Impact of Ozone Nonattainment Designations

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Ozone Health Effects

- Lung irritant
- Reduces lung function
- Causes inflammation
## Past Ozone Standards

<table>
<thead>
<tr>
<th>Year</th>
<th>Standard</th>
<th>Michigan Attainment Status</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>75 ppb</td>
<td>Attainment</td>
<td>--</td>
</tr>
<tr>
<td>1997</td>
<td>80 ppb</td>
<td>Nonattainment Areas</td>
<td>Marginal</td>
</tr>
<tr>
<td>1979</td>
<td>120 ppb</td>
<td>Nonattainment Areas</td>
<td>Moderate</td>
</tr>
</tbody>
</table>
2015 Ozone Standard History

October 2015

- Ozone standard lowered to 70 ppb

November 2017

- EPA designates Attainment/Unclassifiable areas

October 2016

- Michigan submits designation recommendations

December 2017

- EPA letter of proposed actions

February 2018

- Michigan submits supplemental recommendations
2015 Ozone Standard History

- October 2015: Ozone standard lowered to 70 ppb
- October 2016: Michigan submits designation recommendations
- April 2020: Emissions Inventory and Emissions Statement due
- April 2021: Nonattainment New Source Review SIP due, Attainment SIP due
2015 Ozone Standard History

- Lowered to 70 ppb: October 2015
- Michigan submits designation recommendations: October 2016
- EPA designates Attainment/Unclassifiable areas: November 2017
- Michigan submits supplemental recommendations: February 2018
2015 Ozone Standard History

- October 2015: Michigan submits designation recommendations
- October 2016: EPA designates Attainment/Unclassifiable areas
- November 2017: EPA letter of proposed actions
- December 2017: February 2018: Michigan submits supplemental recommendations
2015 Ozone Standard History

Final and Proposed Designations for the 2015 Ozone Standard as of April 2018

Legend
Potential Ozone Designations
- Final Designation as Attainment/Unclassifiable
- Proposed Attainment/Unclassifiable
- Proposed Nonattainment Areas

Michigan submits supplemental recommendations

Source: State of Michigan
Prepared by Michigan Department of Environmental Quality
April 17, 2018
# Probable Nonattainment Areas

<table>
<thead>
<tr>
<th>Detroit Area</th>
<th>West Michigan Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livingston County</td>
<td>Allegan County (partial?)</td>
</tr>
<tr>
<td>Macomb County</td>
<td>Berrien County</td>
</tr>
<tr>
<td>Monroe County</td>
<td>Muskegon County (partial?)</td>
</tr>
<tr>
<td>Oakland County</td>
<td>Ottawa County ?</td>
</tr>
<tr>
<td>St. Clair County</td>
<td></td>
</tr>
<tr>
<td>Washtenaw County</td>
<td></td>
</tr>
<tr>
<td>Wayne County</td>
<td></td>
</tr>
</tbody>
</table>
Clean Air Act
Nonattainment Requirements
Nonattainment Area Classifications

- **Extreme**
  - Above 163 ppb
  - 20 years to attain

- **Severe**
  - Severe-15: 105-111 ppb
  - 15 years to attain
  - Severe-17: 111-163 ppb
  - 17 years to attain

- **Serious**
  - 93 – 105 ppb
  - 9 years to attain

- **Moderate**
  - 81 – 93 ppb
  - 6 years to attain

- **Marginal**
  - 71 – 81 ppb
  - 3 years to attain
## Marginal vs Moderate Clean Air Act Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Marginal</th>
<th>Moderate</th>
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<tbody>
<tr>
<td>NSR Offsets</td>
<td>1.1 to 1</td>
<td>1.15 to 1</td>
</tr>
<tr>
<td>Attainment Date</td>
<td>3 years</td>
<td>6 years</td>
</tr>
<tr>
<td>VOC and NOx RACT</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>15% VOC RFP Reductions</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Basic I/M Program</td>
<td>No</td>
<td>Yes</td>
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<tr>
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## Nonattainment NSR Offset Requirement

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<td>New sources or major modifications</td>
<td>1.1 to 1 ratio</td>
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<tr>
<td>Nonattainment areas</td>
<td>NOx or VOC</td>
</tr>
<tr>
<td>Designated nonattainment until redesignated attainment</td>
<td>Real reductions</td>
</tr>
<tr>
<td>Part 19 Air Pollution Control Rules</td>
<td>Same nonattainment area</td>
</tr>
<tr>
<td></td>
<td>Baseline year to permit issuance</td>
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</table>
Baseline Year

• **Act 451 5505(2):**

  “The start date for the emissions offsets eligible to be applied to a permit to install shall be the date established by federal rule or, if a date is not established by federal rule, January 1 of the year after the emissions baseline year used for the purpose of preparing the relevant state implementation plan.”

• **DC Circuit Court: baseline year must have a statutory basis**

  South Coast Air Quality Management District v. EPA, No. 15-1115 (D.C. Cir. 2018)
Attainment Strategy

Work in progress!
What Happens If We Don’t Attain in 3 Years?

- Bump up to Moderate classification

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VOC and NOx RACT

- VOC RACT
  - Based on Control Technique Guidelines
  - MI considering as part of 2015 ozone attainment plan

- NOx RACT
  - CSAPR Update
  - CAIR
Additional Moderate Requirements

• Additional 15% VOC reductions
• Basic Vehicle Inspection and Maintenance Program
• Stage II Gasoline Vapor Recovery
What Happens If We Don’t Submit a SIP in time?

• Federal Implementation Plan (FIP)
• Sanctions
  – NSR offset ratio of at least 2 to 1
  – Highway funding sanctions
# Marginal vs Moderate

## Clean Air Act Requirements

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Next Steps

• Determine Attainment Strategy
• Rulemaking, if needed
• Develop and submit Attainment Plan by April 2021
Michigan Department of Environmental Quality

800-662-9278
www.michigan.gov/deq

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Attainment Timeline

April 2018
- Final designations expected

October 2018
- Infrastructure SIP due

April 2020
- Emissions Inventory and Emissions Statement due

April 2021
- Attainment SIP due
- Nonattainment New Source Review SIP due
- Attainment date