

Source Locations: 555 W MAIN STREET , LANSING, MI, 48909

AQD Emission Unit ID	RG0015	Emission Unit ID	RG-OVENS/BOILER	Dismantle Date		Remove Date			
SCC Code	**SCC Reference Description**	**Remove Date**	**Material Code**	**Material Throughput**	**Unit Code**	**VOC Wt%**	**Sulfur Wt%**	**Ash Wt%**	**Density**
10200602	10-100 Million Btu/hr		NATURAL GAS	555	MMCF				

SOURCE REPORTED EMISSIONS									AQD CALCULATED EMISSIONS					
Pollutant	**Amount**	**Unit**	**Emiss Basis**	**Factor**	**Exp**	**Factor Unit**	**Cntl%**	**Tier**	**Pollutant**	**Amount**	**Unit**	**Factor**	**Exp**	**Factor Unit**
AMMONIA	1776.0000	LB	MAERS EF	3.2	0	LB/MMCF			AMMONIA	1776.0000	LB	3.2	0	LB/MMCF
CO	46620.0000	LB	MAERS EF	8.4	1	LB/MMCF			CO	46620.0000	LB	8.4	1	LB/MMCF
LEAD	0.2800	LB	MAERS EF	5	-4	LB/MMCF			LEAD	0.2800	LB	5	-4	LB/MMCF
NOX	55500.0000	LB	MAERS EF	1	2	LB/MMCF			NOX	55500.0000	LB	1	2	LB/MMCF
PM10,PRIMARY	4218.0000	LB	MAERS EF	7.6	0	LB/MMCF			PM10,PRIMARY	4218.0000	LB	7.6	0	LB/MMCF
PM2.5,PRIMRY	4218.0000	LB	MAERS EF	7.6	0	LB/MMCF			PM2.5,PRIMRY	4218.0000	LB	7.6	0	LB/MMCF
SO2	333.0000	LB	MAERS EF	6	-1	LB/MMCF			SO2	333.0000	LB	6	-1	LB/MMCF
VOC	3052.5000	LB	MAERS EF	5.5	0	LB/MMCF			VOC	3052.5000	LB	5.5	0	LB/MMCF
ACENAPHTHEN		LB						5	ACENAPHTHEN	0.0009990	LB	1.8	-6	LB/TON
ACENAPHTHYL		LB						5	ACENAPHTHYL	0.0009990	LB	1.8	-6	LB/TON
ANTHRACENE		LB						5	ANTHRACENE	0.001332	LB	2.4	-6	LB/TON
ARSENIC		LB						5	ARSENIC	0.1110	LB	2	-4	LB/TON
BENZ(A)ANTHR		LB						5	BENZ(A)ANTHR	0.0009990	LB	1.8	-6	LB/TON

If you have questions related MAERS HAPs emission calculator, please send an e-mail to **InfoMAERS@michigan.gov or call the Environmental Assistance Center at 1-800-662-9278.**

SUBSTANCES SUBJECT TO PARTICULATE MATTER CONTROL EFFICIENCY

Appendix E: MAERS Contact Information

Phone: 800-662-9278
E-mail: **InfoMAERS@michigan.gov**
Web: **Michigan.gov/EGLEmaers**

District Locations

Use the List below to locate the county name in which the source is physically located. For portable sources operating at locations in multiple districts, submit the report and/or contact the district office serving the county in which the company's home office is located.

Cadillac District
120 W Chapin Street
Cadillac, MI 49601-2158
231-775-3960 | Fax: 231-775-4050
E-Mail : **cadmaers@michigan.gov**
Counties: Benzie, Grand Traverse, Kalkaska, Lake, Leelanau, Manistee, Mason, Missaukee, Osceola, Wexford

Gaylord District - Air Quality Division
2100 West M-32
Gaylord, MI 49735-9282
989-731-4920 | Fax: 989-731-6181
E-Mail: **gaymaers@michigan.gov**
Counties: Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, Presque Isle, Roscommon

Grand Rapids District
350 Ottawa Ave NW, Unit 10
Grand Rapids, MI 49503
616-356-0500| Fax: 616-356-0202
E-Mail : **grrmaers@michigan.gov**
Counties: Barry, Ionia, Kent, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Ottawa

Jackson District
State Office Building, 4th Floor
301 E Louis B Glick Highway
Jackson, MI 49201-1556
517-780-7690 | Fax: 517-780-7855
E-Mail : **jacmaers@michigan.gov**
Counties: Hillsdale, Jackson, Lenawee, Monroe, Washtenaw

Kalamazoo District
7953 Adobe Road
Kalamazoo, MI 49009-5026
269-567-3500 | Fax: 269-567-3555
E-Mail : **kalmaers@michigan.gov**
Counties: Allegan, Berrien, Branch, Calhoun, Cass, Kalamazoo St. Joseph, or Van Buren

Upper Peninsula District
1504 West Washington Street
Marquette, MI 49855
906-228-4853 | Fax: 906-228-4940 E-Mail : **marmaers@michigan.gov**
Counties: Entire Upper Peninsula

Saginaw Bay District
Saginaw Bay District Headquarters
401 Ketchum St., Suite B
Bay City, MI 48708
989-894-6200 | Fax: 989-891-9237
E-Mail : **baymaers@michigan.gov**
Counties: Arenac, Bay, Clare, Gladwin, Huron, Iosco, Isabella, Midland, Ogemaw, Saginaw, Sanilac, Tuscola

Lansing District
P.O. Box 30242
Constitution Hall, 525 W. Allegan St. 1S
Lansing, MI 48909-7760
517-284-6651 | Fax 517-241-3571
E-Mail: **lanmaers@michigan.gov**
Counties: Clinton, Eaton, Genesee, Gratiot, Ingham, Lapeer, Livingston, Shiawassee

Southeast Michigan District
Southeast Michigan District Headquarters
27700 Donald Court
Warren, MI 48092-2793
586-753-3700 | Fax: 586-753-3731 E-Mail : **semaers@michigan.gov**
Counties: Macomb, Oakland, St. Clair

Detroit Office Cadillac Place, Suite 2-300 3058 West Grand Blvd.
Detroit, MI 48202-6058
313-456-4700 | Fax: 313-456-4692
E-Mail: **detmaers@michigan.gov**
Counties: Wayne

ATTACHMENT B

Executive Order 2019-02 and Public Notice Documents

EXECUTIVE ORDER

No. 2019-02

Department of Environmental Quality

Department of Licensing and Regulatory Affairs

Department of Natural Resources

Department of Technology, Management, and Budget

Department of Environment, Great Lakes, and Energy

Executive Reorganization

Section 1 of article 5 of the Michigan Constitution of 1963 vests the executive power of the State of Michigan in the governor.

Section 2 of article 5 of the Michigan Constitution of 1963 empowers the governor to make changes in the organization of the executive branch of state government or in the assignment of functions among its units that the governor considers necessary for efficient administration.

State government needs a principal department focused on improving the quality of Michigan's air, land, and water, protecting public health, and encouraging the use of clean energy. That department should serve as a full-time guardian of the Great Lakes, our freshwater, and our public water supplies.

Michigan state government can better administer the implementation of administrative rules and the conduct of administrative hearings—particularly those that protect Michigan's air, land, and water, and the public health—by consolidating state functions and responsibilities relating to administrative hearings and rules.

Overly bureaucratic organizations within state government can hinder the state's response to threats to the environment and public health and detract from good government.

It is necessary in the interests of efficient administration and effectiveness of government to change the organization of the executive branch of state government.

Acting pursuant to the Michigan Constitution of 1963 and Michigan law, I order the following:

1. **Establishing the Department of Environment, Great Lakes, and Energy**
    a. Renaming the Department of Environmental Quality
        1. The Department of Environmental Quality is renamed the Department of Environment, Great Lakes, and Energy (the "Department").
        2. After the effective date of this order, a reference to the Department of Environmental Quality will be deemed to be a reference to the Department.
        3. After the effective date of this order, a reference to the director of the Department of Environmental Quality will be deemed to be a reference to the director of the Department.
    b. Interagency Environmental Justice Response Team
        1. The Interagency Environmental Justice Response Team (the "Response Team") is created as an advisory body within the Department, consisting of the following members:
            A. The director of the Department, or the director's designee from within the Department.
            B. The director of the Department of Agriculture and Rural Development, or the director's designee from within that department.

C. The executive director of the Department of Civil Rights, or the executive director's designee from within that department.
D. The director of the Department of Health and Human Services, or the director's designee from within that department.
E. The director of the Department of Natural Resources, or the director's designee within that department.
F. The president of the Michigan Strategic Fund, or the president's designee from within the Michigan Strategic Fund.
G. The director of the Department of Transportation, or the director's designee from within that department.
H. The chairperson of the Public Service Commission, or the chairperson's designee from within the Public Service Commission.

2. The members of the Response Team are ex officio members.
3. The director of the Department, or the director's designee from within the Department, is designated as the chairperson of the Response Team.
4. The Response Team shall act in an advisory capacity with the goal of assuring that all Michigan residents benefit from the same protections from environmental hazards, and do all the following:
    A. Assist the Department in developing, implementing, and regularly updating a statewide environmental justice plan (the "Plan").
    B. Identify and make recommendations to address discriminatory public health or environmental effects of state laws, regulations, policies, and activities on Michigan residents, including an examination of disproportionate impacts.
    C. Develop policies and procedures for use by state departments and agencies, including collaborative problem-solving, to assist in assuring that environmental justice principles are incorporated into departmental and agency decision-making and practices.
    D. Recommend mechanisms for members of the public, communities, tribal governments, and groups, including disproportionately-burdened communities, to assert adverse or disproportionate social, economic, or environmental impact upon a community and request responsive state action.
    E. Make recommendations to ensure consistency with federal environmental justice programs and recommend specific mechanisms for monitoring and measuring the effects of implementing the Plan.
    F. Identify state departments and agencies that could benefit from the development of a departmental or agency environmental justice plan.
    G. Assist in the development of departmental or agency environmental justice plans and review the plans for consistency with the state environmental justice plan.
    H. Recommend measures to integrate and coordinate the actions of state departments to further the promotion of environmental justice in this state.
    I. Recommend environmental justice performance goals and measures for the Department and other state departments and agencies with departmental or agency environmental justice plans.
    J. Review the progress of the Department and other departments and agencies with environmental justice plans in complying with the plan and promoting environmental justice.
    K. Interact with tribal governments regarding environmental justice issues.
    L. Work to achieve Michigan's goal of becoming a national leader in achieving environmental justice.
    M. Make recommendations to improve environmental justice training for state and local officials and employees.
    N. Review best practices to enhance community environmental quality monitoring.
    O. Recommend changes in Michigan law.
    P. Perform other advisory duties as requested by the director of the Department or the governor.
5. The following provisions apply to the operations of the Response Team:
    A. The Department shall assist the Response Team in the performance of its duties and provide personnel to staff the Response Team, subject to available funding. The budgeting, procurement, and related management functions of the Response Team will be performed under the direction and supervision of the director of the Department.

B. The Response Team shall adopt procedures, consistent with this order and applicable law, governing its organization and operations. The Response Team should actively solicit public involvement in its activities.
C. A majority of the members of the Response Team serving constitutes a quorum for the transaction of the business of the Response Team. The Response Team must act by a majority vote of its serving members.
D. The Response Team shall meet at the call of its chairperson and as otherwise provided in procedures adopted by the Response Team.
E. The Response Team may establish advisory workgroups composed of individuals or entities participating in Response Team activities or other members of the public as deemed necessary by the Response Team to assist the Response Team in performing its duties and responsibilities. The Response Team may adopt, reject, or modify any recommendations proposed by an advisory workgroup.
F. The Response Team may, as appropriate, make inquiries, studies, investigations, hold hearings, and receive comments from the public. The Response Team also may consult with outside experts in order to perform its duties, including experts in the private sector, organized labor, government agencies, and at institutions of higher education.
G. The Response Team may hire or retain contractors, sub-contractors, advisors, consultants, and agents, and may make and enter into contracts necessary or incidental to the exercise of the powers of the Response Team and the performance of its duties as the director deems advisable and necessary, consistent with this order and applicable law, rules and procedures, subject to available funding.
H. The Response Team may accept donations of labor, services, or other things of value from any public or private agency or person. Any donations shall be received and used in accordance with law.

6. All departments, committees, commissioners, or officers of this state shall give to the Response Team, or to any member or representative of the Response Team, any necessary assistance required by the Response Team, or any member or representative of the Response Team, in the performance of the duties of the Response Team so far as is compatible with their duties and consistent with this order and applicable law. Free access also must be given to any books, records, or documents in their custody relating to matters within the scope of inquiry, study, or review of the Response Team, consistent with applicable law.
7. Executive Directive 2018-3 is rescinded in its entirety. The Environmental Justice Interagency Work Group described in Executive Directive 2018-3 is abolished. The position of Environmental Justice Ombudsman described in Executive Directive 2018-3 is abolished.

c. Office of the Clean Water Public Advocate
1. The Office of the Clean Water Public Advocate is created as a Type I agency within the Department.
2. The director of the Department shall appoint the Clean Water Public Advocate, who will be the head of the Office of the Clean Water Public Advocate.
3. The Clean Water Public Advocate shall do all the following:
A. Accept and investigate complaints and concerns related to drinking water quality within the State of Michigan.
B. Establish complaint, investigatory, informational, educational, and referral procedures and programs relating to drinking water quality, coordinating with existing programs where feasible.
C. Establish a statewide uniform reporting system to collect and analyze complaints about drinking water quality for the purpose of publicizing improvements and significant problems, coordinating with existing programs where feasible.
D. Assist the Department, or other departments or agencies, in the resolution of complaints where necessary or appropriate.
E. Assist in the development, and monitor the implementation, of state and federal laws, rules, and regulations relating to drinking water quality.
F. Recommend changes in state and federal law, rules, regulations, policies, guidelines, practices, and procedures relating to drinking water quality.
G. Cooperate with persons and public or private agencies and undertake or participate in conferences, inquiries, meetings, or studies that may lead to improvements in drinking water quality in this state.
H. Publicize the activities of the Office of the Clean Water Public Advocate, as appropriate.

I. Identify issues related to drinking water quality that transcend state departmental jurisdictions and work with the director of the Department, the director of the Department of Health and Human Services, and other state departments and agencies to seek solutions.
J. Report matters relating to drinking water quality to the governor and the director of the Department, as the Clean Water Public Advocate deems necessary.

4. All departments, committees, commissioners, or officers of this state shall give to the Office of the Clean Water Public Advocate, or to any member or representative of the Office of the Clean Water Public Advocate, any necessary assistance required by the Office of the Clean Water Public Advocate, or any member or representative of the Office of the Clean Water Public Advocate, in the performance of the duties of the Office of the Clean Water Public Advocate so far as is compatible with their duties and consistent with this order and applicable law. Free access also must be given to any books, records, or documents in their custody relating to matters within the scope of inquiry, study, or review of the Office of the Clean Water Public Advocate, consistent with applicable law.

d. Office of Climate and Energy
   1. The Office of Climate and Energy is established within the Department.
   2. The Office of Climate and Energy shall exercise the authorities, powers, duties, functions, and responsibilities transferred from the Michigan Agency for Energy to the Department under section 5(b) of this order.
   3. The Office of Climate and Energy also shall do all the following:
      A. Coordinate activities of state departments and agencies on climate response.
      B. Provide insight and recommendations to state government and local units of government on how to mitigate climate impact and adapt to climate changes.
      C. Provide guidance and assistance for the reduction of greenhouse gas emissions, renewable energy and energy efficiency, and climate adaptation and resiliency.
      D. Perform other functions and responsibilities as requested by the director of the Department.

e. Office of the Great Lakes
   1. A new Office of the Great Lakes is established within the Department.
   The Office of the Great Lakes shall exercise the authorities, powers, duties, functions, and responsibilities transferred from the former Office of the Great Lakes to the Department under section 6(a) of this order, as allocated or reallocated by the director of the Department to promote the economic and efficient administration and operation of the Department.

f. Office of the Environmental Justice Public Advocate
   1. The Office of the Environmental Justice Public Advocate is created as a Type I agency within the Department.
   2. The director of the Department shall appoint the Environmental Justice Public Advocate, who is the head of the Office of the Environmental Justice Public Advocate.
   3. The Environmental Justice Public Advocate shall do all the following:
      A. Accept and investigate complaints and concerns related to environmental justice within the state of Michigan.
      B. Establish complaint, investigatory, informational, educational, and referral procedures and programs relating to environmental justice, coordinating with existing investigatory programs where feasible.
      C. Establish a statewide uniform reporting system to collect and analyze complaints about environmental justice for the purpose of publicizing improvements and significant problems, coordinating with existing programs where feasible.
      D. Assist the Department, or other departments or agencies, in the resolution of complaints where necessary or appropriate.
      E. Assist in the development, and monitor the implementation of, state and federal laws, rules, and regulations relating to environmental justice.
      F. Recommend changes in state and federal law, rules, regulations, policies, guidelines, practices, and procedures relating to environmental justice.
      G. Cooperate with persons and public or private agencies and undertake or participate in conferences, inquiries, meetings, or studies that may lead to improvements in environmental justice in this state.
      H. Publicize the activities of the Office of the Environmental Justice Public Advocate.
      I. Identify issues related to environmental justice that transcend state departmental jurisdictions and work with the director of the Department and the Interagency

Environmental Justice Response Team created under section 1(b) of this order to seek solutions.

J. Report matters of environmental injustice involving state departments and agencies to the governor and the director of the Department, as the Environmental Justice Public Advocate deems necessary.

K. Attend and participate in meetings of the Interagency Environmental Justice Response Team created under section 1(b) of this order.

4. All departments, committees, commissioners, or officers of this state shall give to the Office of the Environmental Justice Public Advocate, or to any member or representative of the Office of the Environmental Justice Public Advocate, any necessary assistance required by the Office of the Environmental Justice Public Advocate, or any member or representative of the Office of the Environmental Justice Public Advocate, in the performance of the duties of the Office of the Environmental Justice Public Advocate so far as is compatible with their duties and consistent with this order and applicable law. Free access also must be given to any books, records, or documents in their custody relating to matters within the scope of inquiry, study, or review of the Office of the Environmental Justice Public Advocate, consistent with applicable law.

g. Science Review Boards

1. The director of the Department may create one or more science review boards to advise the Department and the governor on scientific issues relating to the authorities, powers, duties, functions, and responsibilities of the Department, including those relating to protecting Michigan's environment, the Great Lakes, and the safety of drinking water.
2. A board created under section 1(g)(1) of this order will consist of 7 members appointed by the director of the Department, each with scientific expertise in one or more of the following areas: biology, chemistry, ecology, climatology, hydrology, hydrogeology, toxicology, human medicine, engineering, geology, physics, risk assessment, or other related disciplines.
3. A board created under section 1(g)(1) of this order shall assess the scientific issue before the board and determine whether the board has sufficient expertise to fully review the issue. If the board determines that additional expertise would assist the board in its review, the board may request assistance from one or more persons with knowledge and expertise related to the subject of its scientific inquiry.
4. The director of the Department shall designate a member of a board created under section 1(g)(1) of this order to serve as the chairperson of that board at the pleasure of the director. The board may select a member of the board to serve as its vice-chairperson.
5. A board created under section 1(g)(1) of this order will be staffed and assisted by personnel from the Department, subject to available funding. The budgeting, procurement, and related management functions of the board will be performed under the direction and supervision of the director of the Department.
6. A board created under section 1(g)(1) of this order shall adopt procedures, consistent with this order and applicable law, governing its organization and operations.
7. A majority of the members serving on a board created under section 1(g)(1) of this order constitutes a quorum for the transaction of the board's business. The board shall act by a majority vote of its serving members.
8. A board created under section 1(g)(1) of this order will meet at the call of its chairperson and as may be provided in procedures adopted by the board.
9. A board created under section 1(g)(1) of this order may make inquiries, studies, investigations, hold hearings, and receive comments from the public relating to its functions and responsibilities under this order. A board also may consult with outside experts in connection with the performance of its duties, including experts in the private sector, at government agencies, and at institutions of higher education.
10. Members of a board created under section 1(g)(1) of this order serve without compensation, but may receive reimbursement for necessary travel and expenses consistent with applicable law, rules, and procedures, and subject to available funding.
11. A board created under section 1(g)(1) of this order may hire or retain contractors, sub-contractors, advisors, consultants, and agents, and may make and enter into contracts necessary or incidental to the exercise of the powers of the board and the performance of its duties as the director of the Department deems advisable and necessary, consistent with applicable law, rules, and procedures, and subject to available funding.
12. A board created under section 1(g)(1) of this order may accept donations of labor, services, or other things of value from any public or private agency or person. Any donations shall be received and used in accordance with law.

13. All departments, committees, commissioners, or officers of this state shall give to a board created under section 1(g)(1) of this order, or to any member or representative of a board created under section 1(g)(1) of this order, any necessary assistance required by the board created under section 1(g)(1) of this order, or any member or representative of a board created under section 1(g)(1) of this order, in the performance of a board created under section 1(g)(1) of this order so far as is compatible with their duties and consistent with this order and applicable law. Free access also must be given to any books, records, or documents in their custody relating to matters within the scope of inquiry, study, or review of a board created under section 1(g)(1) of this order, consistent with applicable law.

h. State Plumbing Board
    1. The position on the State Plumbing Board designated for the director of the Department of Environmental Quality or his or her authorized representative is transferred to the director of the Department or the director's designated representative from within the Department, as a voting, ex officio member of the State Plumbing Board.
    2. The position on the State Plumbing Board designated for a member or employee of the Department of Environmental Quality selected by the director of the Department of Environmental Quality is transferred to an individual with expertise in hydrology or clean drinking water appointed by the director of the Department and serving at the pleasure of the director of the Department. The individual appointed by the director of the Department under this section 1(h)(2) may be an employee of the Department.

2. **Administering the Department**
    a. The director of the Department is the head of the Department.
    b. The director of the Department shall establish the internal organization of the Department and allocate and reallocate duties and functions to promote the economic and efficient administration and operation of the Department.
    c. The director of the Department may promulgate rules and regulations as necessary to carry out functions vested in the director under this order or other law in accordance with the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.201 to 24.328.
    d. The director of the Department may perform a duty or exercise a power conferred by law or executive order upon the director of the Department at the time and to the extent the duty or power is vested in the director of the Department by law or order.
    e. The director of the Department may appoint one or more deputy directors and other assistants and employees as necessary to implement and effectuate the powers, duties, and functions vested in the Department under this order or other law.
    f. Deputies may perform the duties and exercise the duties as prescribed by the director of the Department. The director of the Department may delegate within the Department a duty or power conferred on the director of the Department by this order or other law, and the person to whom the duty or power is delegated may perform the duty or exercise the power at the time and to the extent that the duty or power is delegated by the director of the Department.
    g. Decisions made by the director of the Department, or by persons to whom the director has lawfully delegated decision-making authority, are subject to judicial review as provided by law and in accordance with applicable court rules.
    h. The director of the Department may utilize administrative law judges and hearing officers employed by the Michigan Office of Administrative Hearings and Rules to conduct contested case hearings and to issue proposals for decisions as provided by law or rule.
    i. The director of the Department is the chief advisor to the governor regarding the development of energy policies and programs.
    j. The director of the Department is the chief advisor to the governor regarding the development of policies and programs relating to freshwater and the Great Lakes.
    k. The director of the Department is designated as the governor's designee as a commissioner on the Great Lakes Commission under section 32202 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.32202.
    l. The director of the Department may establish advisory workgroups, advisory councils, or other ad hoc committees to provide citizen and other public input and to advise the director or the Department on the exercise of the authorities, powers, duties, functions, and responsibilities vested in the Department.

3. **Establishing the Michigan Office of Administrative Hearings and Rules**
    a. The Michigan Office of Administrative Hearings and Rules ("Office") is created as a Type I agency within the Department of Licensing and Regulatory Affairs. The director of the Department of Licensing and Regulatory Affairs shall appoint an executive director of the Office to head the Office. The executive

director of the Office must administer the personnel functions of the Office and be the appointing authority for employees of the Office.

b. As a Type I agency, the Office shall exercise its prescribed powers, duties, responsibilities, functions, and any rule-making, licensing, and registration, including the prescription of any rules, rates, and regulations and standards, and adjudication, including those transferred to the Office under this order, independently of the director of the Department of Licensing and Regulatory Affairs. The budgeting, procurement, and related management functions of the Office shall be performed under the direction and supervision of the director of the Department of Licensing and Regulatory Affairs.

c. After the effective date of this order, a reference to the Michigan Administrative Hearing System or the Michigan Office of Regulatory Reinvention will be deemed to be a reference to the Michigan Office of Administrative Hearings and Rules created under section 3 of this order. The position of executive director of the Michigan Administrative Hearing System is abolished.

d. The executive director of the Office is the chief regulatory officer of the State of Michigan.

4. **Transfers from the Department of Environmental Quality**
   a. Environmental Permit Review Commission
      1. The Environmental Permit Review Commission (the "Commission") established within the Department under section 1313 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.1313, including any environmental permit panels of the Commission provided for by section 1315 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.1315, is transferred by Type III transfer to the Department.
      2. The Commission is abolished.
5. **Transfers from the Department of Licensing and Regulatory Affairs**
   a. Michigan Public Service Commission
      1. The Michigan Public Service Commission is transferred by Type I transfer from the Michigan Agency for Energy to the Department of Licensing and Regulatory Affairs.
   b. Michigan Agency for Energy
      1. The Energy Security section of the Michigan Agency for Energy is transferred to the Michigan Public Service Commission.
      2. The Michigan Agency for Energy, excluding any authorities, powers, duties, functions, and responsibilities transferred under section 5(a) or 5(b)(1), is transferred by Type III transfer from the Department of Licensing and Regulatory Affairs to the Department. The director of the Department may allocate authority, power, duties, functions and responsibilities transferred under this section 5(b)(2) within the new Office of Climate and Energy created by section 1(d) of this order.
      3. The Michigan Agency for Energy is abolished.
      4. The position of executive director of the Michigan Agency for Energy is abolished.
   c. Michigan Administrative Hearing System
      1. The authorities, powers, duties, functions, and responsibilities of the Michigan Administrative Hearing System created by Executive Order 2011-4, MCL 445.2030, are transferred to the Michigan Office of Administrative Hearing and Rules created by section 3 of this order.
      2. The Michigan Administrative Hearing System is abolished.
6. **Transfers from the Department of Natural Resources**
   a. Office of the Great Lakes
      1. The Office of the Great Lakes is transferred by Type III transfer from the Department of Natural Resources to the Department.
      2. The Office of the Great Lakes is abolished.
      3. The position of director of the Office of the Great Lakes is abolished.
7. **Transfers from the Department of Technology, Management, and Budget**
   a. Office of Performance and Transformation
      1. The Office of Good Government created within the Office of Performance and Transformation under section III of Executive Order 2016-4, MCL 18.446, is transferred by Type III transfer to the Department of Technology, Management, and Budget and is abolished.
      2. The Office of Reinventing Performance in Michigan, also known as the Office of Continuous Improvement, created within the Office of Performance and Transformation under section IV of Executive Order 2016-4, MCL 18.446, is transferred by Type III transfer to the Department of Technology, Management, and Budget and is abolished.
      3. Except as otherwise provided in section 7(a)(4), the authorities, powers, duties, functions, and responsibilities of the Office of Interagency Initiatives within the Office of Performance and

Transformation are transferred to the Executive Office of the Governor and the Office of Interagency Initiatives is abolished.

4. All the authorities, powers, duties, functions, and responsibilities vested in the Office of Performance and Transformation under section V of Executive Order 2016-4, MCL 18.446, are transferred by Type III transfer to the Department of Technology, Management and Budget.
5. The Environmental Rules Review Committee created within the Office of Performance and Transformation under section 65 of the Administrative Procedures Act of 1969, 1969 PA 306, as amended, MCL 24.265, is transferred by Type III transfer to the Department and is abolished. The authorities, powers, duties, functions, and responsibilities of the Office of Performance and Transformation under section 66 of the Administrative Procedures Act of 1969, 1969 PA 306, MCL 24.266, are transferred by Type III transfer to the Department.
6. The authorities, powers, duties, functions, and responsibilities of the Office of Performance and Transformation transferred from the Office of Regulatory Reinvention under section II of Executive Order 2016-4, MCL 18.446, and the authorities, powers, duties, functions, and responsibilities of the Office of Performance and Transformation under the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 to 24.328, not transferred to the Department under this order are transferred to the Michigan Office of Administrative Hearings and Rules created by section 3 of this order. The Office of Regulatory Reinvention is abolished.
7. Any remaining authorities, powers, duties, functions and responsibilities of the Office of Performance and Transformation not otherwise transferred under this section 7(a), including the Office of Internal Audit Services, which remains intact, are transferred to the State Budget Office and the Office of Performance and Transformation is abolished.

b. Environmental Science Advisory Board
    1. The Environmental Science Advisory Board is transferred by Type III transfer from the Department of Technology, Management, and Budget to the Department.
    2. The Environmental Science Advisory Board is abolished.

8. **Definitions**

As used in this order:

a. “Civil Service Commission” means the commission required under section 5 of article 11 of the Michigan Constitution of 1963 and includes the State Personnel Director.
b. “Department of Environment, Great Lakes, and Energy” or “Department” means the principal department of state government originally created as the Department of Environmental Quality under section IV of Executive Order 2011-1, MCL 324.99921, and renamed by this order.
c. “Department of Environmental Quality” means the principal department of state government created under section IV of Executive Order 2011-1, MCL 324.99921.
d. “Department of Health and Human Services” means the principal department of state government created by Executive Order 2015-4, MCL 400.227.
e. “Department of Licensing and Regulatory Affairs” means the principal department of state government originally created as the Department of Commerce under section 225 of the Executive Organization Act of 1965, 1965 PA 380, as amended, MCL 16.325, renamed as the Department of Consumer and Industry Services by Executive Order 1996-2, MCL 445.2001, renamed the Department of Labor and Economic Growth by Executive Order 2003-18, MCL 445.2011, renamed the Department of Energy, Labor, and Economic Growth by Executive Order 2008-20, MCL 445.2025, and renamed the Department of Licensing and Regulatory Affairs by Executive Order 2011-4, MCL 445.2030.
f. “Department of Natural Resources” means the principal department of state government created under section III of Executive Order 2011-1, MCL 324.99921.
g. “Department of Technology, Management, and Budget” means the principal department of state government originally created as the Department of Management and Budget by section 121 of The Management and Budget Act, 1984 PA 481, as amended, MCL 18.1211, and renamed the Department of Technology, Management, and Budget by Executive Order 2009-55, MCL 18.441.
h. “Environmental Science Advisory Board” means the board created within the Department of Technology, Management, and Budget under section 2603 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 2603.
i. “Michigan Administrative Hearing System” means the agency created within the Department of Licensing and Regulatory Affairs by section IX of Executive Order 2011-4, MCL 445.2030.
j. “Michigan Agency for Energy” means the agency created within the Department of Licensing and Regulatory Affairs by Executive Order 2015-10, MCL 460.21, as modified by Executive Order 2018-1, MCL 460.22.
k. “Michigan Office of Administrative Hearings and Rules” means the office created within the Department of Licensing and Regulatory Affairs under section 3 of this order.

l. “Michigan Public Service Commission” means the commission created under the Michigan Public Service Commission Act of 1939, as amended, 1939 PA 3, MCL 460.1.
m. “Office of the Great Lakes,” as used in section 6(a) of this order, means the office created under section 32903 of the Natural Resources and Environmental Protection Act, as amended, 1994 PA 451, MCL 324.32903, transferred to the former Department of Environmental Quality by Executive Order 1995-18, MCL 324.99903, transferred to the former Department of Natural Resources and Environment by Executive Order 2009-45, MCL 324.99919, transferred to the Department of Environmental Quality by Executive Order 2011-1, MCL 324.99921, and transferred to the Department of Natural Resources by Executive Order 2017-9, MCL 324.99922, including all of the authorities, powers, duties, functions, responsibilities transferred with the Office of the Great Lakes under Executive Order 2017-9, MCL 324.99922.
n. “Office of Performance and Transformation” means the office created within the State Budget Office by Executive Order 2016-4, MCL 18.446.
o. “State Budget Office” means the office within the Department of Technology, Management, and Budget created originally as the Office of the State Budget Director by section 321 of The Management and Budget Act, 1984 PA 431, as amended, MCL 18.1321, and renamed as the State Budget Office by Executive Order 2009-55, MCL 18.441.
p. “State Budget Director” means the individual appointed by the governor under section 321 of The Management and Budget Act, 1984 PA 431, as amended, MCL 18.1321.
q. “State Personnel Director” means the administrative and principal executive officer of the Civil Service Commission provided for under section 5 of article 11 of the Michigan Constitution of 1963 and section 204 of the Executive Organization Act of 1965, 1965 PA 380, as amended, MCL 16.304.
r. “State Plumbing Board” means the board provided for by section 1105 of the Skilled Trade Regulation Act, 2016 PA 407, MCL 339.6105.
s. “Type I agency” means an agency established consistent with Section 3(a) of the Executive Organization Act of 1965, 1965 PA 380, as amended, MCL 16.103.
t. “Type II transfer” means that phrase as defined under Section 3 of the Executive Organization Act of 1965, 1965 PA 380, as amended, MCL 16.103.
u. “Type III transfer” means that phrase as defined under Section 3 of the Executive Organization Act of 1965, 1965 PA 380, as amended, MCL 16.103.

9. **Implementation**
a. The director of any department receiving a transfer under this order shall provide executive direction and supervision for the implementation of all transfers to that department under this order.
b. The functions and responsibilities transferred to a department under this order will be administered under the direction and supervision of the director of the department receiving a transfer under this order.
c. Any records, personnel, property, and unexpended balances of appropriations, allocations, and other funds used, held, employed, available, or to be made available to any entity for the authority, activities, powers, duties, functions, and responsibilities transferred to a department receiving a transfer under this order are transferred to that same department receiving a transfer under this order.
d. The director of any department receiving a transfer under this order shall administer the functions and responsibilities transferred to the department receiving a transfer under this order in such ways as to promote efficient administration and must make internal organizational changes as administratively necessary to complete the realignment of responsibilities under this order.
e. State departments, agencies, and state officers shall fully and actively cooperate with and assist the director of a department with implementation responsibilities under this order. The director of a department with implementation responsibilities under this order may request the assistance of other state departments, agencies, and officers with respect to personnel, budgeting, procurement, telecommunications, information systems, legal services, and other management-related functions, and the departments, agencies, and officers shall provide that assistance.
f. The State Budget Director shall determine and authorize the most efficient manner possible for handling financial transactions and records in this state’s financial management system necessary to implement this order.
g. A rule, regulation, order, contract, or agreements relating to a function or responsibility transferred under this order lawfully adopted before the effective date of this order will continue to be effective until revised, amended, repealed, or rescinded.
h. This order does not abate any criminal action commenced by this state before the effective date of this order.
i. This order is not intended to abate a proceeding commenced by, against, or before an entity affected by this order. A proceeding may be maintained by, against, or before the successor of any entity affected under this order.

j. If any portion of this order is found to be unenforceable, the unenforceable provision should be disregarded and the rest of the order should remain in effect as issued.
k. Consistent with section 2 of article 5 of the Michigan Constitution of 1963, this order is effective April 7, 2019 at 12:01 a.m.

Given under my hand and the Great Seal of the State of Michigan.

GRETCHEN WHITMER

GOVERNOR

Date: February 4, 2019

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Public Comment Period for Revisions to the Michigan State Implementation Plan

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) opened a public comment period for revisions to the Michigan State Implementation Plan (SIP) on September 7th, 2020 which will remain open until 9:00 p.m. EST on October 14, 2020. The purpose of the public comment period and virtual public hearing, if requested, are to allow all interested parties an opportunity to comment on the proposed SIP revisions.

Proposed SIP Revisions:

- Emission Inventories for the 2015 ozone National Ambient Air Quality Standard (NAAQS) nonattainment areas
- Updates to the statewide Emission Statement Program.

In the proposed SIP revisions, EGLE is demonstrating compliance with the requirements for an Emission Statement Program and sufficient emissions inventories to comply with the Clean Air Act requirements.

The public is encouraged to review the proposed SIP revisions and present comments through the end of the public comment period. All statements received during the public comment period will be considered by the AQD prior to submitting the SIP revision to the United States Environmental Protection Agency. Once all comments are considered, EGLE may submit the SIP revision as written, submit it with minor changes, or make major changes that require an additional public comment period.

Submitting Comments:
There are several ways to submit comments on the proposed SIP revisions.

Email your comment to WolfE1@michigan.gov. Please include “Comments on SIP Revisions” in the subject line.

Mail your comment to Erica Wolf, Michigan Department of the Environment, Great Lakes, and Energy (EGLE), Air Quality Division, SIP Unit, P.O. Box 30260, Lansing, Michigan 48909-7760.

At a public hearing, if held.

If requested in writing by October 6th, 2020, a virtual public hearing will be held on October 14th, 2020 at 6:00 p.m. with information on how to attend posted on the Air

Quality Division’s (AQD) webpage at Michigan.gov/Air. If requested, the virtual public hearing will be preceded by an informational session.

Individuals without internet access and who are interested in receiving printed copies of the documents related to the proposed SIP revision or who need accommodations or other assistance to effectively participate in the hearing should contact Lorraine Hickman at 517-582-3494 or HickmanL@michigan.gov.

This public notice is given in accordance with federal regulations for the SIP.

NOTE: The Department of Environment, Great Lakes, and Energy (EGLE) has closed its offices and other facilities to visits from the public to help mitigate the spread of COVID-19. Necessary public meetings/hearings will be postponed to the extent possible or held virtually. When held virtually, every attempt will be made to accommodate and include individuals from diverse groups, including, but not limited to translation for those with limited English proficiency and provide call in numbers for those without internet access. Other options will also be considered on a case-by-case basis.

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making. Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.