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

Attainment

Subpart 1/ Basic

Subpart 2 Marginal

SE Michigan:
St. Clair
Livingston
Monroe
Lenawee
Oakland
Washtenaw
Wayne
Macomb
Moderate areas.
Marginal areas.
Subpart 1 or "Basic" areas.
PM 2.5 Nonattainment Designations
Particulate Matter Less Than 2.5 Micrometers

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

FRM Monitors

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

Sault Ste Marie (2)
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%**.

<table>
<thead>
<tr>
<th>Year</th>
<th>Without CAIR</th>
<th>With CAIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>119</td>
<td>N/A</td>
</tr>
<tr>
<td>2009</td>
<td>117</td>
<td>88</td>
</tr>
<tr>
<td>2015</td>
<td>120</td>
<td>85</td>
</tr>
</tbody>
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**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.

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<td>381</td>
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<td>385</td>
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</table>
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
• NOx SIP Call program ends 9-30-2008 and is replaced by CAIR NOx ozone season budgets
• New NOx 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