

**Cleveland & Akron MPOs Transportation Plan Revision**  
**October 2020**  
**Conformity Analysis Summary**  
**CUY IR-77/Miller Rd Interchange PID# 104983**

The Northeast Ohio Areawide Coordinating Agency (NOACA) is amending its Long Range Transportation Plan – AIM Forward 2040 (Plan) - and SFY 2021 – 2024 Transportation Improvement Program (TIP) to include a new capacity project, sponsored by the City of Brecksville, as follows:

- **CUY IR-77/Miller Rd Interchange** - This project involves completing the existing partial diamond interchange at I-77 and Miller Road, in Brecksville, by adding a northbound (NB) exit ramp and a southbound (SB) entrance ramp; adding an auxiliary lane between new SB entrance ramp and the IR-80 exit ramp; widening of Miller Road to provide left-turn lanes including structure widening; and adding dual westbound (WB) right turn lanes onto the IR-77 NB entrance ramp.

In accordance with federal Transportation Conformity Regulations, 40 CFR Parts 51 and 93 and September 2017, clarification from EPA regarding exempt project interpretations, the planning process has determined the project adds capacity and requires a conformity determination.

This amendment will necessitate a new Cleveland/Akron Air Quality Area conformity determination for the 2008 and 2015 8-Hour ozone standard and 2006 and 2012 fine particulate matter (PM<sub>2.5</sub>) standards for the Plan and SFY 2021-2024 TIP. Because conformity is determined on a nonattainment area, rather than a sub area basis, the new regional air quality conformity determination will affect the Akron, Cleveland/Lorain, and Erie County, Ohio MPOs. Each of the area's planning partners must approve a new conformity finding for the area based on these updates. The analysis for each standard covers the pertinent portions of the counties of Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage and Summit.

#### **Why are these tests required?**

These tests are required because all areas with a current or former designation of nonattainment must maintain conformity findings for the designated pollutants. The tests ensure that transportation planning efforts are not hindering efforts to bring the area into attainment of the standards or maintain attainment of the standards.

#### **What tests are conducted?**

The tests compare the projected emissions in the given area against the motor vehicle emissions budgets (MVEBs) identified in the State Implementation Plan (SIP) for each standard.

The first test compares projected emissions of ozone precursors (volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>)) to the MVEBs for those pollutants. The second test is a comparison of projected emissions to the MVEBs for PM<sub>2.5</sub> and NO<sub>x</sub>.

For all tests, projected emission levels beneath the respective budgets are considered to conform to the goals of the Clean Air Act.

## What are the results of the tests?

The results of the tests, as displayed in the following tables, are that the area's existing plans, programs, and projects meet the conformity requirements.

### Conformity Analysis Summary

#### 8-Hour Ozone

Attainment status: 2015 8-Hour Ozone standard – marginal nonattainment area (Federal Register / Vol. 83, No. 107 / Monday, June 4, 2018)

SIP Status: Federal Register /Vol. 82, No. 4 /Friday, January 6, 2017 – direct final rule adequacy finding for Motor Vehicle Emission Simulator (MOVES) based 2008 ozone standard MVEB

No submittals required under 2008 8-Hour ozone standard until approved budgets are received. The budgets found adequate for 2008 standard will satisfy the 2015 tests, per U.S. EPA.

8-Hour Geography: Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Summit Counties, OH

Conformity Tests: 2008 Standard 8-Hour budget tests

Analysis Years: 2021 1<sup>st</sup> Analysis year  
2030 Interim and SIP Budget year  
2040 Plan(s) horizon year

8-Hour Ozone Test	2021 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions
<b>AMATS</b>	tons / day			
VOC	9.11		4.22	3.76
NOx	12.21		5.29	4.21
<b>NOACA</b>	tons / day			
VOC	16.20		9.84	6.61
NOx	22.13		10.05	6.51
<b>Totals</b>	tons / day			
VOC	25.31	30.80	14.05	10.31
NOx	34.34	43.82	15.34	10.72

**8-Hour Ozone**

Attainment status: 2008 8-Hour Ozone standard – maintenance area (Federal Register / Vol. 82, No. 4 /Friday, January 6, 2017)

1997 8-Hour Ozone Standard - maintenance area (Federal Register Notice Final Rule Tuesday, September 15, 2009)

SIP Status: Federal Register /Vol. 78, No. 53 /Tuesday, March 19, 2013 – direct final rule adequacy finding for MOVES based 1997 Ozone standard MVEB

No submittals required under 2008 8-Hour Ozone standard until approved budgets are received. The budgets found adequate for the 1997 standard will satisfy both 1997 and 2008 tests for the time being per U.S. EPA.

8-Hour Geography: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Summit Counties, OH

Conformity Tests: 1997 Standard 8-Hour budget tests

Analysis Years: 2021 1<sup>st</sup> Analysis year

2030 Interim and SIP Budget year

2040 Plan(s) horizon year

<b>8-Hour Ozone Test</b>	2021 Emissions	2030 8-Hour Budget	2030 Emissions	2040 Emissions
<b>AMATS</b>	tons / day			
VOC	9.11		4.22	3.76
NOx	12.21		5.29	4.21
<b>NOACA</b>	tons / day			
VOC	16.20		9.84	6.61
NOx	22.13		10.05	6.51
<b>Ashtabula Co.</b>	tons / day			
VOC	1.26		0.58	0.54
NOx	1.87		0.84	0.72
<b>Totals</b>	tons / day			
VOC	26.57	30.80	14.63	10.91
NOx	36.21	43.82	16.19	11.43

**PM<sub>2.5</sub> 2006 Standard**

Attainment/ 2006 Annual PM<sub>2.5</sub> Standard – maintenance area (Federal Register / Vol. 78, No. 144 / Friday, July 26, 2013)

SIP Status: Cleveland area to attainment for 1997 and 2006 PM<sub>2.5</sub> Standards – FR notice included an adequacy finding for the MOVES based MVEBs

Geography: Cuyahoga, Lake, Lorain, Medina, Portage, Summit Counties, OH, and Ashtabula Township (Ashtabula County, OH)

Conformity Tests: Budget tests

Analysis Years: 2022 PM<sub>2.5</sub> Budget Year  
2030 Interim year  
2040 Plan(s) horizon year

<b>PM<sub>2.5</sub> Test</b>	<b>2022 Budget</b>	<b>2022 Emissions</b>	<b>2030 Emissions</b>	<b>2040 Emission</b>
<b>AMATS</b>	tons / year			
Direct PM <sub>2.5</sub>		133.88	108.62	108.04
NOx		2,736.88	1,872.3	1,664.22
<b>NOACA</b>	tons / year			
Direct PM <sub>2.5</sub>		343.76	258.89	214.73
NOx		9,977.68	5,270.05	3,422.13
<b>Ashtabula Twp.</b>	tons / year			
Direct PM <sub>2.5</sub>		2.19	1.68	1.68
NOx		50.33	35.26	32.81
<b>Area Totals</b>	tons / year			
Direct PM <sub>2.5</sub>	880.89	479.83	369.2	324.45
NOx	17,263.65	12,764.89	7,177.62	5,119.16

## PM<sub>2.5</sub> 2012 Standard

Attainment status: 2012 Annual PM<sub>2.5</sub> Standard – maintenance area (80 FR 2205 / January 14, 2015)

SIP Status: Federal Register /Vol. 83, No. 246 /Wednesday, December 26, 2018 – approval of SIP and finding in support of MOVES based 2012 standard PM<sub>2.5</sub> MVEB

Geography: Cuyahoga and Lorain County, OH

Conformity Tests: 2012 SIP Maintenance Plan tests

Analysis Years: 2022 PM<sub>2.5</sub> Budget year  
2030 Interim and PM<sub>2.5</sub> Budget year  
2040 Plan(s) horizon year

PM <sub>2.5</sub> Test	2022 Budget	2022 Emissions	2030 Budget	2030 Emissions	2040 Emissions
Direct PM <sub>2.5</sub>	406.79	243.93	270.57	188.38	155.75
NOx	9,432.04	7,093.52	4,907.54	3,586.20	2,274.97

For additional detail on these topics, visit the following US EPA websites:

<http://www.epa.gov/air/ozonepollution/> (general ozone information)

<http://www.epa.gov/ttn/naaqs/ozone/ozonetech/> (technical ozone information)

<http://www.epa.gov/air/particlepollution/fastfacts.html> (fast facts on particulate matter)

<http://www.epa.gov/air/particlepollution/basic.html> (general particulate matter information)

[http://www.epa.gov/ttn/naaqs/standards/pm/s\\_pm\\_index.html](http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html) (technical particulate matter information)