

Michigan Air Pollution Control Rules

Applicable Rule: 290

Rule 290 of the Michigan Air Pollution Control Rules exempts an emission unit with limited emissions from the requirement to obtain a Permit to Install under Rule 201. Review the exclusion to the exemption in [Rule 278](#). Visit [Michigan.gov/air](https://www.michigan.gov/air), “[State Air Laws and Rules](#).”

Controlled or Un-controlled

If an emission unit is equipped with a control device (i.e., equipment that captures and/or destroys air contaminants) and the control device is not vital to production of the normal product of the process or to its normal operation, then one of the two options below must be chosen and remain the same for every contaminant:

1. Record all uncontrolled emissions of air contaminants (i.e., all air contaminants entering the control device).
2. Record all controlled emissions of air contaminants (all air contaminants leaving the control device).

If the emission unit is not equipped with a control device or the control device is vital to production of the normal product of the process or to its normal operation, then the quantity of each emission of air contaminant identified should be recorded as uncontrolled emissions.

Air cleaning devices used under Rule 290 must meet certain minimum requirements:

- VOC control devices shall be installed, maintained, and operated in accordance with the manufacturer’s specifications.
- Particulate matter control devices shall be installed, maintained, and operated in accordance with the manufacturer’s specifications or the owner or operator shall develop a plan that provides for the maintenance and operation of the equipment in the manner consistent with good air pollution control practices for minimizing emissions AND it shall be equipped to monitor appropriate indicators of performance.

ITSL and IRSL

Initial Threshold Screening Levels (ITSL) and Initial Risk Screening Levels (IRSL) can be found at Michigan.gov/air under Permits. Click on "[Air Toxics Screening Levels](#)." Record the screening level for each chemical at the time of Rule 290 determination.

- Except for noncarcinogenic volatile organic compounds and noncarcinogenic materials listed in Rule 122(f), emission of any toxic air contaminants with an ITSL or IRSL <0.04 $\mu\text{g}/\text{m}^3$ is prohibited under Rule 290.
- For all emission units exempt pursuant to Rule 290 that emit particulate emissions that have an ITSL equal to or less than 2.0 $\mu\text{g}/\text{m}^3$ and greater than or equal 0.04 $\mu\text{g}/\text{m}^3$, the particulate emissions must be included in Step 9 (see Option 1 – Rule 290 Step-by-Step).
- At this time, the materials listed in Rule 122(f) contain at least three carcinogens: perchloroethylene, 1,2-butylene oxide, and methylene chloride. Be careful to properly evaluate them in your Rule 290 analysis.

Records

Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions must be maintained in sufficient detail to demonstrate that the emissions meet the emissions limits outlined in this rule. Records must be available upon request

- Minor and Opt-out sources must keep records on file for the most recent two-year period.
- Renewable Operating Permit or Title V subject sources must keep records for the most recent five-year period

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Option 1 - Rule 290 Step-by-Step



Rule 290 Sample Spreadsheet (Use with Step-by-Step Method or alone)

Date (month/year): _____

Pollutant Category	Material/Chemical Name	CAS No.	Monthly emissions	Sum of monthly emissions	Limit
Particulate (No IRSL, ITSL > 2 ug/m ³ controlled 0.01/1000 lbs gas, < 30,000 cfm, < 5% opacity) (Option 1 - Step 2)	Material/Chemical	CAS No.	N/A	N/A	N/A
CO ₂ (equivalent) (Option 1 - Step 4)	Material/Chemical	CAS No.	Monthly Emissions	Sum of Monthly Emissions	≤ 6250 tons/month

Must choose if the entire emission unit is controlled or uncontrolled (Option 1 - Step 3)

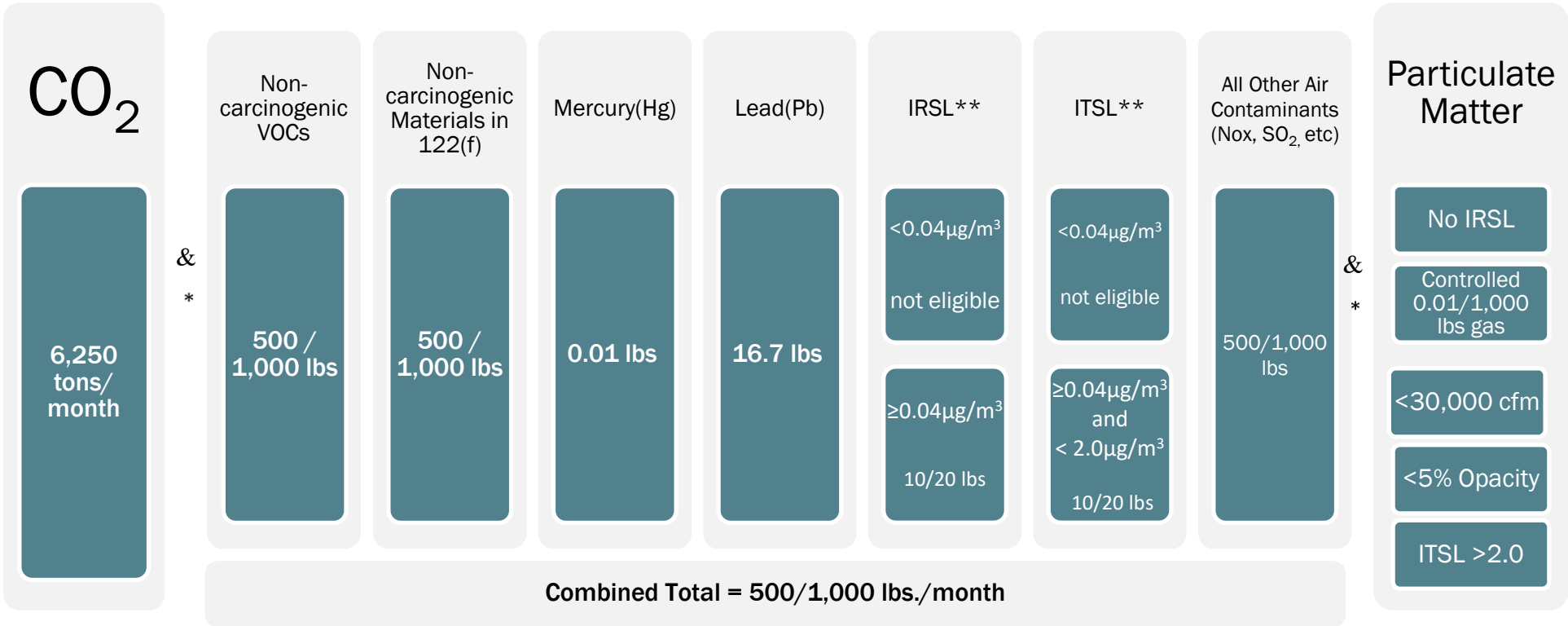
Pollutant Category	Material/Chemical Name	CAS No.	Monthly emissions	Sum of monthly emissions	Limit
Noncarcinogenic VOC's and Noncarcinogenic materials in R122(f) (Option 1 - Step 5)	Material/Chemical	CAS No.	Monthly Emissions	Sum of Monthly Emissions	≤ 500 lbs/month (controlled) or ≤ 1000 lbs/month (uncontrolled)
Mercury (Option 1 - Step 6)	Material/Chemical	7439-97-6	Monthly Emissions	Sum of Monthly Emissions	≤ 0.01 lbs/month
Lead (Option 1 - Step 7)	Material/Chemical	NA	Monthly Emissions	Sum of Monthly Emissions	≤ 16.7 lbs/month
*IRSL > 0.04 ug/m ³ (Option 1 - Step 9(a))	Material/Chemical	CAS No.	Monthly Emissions	Sum of Monthly Emissions	≤ 10 lbs/month if controlled or ≤ 20 lbs/month if uncontrolled
*ITSL < 2 ug/m ³ but > 0.04 ug/m ³ (Option 1 - Step 9(b))	Material/Chemical	CAS No.	Monthly Emissions	Sum of Monthly Emissions	≤ 10 lbs/month if controlled or ≤ 20 lbs/month if uncontrolled
*IRSL or ITSL < 0.04 ug/m ³ (Option 1 - Step 8)	No entry allowed	No entry allowed	0 lbs	0 lbs	0 lbs/month
Other chemicals/compounds not listed above (Option 1 - Step 10)	Material/Chemical	CAS No.	Monthly Emissions	Sum of Monthly Emissions	≤ 500 lbs/month (controlled) or ≤ 1000 lbs/month (uncontrolled)
-	-	-	-	Sum of monthly emissions except CO ₂ (Option 1 - Step 11)*	≤ 500 lbs/month (controlled) or ≤ 1000 lbs/month (uncontrolled)

*Emissions with multiple IRSL's and ITSL's must be evaluated in each applicable category, but not "double counted" towards total

Option 3 - Rule 290 Bins

Thinking of Rule 290 calculations in this manner may also help visualize how pollutants should be categorized and calculated.

- The values listed below are allowable emission limits in pounds or tons for each category under Rule 290.
- Because pollutants may have multiple screening levels, contaminants might need to be considered in multiple IRSL/ITSL bins, but only consider the emission ONCE as part of the “combined total.”
- Particulate matter meeting the appropriate criteria do not count toward the “combined total” however, any particulate that doesn’t meet that criteria needs to be accounted for in the appropriate bin.



* Noncarcinogenic VOCs and noncarcinogenic materials in Rule 122(f) do not need to be evaluated in the ITSL bins.

** If multiple screening levels, assess in all applicable bins