

Michigan Utility Air Quality Requirements

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AIR ACRONYMS

- BACT
- LAER
- MACT
- CAIR
- CAMR
- BART

**Best
Available
Control
Technology**

**Lowest
Achievable
Emission
Rate**

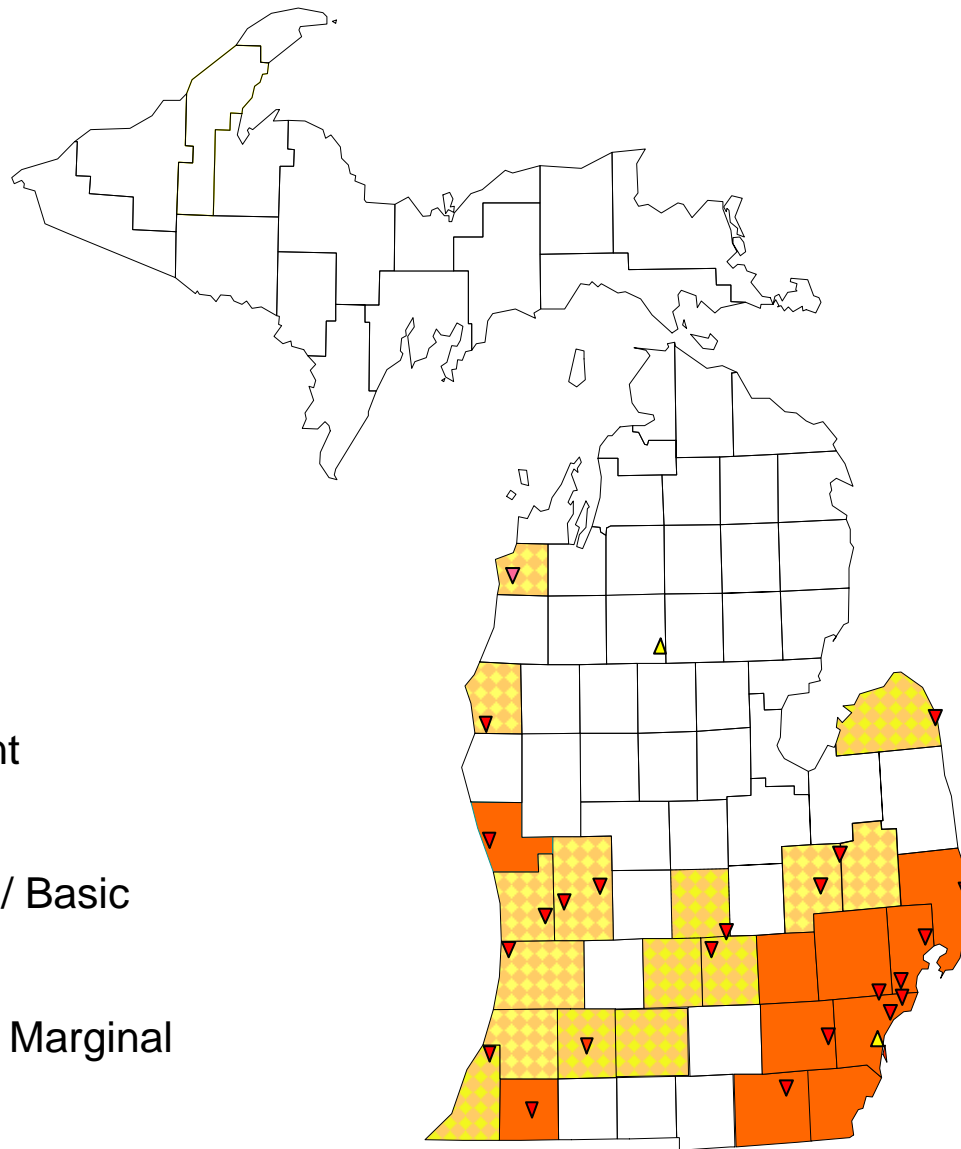
**Maximum
Achievable
Control
Technology**

**Clean
Air
Interstate
Rule**

**Clean
Air
Mercury
Rule**

**Best
Available
Retrofit
Technology**

Ozone Nonattainment Areas



SE Michigan:
St. Clair
Livingston
Monroe
Lenawee
Oakland
Washtenaw
Wayne
Macomb



Attainment






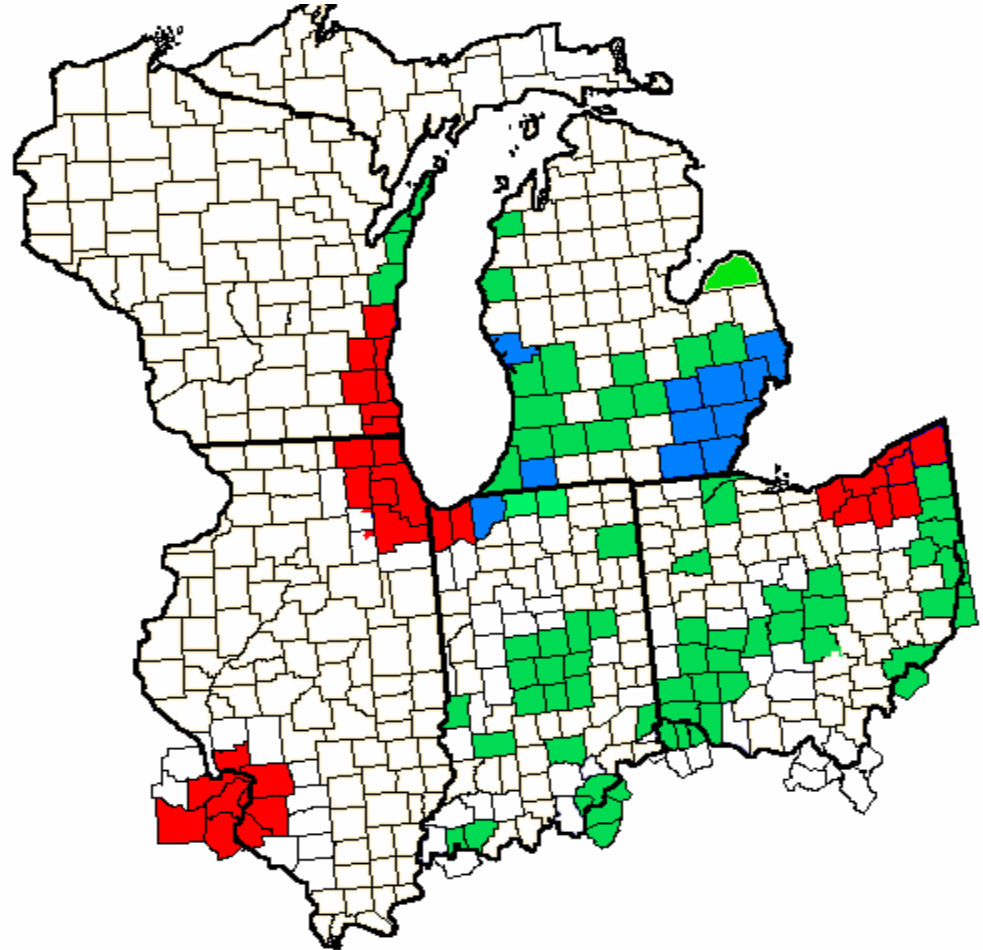
Subpart 1/ Basic



Subpart 2 Marginal

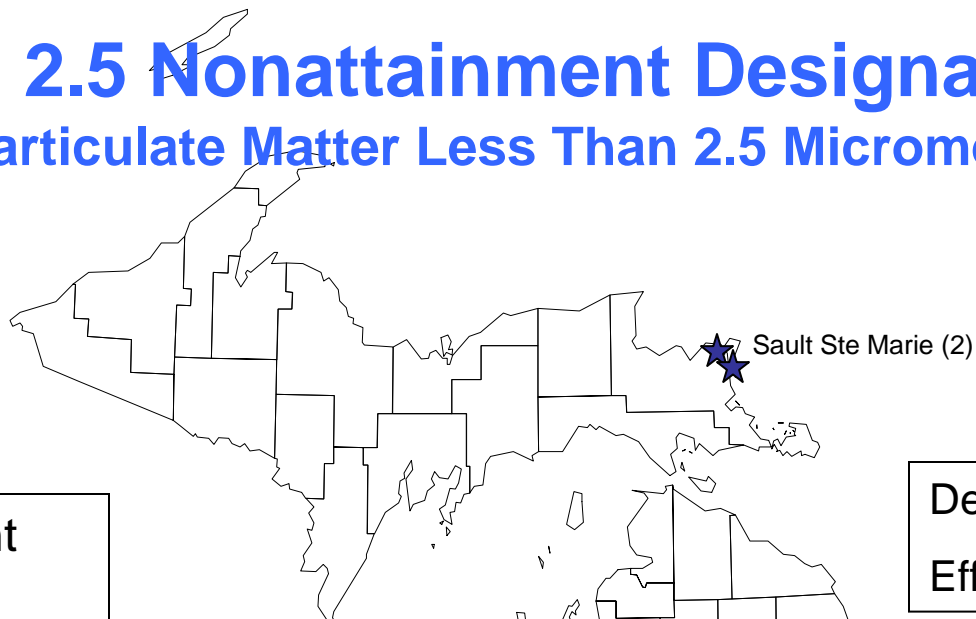
Lake Michigan Region Ozone Nonattainment Areas

-  Moderate areas.
-  Marginal areas.
-  Subpart 1 or “Basic” areas.



PM 2.5 Nonattainment Designations

Particulate Matter Less Than 2.5 Micrometers

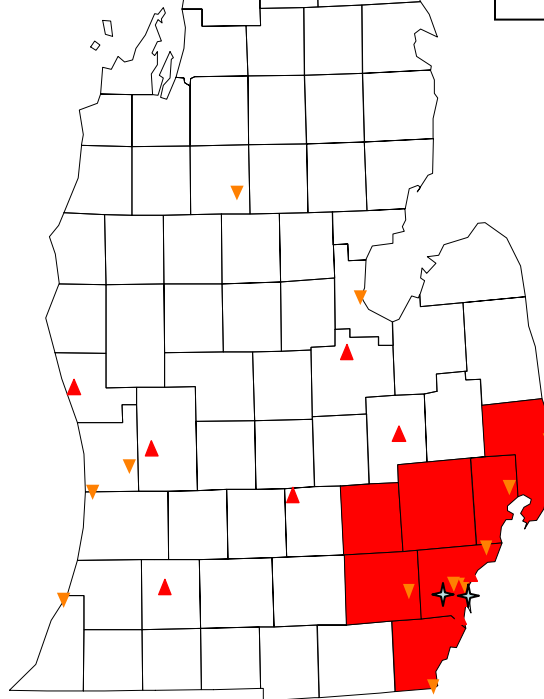


■ Nonattainment
□ Attainment

Designated 1-05-05
Effective 4-05-05

FRM Monitors

- ▲ = (12) NAMS Candidates
- ▼ = (12) SLAMS Monitors
- ★ = (2) Tribal Monitors
- ✦ = (2) Special Purpose



Nonattainment SIPs

- Ozone Marginal Areas
 - letter due June 2005 (SE MI only)
 - SIP due June 2006 (SE MI only)
 - Attainment due 2007
- Ozone Basic Areas
 - SIP due 2007
- PM 2.5
 - SIP due 2008

EPA CAIR Emission Modeled Projections for Michigan

NOx

By 2015, CAIR will help Michigan sources reduce emissions of nitrogen oxides (NOx) by **34,000 tons** or **29%**.

Michigan NOx Emissions (in thousand tons)

	Without CAIR	With CAIR
2003	119	N/A
2009	117	88
2015	120	85

SO2

By 2015, emissions from Michigan sources will increase less than they would without CAIR - **34,000 tons** or **just under 10%** as opposed to 47,000 tons.

Michigan SO2 Emissions (in thousand tons)

	Without CAIR	With CAIR
2003	351	N/A
2010	387	381
2015	398	385

CAIR **Ozone** Significant Contribution

- EPA used modeling to determine significant contribution
- Michigan contributes to ozone nonattainment in:
MD, NJ, PA, NY, DE, OH
- Significant contributors of ozone to Michigan:
IL, IN, IA, WI, KY, OH

CAIR **PM 2.5** Significant Contribution

- EPA used modeling to determine
- Michigan contributes to nonattainment in:
PA, OH, IL, KY, WV, IN, DE, NJ
- Significant contributors to Michigan:
IL, IN, OH, PA, WI

CAIR Cap and Trade

- Statewide program
- States must decide whether or not to participate in federal trading program
- Participation limits state program design options
- SO₂ banking and trading determined by Acid Rain provisions of Clean Air Act
- NO_x SIP Call program ends 9-30-2008 and is replaced by CAIR NO_x ozone season budgets
- New NO_x budgets and allocations for non-ozone portion of year
- No inter-pollutant trading

CAIR Allocations

- First set of allocations due to EPA in October 2006
- EGUs - average of 3 highest adjusted control periods' heat input for 2000-2004 with multipliers of:
 - Coal fired units = 100%
 - Oil fired units = 60%
 - Other = 40%
- Non-EGUs can be included, but allocations must be subtracted from the EGU budget

Clean Air Mercury Rule (CAMR)

- NSPS, Subpart Da
- Phase I—2010, 1.303 tpy cap for MI
 - Co-benefits from CAIR
- Phase II—2018, 0.514 tpy cap for MI

Clean Air Mercury Rule (CAMR) Cont'd

- New Sources after January 30, 2004
- Existing sources—state rule
 - SIP 18 months after rule effective date
 - Cap-and-trade based on CAMR requirements

BART

- Haze SIP due 2008
 - Installation of controls due 2013-2015
- Haze SIP reviewed 2013, 2018 and every 10 years after that

New Source Review

- State rules late July
- EPA reviewing draft SIP