Summary of Air Quality Conformity Determination

Amendment to FY 2020 – 2023 Transportation Improvement Program and Related Amendments to Update to Connected2045

January 2020
Purpose of Air Quality Conformity

• Projects must be analyzed to determine conformity with state air quality plans prepared for ozone standards
• All projects must be included in the analysis
• Projects not included in the analysis cannot progress/move ahead toward implementation
What Is Ozone?

- Ground level ozone is formed when hydrocarbons and nitrogen oxides from vehicle exhaust and other industrial processes chemically react with oxygen in the lower atmosphere.
- Weather influences formation – strong sunshine, low wind speed and temperature of 85° and higher.
Ozone Standards

• 2008 ozone standard
  • EPA has re-designated the eight-county St. Louis region (MO-IL) to being in attainment of this standard (maintenance area)

• 2015 ozone standard
  • EPA designated as non-attainment: St. Charles and St. Louis Counties, City of St. Louis and Boles Township in Franklin County in Missouri; and Madison and St. Clair Counties in Illinois
Non-Attainment Area
2015 Ozone Standard
St. Louis Metropolitan Area
August 2018

Legend:
- Non-Attainment Area
- County Boundary
- Interstate Highway
- River / Lake

Source: East-West Gateway Council of Governments
Air Quality Conformity Process - Ozone

• Performed for 2008 and 2015 eight-hour ozone standards

• Projects included in the Amendment to Transportation Improvement Program (TIP) must pass regional emissions analysis tests for VOC and NO\textsubscript{x} for a series of analysis years out to 2045 (horizon year for Connected2045 Update)

• Federal and state regulations require that for each analysis year, emissions of VOC and NO\textsubscript{x} resulting from the implementation TIP will be less than the motor vehicle emissions budgets established by Missouri and Illinois
## Air Quality Conformity Regional Emissions Analysis – 2008 Ozone Standard

### 2008 Ozone Standard Conformity Tests – Missouri – 5 County Maintenance Area

<table>
<thead>
<tr>
<th>Analysis Year</th>
<th>Missouri Emissions</th>
<th>Missouri 2015 Budget</th>
<th>Missouri NO\textsubscript{x}</th>
<th>Illinois Emissions</th>
<th>Illinois 2025 Budget</th>
<th>Illinois NO\textsubscript{x}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>11.62</td>
<td>32.70</td>
<td>18.32</td>
<td>5.61</td>
<td>5.68</td>
<td>8.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis Year</th>
<th>Missouri Emissions</th>
<th>Missouri 2030 Budget</th>
<th>Missouri NO\textsubscript{x}</th>
<th>Illinois Emissions</th>
<th>Illinois 2030 Budget</th>
<th>Illinois NO\textsubscript{x}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2030</td>
<td>9.00</td>
<td>22.00</td>
<td>13.19</td>
<td>4.29</td>
<td>9.05</td>
<td>5.90</td>
</tr>
<tr>
<td>2035</td>
<td>7.86</td>
<td>22.00</td>
<td>11.07</td>
<td>3.54</td>
<td>9.05</td>
<td>4.79</td>
</tr>
<tr>
<td>2045</td>
<td>6.94</td>
<td>22.00</td>
<td>10.06</td>
<td>3.11</td>
<td>9.05</td>
<td>4.47</td>
</tr>
</tbody>
</table>

All tests have been passed for all years.
Air Quality Conformity Regional Emissions Analysis – 2015 Ozone Standard

Missouri – 3 County & 1 Township Non-Attainment Area
Illinois – 2 County Non-Attainment Area
(US tons per day)

<table>
<thead>
<tr>
<th>Analysis Year</th>
<th>Missouri</th>
<th></th>
<th></th>
<th></th>
<th>Illinois</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>14.18</td>
<td>32.70</td>
<td>28.43</td>
<td>76.70</td>
<td>7.28</td>
<td>17.27</td>
<td>12.44</td>
<td>52.57</td>
</tr>
<tr>
<td>2025</td>
<td>10.67</td>
<td>32.70</td>
<td>17.953</td>
<td>76.70</td>
<td>5.44</td>
<td>5.68</td>
<td>7.91</td>
<td>15.22</td>
</tr>
<tr>
<td>2030</td>
<td>8.29</td>
<td>22.00</td>
<td>12.92</td>
<td>40.00</td>
<td>4.16</td>
<td>9.05</td>
<td>5.78</td>
<td>16.68</td>
</tr>
<tr>
<td>2035</td>
<td>7.25</td>
<td>22.00</td>
<td>10.85</td>
<td>40.00</td>
<td>3.49</td>
<td>9.05</td>
<td>4.74</td>
<td>16.68</td>
</tr>
<tr>
<td>2045</td>
<td>6.42</td>
<td>22.00</td>
<td>9.87</td>
<td>40.00</td>
<td>3.02</td>
<td>9.05</td>
<td>4.37</td>
<td>16.68</td>
</tr>
</tbody>
</table>

All tests have been passes for all years.
Air Quality Conformity for 1997 Eight-Hour Ozone Standard

• Only applies to Regionally Significant Project(s) in Jersey County IL
  • IDOT’s U.S. Route 67 Delhi Bypass project

• Conformity is shown by:
  • Inter agency and public consultation has occurred/is underway
  • IDOT has shown that project has fiscal constraint
  • Latest planning assumptions for Transportation Control Measures (TCMs) in approved State Implementation Plan (SIP) if there are TCMs in that SIP – not applicable, SIP did not contain TCMs
  • Timely implementation of any approved SIP TCMs if TCMs are in that SIP - not applicable, SIP did not contain TCMs

• Conformity with the 1997 eight-hour ozone standard has been demonstrated for this project
Now Seeking Public Comment

• Public comment period - **January 14 to February 13, 2020**
• Conformity and TIP information is available at [www.ewgateway.org](http://www.ewgateway.org)
• An open house will not be held unless requested
  • Requests must be received by Tuesday, January 28, 2020
  • If requested, open house will take place on Tuesday, February 4, 2020 from 4:30 pm – 6:30 pm at East-West Gateway
• Comments or questions must be received or postmarked by 5:00 pm **Thursday, February 13, 2020**. Send them to [TIP@ewgateway.org](mailto:TIP@ewgateway.org) or East-West Gateway Council of Governments, Attn: TIP, One Memorial Drive, Suite 1600, St. Louis, MO 63012